DEMOCRATIC ARMAMENT?

US-DEMOCRACY AND MILITARY INNOVATION DURING PERIODS OF TRANSITION

by Raimund Daniel Wolf

Dissertation submitted to the

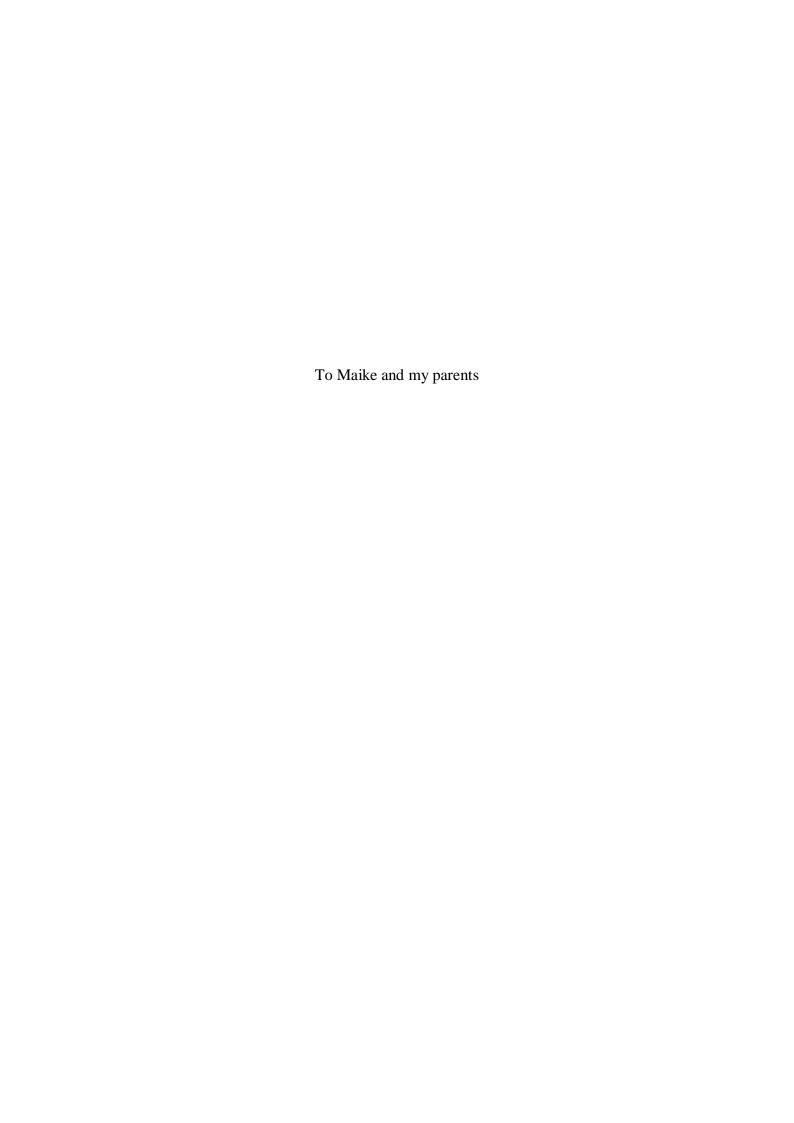
Institute for Political Science, Ruprecht-Karls-University Heidelberg
in partial fulfillment of requirements for the degree of

"Doctor Rerum Politicarum"

Written under the direction of
Professor Sebastian Harnisch, Ruprecht-Karls-University Heidelberg
Professor Jerel Rosati, University of South Carolina, USA

Submitted on March 15, 2011

Published on February 09, 2013



Acknowledgements

This dissertation owes much to the inspiration, patience and encouragement of many others. Any errors are certainly mine, but much of the credit for the final result is a reflection of the support I have received from various sides during the last years.

First of all, I owe a great debt to the Fulbright Commission and the Friedrich-Ebert-Stiftung. It was not only a great honor to study for one year in the United States as a Fulbright student, but also a wonderful opportunity to improve my understanding of the country that is in focus of my dissertation. Back in Germany, I strongly benefited from a scholarship of the Friedrich-Ebert-Stiftung that offered me access to the foundation's vibrant intellectual network and allowed me to study without financial pressure. Moreover, I found an always interested, encouraging and sympathetic advisor in Marianne Braun of the Friedrich-Ebert-Stiftung.

Academically, I am greatly indebted to the mentorship and friendship of Prof. Dr. Sebastian Harnisch. His ability to help students to challenge, organize and focus their thoughts is second only to his extraordinary, caring support for his students. I am also indebted to the support of my second advisor Prof. Dr. Jerel Rosati, whose intellectual skills and joy for questions of international relations make him an inspiring mentor. Both were willing to help me much more than a student might expect from his advisors.

Throughout the dissertation time, I had the fortune of studying in a very inspiring environment. I had numerous valuable discussions within the group of PhD students around Sebastian Harnisch that helped me to test the strength of my arguments and suggested alternative perspectives. My friends in Columbia, South Carolina, provided me a warm welcome, a very creative and comfortable context and an overall great experience in the United States. My colleagues and friends from the Department for Political Science at the University of Heidelberg were ready to help me with whatever question troubled me and – maybe even more important – they were always up for a good joke or a night out. To all of them I owe a great debt. I want to especially thank Max Baumann, Rafael Bauschke and John Heider who spent much time discussing chapters of my dissertation with me.

Most importantly, I owe thanks to my family and Maike. My family always supported my decision to write this thesis without any second thoughts and provided me with a

resort whenever I needed a timeout. My aunt and uncle Annette and Yusuf Santally took the time to patiently proofread the complete dissertation, certainly making it a better read. Maike did not only accept the many hours of me being away without any complaints. She also gave me the strength and trust to finish this dissertation whenever doubts haunted me. Their love made these years to a great experience.

CONTENTS

LIST OF CHARTS		
Lis	ST OF TABLES	9
Lis	ST OF ABBREVIATIONS	10
1.	Introduction	13
2.	FRAMEWORK FOR ANALYSIS – A LIBERAL MILITARY POLICY THEORY	19
	2.1. Literature review	19
	2.2. Liberal military policy theory	26
	2.2.1. A framework for analysis	26
	2.2.2. Substantial theoretical assumptions	30
3.	RESEARCH DESIGN	42
	3.1. Case Selection	42
	3.2. Data analysis	47
	3.3. Data sources	50
4.	MILITARY INNOVATIONS DURING PERIODS OF TRANSITION IN COMPARISON	53
	4.1. Military budget	53
	4.1.1. Definition and description	53
	4.1.2. Evidence for innovation	58
	4.2. Military organization	64
	4.2.1. Definition and description	64
	4.2.2. Evidence for innovation	65
	4.3. Weapons acquisition	68
	4.3.1. Definition and description	68
	4.3.2. Evidence for innovation	70
	4.4. Military doctrine & Service mission statement	82
	4.4.1. Definition and description	82
	4.4.2. Evidence for innovation	85
	4.5. Summary: Stability and innovation during periods of	
	military transition	94
5.	FROM TOTAL WAR TO COLD WAR: US MILITARY POLICY 1945-1949	
	AND 1950-1953	97
	5.1. Actors and preferences	99
	5.1.1. Societal preferences	99
	5.1.1.1. Common interests	99
	5.1.1.2. Special interests	110
	5.1.1.3. Societal demands	117
	5.1.2. Political actors' preferences	118
	5.1.2.1. Congress	118

	5.1.2.2. President and administration	126
	5.1.2.3. Consistency of political actors' preferences	136
	5.1.3. Military actors' preferences	138
	5.2. The military policy process	145
	5.2.1.Strategic planning and the defense budget	145
	5.2.1.1. Builddown	145
	5.2.1.2. Buildup	153
	5.2.2. Military organization	168
	5.2.2.1. Builddown	168
	5.2.2.2. Buildup	178
	5.2.3. Weapons acquisition	185
	5.2.3.1. Builddown	185
	5.2.3.2. Buildup	197
	5.2.4. Military doctrine & Service mission statement	206
	5.2.4.1. Builddown	206
	5.2.4.2. Buildup	214
	5.3. Summary	220
6.	NEW CHALLENGES: MILITARY POLICY 1990-1998 AND 2001-2007	223
-	6.1. Actors and preferences	224
	6.1.1.Societal preferences	224
	6.1.1.1. Common interests	224
	6.1.1.2. Special interests	237
	6.1.1.3. Societal demands	244
	6.1.2. Political actors' preferences	245
	6.1.2.1. Congress	245
	6.1.2.2. President and administration	255
	6.1.2.3. Consistency of political actors' preferences	269
	6.1.3. Military actors' preferences	271
	6.2. The military policy process	280
	6.2.1.Strategic planning and the defense budget	280
	6.2.1.1. Builddown	280
	6.2.1.2. Buildup	296
	6.2.2. Military organization	315
	6.2.2.1. Builddown	315
	6.2.2.2. Buildup	323
	6.2.3. Weapons acquisition	332
	6.2.3.1. Builddown	332
	6.2.3.2. Buildup	345
	6.2.4. Military doctrine & Service mission statement	359
	6.2.4.1. Builddown	359
	6.2.4.2. Buildup	370
	6.3. Summary	378
7.	CONCLUSION	381
	7.1. Findings	381
	7.1.1.Patterns of military innovation during periods of transition	381
	7.1.2. Societal influence on patterns of military innovation	384
	7.1.3. Sources of innovation beyond societal demands	389
	7.2 Theoretical reflections	390

	7.3. Implications for further research7.4. Conclusion	393 395
8.	BIBLIOGRAPHY	396

LIST OF CHARTS

2.1	Approaches on the relationship between societal factors	
	and military policy	23
2.2	Liberal framework for analysis	29
3.1	Central Dimensions of military transitions	43
3.2	Department of Defense (050) budget authority and outlays, FY 1948-2008	44
4.1	Service distribution of budget authority, FY 1946-1955	58
4.2	Service distribution of budget authority FY 1990-1998, FY 2001-2008	59
4.3	Service distribution of budget authority for acquisition	60
4.4	Federal expenditures on Major National Security Functions, FY 1951-1955	62
4.5	DOD budget for relevant Major Force Programs, FY 1988-2008	63
4.6	US troops abroad in thousands and as percentage of total US troops	66
5.1	Share of international problems / problems in foreign affairs among the most important problems, 1945-1955	100
5.2	Net support for defense spending, 1946-1955	103
5.3	Number of employees in defense related industry and unemployed persons, FY 1940-1955	111
	Distribution of DOD contract awards during the first six months of FY 1954 by divisions	112
6.1	Trends in public opinion on selected foreign policy problems mentioned as one of "the two or three biggest foreign policy problems facing the US today"	225
6.2	Most important problem facing the country today, 2000-2007	226
6.3	Net support for defense spending, 1989-2007	227
6.4	Partisan trend on military spending, 2001-2007	230
6.5	Selected examples of defense industrial consolidation, 1993-2000	238
6.6	Number of employees in defense related industry and unemployed persons, FY 1985-2006	239
6.7	Distribution of DOD contract awards by division, 1988-2007	240

LIST OF TABLES

2.1 Alternative positions on defense policy	34
2.2 Specificity of common preferences along dimension of military policy	36
2.3 Dimensions of societal influence	40
3.1 Periods of transition in comparison by national defense outlays in billion constant FY 2005 US dollars and percent of GDP	45
3.2 Case variance at the societal level	47
4.1 Service shares of personnel in comparison	65
4.2 Average age of selected aircraft by 1990	78
4.3 Comparison of periods of transition for the budget, organization and weapons acquisition dimensions	95
4.4 Comparison of periods of transition for the doctrine & Service Mission statement dimension	96
6.1 Public priorities with regard to weapons acquisition in the budget	234
6.2 States with largest contract awards per capita	241
6.3 Average monthly troops in Afghanistan and Iraq, FY 2002-2008	325
6.4 Reductions over planned procurement funding in billion USD in Future Years Defense Plans 1995-2001	339

LIST OF ABBREVIATIONS

AAN Army After Next

AEC Atomic Energy Commission

C⁴ISR Command and control, communications, computers, intelligence,

surveillance, and reconnaissance

CBO Congressional Budget Office

CNO Chief of Naval Operations

COIN Counterinsurgency

CORM Commission on Roles and Missions

CPD Committee on Present Danger

DARPA Defense Advanced Research Projects Agency

DOD Department of Defense

DPG Defense Planning Guidance

FCS Future Combat System

FY Fiscal Year

FYDP Future Year Defense Plan

GAO General Accounting Office

HASC House Armed Services Committee

HBC House Budget Committee

HMAC House Military Affairs Committee

HNAC House Naval Affairs Committee

HNSC House National Security Committee

ICBM Intercontinental Ballistic Missile

JDAM Joint Direct Attack Munitions

JSF Joint Strike Fighter

MIC Military Industrial Complex

MOOTW Military Operations Other Than War

MRC Major Regional Conflict

MTW Major Theater War

NECC Navy Expeditionary Command

NCW Network Centric Warfare

NGA National Guard Association

NSC National Security Council

ODM Office of Defense Mobilization

OMB Office of Management and Budget

O&M Operation and Maintenance

ONA Office of Net Assessment

OSD Office of the Secretary of Defense

PDM Program Decision Memorandum

PGM Precision guided munitions

PNAC Project for the New American Century

POM Program Objective Memorandum

PPBES Planning, Programming, Budgeting and Execution System

PPBS Planning, Programming, Budgeting System

PSC Private Security Company

R&D Research, Development, Test and Evaluation

RMA Revolution in Military Affairs

SAC Strategic Air Command

SASC Senate Armed Services Committee

SBC Senate Budget Committee

SDI Strategic Defense Initiative

SMAC Senate Military Affairs Committee

SNAC Senate Naval Affairs Committee

SOF Special Operation Forces

SubHAC House Subcommittee on Appropriations

SubSAC Senate Subcommittee on Appropriations

UAV Unmanned Aerial Vehicle

UMT Universal Military Training

TRADOC Army Training and Doctrine Command

1. Introduction

On March 20, 2003, American forces launched their second attack on Iraq in 12 years, this time to topple Saddam Hussein's regime and end its alleged nuclear threat (Gordon/Trainor 2007; Cordesman 2003). Within three weeks, the US-led coalition dealt the Iraqi forces a crushing defeat and occupied Baghdad with only half the troops of Desert Storm and suffering few casualties (Boot 2003). The accelerated buildup of US armed forces since 2001 and the effort to transform them into a faster and more lethal information-age force seemed to have borne fruits. Yet President Bush's famous declaration of "mission accomplished" proved premature (Sammon 2003): The coalition was rapidly confronted by a bitter insurgency, which caused troublesome postwar instability and rising casualties (Cordesman 2008; Packer 2005). Besides many political mistakes in preparation for the war, the military had its fair share in this negative turn of events. In their effort to maintain conventional superiority after the end of the Cold War, the generals had turned a blind eye to the requirements of asymmetric operations and were taken aback by the eruption of the insurgency (Dobbins 2007, 146-147). Transformation, the celebrated innovation in warfare, was of limited use against the opponent's shift to asymmetric strategy and the US troops were forced to a new round of innovation.

This often told story provides a good illustration of the promises and pitfalls of military innovation broadly defined as a significant qualitative change in the armed forces, which affects their functioning in the field (Grissom 2006, 906-907). Innovative force structure, military technology, doctrine etc. can dramatically shift the balance of power and are therefore pivotal for military success or failure in the long run (Borghard 2010; Sapolsky 2000). Unfortunately, there is no objective measure to guarantee the success of innovation as war is always characterized by uncertainty and surprise. Hence, innovations and qualitative changes are quite risky and imply great military costs if misplaced or unsuccessful.

Numerous students from various academic backgrounds have taken efforts to uncover the causes and consequences of innovation. Since Barry Posen (1984) initiated the field of military innovation studies, four major areas have been discussed (Grissom 2006;

¹ According to this definition, innovation does not necessarily result in greater effectiveness. History offers numerous examples of military innovations, which proved misplaced or inferior in conflict.

Sapolsky 2000): (1) Innovation as a consequence of the international balance of power or of military success or defeat (Borghard 2010, 10-15); (2) Innovation caused by interor intraservice competition (Coté 1995; Rosen 1991); (3) Innovation as an expression of cultural factors usually within the military organization or the wider military establishment (Kier 1997; Farrell 1996); (4) Innovation as the result of domestic institutional or structural characteristics (Avant 1994; Evangelista 1988).

Yet, no research focuses on the relationship between the content and representation of societal preferences and military innovation thus far. This gap is surprising, since military innovation is not only of military, but also of great domestic relevance: Innovations provide opportunities for societal actors to realize social, political or economic gains and pose a challenge to individuals and organizations which carry the costs of change. Hence, they are more than a technical or mechanical task and involve numerous societal interests, which seek to drive military policy² in very different directions (Huntington 1961, 287). Long-standing research on the relationship between defense economy and military policy has repeatedly stressed this relationship: Domestic economic interests influence the military policy process especially with regard to the acquisition of military equipment (Kaldor 1981; Kurth 1971; Weidenbaum 1969). Moreover, since the democratic peace debate gained momentum in the 1980s, students have placed growing attention on the role of democratic participation in security policy and also found evidence for relevance military its in policy (Evangelista/Müller/Schörnig 2008; Geis/Wagner 2006; Maoz 1998; Chan 1997; Ray 1997). Studies on arms control, alliance behavior, warfare and military effectiveness, and weapons acquisition have revealed various democracy-specific patterns indicating that research on the nexus between democratic societies and military innovation is worthwhile (e.g. Schörnig 2008; Petrova 2008; Altmann/Reppy 2008).

This claim is further backed by a growing consensus that public attitudes on military policy are not only consistent and rational, but also influential at least with regard to the defense budget (Page/Bouton 2006, 17-37; Knopf 1998; Page/Shapiro 1992; Graham 1988; Verba *et al.* 1967).³ Wlezien (2004; 1995; see also Eichenberg/Stoll 2003;

_

² Military policy is used here to refer to the preparation for war and does not involve intervention policy. ³ In contrast, the earlier Almond-Lippmann consensus argued that public attitudes in foreign and security policy are highly volatile, lack structure and coherence, and have therefore a very limited impact on policy decisions (for an overview see Holsti 1992; see also Miller/Stokes 1963; Kriesberg 1949). Lippmann (1961; 1925) stresses: "[H]e, the voter, the citizen, the sovereign, is apparently expected to

Stimson 1999) prominently introduced the thermostat metaphor to describe the close relationship between public opinion and defense spending: "If the level of policy differs from the level the public prefers, the public favors a corresponding change in policy, either more or less." (Wlezien 1995, 982) Thus, there is evidence from various directions indicating that studying the interaction of different domestic factors and military innovation is worthwhile.

The study at hand takes on the challenge by connecting the literature on military innovations with the debate on the democratic factor in security policy. It is driven by two questions: First, are there patterns of innovation in US military policy during periods of military transition? And if yes, what influence had societal demands on these patterns in US military policy? Periods of military transition are defined as a distinct subset of military dynamics characterized by disproportionally strong upward or downward budgetary dynamics over a short time span. These periods are predestined for innovation, since they inevitably imply qualitative decisions in military policy (Huntington 1961, 291). In order to maintain a sound military establishment against the backdrop of changing budgets, coherent political action is required. This demand increases the likelihood for innovations, although it makes them not inevitable. There remain various answers to the question where to place the additional efforts during buildups or where to create the savings during builddowns. Four periods of military transition in US defense policy are analyzed in detail: The demobilization after World War II 1945-1949, the Korean War/Cold War buildup 1950-1953, the Post-Cold War drawdown 1990-1998 and the renewed buildup for the War on Terror 2001-2007.

Since the study on societal factors in military innovation is an unexplored field, studying American periods of military transition is a particularly promising first step. By 1945, the US emerged as sole nuclear power with an edge in strategic airpower and naval power, which enabled it to significantly increase its zone of influence. The

yield an unlimited quantity of public spirit, interest, curiosity and effort." (Lippmann 1925, 24) Almond (1956) adds that information gathering and democratic participation are particularly difficult in the field of military policy, due to its highly technical character, the demand for secrecy, and the enormous stakes which are involved.

⁴ Students of military affairs have pointed at the striking ups and downs in the US military budget for a long time (e.g. Jones/McCaffery 2008, 79; Wildavsky 1988, 369). While these periods are not limited to the occurrence of wars, major military conflicts provide their most common backdrop. Snider (1993a) uses the transition terminology to describe the demobilization after World War II and the Cold War. Yet, he does not give a clear-cut definition and offers no plausible explanation for reserving 'transition' to builddown episodes.

subsequent decisions to enhance the military innovations from the war during the late 1940s and early 1950s established the US as the permanent leader of the West, enabling Washington to assume various international security commitments and to militarily act on a global scale (Grimmett 2008; Stewart 2005). Equipped with the most advanced military technologies, American armed forces provided a material pillar for the creation of the political and economic world order and became the standard to be met for declared or self-ascribed rivals since 1945. But these well documented international implications are only one side of the Janus-faced military policy (Huntington 1961). The permanent military establishment after the war also became an important aspect of the American economy and society. Millions of people, regions, and states, slowly started to directly or indirectly depend on or at least strongly benefit from Pentagon money.

Military power remained an important means in the US foreign policy and a domestic factor of economic and social relevance up until today. After the demise of the Soviet Union, the US started to command the commons virtually unchecked and no other state has comparable means to intervene on a global scale (Posen 2003). This did not guarantee national security for long, however, and the US armed forces started transitioning into a new posture to back a more proactive international security policy for the war on terror by the end of first post-Cold War decade. Again, US military preparations contributed to international military dynamics as states and non-state actors continued their efforts to counter US military power after 1990 (Ikenberry 2003). Hence, Beijing, which is in a permanent political conflict with Washington over Taiwan, is working on conventional anti-access and area denial capabilities in response to America's command of the commons (DOD 2009). Other states, such as North Korea, are seeking nuclear weapons to raise the costs of an attack by the superior South Korean-American coalition (Harrison 2000). Finally, Al Qaeda and the Taliban, like the Vietcong before them, have decided to resort to asymmetric tactics to defeat an enemy they cannot risk to face in conventional battle (Liotta 2002). Even American allies are affected by the dynamic US military development. NATO partners struggle to keep up with the American armed forces and interoperability of forces is seen as an increasing problem (Daniel 2004).

⁵ Some observers have warned that the vast military means push politicians to more easily favor military solutions (Butfoy 2006; Feaver/Gelpi 2004).

Against this backdrop, the exploration of factors leading to military innovation during periods of transition contributes to an improved understanding of an essential parameter in international relations and US foreign and domestic policy. The findings of this study show that the international and domestic requirements related to military policy do not easily go together. Indeed, the growing domestic relevance of military policy created societal demands for relative stability which make military innovation increasingly difficult even in the face of changing military requirements from an international perspective. In more pointed words, the domestic and international levels of US military policy increasingly follow conflicting logics which reduce the likelihood of innovation.

To be sure, there is a public majority with no vested stakes in military policy which is willing to adjust military policy in accordance with the changing international requirements. This majority has a general interest in innovation as a means to increase military efficiency during all periods of transition. But their common preferences remain latent and unspecific most of the time. Other issues with more relevance for their personal welfare dominate these individuals' political participation. Only in the face of imminent or apparent military failure such as in Korea 1952 or Iraq 2006 does the public actively engage in military policy through elections and trigger reform. The predominant weakness of this group's commitment strongly reduces the incentive for political actors to pick up the positions of this majority and implement innovation even against organizational inertia and other resistance. The slack in the relationship between the general public and the political representatives offer special interest groups the opportunity to exercise asymmetrical influence most of the time. In contrast to the public majority, groups such as defense companies or reserve associations have a specific benefit most often tied to the status quo of military policy and therefore actively push for stability. Hence, not the content or strength of the general public's preferences, but the growing weight of special interest groups most importantly affects the decreasing likelihood of military innovation.

In the following two chapters, the theoretical and methodical foundations for this argument are developed. The successive chapter gives an answer to the first question and assesses the military innovativeness of the four periods of military transition with regard to military organization, weapons acquisition and doctrine. In Chapter 5 and 6, the main body of the study, an in-depth analysis of the factors leading to the variance in military innovations is presented. While the former shows the preference formations

and military policy dynamics during the late 1940s and early 1950s, the latter discusses the same factors for the 1990s and the early years of the new century. Chapter 7 sums up the results and critically discusses the findings, the theoretical approach and its implications for further research.

2. FRAMEWORK FOR ANALYSIS – A LIBERAL MILITARY POLICY THEORY

2.1. Literature review

Students of military innovation and US military policy can build on a rich and diverse literature mainly in political science, economics, and history (Grissom 2006; Sagan 1996; Kurth 1971).⁶ However, the relevance of domestic factors within the international context which are central for this study are not easily designed despite Huntington's (1961, 2) early conclusion that "[m]ilitary policy cuts clearly across the usual distinction between foreign policy and domestic policy".⁷

The effort to find a theoretical place for the domestic level is already clearly apparent in Barry Posen's (1984) conclusion to his seminal study on doctrinal innovation: "The analysis does not show that organizational factors are unimportant, but rather that they are more often than not overridden by constraints and incentives that lie at the level of the international political system." (Posen 1984, 39; see also his conclusion 220-244) Evangelista (1988, 9) correctly points out that Posen's study inevitably requires the incorporation of bureaucratic politics to explain innovation and thus moves from the international level to the actors' perception of the international realm at the domestic level (Evangelista 1988, 9). The international strategic and domestic structural incentives and constraints have to be seen as two sides of the same coin. But if both

The so-called theorem on the Military Industrial Complex (MIC) strongly emphasizes the role of economic and political elites for military policy (Hartung 2001; Senghaas 1974; 1972a; 1972b; Rosen 1973; Medick 1973). Its proponents claim that strategic arguments serve to publicly legitimize the parochial interests of the powerful MIC within economy and state. The most extreme variants of the MIC-theorem even deny the genuineness of security considerations for military policy. Yet, these far-reaching assumptions were strongly criticized and its proponents largely failed to deliver empirical evidence to prove their often normatively biased claims (Müller 1985; Krell 1981b, 11-12; Levine 1973; Slater/Nardin 1973).

⁶ For a broad chronological overview see Walt 1991. Theories on long economic waves are not discussed here (Väyrynen 1990; Modelski 1980; for a critique see Krell 1981a).

⁷ Some approaches challenged this perspective. The Action-Reaction-Theorem, realism and the currently most sophisticated neorealism emphasize the crucial impact of the international environment (Müller/Schörnig 2006, 39-40; Brito/Intriligator 1995; McGuire 1977). According to these approaches, the measure for military efforts is the potential and factual force posture of other units within the international system: "Enough' depends on how much an opponent has." (Schelling 1966, 1) Although neorealism has produced various derivates, all approaches share the assumption that military preparations are largely determined by incentives external to the state (Mearsheimer 2003; Mastanduno 1997; Glaser/Kaufmann 1998; Walt 1997; Lynn-Jones 1995; Walt 1985; Waltz 1979, 126). To be sure, neorealism was developed as a systemic theory and its assumptions are therefore incomplete for an explanation of foreign or military policy (Zakaria 1992, 179-180; but see Elman 1996). The most recent neoclassical realism has responded to the limited utility of realist thinking for foreign policy questions and systematically opened up the state for various intervening domestic variables (Ripsman 2009; Rose 1998).

⁸ Evangelista (1986, 199) and Risse-Kappen (1986, 207) characterized the early debate between external and internal explanations as too simplistic, unproductive and outdated. Risse-Kappen (1986, 208) argued

levels are related, how does the domestic level affect military policy? The follow-on imperative and the extended democratic peace debate are the most important contributions to this discussion on security-embedded domestic impacts on military policy. While following the same general logic, they highlight different aspects and thus produce departing assumptions.

Emerging from the early research on the Military Industrial Complex (MIC) during the late 1960s and 1970s, the follow-on imperative highlights strong parochial economic and political interests in stable armament as a consequence of the creation of a permanent defense industrial base. Kurth (1993; 1973; 1971) was the first to identify a follow-on imperative within US weapons acquisition. He argued that expiring armament projects are usually immediately succeeded by new contracts regardless of their strategic necessity. This causes continuity in armament products as well as producers.⁹ The underlying logic is twofold: On the one hand, political and military leaders try to avoid the closure of construction lines since their existence may be crucial in the unexpected case of war. On the other hand, the highly specialized military industry strongly depends on defense dollars and is willing to use its political weight as employer and contributor to the welfare of constituencies. According to economists, every \$1 billion in defense dollars creates between 25,000 and 50,000 jobs, depending on whether indirect employment effects are included (Mayer 1992, 17). The relationship between the state and military industry is clearly symbiotic here (Weidenbaum 1969, 30). Therefore, a strong lobby of lawmakers, industry and labor oppose negative changes in the respective military production. The results are path dependencies in acquisition and often gold-plated products, which provide only little additional military value (Kaldor 1981).

The extended democratic peace debate broadens the scope from narrow economic interests towards the political representation of the risk-averse and cost-sensitive general public. If democratic societies are unwilling to carry the costs of war, it is logically consistent to assume that they are also reluctant to carry the costs of military

-

that the external-internal debate "cannot be decided empirically because a clear-cut distinction between the two determinants is not possible."

⁹ Some authors highlighted a similar mechanism explicitly for the R&D sector (Thee 1990; 1989; Albrecht 1990; Buzan 1987, 96; York 1976, 11; Brooks 1975). In contrast to the weapon producers, the R&D community is strongly biased towards innovation, since this is what keeps them relevant and funded. But since most R&D is done by weapons producers (Väyrynen 1983, 64), the status-quo orientation of the latter constraints the scope of innovations (Müller 1991, 32).

preparations. Yet, both claims must be further specified: As democratic societies are willing to fight wars in self-defense, they are also willing to accept military force as a means of protection. But they "prefer to purchase protection at the lowest sustainable price." (Lake 1992, 25) Thus, democratic decision-makers face a permanent dilemma: They are forced to continuously balance the level of military spending against other state activities – "the proverbial guns versus butter tradeoff." (Reiter/Stam 2002, 121) Too much defense spending may strangle the economy or dwarf welfare efforts which affect office-seekers' public support (Garfinkel 1994). Democratic decision-makers therefore prefer systems which provide 'more bang for a buck' to keep the costs of security and potential war in check (Schörnig 2007). The societal preference for military efficiency thus creates a political incentive for military innovation. In this vein, Müller and Schörnig (2001) argue that the low acceptance of war casualties was a major reason for the US government to innovate during the 1990s.

The approaches clearly disagree on the mechanism by which the demand for security, which is strongly affected by the international situation, is translated into military policy: In a changing strategic environment, the follow-on imperative expects stability caused by special interest groups, which were established to meet another strategic environment. In contrast, the democratic peace theory expects change – potentially innovation – caused by cost-minimizing individuals in a democratic process.

Another third thread often subsumed under the label of 'military culture', strongly differs from both of these fundamentally economic considerations. It highlights the importance of immaterial influences, societal and organizational ideas, which direct or constrain military innovation. According to its proponents, military culture "is an elaborate social construction, an exercise of creative intelligence, through which we come to imagine war in a particular way and to embrace certain rationalizations about

¹⁰ The evidence for the existence of a trade-off between defense and welfare is not as straightforward as the guns-versus-butter-phrase suggests. On government expenditure, Russett (1982) and Mintz and Huang (1991) find no evidence for short-term trade-off effects between defense spending and welfare policy represented by education and health expenditure. But Mintz and Huang (1991) show that there is indeed a negative long-term effect on education which correlates with defense budgets and Peroff and Podolak-Warren (1979) find some evidence for a trade-off between defense and health expenditures. Focusing on the economic impact of defense spending, the findings by Smith (1977) and Ward and Davis (1992) reveal a negative correlation between defense spending and economic growth, investment, and employment. Yet, a study by Gold (1993) casts doubt on the trade-off between defense spending and investment.

how war should be conducted and for what purposes." (Burk 1999a, 448)¹¹ Views on the characteristics of an ideal soldier, the causes and conduct of war, or the organization of armed forces within a political system are exchanged within the military branches and between the military and society. As Terriff and Farrell (2002, 273) argue: "The culturalist approach reveals that states adopt military practices not only for the purpose of defeating enemies but also to reproduce identities of themselves as, for example, modern or Western." Indeed, prior research has revealed cultural impacts on most aspects of US military policy (Lynn 2003, xviii-xix; Burk 1999a, 455; Kier 1997; Brown 1991; Applegate/Moore 1990; Snyder 1984, 210; Head 1973). While military culture is generally biased towards continuity, it is not fixed over time as the experience of organizational failure or a growing mismatch between ideas and observed realities can lead to innovation (Collins 2005, 296-301; Dunivin 1994).

Attempts of integration – The political process

The review above has presented three potentially influential domestic factors, which are embedded in an international strategic environment (see figure 2.1.).

¹¹ Authors use many different terms such as 'organizational ideology' (Snyder 1984), 'military essence' (Halperin 1971, 76), or 'Service personalities' (Builder 1989), but they all emphasize immaterial influences on military policy.

¹² Students of the US military have also discussed the existence of a particular American or Western Way of War (Gray 2005, 27-34; Echevarria 2004; Hanson 2003; Weigley 1973).

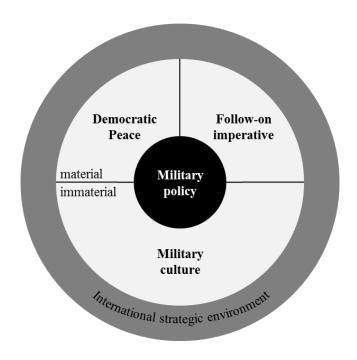


Chart 2.1: Approaches on the relationship between societal factors and military policy

The question resulting from this review is how to deal with the various explanations when studying the societal influences on military innovation. Most students thus far have selected competitive theory designs against various empirical materials in order to eliminate or weaken some factors. But these studies lead to the conclusion that a competitive approach produces only limited progress as none of the major explanatory factors was significantly discredited. Therefore, this study suggests an alternative approach: In order to give a plausible answer to the question on the relationship society and military innovation the explanatory factors are incorporated into one consistent model. Rather than bringing the theories in competition, their causal interaction is emphasized. The effort can build on a rich theory-guided literature on mostly US

. .

¹³ For example, Holland (1997; 1993) tested several variables to explain weapons acquisition. Instead of finding evidence to strengthen one explanation over others, she concludes that all variables are important during different stages of the process. And Njølstad (1990), comparing four single case studies on the US decision to develop hydrogen bombs, comes to the conclusion that the different explanations in these analyses are not only caused by empirical inconsistencies. Rather, he argues that the studies provide alternative interpretations of the same evidence which cannot be rejected on empirical grounds alone.

¹⁴ Jupille, Caporaso and Checkel (2003, 19-24) suggest four options for theoretical dialogue of which theory integration is the most plausible choice next to a competitive designs here. Sequencing and the assignment of different domains of application are of little use for the study at hand.

¹⁵ Other students of foreign and military policy have highlighted the relevance of this approach. While Evangelista himself suggests a competitive design, he admits that "[t]he important task is to identify which factors come into play at which stage." (Evangelista 1986, 199) In the same vein, Hudson (2007, 165-184) makes a strong case for the incorporation of different levels of analysis in foreign policy

foreign and military policy which highlights the political process as the central transmission belt bringing different domestic factors together.

Already during the 1950s and 1960s, Warner Schilling, Samuel Huntington, and Roger Hilsman among others, prominently studied the process through which different influences are translated into policy (e.g. Hilsman 1987, vii; Schilling 1962; Snyder/Bruck/Sapin 1962; Huntington 1961; on weapons acquisition see Sapolsky 1972). In a second wave, Graham Allison (Allison/Zelikow 1999; Allison 1971; 1969; Art 1973) introduced the Governmental Politics paradigm, which became a standard work on inner-governmental processes leading to foreign policy. ¹⁶ Although critics have repeatedly pointed out lacking theoretical specification and inconsistencies (Rhodes 1994; Bendor/Hammond 1992; Welch 1992; Freedman 1976; Art 1973; Krasner 1972; for an overview see Smith 1989), the paradigm remains a prominent approach to explain state action (e.g. Holland 1999; Mitchell 1999; Rosati 1981). Proponents of Governmental Politics theories abandon the black box of a rational acting unitary state and stress instead: "[T]he 'maker' of government policy is not one calculating decisionmaker, but rather a conglomerate of large organizations and political actors who differ substantially about what their government should do on any particular issue and who compete in attempting to affect both governmental decisions and the actions of their government." (Allison/Halperin 1972, 42) Thus, policy results from the bargaining among state actors with various interests in national security.¹⁷

Governmental Politics rests on two basic assumptions: First, despite a common interest in national security, actors' preferences differ due to the impact of special interests closely related to their positions. Thus, Governmental Politics especially highlights the impact of institutional or organizational interests that stem from their desire to secure or increase resources, autonomy, importance and culture (Halperin 1971, 76; Niskanen

decision-making theory. Theoretical dialogue can improve theory, explanation and prediction power by taking interaction of variables into consideration.

¹⁶ The authors of this approach usually speak of a model which indicates a paradigm or conceptual framework instead of a theory (Allison/Halperin 1972). Yet, theories have been derived from this approach and hypotheses empirically tested.

The focus here is on policy and decision games and less on action games. "Action games" refers to the bargaining process which implements decisions and policies or processes which lead to action in the absence of explicit policy guidelines (Allison/Halperin 1972, 51-53).

1971, 38-41). Second, actors differ in their sources of power and channels of influence (Allison/Zelikow 1999, 271-275).

Many military innovation studies were strongly inspired by this approach. Deborah Avant (1996; 1994) made an important contribution for the understanding of innovation by highlighting the importance of the institutional structure of civil-military relations. The separation of responsibilities between executive and legislative in the field of US military policy complicates the achievement of a coherent position on demands and rewards and thus weakens the political actors' ability to exercise civil control. Coté (1995) further combined the civil-military principal-agent relationship with Service interests (see also Sapolsky 2000). He argues that the civilian decision to pursue one strategy over another and the inter- and inner-Service competition for a role in this strategy determines innovation and thus the overall defense policy. This is in line with Lacquement (2000), who rests his explanation for the lacking change in US doctrine and force structure during the 1990s on the military organizations' interest in stability and the absence of a strong civil actor's position.

Yet Governmental Politics has important limitations for the purpose at hand as it does not provide a clear mechanism connecting the identified societal factors with the political process. Generally, Allison and Zelikow (1999, 298) stress the importance of national security interests, domestic political interests, organizational interests, and personal interests. It is therefore compatible with the factors of military policy identified in prior research. But Governmental Politics states no theoretical propositions on the conditions that determine the significance of different incentives for involved actors' preferences in any given situation (Rosati 2001; Smith 1984). Most Governmental Politics theories and many students of military innovation treat actor preferences as highly correlative with organizational interests. Allison paraphrases an often used expression: "Where you sit influences what you see as well as where you stand (on any issue)." (Allison 1971, 178) This does only relocate the problem, however, as governmental institutions and organizations are not detached from their domestic environment. Governmental Politics still lacks an explicit theoretical link on how

_

¹⁸ Hilsman (1987, 77-78) argues that the focus on large bureaucracies underestimates the innerorganizational conflicts as well as the impact of actors outside the executive. He therefore suggests a political-process model which includes more actors and puts more emphasis on the process character of politics. Yet, this concept adds additional complexity to an arguably already overloaded model (Bendoer/Hammond 1992).

societal interests and ideas affect these organizational interests and therefore the preferences of state actors. ¹⁹

This is unsatisfactory as all three identified theories on societal influences show that state and society or parts of the society are connected. One side ensures security and the other side provides the means and carries the costs for this security. The connection is particularly strong in a democratic system in which state actors are closely tied to political support of large parts of society. In order to offset the limitations of Governmental Politics and provide consistent assumptions linking society and state, this study suggests a bottom-up framework drawn from the liberal foreign policy paradigm (Moravcsik 2008; 2003; 1997; Narizny 2003a; 2003b; Freund/Rittberger 2001).²⁰

2.2. Liberal military policy theory

2.2.1. A framework for analysis

Despite Doyle's (1986, 1152) assessment that "[t]here is no canonical description of liberalism", Moravcsik deserves credit for having merged central liberal threads into a coherent framework based on a very parsimonious liberal paradigm (Carlsnaes 2002, 339). Other authors, especially Narizny (2003b; see also Freund/Rittberger 2001), have

_

¹⁹ Governmental Politics implicitly places emphasis on security considerations arguing that these interests outreach other desires, are more consensual, and ease disagreements (Halperin 1971). Yet, even if the implicit primacy of systemic imperatives is accepted, the vagueness with regard to the resulting military policy preferences remains unsolved.

²⁰ This approach has several advantages over possible alternatives: (1) As argued earlier, military policy

has an effect on and is affected by the international and domestic environments alike. While policyoriented perspectives provide adequate models for domestic mechanisms of political problem-solving, they do not systematically account for the relationship between the international system and national defense. Thus, foreign policy perspectives are superior tools for military policy analysis. (2) The liberal bottom-up orientation makes it the most suitable candidate for a theoretical connection between society and security policy. Narizny (2003b, 6) argues that the liberal paradigm's major distinction from other approaches is its microfoundation: "[I]t begins with individuals' preferences and then works its way up the chain of interest aggregation and policymaking constraints." (3) The incorporation advances the military policy debate and the liberal theory formulation alike. According to Moravcsik (2008, 249), "[p]erhaps the most attractive characteristic of liberal theory is that it suggests a simple and conceptually coherent way of combining theories." Thus, the conflicting assumptions of the democratic peace theory and the follow-on imperatives have already been considered in the liberal proposition on competing societal demands and interest representation by the state. The liberal framework is even open for ideas, which allows for a partial incorporation of non-material influence on actors' behavior as claimed by culture based innovation theories. Although the positivist foundation of liberalism prevents an integration of the mostly constructivist cultural arguments, it takes the guiding effect of ideas into account. Moreover, Allison's state-centered perspective is expanded by a theoretical perspective on "state-society relations" (Moravcsik 1993, 6; 1997, 514). At the same time, especially Moravcsik's liberal foreign policy framework can benefit from Governmental Politics to gain further specification and differentiation on the causal treatment of the state.

critically examined Moravcsik's assumptions and subsequently improved the theoretical framework. Its core assumptions and their consequences for this analysis can be stated as follows:

(1) Rooted in the tradition of methodological individualism (Kunz 2004, 10), liberals treat rational, risk-averse individuals and groups who organize to promote their interests as primary actors (Kydd 2008; Zacher/Matthew 1995). Liberalism asserts that individuals hold and pursue stable interests which they rationally arrange in preference orders depending on structural and contextual circumstances (Freund/Rittberger 2001, 70-71).²¹ Incentives and constraints affecting the societal actor's preferences result from the domestic and international environment. Due to the scarcity of material goods, the existence of divergent fundamental beliefs, and unequal distributions of political power, the resulting process of human interaction is most often characterized by interest competition rather than harmony.²²

(2) From the liberal bottom-up perspective derives an understanding of states as representative institutions, whose interests are determined by societal preference formations. Formal and informal mechanisms such as elections and lobbying constitute the "critical 'transmission belt'" (Moravcsik 1997, 518), which transfers societal preferences onto the state level. Since dominant preferences within the state can change either through contextual changes or through shifts in bargaining power, liberals assume that there are no fix state interests. Moravcsik treats states and their agencies as purely representative institutions which pursue changing subsets of societal preferences in the international system. In other words, state representatives are perfect agents which act in full accordance with the changing demands of their societal principal.

Governmental Politics shows that this treatment of the state as a homogenous representative of societal actors' preferences is a problematic oversimplification. The state is far from a homogenous entity with clear hierarchies and a unified will. In

²¹ Elster (1989, 13-21) stresses that individual action is determined by constant desire and variable opportunity. Additionally, Moravcsik's theory and this study assume bounded rationality taking incomplete information, cognitive limitations, and the ability to learn into account (Gigerenzer/Selten 2001; Rosati 2000; Simon 1956). To order options rationally under these conditions, "individuals use rules of thumb – simple procedures – to guide their action." (Hargreaves Heap et al. 1992, 17)

²² The public as an aggregate of individuals constitutes no actor, due to its lacking ability to act intentionally and to strategically adjust positions (Scharpf 2000, 98-100). This does not mean that public opinion is no expression of preferences. Nor is it generally impossible that many individuals act according to a shared preference as evident in elections or spontaneous group dynamics. But the analytical unit in these events remains the individual and not any aggregate.

contrast, states are heterogeneous entities in which institutions create actors with often competing preferences. Following liberalism's first assumption, these actors must be treated like other social actors as individuals or groups which pursue preferences based on incentives within their environment. Thus, the principal-agent relationship between society and representatives is more complex than assumed by Moravcsik. For an analysis of military policy, it is plausible to distinguish between political and military actors (Freund/Rittberger 2001, 85; Avant 1994). Political actors are elected state officials such as the President and members of Congress which directly depend on electoral support. The group of political actors also includes the White House staff and the President's cabinet-rank secretaries. While they are not elected, they are most closely related to and dependent on the President. Instead, military actors, including the secretaries of the military departments and the military chiefs of staff, are independent of direct public approval and can more strongly factor in the interests of their respective organization. With this differentiation, political actors function as proxies of domestic demands within the state. Thus, the principal-agent relationship between electorate and state actors is in fact a double principal-agent relation, connecting the public to political actors and political actors to military actors (Avant 2007).²³ Considering that principalagent relationships are never perfect under conditions of bounded rationality, there is a good chance for a double deviation from the ideal model of perfect representation.²⁴ Accordingly, Moravesik's assumption needs adjustment: The state represents societal preferences as well as preferences of state actors who compete for influence and engage in cooperation and competition.

(3) While the liberal concept of policy interdependence mostly serves as an explanation of state interaction, which is not at the heart of this study, it adds some additional insights on the impact of the international environment on the domestic preference formation. Policy interdependence refers to "the set of costs and benefits for dominant social groups in foreign societies (...) that arise when dominant social groups in a given

²³ Broz and Brewster Hawes (2006) suggest a similar chain of delegation for the international monetary fund policy.

²⁴ Theories on principal-agent relations emphasize the incomplete control caused by two problems related to asymmetrical information (Laffont/Martimort 2002; Laffont 2003; Avant 1996, 54-61). The first problem is usually called "adverse selection" or "hidden knowledge": Since the agent has more information concerning his task than the principal, he can exploit this situation of hidden knowledge by misrepresenting his performance. Furthermore, he can try to set the agenda in his favor. The second problem concerns "hidden action" and "moral hazard": Since the utility function of different problem solutions and the actions itself are hidden from the principal, the agent can select the solution which maximizes his utility. Yet, this solution may be inefficient with respect to the principal's objectives.

society seek to realize their own preferences internationally." (Moravcsik 2003, 165) The concept of policy interdependence is an important analytical link, since the preferences of other states contribute to the international environment which has in turn a major impact on the individual's utility function. How this translates into a military policy is dependent on the functioning of the double-principle-agent-relationship. For example, international zero-sum formations in which a society can only benefit at the expense of others can yield societal preferences for more military efforts to increase protection. When political actors react responsive to this societal preference shift and military actors respond to the political demand in turn, military policy is changing and in turn shaping the international policy interdependence. The overall framework is presented in chart 2.2.

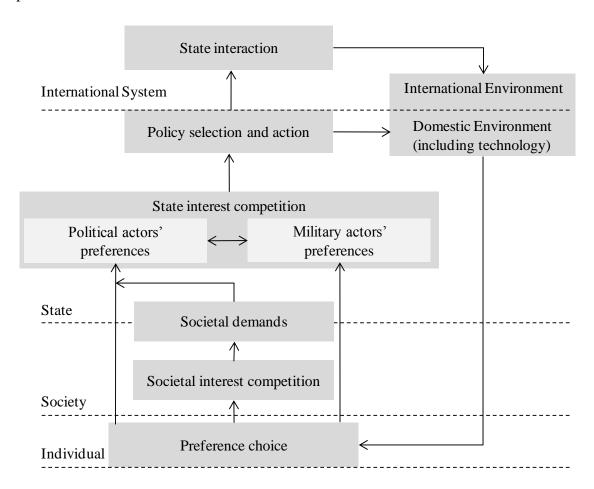


Chart 2.2: Liberal framework for analysis

2.2.2. Substantial theoretical assumptions

With an analytical framework in place, substantial theoretical assumptions concerning the social demands and the process by which they affect military innovation can be specified.

Preference choice

Two factors shaping societal preferences stand out from the literature review: Economic considerations and ideas. To be sure, security interests are the most important factors in driving military policy in the first place and in explaining the occurrence of military transitions. Yet, this study is not interested in the occurrence of transitions, but rather in their impact on military policy beyond the changing resources. In other words, this study is not concerned with the question why a state decides to improve its security by military means, but rather why it decides to continue its path rather than innovate. Economic preferences, expressions of the actors' desire for commercial or political benefits, have central importance here. Actors pressure the government to create or maintain an economic structure which is most beneficial for them. This can result in very different preferences.

On the one hand, as argued by the follow-on imperative and Governmental Politics, the welfare of special interest groups directly depends on the course of military policy in a particular area. Their preferences for military innovation or stability therefore result

-

²⁵ In liberal theory, survival or security from physical harm is usually considered a fundamental desire rendering further reference unnecessary. Yet, this is insufficient for a study on military policy in which interests in security are of central concern. Indeed, individuals and groups react to the emergence of a threat to their security by demands to provide means to meet this threat. But the acknowledgement of a security interest in a liberal framework differs in important ways from other approaches. Liberalism especially differs from neorealism which considers the security interest as continuously dominating the actors' preferences caused permanent uncertainty. In contrast to this emphasis on the stable impact of anarchy, liberals argue that the question 'What threatens my security?' is not predetermined but strongly differs with regard to the individual's environment and the level of information (Rathbun 2007, 536; Ikenberry/Moravcsik 2004). Security preferences are thus a function of the available information and the patterns of policy interdependence which pervade the international anarchy. Hence, security is not always dominating actors' utility functions and the dominant preferences driving the state's action are not necessarily based on the interest in security. As Moravcsik (2007, 238) argues: "Few modern states are Sparta: Most compromise security or sovereignty in order to achieve other ends, or, indeed, just to save money."

from group specific pay-offs concerning the course of national defense policy. In this context, the defense economy including defense industry and labor and the military establishment itself are the most notable status quo groups, since changes cause potentially high adaption costs. Independent R&D communities are the most important innovation groups, since their relevance depends on permanent demand for innovation. Many other groups with various incentives are plausible between these poles. On the other hand, the overwhelming majority of individuals in society have no specific gains from defense spending. This group has a common interest in a most efficient military posture, i.e. the posture that can meet their desire for security at the least costs. Against this backdrop, two incentives cause individuals with common economic interests to prefer innovation over stability: First, the emergence of new technologies, which promise less costs in acquiring military goals²⁶; second, the emergence of new military challenges and threats, which cannot be treated with the same efficiency by the current military preparations optimized for prior challenges (Posen 1984, 30). This is especially relevant in an actual military conflict, when societal actors come to the conclusion that military action with the current means is unsuccessful or increasingly expensive.

Kurth and the democratic peace debate make an additional assumption, which is relevant for this analysis. They emphasize not only the "plenty" but also the "power" side of economic interests (e.g. Katzenstein 1978). This is particularly important for state actors' utility functions, as power is the major resource for influence and autonomy. Thus, for democratic mechanisms to work, lawmakers must act responsively to demands from their constituencies. This potential responsiveness is driven by an interest in political, i.e. office-seeking, rather than monetary gains. Therefore, a broader reading of economic interests encompasses the desire for welfare as well as power. This can be summed in the following propositions:

²⁶ Innovation must not be confused with invention (Tomes 2004, 46-47). The emergence of technology itself constitutes no innovation. Only the active embracement of new technologies causes innovation.

- 1. Preferences with regard to military innovation differ with the individuals' and groups' economic incentives.
 - Actors with special interests prefer military innovation if it translates into benefits specific to the actor.
 - o Individuals with common economic preferences prefer military innovation if a) new means, which promise more efficiency, are available, or b) if the emergence of new challenges and threats reduces the efficiency of prior preparations.

(3) In accordance with Goldstein and Keohane (1993), interests as well as ideas have causal weight. Thus, ideas, causing ideational constraints and roadmaps, are a third factor to be considered in a liberal framework.²⁷ They are intervening variables, defining the actors' universe of possibilities in which desires can be pursued: "Insofar as ideas put blinders on people, reducing the number of conceivable alternatives, they serve as invisible switchmen, not only turning action onto certain tracks rather than others, (...) but also by obscuring the other tracks from the agent's view." (Goldstein/Keohane 1993, 12)²⁸ From the literature on military culture, two central sets of ideas emerge. On a small scale, cultural approaches argue that military organizations hold institutionalized ideas about the ideal soldier, war and the like. For example, Army representatives differ in their view concerning the role of ground forces for the goal of security from Air Force officials and thus prefer different solutions for similar problems. On a larger scale, actors hold ideas about the place, posture and purpose of military force within a democracy.

To structure the latter ideas, this analysis draws on Huntington (1954a), who suggests a three-dimensional concept to map major political positions in military policy (see Table 2.1). While his third dimension of diplomacy, concerned with the conditions of war

²⁸ This is in contrast to Moravcsik's (1996, 525) notion of a direct influence of ideational preferences according to which actors can be motivated "by an effort to realize social views about legitimate borders, political institutions, and modes of socioeconomic regulation."

²⁷ It is important to draw a clear line between the rationalist concept of ideas and constructivist approaches. While constructivism assumes that ideas are intersubjectively held within social groups, rational choice approaches treat ideas as properties of the individual and reject the claim of intersubjectivity. Furthermore, constructivism holds that ideas have constitutive effects. Thus, actors pursue changing interests and act according to what they consider appropriate. Instead, rationalist approaches assume that individuals have more or less narrow and stable interests and ideas constrain the range of choices concerning behavior.

involvement, is irrelevant here, the other two dimensions help to structure the ideas involved in military policy. First, Huntington's budget dimension reflects a basic idea on the position of defense among state functions. It covers different perspectives on the classical guns-versus-butter question. The requirement approach, at the one end of this continuum represents the gun side of the trade-off. It emphasizes the priority of defense over other fields of state activity and the need for resourcing the military according to its requirements. The opposite ceiling approach considers defense as equal or subordinate to other state activities. According to this perspective the military funding must be a normal part of the trade-offs which states make in distributing its resources. In a deeper sense, this dimension also implies an understanding of the civil-military relations: Is the military one of the regular state activities or is it distinct and more or less important? Second, the strategic dimension deals with the distribution of resources within the military establishment. Based on a more concerned and careful worldview, strategic pluralism wants to prepare broad capabilities, able to deal with a range of possible contingencies. In contrast, strategic monism wants to concentrate resources upon a single strategy and related capabilities.

The position in one dimension is thereby logically related to a position in the other dimension: Seeing national defense as only one activity among equally important ones implies limited resources and therefore limited strategic options. And seeing a narrow preparation for the most likely threat as sufficient for defense reduces the relative importance of defense as a state goal. Huntington uses the ideal type of 'military radicalism' to describe this pole of the spectrum. The ideal type of 'military conservatism' describes instead a position, which wants to be prepared for all kinds of contingencies and considers the national defense as the most important state goal.

Budget dimension

		Requirement	Ceiling
		approach	Approach
dimension	Pluralism	Military conservatism	
Strategic dimension	Monism		Military Radicalism

Table 2.1: Alternative positions on defense policy (Huntington 1954a)

Military conservatism and military radicalism define the poles of a continuum of numerous more or less strong positions on both dimensions. Even logically inconsistent positions are possible, but will turn into one of the consistent positions when the individual encounters unclear alternatives and inconsistent results. Moreover, Keohane and Goldstein (1993, 13) argue that ideas change when the idea-based policy fails. In the realm of military policy, wars are the final arbiter of military preparations. Thus, victory keeps prior ideas constant whereas defeat or stalemate puts ideas in question.²⁹ The impact of ideas can be summed up as follows:

2. Ideas between the poles of military conservatism and radicalism constrain the scope of feasible preferences with regard to military innovation.

Societal interest competition and societal demands

With the individuals' motivations defined, the nexus between preference formations and state action must be specified. For this purpose, the republican strand of liberalism provides assumptions regarding the way societal preferences are transferred onto the state level through mechanisms of representation (Moravcsik 1997, 530-533; Narizny 2003a): If modes of representation are biased in favor of particular groups or segments

_

²⁹ Since ideas are roadmaps and not substantial preferences, their stability does not mean that military policy after the war returns to the policy prior to the war. Rather, it means that individuals continue to see the way military policy should be made through the same lenses.

of society, they have significantly higher chances to employ the state for their ends. Biased representation offers the opportunity for the dominant groups to maximize their benefits by passing on the costs to the underrepresented parts of society. This may lead to state actions such as war, which are beneficial for a small group but costly or suboptimal for the society as a whole. Liberalism assumes that broader representation leads to more moderate state interests, whereas highly unequal access to the political system furthers risky policy options. Since democracies provide broad - although not perfect – representation for their citizens, they tend to pursue policies which avoid high costs for the aggregate society. Elections crucially link society to the state. They tie the political actors' chances to satisfy their office-seeking interests to public approval and thus create a strong incentive to be responsive to dominant societal demands. But there is good reason to expect that even these actors have to make trade-offs in pursuing their office-seeking interest.³⁰ It is therefore plausible to argue that the chances of societal demands to impact on the political actors' preferences depends on the existence, strength and consistency of societal demands in military policy holding them accountable (Hils 2007, 42; Lindsay 1994, 34-52). The societal demand is composed of a mixture of common and special economic preferences.

(1) The majority of the public is not directly affected by military policy and thus holds common economic preferences as highlighted by the democratic peace theory. To be sure, the public is no group or actor that intentionally pursues its interests, but an aggregate of individuals which remain the acting units.³¹ Yet, if individuals within the public articulate similar and strong preferences in numbers, they constitute a relevant demand, since political actors must expect these individual preferences to result in parallel voting behavior. Elections are the central mechanism which transfers relevant individual preferences into an aggregate, more or less clear-cut political influence. Against this backdrop, public majorities have to consider military policy sufficiently relevant to inform their political participation and thus binds political actors.³² Since the

_

³⁰ For example, in a study on congressmen, Fenno (1973, 1; see also Deering 1993, 163) identifies reelection as only one among other goals of lawmakers.

³¹ Scharpf (2000, 95-110) makes a convincing argument that it is analytically sensible to treat only those groups as complex actors whose preferences reflect the common goals of their included individuals. The individuals' preference homogeneity and institutional conflict resolution mechanisms within groups are crucial in assessing the group's boundaries and whether it is reasonable to treat the group position as a representation of the individual position and vice versa.

³² This problem is well established for the impact of foreign policy on elections: While domestic issues, especially the economy, are almost always salient since they permanently affect most people, the "precise impact of foreign policy on electoral choice does appear to wax and wane with the flow of current

benefits and costs of military policy decisions are for most individuals rather abstract, military policy permanently competes with other policy issues for relevance. Referring to the metaphor of the public as a thermostat, Franklin and Wlezien (1997, 349) argue: "Quite simply, the thermostat sometimes is not switched on, and salience may play an important structuring role. For the public to be responsive to policy, after all, people must acquire and process reasonably accurate information about what policymakers do, and this is most likely in policy domains that people consider important." For military policy, strong security concerns resulting from perceived international threats are the major leverage to raise its salience.

It is not enough to care about military policy in order to create a strong demand, however. One must know about the issue and have information to derive a certain position. Thus, the formulation of common preferences is dependent on the level of available information and the public knowledge on the issues under consideration. The preferences are expected to be most specific in the budget dimension, since this dimension is most easily accessible for the layman, most visible in the political process and best covered by the media. The military doctrine & Service mission statement dimension is the furthest detached from the public eyes and thus no specific knowledge is expected here.

Dimensions of military policy	Public	Specificity of
Dimensions of inintary poncy	Information	preferences
Budget	+++	Strong
Organization	++	Medium
Weapons acquisition	+	Weak
Doctrine & Service mission statement	-	None

Table 2.2: Specificity of common preferences along dimensions of military policy (own illustration).

events." (Gelpi/Feaver/Reifler 2009, 15-18; see also RePass 1971) Since the attention for foreign policy questions by an otherwise only indirectly affected actor is most often a function of external security threats, this logic should also hold for military policy, which provides central means for national security.

Taken together, the salience and the specificity determine the strength of common preferences. Growing strength of common preferences reduces the corridor of policy options from which a political actor can chose in response to public demands.

- (2) Special interest groups' parochial preferences stem from distinct beneficial impacts of military policy and therefore can depart from common preferences. Special interests groups are directly affected by military policy and they try to directly affect it according to their specific preferences. Yet, special interest groups are usually not large enough to directly affect politics through elections and the strength of their demands depends on their available resources to influence the political process. Thus, special interest groups' demands depend on the social, economic or military weight of the respective group. For example, without the existence of a defense industry and defense-related labor, which are dependent on or at least strongly benefiting from the status quo, economic preferences are marginal. In turn, defense producers that are large employers or have a significant regional economic impact, have higher chances to push their preferences. The same holds true, if the national defense strongly depends on the product of a manufacturer or on the expertise of scientists. Special economic actors have in both cases strong blackmailing potential and therefore good chances to succeed with their demands. The variance of special interest demands describes the continuum between a static triangle (Heclo 1978) with one or few groups dominating the course of transitions on the high end and no special interests on the low end.
- (3) The interplay of common and parochial preferences can create more or less consistent societal demands for innovation or stability. For example, if common preferences point at a strong demand for innovation and the defense industry articulates a strong demand for stability in the weapons acquisition dimension, societal demands are inconsistent. Like the strength of the demands, inconsistencies weaken the chances of their implementation. These inconsistencies are most likely when preferences for status quo and innovation are both either weak or strong. Both situations are not completely similar, however. Since common preferences are always existent, there is higher chance of at least a moderate level of consistency in a situation where both positions are weak. Thus, if society is biased in favor of innovation, the chances of innovation are higher in a situation in which preferences are both weak than in a situation in which both positions are strong.

In sum the following proposition can be stated:

- 3. The interplay of common and parochial preferences creates distinct societal demands for periods of military transition
- 4. The strength of societal demands for military innovation depends on the strength of common and parochial preferences for innovation and their consistency in the dimensions of military policy

State interest competition

Societal demands do not immediately translate into military policy positions, since the principal-agent relationship with civilians on the one side and military actors on the other side is as incomplete as the principal-agent relation between the public and the state.³³ As the military actors are not directly dependent on public approval and at the same time the recipient of military policy, there is good reason to expect them to pursue specific and special preferences towards quantitative growth and qualitative stability. Since qualitative changes result in adaption costs for the military organization, military actors will autonomously push for innovation only in cases of obvious organizational failure. As Rosen (1991, 2; emphasis in the original) argued: "Bureaucracies were not *supposed* to innovate, by their very nature. Military bureaucracies, moreover, are especially resistant to change." Foresighted innovation requires intervention by 'outsiders' either coming from the military or civil authorities (Huntington 1961, 288). Even in the case of military innovation through a military outsider, political actors' positions are vital, since they provide the military maverick with the necessary backing and leverage.

The chances that societal demands indeed trigger innovation in military policy depend on their strength and consistency, since the economic incentive for office-seeking political actors to act responsive varies with the risk of punishment. This is not to say, that political actors will ignore society if no strong demands on military policy are

³³ With the state actors' preference selection is more or less constrained, they also have more or less power and chances to influence policy outcomes. In contrast to societal preference competition, the distribution of power within the state is more formal and asymmetric. State actors are embedded in an institutional framework which assigns competencies and responsibilities. While Governmental Politics shows that the formal authority is not equal to the power to influence an outcome, it certainly increases asymmetry. Hence, political actors with veto powers in the political process have a higher chance to influence outcomes than political-administrative actors with only an advisory role.

articulated. Even in dimensions were no explicit societal demands are formulated, political actors can try to formulate preferences in accordance with societal demands. Ideas are crucial here, since they provide a heuristic shortcut for political actors to extent societal demands in areas where no explicit preferences are articulated (in the same vein see Aldrich/Sullican/Borgida 1989). For example, if societal demands in the budget and organization dimension point at a military radicalism, the political actor can assume that this pattern should also hold for weapons acquisition and doctrine & Service mission statement formulation. But if societal demands are inconsistent, a heuristic extension is difficult. Moreover, political actors are hardly willing to take great political risk or costs in order to implement only assumed societal demands.

Moreover, the likelihood of a split within the government increases with decreasing strength and consistency of societal demands. Avant's work (1994) shows that unity between Congress and President is vital to successfully overcome military actors' status quo bias.³⁴ When the legislative and the civil executive actively disagree on the future course, there is always the possibility for military actors to trade the political actors off against each other and thus evade the costs of change. Based on the prior discussion, preference inconsistencies are the result of two constellations. Either they are the result of conflicting societal demands, as political actors actively serve different constituencies (e.g. Trubowitz 1998). For example, if Congress responds to parochial preferences and the administration to common preferences in the dimension of weapons acquisition, the likelihood for change decreases. Or they result from different assumptions in dimensions where societal constituencies fail to express a clear mandate. For example, if lawmakers extend societal demands by a heuristic of military conservatism and the President extends these demands by a heuristic of military radicalism, influence of societal demands decreases. Thus, it is central for the political actors' preference consistency that they agree on the course of transition, either based on specific societal demands or on a shared mindset. The final propositions can be stated as follows:

-

³⁴ The constitution makes sure, that Congress and the President are involved in military policy. Article I, Section 8, assigns the power of the purse to Congress: "The Congress shall have the power 1. To lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States. (…) 12. To raise and support armies (…). 13. To provide and maintain a navy. 14. To make rules for the Government and Regulation of the land and naval Forces. (…) 16. To provide for organizing, arming, and disciplining the Militia." In contrast, Article II, Section 2, makes the President "Commander-in-Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States."

- 5. Political actors pick up societal demands for innovation if they are strong and consistent
- 6. The unity of political actors increases with the strength and consistency of societal demands

Policy selection and action

The link between societal demands on a policy of military stability or innovation in any dimension of military policy can generally be classified along two dimensions of influence. The combination of the direct-indirect and active-passive dimensions provides four types of influence.

	Active	Passive
Direct	Direct influence	Passive influence
Indirect	Indirect influence	General influence

Table 2.3: Dimensions of societal influence

Direct influence refers to a situation in which societal demands for stability or innovation are picked up by political actors and actively implemented even against potential military actors' opposition. Societal demands have indirect influence when societal demands are picked up by political actors and create a strong positive or negative incentive for military actors to innovate or maintain the status quo. This can be the result of spill-over effects from one dimension of military policy into another, e.g. a direct influence in the budget dimension may create a strong incentive to innovate in the weapons acquisition dimension. Passive influence results from the political and military actors' anticipation of societal reactions within the field in which the policy decision is taken (Arnold 1979, 73). General influence is evident when a military policy is the result of an anticipation of a general direction of societal position with regard to military policy, although this position is neither actively demanded nor related to a specific issue.

Beyond these four forms of influence which are consistent with the bottom-up framework, there is an additional form of influence, which is called 'responsive influence' here. State actors can address a society in order to gain support for an innovation, which societal actors do not actively demand, and thus create a responsive influence. They can address the public for strategic reasons, e.g. to overcome political opposition, or they seek a feedback in order to prevent later negative domestic responses. Regardless of the motivation, the responsive form of influence is based on a top-down mechanism. Nonetheless, all forms of influence are generally possible and will be considered in order to allow for an informed theoretical reflection.

3. RESEARCH DESIGN

The analysis employs a qualitative structured, focused comparison of a small number of cases based on suggestions by George and Bennett (2005; see also Snyder 1984).³⁵ This requires two major steps. First, it is necessary to select a sample of cases from a clearly defined population. Second, questions must be stated that structure and focus the successive case analysis. In this context, the sources and methods for data gathering must be identified and justified.

3.1. Case selection

The scope of the analysis is limited to cases of US military policy. This diachronic design keeps geography, culture and other country related variables constant and thus reduces the problem of confounding variables.³⁶ It is further restricted to the time after World War II, which constitutes a watershed in US foreign policy and international relations far beyond military policy. Hence, this study does not have to account for America's turn towards an active international role backed by a permanent military establishment. More specifically, the restriction makes sure that all observed military planning takes place against the background of modern warfare. In order to gain a comprehensive perspective on military innovation, four dimensions are considered (see chart 3.1) for every period of military transition.

³⁵ Ideally, a 'case' is "a unit in which each variable takes on only one value or is classified in only one category." (Geddes 2003, 137; see also Gerring 2007, 19). Additionally, Bennett (2004, 20-21) distinguishes a case from its environment by defining it "as an instance of a class of events of interest to the investigator (...). A case study is thus a well-defined aspect of a historical happening that the investigator selects for analysis, rather than a historical happening itself."

³⁶ The assumption that variables such as culture remain constant over time is certainly problematic. Lijphart (1971, 689) correctly points out that "the same country is not really the same at different times." Nonetheless, diachronical comparisons are still the most plausible way to reduce variables in small-n studies.

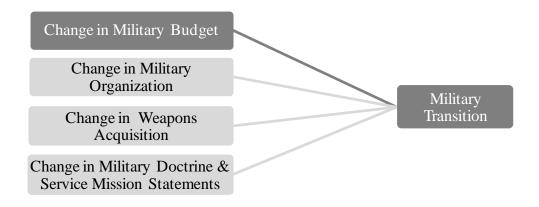


Chart 3.1: Central Dimensions of military transitions (own illustration)

The selection of periods of transition is based on the development of military budget as necessary condition that triggers the transition in the first place.³⁷ This is hardly trivial as various stories can be told and arguments made, depending on the measure. For the purpose at hand, the annual budget authority and outlays are used, since they arguably provide the most unbiased indicator of defense efforts. It is furthermore sensible to use inflation-adjusted data to account for inflation effects in a chronological comparison.

Within the given limitation, eight cases meet the characteristics of periods of military transition: The builddowns after World War II, the Korean War, the Vietnam War, and the Cold War and the buildups for the Korean/Cold War, the Vietnam War, the Global War on Terror as well as the Reagan buildup. Among many minor peaks and valleys during the last 70 years in US military funding, these cases stand out with regard to their budgetary dynamics, showing significant downward or upward trends (Donley 1994; Korb 1993; Snider 1993a).

³⁷ Military transition is a concept in which only the change in the military budget is considered a necessary dimension (on concepts see Goertz 2006, 27-67). But ideally, budget decreases and increases should correlate with changes in the other dimensions. The impact of the military budget on force structure and acquisition is only the most obvious of many interdependencies. Posen (1984, 14) stresses, for example, that the organization and capabilities can be seen as a material expression of doctrine and Sheehan (1988, 93) argues: "In essence, organizational change and doctrinal change are natural twins." In addition, the kind of weapons a branch deploys has an important influence on its organizational outline. Hence, in a sound military policy, all dimensions are closely correlated.

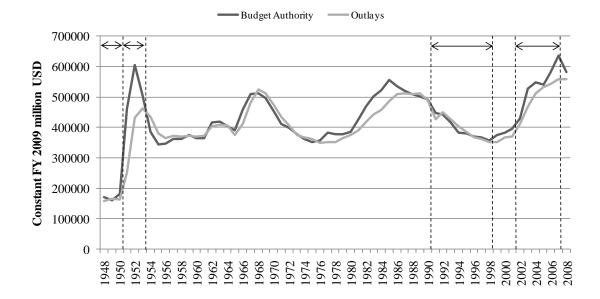


Chart 3.2: Department of Defense (051) budget authority and outlays, FY 1948-2008 (OSD 1995; 2008)³⁸

Four cases are examined in detail: Post-World War II (1945-1949); Korean War/Cold War (1950-1953); Post-Cold War (1990-1998); War on Terror (2001-2007).

 $^{^{\}rm 38}$ Previous years are omitted for reasons of presentation.

Builddowns

	Peak FY		Through		Difference	Average change / year
WW II	1945	907.7	1948	108.8	-798.9	266.3
	1944	37.8%	1948	3.5%	-34.3	
Korean	1953	515.1	1956	369.4	-145.7	48.6
War	1953	14.2%	1956	10%	-4.2	
Vietnam	1968	518.2	1977	311.4	-206.8	23
War	1968	9.4%	1978	4.7%	-4.7	
Reagan/	1989	481.6	1998	346.1	-135.5	15.1
Cold War	1989 ³⁹	5.6%	1999	3%	-2.6	

			Buildups			
	From		Peak FY		Difference	Average change / year
Korean	1950	164.8	1953	515.1	350.3	116.7
War	1950	5%	1953	14.2%	9.2	
Vietnam	1965	360.8	1968	518	157.2	52.4
War	1965	7.4%	1968	9.4%	2	
Reagan	1981	348.2	1989	481.6	133.4	16.7
buildup	1981	5.2%	1986	6.2%	1	
War on	2001	363.1	2009^{40}	580.2	217.1	27.14
Terror	2001	3%	2009	4.6%	1.6	

Table 3.1: Periods of transition in comparison by national defense outlays in billion constant FY 2005 US dollars and percent of GDP (table based on Gholz/Sapolsky 1999, 15; data in OMB 2010)

This case selection is based on several considerations.

(1) Since there is little comparative research on periods of military transitions in general and on military innovation within these periods in particular, the sample includes cases which are important and relevant breaking points with significant leverage. In other words, all cases have a strong empirical relevance. This is immediately evident for the post-World War II phase which succeeded the most devastating and total war during the 20th Century. During the war, the US was forced to devote massive economic and military resources to the war effort. The transition from this encompassing war effort to a sustainable postwar military force was an enormous administrative challenge and

³⁹ 1989 marks the end of the Cold War rather than the turning point after the Reagan buildup.

⁴⁰ The outlays for national defense continued to increase after FY 2007 and are expected to decrease for the first time in 2011. The budget authority for the DOD (051) started to decrease and the DOD outlays leveled off already after FY 2007 in real terms. The discrepancy is largely caused by supplemental funding for the war on terror, which is not part of the regular budget process (OSD 2008).

marked by major political conflicts. The qualitative decisions in this period proved crucial for the Cold War and beyond. ⁴¹ By the end of the 1940s, the post-World War II transition came to an end and a buildup period took over. The US military policy underwent a transition marked by a massive expansion of defense resources for the Korean War effort but also for the Cold War, which defined the international security for the subsequent decades. Given the structural impact of the Cold War, the military transition after its end proved highly consequential for the new world order. The short phase of relative peace ended with the terrorist attacks of 9/11, which initiated another buildup period. While the significance and long-term consequences of this latest transition are subject to scientific discussion, its importance stems from the actuality and the related lack of theory-guided and comparative research.

(2) George and Bennett (2005, 83) advise students, however, to select cases for their contribution to the research objectives rather than for their empirical value. It would take significantly more cases than are feasible in a structured, focused comparison, to test all possible theoretical constellations. Therefore, this study focuses on variance in the societal demand patterns, which are most directly related to the research question, and tries to control for other factors. With reference to the debate between the follow-on imperative and democratic peace, the selection focuses on a variance in the strength of the preferences of the defense economy and the public as most important societal forces. Thus, it includes two periods with only a small established military industrial base after World War II and two cases with a large industrial base after the Cold War. Since the strength of common preferences concerning military policy is expected to vary with the salience of security concerns, the case selection includes two cases with low threat environments as well as two cases with high threat environments.

At the same time, the case selection keeps the innovation bias of common economic preferences constant. All cases are closely related to a shift in the strategic environment. The most drastic changes happened with the end of World War II and the Cold War. But the outbreak of the Korean War and War on Terror also marked largely unexpected changes in the strategic environment. Moreover, the beginning of each pair of cases coincides with the advent of new technologies, which were widely considered

⁴¹ There is good reason to treat the Cold War like other wars with regard to the required military preparations. As Gray (1999, 182) argues: "Notwithstanding the obvious differences between the actual global wars of 1914-1918 and 1939-45 and the global virtual war of 1947-1989, it is sensible to treat the East-West Cold War as a surrogate for hot war."

revolutionary (Krepinevich 1994). The advent of nuclear bombs and long-range aviation during World War II strongly changed the parameters for military preparations. After the Cold War, it was the stealth technology, precision-guided munitions, and especially information age C⁴ISR capabilities, which opened new roads for innovation. In both cases, the public was aware of these new technologies, since they were used prior or very early into the transition periods: Atomic bombs were dropped only weeks before the end of the Pacific War and therefore immediately before the postwar transition began. For the post-Cold War periods, Operation Just Cause in 1989 and Operation Desert Storm in 1991 showed the potential of information age technologies at very early stages of the transitions.

Taken together, the following pattern is expected:

	Strength of	Strength of		
	status quo	innovation	Expected societal	
Cases	interests	interests		
	(defense	(general	demand	
	economy)	public)		
Post-World War II	-	-	Minor innovation bias	
Korean War/Cold War	-	+	Innovation bias	
Post-Cold War	+	-	Stability bias	
War on Terror	+	+	Minor stability bias	

Table 3.2: Case variance at the societal level

3.2. Data analysis

To allow for a structured, focused comparison, standardized questions based on the theoretical perspective must be formulated. The first sequence of questions is used in order to describe the dependent variable. The second and third sequences are asked to test the validity of the theoretical model. They are directed towards the societal preference formation and the state actors' preferences as well as the political process.

- 7. Is a quantitative change indicating innovation in the budget dimension of military policy traceable?
 - Is a change in the distribution of the defense budget among the Services or among defense programs indicating new funding priorities traceable?
- 8. Is a qualitative change indicating innovation in the organizational dimension of military policy traceable?
 - o Is a significant change in the distribution of personnel among the Services traceable?
 - o Is a significant change in the geographical distribution of personnel traceable?
 - o Is a significant change in force structure priorities traceable?
- 9. Is qualitative change indicating innovation in the weapons acquisition dimension of military policy traceable?
 - o Is a significant change with regard to the weapons acquired traceable?
- 10. Is innovation in the doctrinal dimensions of military policy traceable?
 - o Is a significant change in the military doctrine / Service mission statement traceable?

Societal demands

- Are there strong and specific common preferences for military innovation?
 - o Is there a strong salience for military policy?
 - Is there a pattern of security interdependencies considered threatening?
 - What are the most important problems in society?
 - O Are there specific demands in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?
 - o Is there an apparent idea connecting the explicit preferences?
- Are there strong special interests?
 - o Is there a strong military industrial base?

- How large is the economy dependent on defense investments?
- How large is the labor force dependent on defense investments?
- Is there a strong economic or military dependence on the military industrial base?
 - How is the defense industry spread over the country?
 - How much competition is in the defense market?
- Are there any other relevant special interests?
- What preferences do actors with special interests pursue in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?
- Are there weak or strong societal demands for innovation in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?

State actor preference formation

- Do political actors pick up public demands in their positions on military policy?
 - What preferences do Members of Congress pursue in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?
 - Do these preferences represent societal demands?
 - Are these preferences consistent with the dominant societal idea underlying the course of military transition?
 - What preferences do political actors within the administration pursue in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?
 - Do these preferences represent societal demands?
 - Are these preferences consistent with the dominant societal idea underlying the course of military transition?

- Are political actors' preferences consistent in the dimension of military budgets / military organization / weapons acquisition / military doctrine
 & Service mission statement?
 - Do political actors share ideas on the course of military policy?
- What preferences do military actors pursue in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?

Political process

- Who is dominating the political process in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?
- Whose preferences most strongly affect the outcome in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement most?
- What is the influence of societal demands on military stability or innovation in the dimension of military budgets / military organization / weapons acquisition / military doctrine & Service mission statement?

3.3. Data sources

The analysis of the dependent variable relies on various data on military policy. While questions concerning the budget or force levels can be answered by quantitative measures, especially questions on the acquisition and doctrinal trends and force structure require a qualitative description. The necessary data is available from governmental sources, especially from congressional hearings and debates, DOD and Service documents, and the rich literature in political and military science as well as history.

The successive test of the theoretical model employs numerous different data sources. While many confounding variables can be eliminated by the case selection, there are still numerous potential influences on the dependent variable and covariance between the variables of interest must not be confused with causality. For example, whether a

political actor is indeed acting responsive to his constituency or is pursuing a preference for other reasons is never fully knowable without asking him directly. In order to provide plausibility for the causal mechanism despite the empirical limitations in case study analyses, this study employs the method of process tracing (Gerring 2007, 172-185; George/Bennett 2005, 205-232). According to Gerring (2007, 173), "[t]he hallmark of process tracing (...) is that multiple types of evidence are employed for the verification of a single inference - bits and pieces of evidence that embody different units of analysis." Thus, evidence for the causal mechanism is provided by a number of qualitative and quantitative observations, which are noncomparable, but point to the central argument.

Four sets of sources are used in order to create a fairly accurate picture of societal demands: (1) Public opinion polls are central for the exploration of common preferences. They give an idea about the salience of national security in contrast to other political issues. Moreover, polls reveal the existence of specific common preferences on important policy decisions. While representative polls also include respondents with special interests in military policy, the resulting interference is marginal, since the vast majority of the population has no direct benefit from military policy. A more important problem is the limited availability of polls with regard to military policy, which allow only for a more or less thick description of public preferences. Other sources were used to compensate for the lack of polls, but some restrictions remain nonetheless. (2) An extensive use of newspaper articles complements the evidence on societal positions and the general mood with regard to military policy decisions. To offset for potential biases in the reporting, the analysis uses a range of different newspapers, chief among them the New York Times, Washington Post, Christian Science Monitor, Wall Street Journal, and Washington Times. (3) Special interest groups occasionally articulate their preferences during congressional hearings. Their statements can be treated as direct articulations of preferences. Yet, the number of societal actors which participate actively in the political process on military policy is rather limited, since it is a delimited policy area with a high demand for expert knowledge. Thus, only 25 percent of the witnesses represent societal interests, whereas the vast majority of witnesses testifying before the armed services committees are from the Pentagon and the broader administration (Deering 1993, 161). (4) Literature from various scientific sources can be

used to gain additional insight. For example, the strength of the defense industry can be drawn from the literature on the defense industrial base, various federal statistics, etc.

The description of the state actors' preferences as well as the political process is based on governmental sources, biographies of central actors, newspaper articles and the available literature mostly from history and political science. Especially for the most recent cases, in which detailed description cannot rely on extensive research and is complicated by the administration's nondisclosure rules, the press is a vital source of information. Party documents provide further evidence for the political actors' preferences. Since it is highly impracticable and indeed unnecessary to collect the preference of each political actor, the analysis focuses on central actors and positions. Especially for Congress, a selective analysis is necessary. Both chambers practice division of labor and only a limited group of congressmen is actively taking part in the military policy process. Thus, members of the armed services committees and the subcommittees on appropriation for the armed forces are more central than other committees. Furthermore, the levels of seniority provide a good indicator for the relevance of actors. Committee chairmen and party or congressional leaders usually have a higher chance to influence armament policy than junior members of Congress.

4. MILITARY INNOVATIONS DURING PERIODS OF TRANSITION IN COMPARISON

In the following section, the dimensions of military innovation are defined and compared across the periods of interest in order to collect evidence for innovation.

4.1. Military budget

4.1.1. Definition and description

The military budget provides the most fundamental and most often used indicator for military policy. Broadly defined, the US military or defense budget encompasses all budget items under the National Defense Budget Function 050, which is used by the Office of Management and Budget (OMB) to structure the budget (Tyszkiewicz/Daggett 1998). It includes the expenses of the DOD (sub-function 051), defense-related activities administered by the Department of Energy (sub-function 053) or other agencies such as the Coast Guard or the FBI (sub-function 054). Accounting for an average 95 percent of the 050 function between FY 1993 and FY 1999, DOD funding is by far the largest part of the national defense budget. The defense budget can be further specified by components, i.e. Army, Navy, Air Force, Defense-Wide, or by appropriation titles, which is used by Congress during the budget process (Tyszkiewicz/Daggett 1998; Jones/McCaffery 2008, 103-105). While these titles can change over time, some are commonly used and account for the lion's share of the budget: Military personnel; Operation and Maintenance (O&M); Procurement; Research, Development, Test and Evaluation (R&D).

In theory, the defense budget connects the US national security policy with a force posture. In practice, the connection is only more or less accurate and affected by political conflict, which naturally accompanies the distribution of scarce resources.⁴³ The budgetary procedures, which regulate these conflicts, have changed numerous times (Schick 2007, 5). While the President is still obligated to submit a budget to Congress

-

⁴² Although the budget function structure was developed for the FY 1948 budget and did only partially exist before, it is possible and reasonable to structure earlier budgets also according to these functions (on the history of budget functions see GAO 1998). The current budget functions are based on the congressional budget act of 1974 which established 19 of today's 21 functions (Adams/Williams 2010, 165).

⁴³ In fact, as the defense budget is larger than any other appropriation bill and considered veto proof, the incentive for members of Congress to attach defense unrelated items, so-called riders, to the bill is high. Therefore, the defense appropriation bill is also referred to as a "Christmas tree" bill (Jones/McCaffery 2008, 78).

by the first week of February of each year (Potvin 2009, 8), the preceding executive budget process and subsequent legislative budget process underwent considerable change.

During the early postwar years, the executive budget process started approximately a year before the request was to be submitted to Congress (Hitch 1967, 23-26; Korb 1977, 334-336; Joint DOD/GAO Working Group 1984, 17-18). The first step was the imposition of a ceiling on DOD funding by the President in cooperation with the Budget Bureau. The defense secretary would then allocate available funds to the branches which in turn prepared their budgets. Yet, policy planning, the budget process, and military programming were largely detached from each other and the Services developed their requests with little guidance: "DOD 'budgeteers' talked one language while planners talked another." (Feltes 1976) In October of each year, the Services submitted their requests to the Defense Secretary including so-called B-lists. The B-lists contained items which were considered of high importance but could not be included under the regular ceiling. In order to bring the budget in line and achieve a balance among the branches, the Defense Secretary finally reviewed and cut the requests. The executive process ended with the annual transmission of the budget request to Congress.

Having the sole power of taxing and spending under the constitution, Congress is heavily involved in the budget process. In contrast to large proportions of mandatory spending in domestic budget functions, the defense spending is mostly discretionary, which allows Congress close scrutiny. The annual program and budget authority legislation is therefore the major means by which the legislative branch controls and influences the executive's defense activities.⁴⁴ The core aspects of the legislative

⁴⁴ Despite annual budget legislation, appropriation bills can provide budget authority for a time frame which exceeds a year. Since the early 1950s, Congress practices in many cases full funding, which provides the funds for the completion of multi-year projects within one FY (Potvin 2009, 64; Jones/Bixler 1992, 14). Hence, the budget authorized for a FY year is not necessarily spent or even obligated within the same year. And not all money available to the DOD in any given FY was necessarily appropriated in the respective FY's bill. Although the spent-out rates differ over time and projects, a general pattern is noteworthy: Annual appropriations on titles such as personnel have usually much faster outlay or expenditure rates than investment appropriations such as procurement or R&D (Potvin 2009, 134). Titles, in which funds are mostly spent within the year of their appropriation, have significant short-term effects on the force posture and the defense outlays (Wildavsky 1988, 391-392). Thus, if decision-makers seek quick savings, the operating accounts O&M and personnel are more attractive targets than investment accounts such as procurement or construction projects. Multi-year project funding is not without pitfalls, as conditions under which a project was initially funded can change, resulting in under- or overfunding (Tyszkiewicz/Daggett 1998, 7). If acquisition projects turn out more expensive than initially estimated, additional appropriations or economizations, e.g. a reduction in procurement quantities, become

process are still in place in spite of some important changes. Two sets of committees are crucial for the legislative process. The armed services committees prepare substantial legislation by authorizing programs, usually prior to the appropriation legislation. The latter is prepared by the subcommittees on defense appropriations.⁴⁵ Until the late 1950s, defense authorization committees played only a minor control function (Deering 1993; Dawson 1962; Gordon 1961). 46 They practiced generalized authorization, setting permanent ceilings for procurement and personnel. 47 As these ceilings were far above actual demands, authorizations were usually inconsequential for the administration's defense planning. Indeed, the Armed Services committees were considered more as "defense cheerleaders" than as controllers (Deering 1993, 178). Therefore, the annual Defense Appropriation Act was seen as major hurdle by the Services and constituted the most important and contentious confrontation between Congress and the administration on military matters. Considering that the full houses usually approved appropriation bills as reported, the importance of the subcommittee members was even more significant. 48 After each house debated the committees' reports and passed legislation, differences are settled in conference.

In 1961, Defense Secretary Robert McNamara introduced the Planning, Programming, Budgeting System (PPBS), whose central characteristics are still in place (Jones/McCaffery 2008, 138-147; Feltes 1976). A PPBS term starts about 18 months before a budget request is submitted to Congress. Its initial six-month planning phase serves to integrate assessments of potential threats, overall national strategy and defense policy, and ongoing defense plans and programs into an overall statement of policy (Tyszkiewicz/Daggett 1998, 27). Based on policy directions from the White House, the NSC, the OSD, various other departments, and Congress, the military branches

necessary. In contrast, if future years' inflation is overestimated, not all authorized funds are necessary to accomplish a project.

⁴⁵ The Legislative Reorganization Act in 1946 merged the naval affairs committees and military affairs committees into armed services committees. The changes became effective at the beginning of the 80th Congress. The appropriation subcommittees were merged in a similar way two years later.

⁴⁶ This was amplified by a different treatment of the authorization and appropriation bills (Jones/McCaffery 2008, 209-210). Without appropriation legislation the administration was not allowed to spend money for projects even if the programs were authorized. Yet, the administration could start budget execution with only an appropriation act, since appropriation was treated as an implicit authorization. After the Vietnam War, Congress resolved that explicit program authorization is required and thus both acts are necessary for budget execution.

Military construction was annually authorized, instead.

⁴⁸ Among the appropriation subcommittees, the House's subcommittee proved most important, since all appropriation bills originated in the House (Huzar 1950, 36-39). Furthermore, the lower house's subcommittee members had less additional legislative duties than their Senate colleagues and could pay closer attention to defense appropriation.

independently review the prior years' planning, assess threats and commitments in the coming years and estimate required resources (Jones/Bixler 1992, 21-23).⁴⁹ In this stage, actors largely focus on requirements rather than budget realities. The separate assessments are combined by the OSD into the Defense Planning Guidance (DPG), which provides official direction for subsequent phases. The following six months are occupied by the programming phase, in which each military Service prepares a Program Objective Memorandum (POM) (Jones/Bixler 1992, 23-24). POMs detail "the specific forces and programs that the service proposes over the FYDP period to meet the military requirements identified in the DPG within the financial limits that are mandated by the Secretary of Defense." (Tyszkiewicz/Daggett 1998, 27)⁵⁰ The Defense Planning and Resource Board, chaired by the Secretary of Defense, serves as final decision point for Service programs as outlined in the POMs: Within a small round, Service secretaries and other senior officials have a final opportunity to defend their programs. In the end, the board creates Program Decision Memoranda (PDMs) which officially set programming and provide the framework for the concluding budgeting phase. Approximately from August to late December the DOD, in close cooperation with the OMB, prepares the final budget request submission Congress for (Tyszkiewicz/Daggett 1998, 28; Jones/Bixler 1992, 24-26).

Since the late 1980s, Congress requires the submission of biennial budget requests (Tyszkiewicz/Daggett 1998, 26). Thus, the executive goes only through a minor PPBS process during the second year, the so-called off-year, which is always an odd-numbered year. Defense Secretary Donald Rumsfeld further reformed the system to more fully embrace the biennial budget cycle and renamed it by adding the word 'execution' (PPBES) (Adams/Williams 2010, 93-119). Jones and McCaffery (2008, 153) identify three important changes from the previous system: (1) The programming and budgeting were merged into a single, parallel phase, which allows the OMB to get involved in the process early on; (2) The biennial budget process was fully incorporated; (3) The OSD was no longer required to issue a DPG annually but only every other year. The reform effectively tightened not only the biennial process, but

⁴⁹ Relevant documents include the National Security Strategy, the National Military Strategy and Joint Strategic Planning Document prepared by the JCS, prior Defense Planning Guidance, and the Quadrennial Defense Review (Jones/McCaffery 2008, 148-150).

⁵⁰ The PPBS produces not only the next budget request, but also the Future Year Defense Plan (FYDP), which provides a six year perspective. It is updated three times a year and serves as the Pentagon's foundation for long-term defense planning. The FYDP is central for stable planning in the long run, since it constitutes an organizational memory and reduces uncertainty.

created a clear 4-year framework, thereby matching the budget process with the electoral cycle. The first year of a new President, an off-year, includes only minor changes on the current defense budget prepared by the prior administration. This year is rather characterized by the preparations of the National Security Strategy and the Quadrennial Defense Review, issued early into the second year, which frame the on-year DPG. The second year includes full programming and budgeting and a new FYDP. The third year is used for adjustments and a close examination of budget execution by the OSD. A new DPG and budget is prepared during the fourth year.

The scrutiny and oversight of Congress has also increased since the 1950s. 51 The Budget Reform Act in 1974 created the Congressional Budget Office (CBO), a source for independent budget analysis, as counterpart to the OMB. Together with the strengthened General Accounting Office (GAO), the CBO provides the defense committees with additional analytical capabilities. Especially the Armed Services Committees are placed more prominently in the military policy process because of an extended scope of annual authorization (Deering 1993; Art 1985). Starting with the Russell amendment, which extended required authorization to the procurement of aircraft, missiles, and naval vessels in 1959, the armed services committees have successively put components of the force posture under closer oversight. By the end of the Cold War, almost 100 percent of the budget authority needed annual defense authorization (Blechman 1990, 31). Hence, the committees gained more prominence and caught up with the appropriation subcommittees. In contrast, the latter have lost major powers to the budget committees, which set budget ceilings since annual Budget Resolutions were introduced in 1974 (Adams/Williams 2010, 193-220).⁵² Thus, appropriators are limited to redistributing money under the given caps.

⁵¹ The significantly larger committee staff is one indicator for the increased activity of the defense related committees. The HASC's staff went up from nine in 1969 to forty in 1988 (Blechman 1990, 12, 40-41). Other indicators are the increased length of hearings and committee reports.

⁵² A Budget Resolution represents "an agreement between the House and Senate on a budget plan for the upcoming fiscal year and at least the following four fiscal years." (Heniff/Murray 2010, 1) It does not become law, but is used as a framework or guidance for the successive budget negotiations, by setting a prospective total amount of spending, the so-called 302a target, and a specific amount for each appropriation bill, the so-called 302b targets (Jones/McCaffery 2008, 201-202, 229). While the Budget Resolution is supposed to be passed by April 15th under the 1985 Balanced Budget Act, actual passage typically occurs not before May or June.

4.1.2. Evidence for innovation

While the budget in sum is a quantitative indicator, which by itself does not reveal force posture changes, its various distributions can help to show evidence for innovation.⁵³ Two indicators are used here to identify innovative changes in the budget dimension.⁵⁴

(1) A breakdown of the budget into Service distributions gives a first hint on potential innovation during the periods of transition. Thus, the military policy can maintain stability by distributing the decreases or increases evenly across the Services or foster change by down- or upgrading one branch over others.

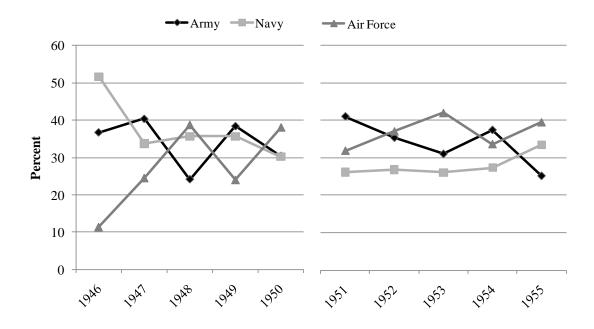


Chart 4.1: Service distribution of budget authority, FY 1946-1955 (calculations based on OSD 2008: OSD 1995)⁵⁵

⁵³ Classified funding within the defense budget hinders a fully comprehensive analysis. Kosiak (2008, 3) estimates that the FY 1987 to FY 2009 weapons acquisition budgets included between 13 and 19 percent classified funding. The classified share of the overall budget is approximately 4 to 6 percent. This implies two limitations for this analysis: (1) A significant share of the classified DOD funding actually provides funds for intelligence agencies such as the CIA and NSA and does not benefit the Services (Kosiak 2008).

58

Since most of this classified funding is channeled through the Air Force budget, the Air Force share in relation to the other Services is slightly exaggerated. (2) The classified funding prevents a fully comprehensive assessment of the weapons acquisition, since it conceals some development trends and activities. As the classified funding is still a small proportion, both limitations have only a minor impact. ⁵⁴ A third commonly used indicator, the distribution along budget titles, is less revealing with regard to the periods of transition. All titles are affected by the general budget trends with the R&D and Personnel accounts clearly more stable than funding for Procurement and O&M. Since war efforts, including the

replacement of equipment, are financed by these latter accounts, this finding was to be expected. ⁵⁵ Budget authority for defense wide allocations was excluded.

The Service shares underwent considerable changes during the post-World War II transition. But there is hardly a clear direction evident between FY 1946 and FY 1950. Each Service leads the budget for at least one year and no Service leads for more than one year in a row. Since FY 1946 started before V-P Day and was only adjusted later, its significance for an analysis of the postwar transition is limited. When FY 1946 is taken out, the Navy is relatively constant whereas the Army and the Air Force annually swap places with each other. A clear winner is not apparent, however. For the buildup of the early 1950s, only minor changes to this general pattern become evident. The Navy dropped to a clear third place, which did not change before FY 1955. And the Army-Air Force-seesaw turned moderately in favor of the Air Force. There is good reason to argue that the budget shares even hide the full extent of the relative turn to the Air Force, since the Army disproportionally benefited from war-related funding between FY 1951 and 1953, which does not reflect a political reorientation in military preparations. ⁵⁶

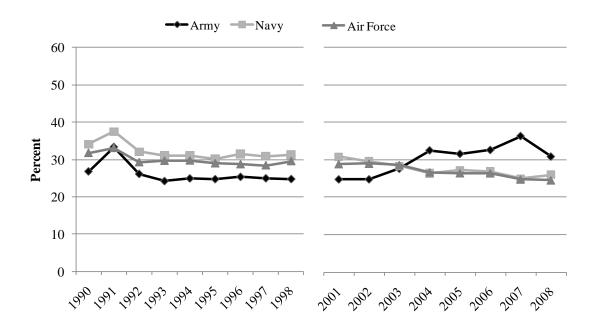


Chart 4.2: Service distribution of budget authority FY 1990-1998, FY 2001-2008 (own calculations based on OSD 2008)

⁵⁶ Rising O&M funding is the most straightforward indicator for war-related funding. But O&M is only an incomplete indicator, since the personnel and procurement titles also include war funding.

The budget shares of the Services during both periods after the Cold War are significantly more stable with regard to the annual changes as well as the amplitude of the shares. Especially between 1990 and 1998, the budget distribution remains virtually constant with the Navy and Air Force at about 35 percent and the Army at approximately 30 percent. Only FY 1991 varies from this pattern largely caused by the additional O&M funding for Desert Storm. The stability continued into the War on Terror until the Army shares started to rise by 2003. While the Air Force and the Navy lose relative to the Army, the differences between the former two remained marginal. When the war-related funding is taken out, which arguably explains most of the Army's relative growth, 57 the stability becomes even more striking. Excluding war funding, Kaplan (2005) argues that the budget distribution formula of 35 percent for the Navy, 35 percent for the Air Force and 30 percent for the Army was not varied by more than 1 percent during the time after the Cold War and far into the War on Terror.

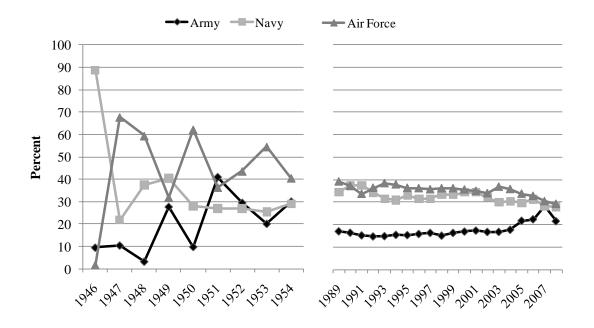


Chart 4.3: Service distribution of budget authority for acquisition (own calculations based on OSD 2008; 1995)

-

⁵⁷ Expressed in constant FY 2009 dollars, the Army's O&M funding increased from \$35 billion in FY 2001 to almost \$100 billion in FY 2007 (OSD 2008, 145-146). Other Army titles did not grow alike and the share of O&M in the total Army budget increased from 35 percent in FY 2001 to more than 42 percent in FY 2007.

The Service distribution of acquisition funding further underlines the identified pattern: The Service shares during the post-World War II periods are significantly more versatile than in later periods. The Air Force is in tendency the strongest gainer followed by the Navy. Given the Services' different reliance on complex weapon systems, this is an expected hierarchy. But the strong amplitude is in stark contrast to the stability after the Cold War. The distribution of acquisition funding remains almost unchanged until the occupations of Iraq and Afghanistan put more focus on ground force equipment.

(2) The distribution of the defense budget along major national security functions and major force programs provides additional evidence for qualitative changes. A shift in emphasis here can reveal innovative preparations for future war. Unfortunately, the indicator is problematic for two reasons. First, no data is available for the first period of transition. Second, the distribution of national security functions, which is available for the early 1950s, is not directly comparable to the major force programs, which the DOD uses since 1962. Major force programs organize the budget along aggregate force packages necessary for the fulfillment of a mission (Jones/McCaffery 2008, 97-102).⁵⁸ Hence, major force programs make the purpose of spending in terms of missions more evident, while for example the ratio between procurement and personnel is obfuscated. The Census Bureau's breakdown of the defense budget in major national security functions arguably comes closest to these program elements. While the national security functions are less systematically related to missions, they can reveal significant qualitative changes in funding which point at particular mission priorities.

⁵⁸ They include the force activity programs 'Strategic Forces', 'General Purpose Forces', 'Mobility Forces', and 'Guard & Reserve' and the support force programs such as 'Central Supply and Maintenance' or 'R&D'.

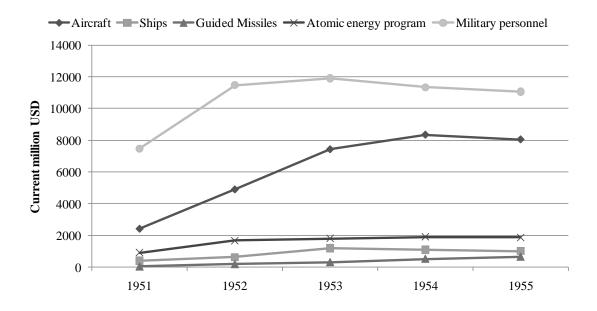


Chart 4.4: Federal expenditures on Major National Security Functions, FY 1951-1955 (based on U.S. Bureau of the Census 1956, 234)

The moderate emphasis on the Air Force during the early 1950s finds a clearer expression in the major national security functions. Besides personnel, particular emphasis is placed on aircraft funding, which most decisively increased after 1951. To be sure, the aircraft acquisition function includes Air Force and naval aviators alike, but it underlines a general trend to air power during the early 1950s. This indicates a growing emphasis on large ground forces combined with air power, enhanced by nuclear means, which follow in third place. Although funding for ships and guided missiles modestly increase during the transition, their relevance remained small.

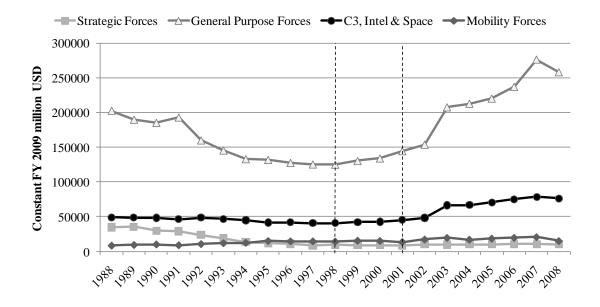


Chart 4.5: DOD budget for relevant Major Force Programs, FY 1988-2008 (OSD 2008)

There is hardly any change in the Service distribution after the Cold War. A closer look reveals, however, that the distribution of the budget was not as stable as the Service shares suggest. During the 1990s most savings were created from the Strategic Forces and General Purpose Forces programs. At the same time, the Mobility Forces program, including most of the transportation capabilities, slightly increased, although its share of the total budget was never more than 4 percent (own calculations based on OSD 2008). After 2001, the General Purpose Forces program was in turn the largest beneficiary of the additional defense dollars, whereas the Strategic Forces program, including funding for active strategic nuclear forces, remained small. Instead, the C3, Intel & Space program and the Special Ops Forces program benefited disproportionally from the buildup. While the funding for Special Ops remained below 2 percent of the overall budget, the C3, Intel & Space program reached a peak of more than 13 percent of the overall budget by FY 2006. These changes indicate at least a moderate change, which might point at a moderate innovation.

4.2. Military organization

4.2.1. Definition and description

Over the years, the US has established a huge organization to perform its military tasks. Although there are many definitions of organization, a rather narrow definition serves best here: "Organization is the process that provides a military activity with a methodical structure and then transforms the structure into full working order." (Skinner 1993, 2061) Military Services are strongly organized bodies from combat and service units at the bottom to administrative staff and commanders at the top. Organization defines thereby not only size and function of a unit but also its relation to other units and its position in its organizational environment. Furthermore, it assigns purpose and the way to accomplish that purpose. The most fundamental aspect of military organization is the supply of manpower, which fundamentally defines the scope, options, and organizational needs of a military force. Besides the overall personnel available to the Services, force structure is a central element of military organizations. It encompasses "numbers, size, and composition of the units that comprise US defense forces" (DOD 2001, 338; see also Brinkerhoff 1993, 978). In other words, force structure describes how the available resources are broken down into hierarchical and functional sub-units such as divisions, wings, carrier battle groups and the like. Together, personnel and force structure frame manpower procurement which "involves both devising an appropriate force structure and supplying the quantity and quality of manpower required, all to the end of making the armed forces effective instruments for national security." (Gerhardt 1971, xvi)⁵⁹ While full effectiveness of military organizations is not naturally given and arguably never reached, organization is considered a decisive criterion for the military potency of a force. Therefore, all elements of US defense organization are under constant scrutiny resulting in continuous and numerous adjustments and reforms (e.g. Kintner 1958).

⁵⁹ A third vital element of military organizations is the military superstructure which describes the organization of the military leadership and its ties to the civil principals. As the military superstructure is translating political purpose in military action, it is of particular importance for the effectiveness of the armed forces. A well organized leadership is crucial for civil-military relations and a smooth interaction of different branches. It is not analyzed here, due to its limited impact on the armed forces functioning in the field.

4.2.2. Evidence for innovation

As in the budget dimension, the overall active duty troop level provides no evidence for qualitative changes during the periods under investigation. ⁶⁰ Three indicators are used to identify innovation in the organizational dimension.

(1) It is again the Service distribution of personnel, which is more telling with regard to possible innovation. The pattern here largely resembles the budget distribution, although the differences are less striking. After strong relative changes during the 1940s, especially the immediate post-Cold War period is very stable. The Korean War period is clearly less significant than the preceding phase, but still stronger than both post-Cold War periods. During the post-World War II periods, the Air Force initially experienced the largest growth, underlining the turn to air power. But with the Korean War, the Army expanded far more strongly than the other branches. Again, the Navy is the most stable Service.

		Average	Lowest (Year)	Highest (Year)	Range
		share			(hi-lo)
1945-1949	Army	43.93%	38.34% (1948)	49.64% (1945)	11.3
	Navy	34.84%	37.49% (1946)	31.44% (1945)	6.05
	Air Force	21.23%	15.07% (1946)	26.85% (1948)	11.78
1950-1953	Army	43.71%	40.64 (1950)	47.14% (1951)	6.49
	Navy	29.55%	28.62% (1951)	31.19% (1950)	2.57
	Air Force	26.74%	24.25% (1951)	28.17% (1950)	3.92
1989-1998	Army	33.16%	31.92% (1996)	35.03% (1990)	3.1
	Navy	37.75%	35.86% (1989)	38.76% (1993)	2.9
	Air Force	25.17%	24.6% (1991)	25.39% (1994)	0.78
2001-2008	Army	34.28%	32.95% (2002)	36.91% (2008)	3.96
	Navy	36.96%	36.02% (2008)	37.97% (2001)	1.95
	Air Force	24.1%	22.18% (2008)	25.23% (2004)	3.05

Table 4.1: Service shares of personnel in comparison (own calculations based on OSD 2008; 1995)⁶¹

⁻

⁶⁰ There is a strong trend to reduce personnel since the 1970s, however, which arguably reflects the qualitative decision to increasingly replace manpower by advanced technologies (data in OSD 2008).

(2) Since forward deployment requires different means and preparations than longdistance force projection, the geographical distribution of military personnel is an interesting measure. The major distinction is the number of troops stationed abroad and at home.

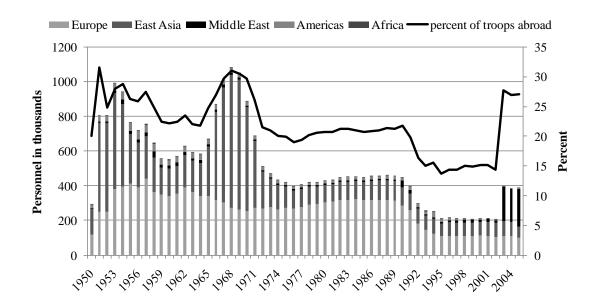


Chart 4.6: US troops abroad in thousands and as percentage of total US troops (Kane 2006)

The geographic pattern shows that both demobilizations are accompanied by a strong reduction of personnel abroad. In contrast, especially the early 1950s are marked by a significant buildup of forces in East Asia and Europe. While the deployments to East Asia are closely related to the war efforts, the buildup of European forces constitutes a significant innovation for US military policy and remained a constant feature for the rest of the Cold War. After the Cold War the forward deployments especially in Europe were sharply reduced to a level even below the post-World War II period. The hike in the deployment to the Middle East after 2003 is closely related to the Iraq war and only of temporary nature.

(3) While the overall force structure strongly follows the dynamics in personnel and reveals little with regard to qualitative changes, the relative emphasis of different components within a Service can indicate further changes. In fact, force structure is considered a good indicator with regard to the real capabilities of a military force,

⁶¹ Budget authority for defense wide allocations was excluded.

because it places the forces in the context of their functions and equipment (CBO 1993, 5).⁶²

The force structure patterns reveal only some modest changes during all periods of transition, however. For the periods after World War II, only two noteworthy changes occurred with regard to force structure: first, while the regular Army organization hardly changed, 63 a significant buildup of reserve components followed after the war and by 1949, the reserve components were three times larger than prior to the war, together reaching almost 900,000 (Doubler 2003, 192, 249; Crossland/Currie 1984, 296-297).⁶⁴ During the subsequent buildup, the reserve forces decreased, since many of its members were called to active duty. But after the Korean War, the Army reserve was again extended to more than 1.3 million by 1954. A second change, which spanned across both periods after 1945, occurred with regard to the Navy's force structure. The Navy put weight on aircraft carriers whereas the battleship almost completely disappeared (Polmar 2001, 629). By the end of FY 1945, the fleet included 20 major aircraft carriers and 25 battleships. In 1953, the situation had significantly changed and only 4 battleships were still in commission whereas the fleet was organized around 17 aircraft carriers. In contrast to these changes, the Air Force's force structure remained largely stable. The ratio between fighter and bomber wings was hardly altered during both post-World War II periods (Air Force Historical Research Agency 2010).

After the Cold War, the Army and Navy underwent significant changes. During the 1990s, the Army got lighter in relative terms, since many of the heavy divisions were deactivated or moved to the reserve (Perry 1995). And by 2003, the division as the major building block was replaced by the smaller brigade (Feickert 2007). The new brigades gained organic command and reconnaissance units to increase their autonomy,

⁶² Data on force structure developments can be found in Cohen (1998) and Perry (1995). For the Navy see Saunders (2007, 873; 2001, 788), Labs (2006, 2), Polmar (2001, 629), Jones, W. (1999, 349) and Sharpe (1991, 710). For the Army see Feickert (2007), Millett/Maslowski (1984, 491) and Taylor (1959, 14). A particular problem for a comparison over time is the changing arrangements of force structure elements. For example, the Air Force repeatedly changed the number of bombers attached or the number of squadrons assigned to a wing. Thus, a smaller force structure on a higher level may conceal more or less personnel and equipment on a lower level. Only few sources offset for these difficulties and provide a reliable long-term account. Thus, the Air Force Historical Research Agency (2010) has developed a database to specifically analyze changes in the Air Force's force structure over time. O'Rourke (2009a, 38) provides a database on the total number of the Navy's battle force ships.

⁶³ Divisions got slightly heavier after World War II, including more mechanized and armored components, but the relation between armored, airborne, and infantry divisions remained roughly the same (Wilson 1998, 207-256).

⁶⁴ The other Services also built up reserve components, but the increases were most significant for the Army.

which significantly changed the Army's organizational options in operations. For the Navy, only a moderate relative reduction of its submarine fleet is evident during the 1990s (Polmar 2001, 629). But the Navy significant reorganized its forces after 2002 (Labs 2006, 1-3). Its previously 19 strike groups were reorganized in 37 strike groups, consisting of 12 carrier strike groups, 11 expeditionary strike groups, 9 surface action groups, and 4 single guided missile submarine strike forces. This larger force structure allowed the Navy to spread capabilities over a larger area. Furthermore, while the carrier groups became smaller, including only 3 rather than 6 surface combatants, the Navy's amphibious component and thus its expeditionary ability became much more robust. Amphibious ships, which previously operated without support of surface combatants, were integrated in expeditionary strike groups each including 3 surface combatants and an attack submarine. The Air Force reveals again the least changes in both periods. The fighter wings continuously outnumbered the bomber wings, although the ratio moved from approximately 2 to 1 in 1990 to more than 3 to 1 during all years after 1995 (Air Force Historical Research Agency 2010).

4.3. Weapons acquisition

4.3.1. Definition and description

The state's defense acquisition which includes all "activities to provide military capabilities for the defense of the nation" (Chadwick 2007, Summary) is a central aspect of military policy (Fox 1988). It involves the conception, research, development, evaluation and procurement of weapons and equipment (Peck/Scherer 1962, 3). Especially the acquisition of major weapons system⁶⁵ accounts for a strong part of the overall defense acquisition budget. These large acquisition projects can last for many years and have often far-reaching consequences for the armed forces and the national force posture.

⁶⁵ The DOD (2001) defines a weapon system as a "combination of one or more weapons with all related equipment, materials, services, personnel, and means of delivery and deployment (if applicable) required for self-sufficiency." Yet, Ehrhard (2000, 5) convincingly argues that the term has "achieved a generic meaning beyond whether or not the platform bombs, shoots, or otherwise delivers lethal force, and has come to encompass any large, expensive combat platform."

According to McNaugher (1989, 3-12; 1987, 65, 102), weapons acquisition can be seen from a technical, a military and a political perspective which overlap at times. ⁶⁶ For weapon producers, which are usually private companies, the development and production of sophisticated weaponry is first of all a technical challenge. ⁶⁷ From a military perspective, the goal of acquisition is the improvement or extension of capabilities. Thus, for military planners the major challenge is the development and procurement of systems which meet anticipated requirements or deficiencies with regard to the accomplishment of missions. In this context, competing outlooks on the most effective ways to provide national security, e.g. whether to focus on quantity or quality, are closely related to weapons acquisition (McNaugher 1987, 64). Limited resources and rising unit costs often demand decisions on either better quality or larger quantities (Reppy 1980, 166). These technical and military tasks are embedded in a political process, which directs public money to contribute to the national security.

A quantitative comparison of acquisition funding shows that the procurement appropriations title is the most heavily affected during military transitions (OSD 2008; 1995; Korb 1993). Thus, little equipment is procured during periods of little funding. This seems self-evident and is what one would expect from the terms 'builddown' and 'buildup' respectively. More interesting is the R&D account's long-term developments. Until the early 1950s, R&D followed the procurement account: It sharply dropped after World War II and grew again during the early 1950s. But it departed from the procurement account after the Truman buildup ended in 1953 and grew steadily over time. Even when the budget dropped after the Cold War, the R&D account was "locked in time" for most of the 1990s (Leebaert 2003, 615). The Global War on Terror resulted in a renewed increase in R&D spending after 2001. This is in line with the generally observation that technology increasingly replaces personnel, a trend which is not limited to periods of transition, however.

⁶⁶ Weapon acquisition programs contain a numerous uncertainties, which make those projects a difficult task with often unexpected outcomes (Peck/Scherer 1968; Klein 1968).

⁶⁷ One may add that weapons acquisition is also an organizational problem, since the DOD, the prime contractor and usually many subcontractors have to work in sync. To achieve effective program planning and implementation, the acquisition structure consists of complex arrangements and processes. Since this study is concerned with the weapons acquisition input and outcome, defense acquisition structure, process and its reforms over time are considered only in cases where this is necessary background.

4.3.2. Evidence for innovation

Important contributions to the research on military innovation have used the acquisition of specific systems to test their assumptions (e.g. Sapolsky 1972; Armacost 1969). And many studies have provided highly valuable insights on the acquisition process by focusing on a limited number of weapon programs or different phases of it (e.g. Else 2008; Peck/Scherer 1962; Marshall/Meckling 1959). But a micro description of acquisition activities at program level seems unsuitable for a diachronic comparison of periods of transition. It provides only few additional insights while adding unnecessary length and complexity. Hence, a comparison of weapons acquisition at a more aggregate level is a more plausible but also a more difficult task. Since the quality and purpose of weapons systems differ greatly, their qualitative or quantitative comparison is always at risk of becoming meaningless. An analysis of weapon programs based on their number, duration or costs is hardly a more promising approach. Each program has its own history and clear start and end points often cannot be identified, as statistical information is fragmentary (Peck/Scherer 1962, 6). Furthermore, many programs reach into or even across the periods under investigation. Thus, the number of programs started during a period says relatively little on the acquisition activities in it. Therefore, the analysis resorts to a qualitative description of the main acquisition trends at a medium level. The central criteria for the assessment are whether acquisitions during the transition followed existing trends or changed their focus significantly and whether the Services embraced new technologies or remained largely focused on narrow tracks.

Post-World War II period

Weapons acquisition has been a permanent aspect of US state activity throughout its history, but the size and prominence of acquisition as a political and military problem has increased over the years (Jones, W. 1999; Bair 1994). Until World War II neither the public nor its representatives in Congress devoted significant attention to the acquisition of weapons except for times of military crises. The resulting system was based on a small peace-time militia and ad hoc solutions in the face of war. This changed only after World War II when a permanent, although initially small acquisition structure became a crucial part of the US military establishment. During the war, the US had become the "great arsenal of democracy" (Roosevelt 1940) with its industry

producing massive amounts of military equipment. Moreover, its scientists achieved the most significant weapon breakthrough of the war: the atomic bomb, "a weapon of unparalleled power that would not only revolutionize war but could alter the course of history and civilization." (Cagle 1964, 2) Together with other wartime inventions, including the German jet engine and rocket technology and American radar technology, the bomb had strongly affected the war's outcome and provided a broad foundation for weapons acquisition after the war (Campbell 1947, 36). While postwar demobilization was imperative and strongly hit procurement and R&D, there was widespread agreement that the technological edge should be maintained through at least some military acquisition.

Against this backdrop, the immediate post-World War II period was characterized by an evident willingness to exploit new technologies and push into new areas despite fiscal limitations. New York Times journalist Hanson W. Baldwin (1951b) describes the immediate postwar period in strong words: "We are passing through a period of technological revolution in warfare." Aviation became the major theme of the immediate postwar period. The Air Force pushed for bombers with increased range, load and speed for strategic bombing early on. After some initial confusion with regard to the future of atomic bombs, the bomber acquisition gained additional weight by its relevance for nuclear bombing after 1948, although the control over nuclear acquisition had been moved to the civil Atomic Energy Commission (AEC) two years earlier. As the initially only means to deliver nuclear ordnance, heavy bombers and supporting platforms advanced to the first and most prominent pillar of postwar acquisition.⁶⁸ By 1948, the Air Force still relied on about 35 modified B-29s to deliver nuclear bombs (Rosenberg 1978, 255). Yet, the bomber, which had dropped the first atomic bombs over Japan, had limited range and load capacity and the Air Force pushed for the B-36 Peacemaker, an intercontinental aircraft capable of carrying the heavy first generation nuclear bombs (Knaack 1988). Moreover, the jet bombers B-45 Tornado and B-47 Stratojet were in the acquisition process, the latter to replace an advanced version of the B-29.⁶⁹ By 1950, the number of nuclear capable airplanes at the Strategic Air

⁶⁸ The following discussion of weapon systems draws from various descriptions on the Global Security (2010) and FAS (2010) webpages.

⁶⁹ The advanced version of the B-29 was designated B-50 and completed the first non-stop flight around the world in 1949. The plane was refueled four times during its flight, proofing the potential of aerial refueling.

Command's (SAC) disposal reached 300 (Jones, W. 1999, 334). And plans to replace the B-36, which encountered numerous performance problems, with the B-52 Stratofortress during the 1950s were already under way. Since air superiority was crucial for strategic air operations, the Air Force also improved its fighter air fleet by introducing jet engines (Knaack 1978). After the F-80 Fighting Star, the Army Air Force's first jet fighter, joint the air fleet soon after the war, the F-84⁷¹ Thunderjet and F-86 Sabre followed by the late 1940s (Alach 2008, 9). Yet, due to limited funding, the conversion to jet aircrafts made only slow progress prior to 1950.

The Air Force's efforts in manned aviation were complemented by the Navy, which also focused – besides anti-submarine warfare⁷² – on bombing capabilities. By the end of the war, the aircraft carrier had replaced the battleship as the fleet's capital ship and the admirals sought to further build up aviation capabilities. The Navy therefore developed the heavy bomber AJ Savage, the first carrier-based bomber able to deliver large conventional and nuclear bombs, after 1946. Yet, its most important postwar program, the next generation supercarrier, capable of deploying heavy airplanes in numbers, suffered a major setback when construction was canceled for lack of funding in 1949.

The development of missiles became a second major pillar of early postwar weapons acquisition. While the first US steps in missile development during the war produced only insufficient results, the German rocket technology inspired all Services to press ahead with missile development (Neufeld 1990, 2). Since the feasibility of ballistic missiles was uncertain and only seen as a long-term prospect, most early missile developments focused on cruise missiles. By the war's end, the armed forces had already 19 different guided missile projects in progress and extended the number to 47

⁷⁰ Despite the development activity, the Air Force fell short of its desired aircraft procurement. In fact, the Air Force considered an annual procurement of 3,000 planes as necessary in order to establish 70 air groups and to maintain the industrial base for aviation. Yet, the budget authority in FY 1946 allowed only for the purchase of 662 planes, including 60 upgraded B-50 and 141 F-84. The number increased slightly to 769 aircraft in FY 1947, including the purchase of 33 new F-86 Sabrejets. In FY 1948, the Air Force requested funds for 1,844 aircraft and received enough to purchase 965 planes in the end.

⁷¹ The plane was originally designated P-84. 'P' was the type prefix for aircrafts with the basic mission 'Pursuit' until a new designation system was established in the course of the Air Force independence. In 1948, 'P' and 'A' (Attack & light bombardment) designations were replaced by 'F' for 'Fighter' (Andrade 1979, 6).

⁷² Anti-submarine warfare was regarded a vital aspect of a future East-West confrontation. The Red Army had captured some advanced German submarines by the end of the war and there were concerns that an exploitation of these technologies could jeopardize the US high sea dominance (Rosenberg 1978, 250). Navy intelligence predicted that by the 1960s it was possible for the Soviet Navy to have up to 2,000 submarines of all types (Polmar/Moore 2004, 14). Therefore, the Navy started a major program to improve anti-submarine warfare.

by mid-1946 (Werrell 1985, 81; Cagle 1964, 13). The small budgets caused a sharp subsequent reduction by the decade's end, but missile development remained a vivid domain. By 1950, the Air Force had three surface-to-surface cruise missiles in development: The subsonic medium-range Matador, intercontinental Snark and the supersonic intercontinental Navaho (Neufeld 1990, 37). The Navy placed most of its hopes in the submarine-launched Regulus missile, which strongly equaled the Air Force's Matador. The Army was developing the Corporal and Hermes A-3 for tactical surface-to-surface fire and was in the early stages of a ballistic medium-range missile, later called Redstone. Besides the surface-to-surface missiles, surface-to-air systems, such as the Army's Nike and the Navy's Terrier, air-to-air systems, such as the Air Force's Falcon, and air-to surface systems, such as the Air Force's Rascal, were in development.

Korean War period

Despite the ambitious efforts, the budget ceilings limited real progress during the late 1940s. This changed with the Soviet Union's detonation of a nuclear device in 1949, NSC-68 and especially the outbreak of the Korean War in 1950. After a year of preparations and slow growth, the production of weapon systems expanded significantly in 1952. Aircraft production reached a rate of 800 planes a month by July 1952 and even 1000 a month by January 1953 (Vawter 1983, 23). During the war's first year, the Navy expanded its fleet by almost two thirds to a total of 1,100 ships, including the reactivation of over 300 mothballed ships. By 1952, more than 100 shipyards were at work and numerous ships entered the fleet during the 1950s (Vawter 1983, 23). A crucial step for the Navy was the construction of the USS Forrestal, the lead ship of a class of scaled-down versions of the previously canceled supercarrier (Jones, W. 1999, 342-343; Allard 1984, 300-301; Kennedy 1984, 305-306). Yet, the acquisition process of the early 1950s was not only harvesting the developments of preceding years. Rather, the prospect of a war with the Soviet Union and the Korean War promoted a broad development activity and the 1950s "became an especially creative period in the exploration of military technology." (McNaugher 1989, 18; see also Cagle 1964, 14)

⁷³ Since ICBMs proved more promising, the Snark and Navaho programs were canceled for obsolescence in the late 1950s.

Nuclear technology increasingly found its way into many areas of the weapon arsenals. Already in January 1950, Truman ordered the development of thermonuclear capabilities, the construction of a facility for increased production of A-bomb and Hbomb material, and a push for the development of tactical nuclear weapons (Feaver 1992, 128). The first successful thermonuclear bomb explosion test MIKE was achieved less than three years later on October 31, 1952 (Condit 1988, 480).74 Already five months prior to this breakthrough, the Army announced that it was developing the first atomic howitzer to deliver tactical nuclear shells (Dougthy 1979, 13). The 280mm howitzer had been under development since World War II but did not come into existence until the early 1950s. As the production of comparatively light and small atomic shells became possible due to progress in nuclear technology, the Army gained tactical nuclear striking power.⁷⁵ Thus, with the Navy's new capability in nuclear bombing based on the new aircraft carriers and the delivery of the atomic-capable AJ-1 Savages, all three Services acquired means to deliver nuclear warheads by the early 1950s. Moreover, the Navy launched the USS Nautilus, the first nuclear-powered submarine, after three years of construction in 1954.⁷⁶

Lessons from the Korean War further spurred the development of conventional means. Initial success of the Russian T34 tanks led to a new emphasis on tank development within the US Army. The light M41 Walker Bulldog, the medium M47 Patton and M48 Patton II were all developed in the early 1950s. TEspecially the M48 was based on a completely new design and therefore constituted a significant progress in tank development. In addition, the Air Force rapidly expanded its fighter capabilities to match the Soviet type MiG-15 fighters. It launched the F-104 Starfighter, a new design, and the F-100 Super Sabre, succeeding the F-86, during the early 1950s. By 1955, all

⁷⁴ The USSR accomplished its first thermonuclear explosion in August 1953.

⁷⁵ The atomic howitzer constituted the first Army nuclear capabilities together with the Corporal surface-to-surface missile system which was approved as the Army's first atomic weapon carrier already in 1950 and the later Honest John rocket system (Midgley 1986, 13). Although the atomic howitzer was already obsolescent for the Army needs when it introduced and overall only 10 systems were deployed, it constituted an important prestige project and provided the Army with a continuous access to atomic materials.

⁷⁶ The USS Nautilus cleared the way for the nuclear-powered Skipjack-class submarines authorized in 1956. The first nuclear powered surface ship was the guided missile cruiser USS Long Beach in 1955. The USS Enterprise became the first nuclear-powered carrier and entered the fleet in 1961 (Jones, W. 1999, 342-343).

⁷⁷ For a description of the development of armored transport vehicles see Haworth (1999, 21-28).
⁷⁸ Although the acquisition process of the F-104 was fast, the new aircraft was not employed earlier than three years after the war in 1956. It was soon succeeded by the F-4 Phantom for which planning started in 1953. The Phantom entered service in 1961 (Alach 2008, 9).

fighter aircrafts in the regular Air Force were jets (Jones, W. 1999, 340). In 1954, the Air Force started preparations for the B-70, a new bomber to succeed the B-52. The Navy initiated new construction programs including the Dealey class antisubmarine destroyers and the Forrest Sherman class destroyers, which succeeded the experimental Mitscher class of the late 1940s. Finally, the additional funding and the prospect of a nuclear showdown clearly accelerated missile development. Under Eisenhower especially anti-air systems as part of an emerging continental defense system gained importance. Thus, the Army launched the surface-to-air program Hawk in 1952 in addition to its Nike system. Furthermore, while still in the early stages, the development of ballistic missiles became more dynamic. Since 1950, the Army undertook more serious efforts to develop the medium-range Redstone missile. The same is true for the Air Force's ICBM Atlas program which was accelerated in 1954 after it had languished for eight years.

Post-Cold War period

The end of the Cold War arguably resembled many characteristics of the post-World War II situation with regard to weapons acquisition. Again, the procurement accounts dropped sharply. And technological inventions, which were developed during the long Cold War, became available by its end. Thus, technologies from the offset strategy of the 1970s had reached maturity and proved their significance during the superior performance of US forces in the Gulf War 1991.⁷⁹ Not unlike the situation after the atomic attack on Japan, many defense experts argued that Desert Storm marked a watershed in the conduct of warfare and a starting point for a strongly altered US force. The concept of Revolution in Military Affairs (RMA) reflected this belief in a new age of warfare (Tomes 2009; Van Atta et al. 2003).⁸⁰ Andrew Krepinevich, one of the

-

⁷⁹ The offset strategy sought to develop weapons systems based on latest technologies to offset for the quantitative superiority of the Red Army in a battle for Europe (Tomes 2009). Central initiatives were the development of stealth aircraft, the assault breaker program, and advanced battlefield intelligence. The latter aimed at stopping a Soviet attack by a combination of command, control, intelligence systems, advanced communications and precision-guided weapons. The offset strategy was a shift away from the sole reliance on nuclear weapons towards technology-based conventional superiority.

⁸⁰ The intellectual foundations for the RMA concept were laid by the Office of Net Assessment (ONA) and its notorious director Andrew W. Marshall. ONA was established in 1973 to provide assessments of the Soviet threat and strategic analysis. Marshall had directed the ONA since its establishment and achieved an almost mythical reputation as gray eminence of defense. Der Derian (2001, 28) refers to Marshall as "officially known as the director of the Office of Net Assessment, but unofficially, "St. Andrew", the Yoda of the so-called Revolution in Military Affairs." Initially, the ONA adapted a concept

concept's early advocates, defined it as follows: "It is what occurs when the application of new technology into a significant number of military systems combines with innovative operational concepts and organizational adaption in a way that fundamentally alters the character and conduct of war." (Krepinevich 1994, 30) Hence, the realization of a RMA causes not only short-term predominance over an immediate opponent, but the revolutionized capabilities become "the necessary foundation for any future military activities in that area of conflict." (Galdi 1995, 2) In this reading, inventions in command and control, communications, computers, intelligence, surveillance, reconnaissance (C⁴ISR), stealth, and precision technologies were not only decisive for the overwhelming victory in Iraq, but offered a preview on a new quality in warfare. Desert Storm marked the "the rise of information over mass." (Friedman 2009, 73) The interplay of advanced ISR capabilities with better data processing and communication would allow connecting platforms to a system-of-systems multiplying the individual systems' battlespace knowledge and thus lifting the fog of war (Owens 2000). Long-range precision weapon systems would enable the armed forces to make best use of this information superiority by hitting the opponent with maximum efficiency and minimal risk.

Given the RMA vision and the strategic pause after the Cold War, there was an incentive to modernize – maybe even revolutionize – the US weapon systems. But the decreasing budgets made a separation effort necessary: Start or keep next-generation programs and sort out so-called legacy programs, i.e. programs designed for deployment in a Cold War environment without further strategic relevance. Moreover, only a clear commitment to revolutionary programs rather than the evolutionary modernization programs would allow for the realization of a RMA.

from Russian military experts who had referred to the US progress in military technology after the Vietnam War as "military-technical revolution" (Krepinevich 1992). To deemphasize the importance of technology over other aspects of warfare, the ONA used the term 'Revolution in Military Affairs'. Since 1989, the ONA was advocating the advent of a revolution in warfare inside and outside the Pentagon. Despite some conceptual vagueness and disagreement, military experts quickly picked up the RMA or aspects of it after the Iraq War (e.g. Morgan 2000; Gongora/Riekhoff 2000; McIntyre 1999; Hundley 1999; Blaker 1997a; Pfaltzgraff/Shultz 1997; Arquilla/Ronfeldt 1997; FitzSimonds/Van Tol 1994). They searched for historical analogies to gain a better understanding of revolutionary developments in warfare and credibility for the concept (Murray/Knox 2001; Murray 1997; Krepinevich, 1994). This historical turn linked the RMA debate to a debate among historians on military revolutions (Parker 1996; Roberts 1995; for a critique see Lynn 2001). RMA soon became a buzzword in post-Cold War discussions over the future course of the US armed forces. In fact, the RMA concept became so popular among defense analysts that O'Hanlon (1998) warned of an "RMA'nia."

Indeed, some strategic and conventional programs were reduced or terminated. Thus, funding for nuclear forces, including modernization programs, was reduced by 40 percent from 1990 to 2000 (Mosher 2001). And the strategic missile defense, going back to Reagan's Strategic Defense Initiative (SDI), suffered severe budget cuts. With a reduced need for nuclear delivery means, the procurement of the B-2 strategic stealth bomber was successively reduced from an initial 132 bombers in 1987 to a total of 21 bombers including a test plane in 1992 (Alic 2007, 3). And the Navy's SSN-21 Seawolf attack submarine, designed to chase Soviet ballistic submarines, was terminated after the construction of only three vessels. Moreover, the airplane acquisition was streamlined. Thus, the Navy's F-14 production was selected to phase out and the development of its A-12 stealth plane was canceled. The Air Force's multi-role fighter program, which was to replace the F-16 after 2015, shared the latter's fate.

But while the termination wave hit some programs, it did not bring about a new course in acquisition. Major Cold War programs with a decisive impact on the shrinking budgets were continued, constituting some modernization but no real turn to RMA thinking. Thus, the Army's RAH-66 Comanche, a stealth helicopter largely designed for reconnaissance missions, and the Advanced Field Artillery System Crusader were maintained (Morrison 1994, 2130). The Navy continued construction of its Arleigh Burke-class destroyers and the 8th and 9th Nimitz-class aircraft carriers as well as the development of the F-18E/F and the Marine Corps' V-22 tilt-roter aircraft. The Air Force's most prestigious project, the F-22 Raptor, also remained in the acquisition process. Indeed, even the central new programs showed little RMA thinking. The Virginia-class submarines and the F-35 Joint Strike Fighter (JSF)⁸² did not depart from prior patterns in terms of operational scope and platform complexity. A RMA-inspired departure from prior acquisition trends largely failed. Although the Services conducted studies and projects, such as the Air Force 2025 study and the Army's Force XXI project, to improve their understanding of the effect of information technologies on

⁸¹ The A/F-X program, which the Navy launched to replace the A-12, was terminated only two years later (Scarborough 1993).

⁸² The Joint Strike Fighter program resulted from the joint advanced strike technology program which was launched early in the first Clinton term. The program, which entered the final contract bidding round in 1996 (Goldreich 1996), should acquire a relatively cheap next-generation fighters to amend the Navy's F/A-18 fleet and replace the Air Force's A-10 and F-16 and the Marine Corps' AV-8B and F/A-18. Initial planning aimed at more than 3000 planes including 60 for Britain's Royal Navy (Gertler 2009, 8). While the F-35 Strike Fighter was to be delivered in three different versions reflecting branch specific requirements, central elements were developed in a joint effort to save costs and avoid unnecessary duplications.

future warfare, the impact on weapons acquisition was small.⁸³ Innovative systems favored by RMA proponents, such as unmanned aerial vehicles (UAV) or the Arsenal Ship, made only slow progress or no progress at all.⁸⁴

Global War on Terror period

By the century's turn, many observers argued that the procurement holiday under the Clinton administration had to end. They warned that the equipment largely purchased during the Reagan buildup was worn out and ripe for replacement (O'Hanlon 2002).

Selected Weapon Systems		Number in service	Average age in years	
Air Force	A-10	368	21	
	B-1 B	93	17	
	B-52 H	94	38	
	F-15 C / F-15 D	403	16	
	F-15 E	201	9	
	F-16 C/D	1428	7-20	
Navy	AV-8	170	9	
	F-14 A	136	19	
	F-14 D	46	12	

Table 4.2: Average age of selected aircraft by 1999 (Freeberg 1999, 3549)

⁸³ The Air Force 2025 study aimed at defining the Air Force's future requirements based on various operational scenarios (Tirpak 1996) Force XXI was an Army force design project to develop a more flexible, lethal, sustainable, and fast Army by the first decade of the 21st Century. While Force XXI also touched doctrine and organizational structure, its emphasis rested clearly on the exploitation of information and communication technology within the existing force (Rose et al. 1997). The Force XXI program, which promised incremental adaption of new information technology rather than revolutionary change, was unsatisfying from a RMA perspective (Jackson 2009, 47-48). While Force XXI had some impact on Army transformation after 2000, a substantial reorientation in the Pentagon's acquisition did not materialize: "There was minimal adaptation to the electronic age – tailoring task forces, recasting US military power into new joint forces, and calibrating war plans minute by minute instead of just adopting electronics for traditional force structures." (Leebaert 2003, 614)

⁸⁴ The arguably most progress was achieved with regard to precision guided munitions (PGM). After Desert Storm, the Air Force sought to increase the share of precision guided munitions for future conflicts. Although PGMs amounted to only 10 percent of the total munitions used in the Gulf War, they accounted for 60 percent of the reported target damage (Weiner 2009, 103). Therefore, the Joint Direct Attack Munitions (JDAM) program was started (Burbach et al. 2009, 27-28). The program aimed at providing a comparatively cheap upgrade, turning dumb bombs into all-weather PGMs for Air Force and Navy flyers. JDAMs made their first successful appearance in the air war against Serbia in 1999.

The increasing O&M costs for running older systems combined with the expected cost growth for the procurement of numerous new platforms threatened to cause a "so-called death spiral of procurement." (Wilson 2000a, 56) Thus, besides a new priority on an accelerated deployment of a national missile defense system, state actors had the difficult task to strike a balance between short-term maintenance and replacement of the aging equipment.

Yet, instead of continuing modernization along the patterns of the 1990s, military transformation became the new defense vision by 2001.85 Transformation was defined as "a process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations that exploit our nation's advantages and protect against our asymmetric vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world." (DOD 2003a, 3; DOA 2003, 2) Network Centric Warfare (NCW) became the dominant supporting concept for guiding weapons acquisition for transformation. Initially developed by the Navy, NCW was soon considered the military's general response to the information age (Office of Force Transformation 2005, 3). Closely related to the system-of-systems approach, it holds that the harnessing of advanced ISR capabilities would allow for a shift from platform-centric to network-centric operations, thereby greatly enhancing combat power. NCW postulates the departure from attrition engagements to maneuver warfare based on almost real-time synchronization of information leading to information superiority and dominant battlespace knowledge (Cebrowski/Garstka 1998). Static, massive fire-heavy platforms and troop concentrations on the ground should be replaced by light, mobile and increasingly unmanned units contributing information to the network. Overall, the complexity should be shifted from highly sophisticated multi-purpose legacy platforms to the network as a whole, from the single nods to the web (Dombrowski/Gholz 2006, 9-12).

⁸⁵ The term 'transformation' had already been used during the 1990s to describe the process leading to a RMA (e.g. Krepinevich 1992; National Defense Panel 1997a). But it was not only a new emphasis on the process dimension, which led to the sole use of transformation after 2001. As the extensive debates over RMA during the 1990s had yielded little substantial defense reform, the term was worn out. Buchan (2000, 143) arguably reflected the experts mood at the time by reasoning: "In an important sense, it probably should not matter too much whether a particular set of technical and operational innovations are 'revolutionary' or not: good ideas should be of interest however they are labeled." Blaker (2007, 16) goes further, claiming that 'revolution' had too many unwanted connotations such as radicalism and lack of control. Transformation indicates less creative destruction than RMA.

This network approach promises numerous advantages: First, a reduction in the risk of one's own forces, since "troops would be wrapped in a protective layer of information dominance." (Tomes 2009, 167) Second, the whole force would become more robust, as the destruction of one nod could easily be compensated by other nods within the network. The underlying logic is roughly comparable to a shoal of fish, which is more flexible and harder to catch than a few big fish. Third, the force would become more lethal, as each nod would have access not only to the platform inherent capabilities, but also the capabilities of the whole network. Thus, the lost fire power on the ground would be compensated by precise, long-distance strike capabilities from airplanes and ships, which could exploit the information from the field for asymmetric attacks. The related concept of effect-based operations describes the ideal translation of the information advantage into an efficient use of force. Rather than destroying the adversary's flesh and muscles in an attrition effort, effect-based operations aim at destroying his nerve center, the so-called center of gravity, with precise strikes. For this purpose, NCW demanded improved capabilities in the fields of long-range precision fire and stealth technologies (Blaker 2007, 120-121; Ricks 2001d).

As the budgets started to rise after 9/11, transformation became possible. But only the Army acquisition program experienced a significant departure from prior patterns. The Army's Crusader and Comanche programs, which had survived the 1990s, were terminated early into the new century. Instead, the Army fully focused on two major transformation programs which it had launched in 1999. With the medium-weight, Interim Armed Vehicle, named Stryker in 2002, the Army tried to strike a good balance between requirements for high mobility and operational sustainability and lethality. While the Stryker's transformational quality was questioned, the Army's second new platform, the Future Combat System (FCS), clearly met the requirements of NCW. It was planned to become the center of the Army's transformed force replacing central systems such as the M1 Abrams and the M2 Bradley (Dunn 2002). Rather than a complex platform, the FCS was designed as a system of systems, consisting of up to 18 light, interacting modules, including manned and unmanned, aerial and ground components.

The other Services continued to modernize their forces largely along conventional patterns. The Navy continued to put most resources in the acquisition of the V-22, the F-18E/F, the Arleigh Burke-class destroyers and the Virginia-class submarines.

Additionally, the 10th Nimitz-class carrier was ordered in January 2001, weeks before the 9th carrier was launched and a year after the development of the new, but hardly revolutionary Gerald-R.-Ford-class carrier was initiated. 86 Of the Navy's two new major programs with substantive innovative potential only one can be considered a success with some relevance for transformation. The development of the DDG-1000 Zumwaltclass destroyer program, a remnant of the Navy's broad and ambitious Future Surface Combatant Program DD-21 of the late 1990s, became a failure. Because of its advanced stealth characteristics and electronics as well as massive fire power for ground support, the Navy placed the Zumwalt-class in the NCW context. Yet, due to growing costs and technological difficulties, the procurement was ended after only 3 ships in 2008 (Kaeser/Cordesman 2008, 18-19; Drew 2009b). While the acquisition of littoral combat ships, arguably the Navy's most transformational system, was not without difficulties, it proved more successful. But the flexible and small high-tech ship, based on the model of high-speed commercial ferries, turned out larger and less innovative than hoped for. The Air Force acquisition experienced the least changes. Although the procurement numbers were reduced, the F-22, which gained additional ground attack capabilities in 2002, and the JSF tied the largest part of its acquisition budget. Only the acquisition of UAVs is indeed a significant departure from prior pattern. Since the war on terror started in 2001, Air Force and CIA drones have been heavily used for surveillance and reconnaissance as well as hunt and kill missions (Drew 2009a; Schmitt 2003).87 The other Services soon joined the efforts and developed their own UAVs as well as unmanned ground and underwater vehicles. Yet, while funding for UAV's substantially increased after 2002, the major manned weapon system programs continued to clearly dominate the acquisition budgets.

In sum, the overall stability of acquisition after the Cold War is, except for a few noteworthy innovations, quite striking. Although alternative visions of future warfare were available through the RMA and transformation debates, the lion's share of acquisition resources during the 1990s and the GWOT went to a limited number of permanent programs. In the 1980s, Augustine (1986, 111), looking at the US aircraft acquisition since 1910, drafted the well-known law indicating that the number of

⁸⁶ The Navy estimates the overall acquisition costs for the CVN-78, the first Ford class carrier, at over \$13.7 billion. Yet, the CBO expects a cost overrun of at least \$1 billion (Kaeser/Cordesman 2008, 15-16). ⁸⁷ The Predator was successfully upgraded to carry and launch Hellfire missiles in 2001. CIA operators prominently proved the UAV's combat utility in the war on terror by killing Al-Harethi, a leading Al-Qaeda member, with a missile fired from a Predator in Yemen in November 2002 (Adams 2006, 135).

procured weapon systems decreases despite increasing defense budgets, due to exponentially rising unit costs for ever more complex systems. RMA and transformation called for a reversal of this trend: Increase numbers by reducing unit costs. Yet, both concepts left few marks and Augustine concluded in 2010: "We are right on target. Unfortunately nothing has changed." (in The Economist 2010, 19) Legacy programs continued to dominate the Services' efforts during both post-Cold War periods and the trend towards fewer acquisition programs with less units procured continued. While these programs undoubtedly resemble a modernization step, they are hardly innovative. In the words of the RMA: They are evolutionary rather than revolutionary. In contrast, a push by all Services to broadly exploit the new technologies was clearly evident after World War II despite numerous uncertainties. To be sure, budget constraints limited progress during the 1940s, but the armed forces' attempt to push into new domains is nonetheless evident. A strong buildup towards the Cold War in qualitative and quantitative terms occurred when ambition and resources came together during the early 1950s.

4.4. Military doctrine & Service mission statement

4.4.1. Definition and description

With national and military strategies connecting national goals and national means including military instruments, the terms 'role', 'function', 'mission', and 'basic doctrine' describe the position of each Service within this relationship. All terms describe "what the services do", but there is considerable confusion with regard to their specific meaning (Kuehl/Miller 1994, 103). Like strategy, roles, functions and missions are important context factors for doctrine and mission statements. Despite their often synonymous use, all three concepts differ with regard to their authors and scope (Correll 2008, 50). Roles are based on a statutory act by Congress and broadly define the purpose of the Services. Without a role in defense policy, a Service's reason to exist expires. ⁸⁹ In contrast, functions are assigned to Services by the President and Defense

⁸⁸ The GAO (2009, 8) estimated that the initially planned unit quantities had been reduced by almost one-third across the ten largest DOD acquisition programs.

⁸⁹ The assignment of roles is strikingly stable across all periods of transition. To be sure, the late 1940s saw great activity to create clear-cut assignments of roles and functions. The rise of air power as a crosscutting branch and the increased deployment of Marines in land warfare during the war had blurred the earlier divisions along the medium of operations. Thus, the National Security Act in 1947 assigned

Secretary within the framework of roles and are thus more specific and less permanent. In a strict reading, the term 'missions' was introduced by the Eisenhower administration in 1958 to describe the broad operational tasks of the unified or specified combatant commands established by the Defense Secretary. Thus, while functions are the "tasks of preparing and maintaining forces for particular types of combat action or military activity" assigned to the Services, missions are operational military tasks assigned to the combatant commanders (Blechman et al. 1993, 1). Yet, the latter terminology is hardly used in its narrow meaning within the military establishment. Thus, Services often speak of their doctrinal missions or – if placed into context – their strategic concepts when referring to missions (Kuehl/Miller 1994, 104). Indeed, Service

explicit roles to the Services (Sec. 205-209): The Army's was primarily responsible "for prompt and sustained combat incident to operations on land"; the Navy was primarily responsible "for prompt and sustained combat incident to operations at sea"; the Marine Corps was responsible "for service with the fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign"; and the Air Force was primarily responsible "for prompt and sustained offensive and defensive air operations." (primary sources on roles and missions are compiled by Cole et al. 1979) After the legislation in 1947, the roles remained unchanged over the years, currently included in Title 10, US Code (Kuehl/Miller 1994, 103). In 1986, Congress mandated the CJCS to submit a report on roles and missions every three years as part of the Goldwater-Nichols-Act. Lawmakers hoped that regular reviews would foster so-called jointness and reduce duplications. The resulting reports did not identify substantial waste or cause significant changes in the existing roles or missions, however (Correll 2008, 53).

⁹⁰ Functions, like roles, did hardly change during the years, but remained a permanent source of interservice conflict. On the day Truman signed the National Security Act in 1947, he also issued Executive Order 9877, specifying functions for the Services. While the executive order strongly resembled the role descriptions, the wording left important questions with regard to air and land power responsibilities unanswered (Trest 1998, 120). Therefore, the Service Chiefs suggested canceling the order and replacing it by a statement prepared by the JCS. Under the direction of Defense Secretary Forrestal, the Joint Chiefs subsequently produced the so-called Key West agreements in April 1948. The agreements provided a more detailed allocation of overlapping functions: Each branch retained the primary responsibility for its medium of operations, but gained collateral functions reaching into other domains. The latter were assigned to support and supplement the Service with primary responsibility in the respective area. Although new technologies opened new areas with unclear responsibilities and critics continuously pointed at duplications and inconsistencies, the functions as specified at Key West and in the follow-up Newport conference remained essentially unchanged throughout all periods under consideration. In 1954, they became part of the DOD directive 5100.1, which has been reissued eight times, the most recently in 2002, without noteworthy changes. Only small further differentiations and specifications were made such as assignments on the development and deployment of missiles in the late 1950s or the responsibility for space systems in 1970.

⁹¹ The organization of unified commands, i.e. a single commander exercising command over all assigned units regardless of their Service, predates the 1958 reorganization (Cole et al. 2003). Unified commands were first practiced during World War II and the JCS soon decided to maintain the system after the war's end. Thus, soon after V-E Day, Eisenhower was appointed Commanding General of US Forces, European Theater. In the Pacific, two commanders directed the US forces: The CINC Army Forces, Pacific, and the CINC, Pacific Fleet. Unsatisfied with the divided command, the Navy Department suggested the consolidation of these commands into one unified command for the Pacific region in early 1946. The War Department, fearing a loss of control over ground and air forces under General MacArthur's command, opposed the area based approach. It favored commands on the basis of missions and force assignments. The final compromise in late 1946 created seven regional commands, including two for the Pacific theater, and two functional commands. The major innovation in 1958 was the new chain of command, which bypassed the Services and thus detached the Services from control over the operational missions (Correll 2008, 52).

mission statements and doctrine are closely connected to roles, functions, and missions, by outlining the Service's "description of how, when, and where the military service expects to protect the nation." (Huntington 1954b, 483)

Military doctrine is a product of the Services that defies easy definition. The armed forces did and arguably still do not share a common understanding of military doctrine and its purposes (Lovelace/Young 1996). In the DOD's Dictionary of Military and Associated Terms 'doctrine' is defined as the "[f]undamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application." (DOD 2001, 166) In other words, doctrine describes how the armed forces intend to do their job if called into action regardless of the larger strategic context. 92 It is the non-material input which makes the military machine run by putting its elements into context: "Tactics, techniques, procedures, organizations, support structures, equipment, and training must all derive from it." (Tsouras/Watson/Watson 1991, 219) The scope of doctrine encompasses all military action from the behavior of the individual soldier to the interaction within a whole branch or a joint force. Ideally, doctrine serves as a common memory for successfully tested military concepts and a vehicle for innovation adjusting to new circumstances and lessons learned (Marshall 1993, 774). Yet especially the doctrinal publications on the most general level are more than just lessons learned. Jones (1997, vi) is right in arguing that these doctrines often "reflect more the influences of individuals, budgets, and emerging technological changes than the evidence of experience, critical analysis, and study." In this reading, doctrines provide Services with an obvious tool for interservice battles by ascribing roles, missions, and functions for themselves (Drew 1995).

-

⁹² To be sure, strategy and doctrine interact and are in parts influenced by common factors, but whereas strategy is often formulated to pursue a particular policy, doctrine is a more general body of knowledge based on empirical and theoretical insights (Johnson 1997, 2). Doctrine provides "a coherent and consistent framework of concepts, tenets, and principles that are applicable in planning and conducting operations." (Chapman 2009, 2) It builds the basic guidance during military training and education. Every member of the military forces is familiar with a common set of principles characterizing his organization's identity and his individual role in it. Doctrine provides a common reference point and language (Marshall 1993, 773) and "soldiers theoretically 'see' the next war in terms of their doctrine." (Sheehan 1988, 3)

4.4.2. Evidence for innovation

Navy doctrine & mission statements

The Navy traditionally treated doctrine, especially for the tactical and operational level, with suspicion. Thus, it lacked a system of explicit doctrine formulation and review until the early 1990s and its principles were only observable in military practice (but see Hattendorf 2000, 241-251; Tritten 1995b; 1994). The absence of systematic publications on doctrine does not indicate a lack of dynamic thought prior to 1990, however. Indeed, the continuous statements on broad doctrinal missions reaching into the area of strategy show strong changes over the years. Prior to World War II, the Navy pursued a command of the sea doctrine, based on Alfred T. Mahan's writings (Hattendorf 2000, 59-77; Huntington 1954b). The doctrine rested on the premise that command of the sea should be acquired through the destruction of opposing fleets in decisive open sea battles. For this purpose, the Navy focused on the acquisition of a large and concentrated fleet around battleships with heavy fire power (Davis 1966, 185). After the war, this maritime strategy was largely obsolete, since the last capable adversary at sea, the Japanese Navy, had been defeated and the most likely new opponent, the USSR, had few naval capabilities. Hence, the Navy adjusted its focus towards forward, offensive operations based on anti-submarine warfare and aviation, with aircraft carrier task forces as major combat organizations (Palmer 1988; Rosenberg 1978). Complementing the Navy's prior high sea mission, amphibious forces and especially air power should provide the Navy with inland capabilities. According to the Navy's vision, naval forces would early on not only secure the sea ways in case of a Soviet attack, but make use of its command of the sea and engage in offensive operations including the use of nuclear weapons. In its first general doctrinal statement 'US Fleet Publication Number One, Principles and Applications of Naval Warfare', published in early 1947, the Navy consequently emphasized the Navy's strategic capabilities. It argued that the destruction of the opposing will to resist could be achieved by attacking the enemy's actual and potential means of resistance (Rosenberg 1978, 250-251). These means included naval and air forces as well as industry and infrastructure. The focus on forward, offensive operations remained throughout the Korean War and changed only after the Eisenhower administration took a new look at the defense policy and embraced a deterrence strategy. Naval thinking turned to an

increasingly defensive, nuclear doctrine based on dispersed carrier group formations, nuclear retaliation, and submarine warfare during the following years.

By 1990, the admirals faced a situation largely similar to 1945 (Rhodes 1999; Fisher 1995, 73). During the 1980s, the Navy's Maritime Strategy focused on war with the Warsaw Pact and outlined a forward, offensive approach not unlike the concepts of the late 1940s (Palmer 1988, 94). After the demise of the Soviet Union, the widely circulated Navy/Marine Corps white paper '...From the Sea', published in fall 1992, argued that the new environment required "a fundamental shift away from open-ocean warfighting on the sea toward joint operations conducted from the sea." (Hattendorf 2005, 90; emphasis in the original) The traditional missions of deterrence and high sea control were not abandoned, but the Navy's focus turned from the undisputed high seas to the disputed littoral areas, which were vital for global force projection. Hence, expeditionary capabilities for littoral warfare and joint Navy and Marine Corps maneuvers from the sea became central. In this context, the unique contribution to stability by the mere forward presence of naval forces in unstable regions was newly emphasized. '... From the Sea' also announced the creation of a Naval Doctrine Command to translate this reorientation into sophisticated doctrine. Within two years, the newly established naval command published the 'Naval Doctrine Publication 1, Naval Warfare' (DON 1994a). As the Navy's first explicit capstone doctrine, the doctrine included extensive discussions on the naval forces' self-understanding and principles of war enhanced by numerous historical examples. It outlined the naval forces' enduring and new operations including deterrence, forward presence, military operations other than war (MOOTW)⁹³, sealift, war operations, and joint operations. And a final section discussed the capabilities, which naval forces could provide for these operations: Command, Control, and Surveillance; Battlespace Dominance; Power Projection; Force Sustainment. During the same year, the Navy published the white paper 'Forward ... From the Sea' (DON 1994b), which went slightly farther than "...From the Sea" by further specifying its operational concepts. Especially forward

-

⁹³ MOOTW replaced the term 'low-intensity conflicts' during the 1990s (Metz 2005, 287). According to the JCS (2001, xiv), MOOTW "encompass a wide range of activities where the military instrument of national power is used for purposes other than the large-scale combat operations usually associated with war." Hence, MOOTW subsumed a broad spectrum of operations such as disaster relief, peacekeeping, counterterrorism, or counterinsurgency. The use of MOOTW was discontinued in 2006, because it obfuscated the heterogeneity of operations subsumed under it (JCS 2006). 'Irregular warfare' became the new general term to sum the latter two challenges.

presence became more profound by conceptualizing US vessels as mobile sea bases from which naval forces could influence events ashore.

This doctrine remained in place during most of the buildup of the new century. Thus, the naval forces promised in its vision for the new century, Naval Power 21, to assure "seabased access worldwide for military operations, diplomatic interaction, and humanitarian relief efforts." (DON 2002, 1) Only the most recent documents indicate a turn from regional to global stability and a stronger commitment to proactive crises prevention (Work/Tol 2008). Much more defensive and cooperative in nature, the 2007 document 'A cooperative Strategy for 21st Century Seapower' identifies common defense of the global system of trade and security as cohesive thread for naval activities (DON/U.S. Marine Corps/U.S. Coast Guard 2007; Rubel 2008). The document identifies two deployment hubs, one in the Arabian Gulf and one in northeast Asia, in which naval presence is vital to keep the sea ways open and save. With regard to regional stability, winning and preventing wars are treated as equally weighted objectives. To achieve these goals, the Navy prepares not only for the missions of sea control, deterrence, forward presence, and power projection, but also explicitly includes humanitarian assistance, disaster response and maritime security. The latter indicates a stronger focus on non-state actors including piracy and terrorism and the insight that conflicts "are increasingly characterized by a hybrid blend of traditional and irregular tactics." (DON/U.S. Marine Corps/U.S. Coast Guard 2007) At the same time, the strategy refrains from offering a conclusive threat assessment with clear priorities (Pendley 2008).

In sum, the Navy adjusted its doctrinal mission especially during the builddown periods under investigation. Drawing from Huntington's distinction (1954b; see also Work/Tol 2008), the emphasis moved from an oceanic pole, a largely defensive mission based on high sea control, to a transoceanic pole, a more offensive mission based on strategic capabilities, during the post-World War II periods. After the Cold War, the Navy moved to a second and more conventional transoceanic pole, in which forward presence and expeditionary capabilities are central. Towards the end of the last period under investigation, the Navy seems to move to a global pole, in which the regional expeditionary focus is equally weighted with high sea control and security.

Army doctrine & mission statements

In contrast to the Navy, the Army has a long tradition of formalized doctrinal thinking in various manuals and training circulars (Linn 2007; Kretchik 2001; Doughty 1979). Among the numerous publications, keystone doctrines are most important as they serve as foundation for all other documents. Revisited on a regular basis, they are central to any troop deployment and constitute "the basis of instruction of all arms and services for field service." (DOA 1949, v; see also Sheehan 1988, 2) Among these doctrines, the FM 100-5, Field Service Regulations, Operations series and the more recent FM 3-0 Operations⁹⁴, are the best indicators for the Army's changing mission statements, since they most explicitly connect Army purpose and practice.

A comparison of the 1944, 1949 and 1954 editions of FM 100-5 reveals a high degree of continuity in the Army's doctrinal thinking during the early postwar period (War Department 1944; DOA 1949; 1954). In its first postwar operations manual in 1949, the Army codified World War II lessons in preparation of another global conventional war fought in various environments. Offensive maneuvers of infantry divisions remained the vital means to defeat the enemy. In this context, the decisive role of tanks and fire support from artillery and air forces were stressed as war lessons. Thus, while underlining the continuous indispensible role of infantry, the Army became more mechanized during the postwar years. Neither the total war perspective nor the stronger use of mechanized units met the requirements of the Korean War experience, forcing the Army commanders to go beyond formalized doctrine. Yet, the 1954 FM 100-5 hardly departed from prior doctrine (Craig 2004, 221). It paid lip service to the requirements of limited war, but little new operational thinking stemmed from this. Only an increased emphasis on indirect fire support and defense tactics was a noteworthy change.

At the same time, the Army's acknowledgement of the impact of nuclear weapons remained limited. Despite the demonstration of nuclear power in 1945, the 1949 FM 100-5 had only discussed the dangers of radiation and said nothing about ground force tactics on a nuclear battlefield. The 1954 manual fared hardly only slightly better: While it spent more time on discussing nuclear weapons and the atomic battlefield, ground

-

⁹⁴ In 2001, the operations manual was designated FM 3-0 to match Army doctrine with the joint doctrine numbering system.

force tactics were not adjusted to this scenario. Only after the end of the buildup period, a radically nuclear doctrine, which had been slowly taking shape since the late 1940s, took over the Army thinking (Gavin 1958; Bacevich 1986).⁹⁵

The reluctant approach to the reality of nuclear weapons after World War II has some similarities with the post-Cold War Army's slow doctrinal adjustments with regard to operational and technological realities. Since the Vietnam War, the Army's doctrinal thinking under guidance from the newly established Training and Doctrine Command (TRADOC) had returned to a conventional showdown with the Red Army in Europe including nuclear weapons. The AirLand Battle doctrine, outlined in manuals in 1982 and 1986, provided the template for this war on an operational level (DOA 1986; Romjue 1996, 7). The doctrine saw ground forces built around heavy, technologically advanced divisions as central element of warfare, integrating air and naval capabilities in a supporting role. Based on maneuver and firepower, ground forces would offensively engage the enemy's first echelon in actual combat. Air power would support the efforts by targeting the enemy's second echelon forces by deep battle and deep attack tactics (Linn 2007, 210). The 1993 FM 100-5, the first capstone after the end of the Cold War, was shaped in many ways by the AirLand Battle doctrine. It announced the removal of the Army's tactical nuclear weapons, but reinforced the Army's primary purpose of deterrence (Craig 2004, 226). The manual tried to strike a balance between prior doctrine and a new international environment, which demanded a broader and more expeditionary approach. Especially force projection became a major issue discussed in the manual to account for the new requirements of rapid response to regional contingencies on a global scale. On the balance, conventional warfighting remained at the center and low-intensity operations, the Army's major occupation during the 1990s, were treated with less attention.

To be sure, the 1993 doctrine went beyond AirLand Battle by speaking of full-dimensional operations, arguing that the Army must be capable to accomplish "any given mission (...) across the full range of possible operations in war and in operations

.

⁹⁵ The so-called pentomic concept, which was finally approved in 1956, constituted a major innovation by shifting the Army's focus from a conventional to nuclear environment. It assumed a cellular battlefield, significantly larger than in prior conventional wars. In order to provide few targets for tactical nuclear strikes, ground forces should organize in dispersed and highly mobile groups, which only temporarily mass for attacks and then quickly disperse again. Each group should be able to operate, sustain and defend itself. While the pentomic concept strongly affected the Army organization during the late 1950s, it was soon found to be flawed and did not find its way into official doctrine.

other than war." (DOA 1993, 1-4; Franks 1997)⁹⁶ Already in late 1990, the Army and the Air Force had published a joint operation manual on low-intensity conflicts, covering all operations below conventional war (DOA/DOAF 1990; Metz 2005). In 1994, the DOA (1994) added a manual on peace operations. Yet, the 1993 capstone doctrine put a clear emphasis on rapid, decisive conventional operations with large forces using offensive tactics, while other operations, obscured by the broad concept of MOOTW, remained a subordinated issue. While this manual was seen by some as a transition doctrine and preparations for a new manual were on the way in 1995, a successor emerged not until 2001 (Linn 2007; Romjue 1996, 131).

The final 2001 operational manual FM 3-0 was designed as a response to two trends (Burke 2002). On the one hand, the doctrine accounted for the transformation process within the Army's preparations for expeditionary operations by outlining operation concepts suitable for current and/or future capabilities. On the other hand, FM 3-0 took a further step towards a truly comprehensive view on the Army's mission spectrum by introducing the notion of full-spectrum operations, abandoning its predecessor's either-or view of war and MOOTW for a more interlocked perspective. It acknowledges that mission success requires a mixture of offensive, defensive, stability and support operations. But FM 3-0 directed commanders to focus their training time and resources on combat tasks unless directed otherwise and made clear that the "Army organizes, trains, and equips its forces to fight and win the nation's wars and achieve directed national objectives." (DOA 2001b, 1-2, 1-17) Other operations remained unspecific and were largely discussed as extensions of high-intensity operations. The complexity of operations subsumed under the categories of stability and support was hardly acknowledged.

The 2008 FM 3-0 elevated stability operations to coequal status to offensive and defensive operations (DOA 2008; Wallace 2008). This shift in emphasis is also reflected in a more sophisticated concept of full-spectrum operations: "Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results." (DOA 2008, 3-1) To

-

⁹⁶ The 1986 FM 100-5 also included a brief discussion of unconventional warfare and low-intensity conflicts (Ucko 2009, 32-36). But rather than treating them as distinct operations, they were discussed on the basis of AirLand Battle. Thus, the distinction between low and high intensity conflicts was largely a distinction between war against the Soviet Union and other contingencies.

structure this intertwined perspective on operations, the spectrum of conflict, describing the level of violence in an operational environment, and the operational theme, describing the currently predominant operation within an area of operations, are introduced. Tactics for stability operations and civil support operations, the latter encompassing support for domestic emergencies and law enforcement, are discussed at some length. Together with the widely circulated 2006 counterinsurgency manual, FM 3-24, the Army has developed a solid doctrinal foundation for irregular challenges.

In sum, the Army only slowly adjusted to the new technological realities and operational requirements after World War II and the Cold War. Thus, changes were marginal during the late 1940s and at least limited during the post-Cold War period. In contrast, an adjustment of doctrine with regard to the operational requirements is evident in both mobilization periods. During the early 1950s, this adjustment to the Korean War experience was moderate. The Army's radical doctrinal innovation occurred only after the buildup period and was focused on the technological requirements of nuclear weapons rather than operational lessons. Instead, the doctrinal changes with regard to operational requirements were quite substantial during the war on terror, whereas the technological promises of RMA and transformation have not resulted in decisive change yet.

Air Force doctrine & mission statements

The aviators used to be a rather small group with a small officer staff and codifying of doctrine was considered secondary during the flyers' early years. ⁹⁷ After its independence, the Air Force maintained a tradition of little formalized doctrinal efforts and published its first official doctrine not before 1953 (Futrell 1989; Jones 1997). Prior to the 1953 publication, its doctrine can arguably be described as a schizophrenic merging of two different mission outlines. In 1943, the leading airmen of the Army Air Force had guided doctrinal development based on their experiences during the North African campaign (Mowbray 1995, 5). The resulting doctrine, which remained the flyers' official doctrine for the next ten years, became part of the War Department's series of field manuals and designated FM 100-20. Resting on air-ground interdependence, the manual focused on tactical air power for the support of theater

⁹⁷ For an account of doctrine development prior to World War II see Futrell (1989) and Copp (1980).

combat operations. In this context, it made an important contribution by explicitly establishing an order for tactical missions from air superiority over interdiction to close air support.

Besides this official doctrine, however, the aviators increasingly turned to an unofficial doctrine based on strategic bombing after the war. Going back to the first air power prophets such as Bill Mitchell, Hugh Trenchard and Giulio Douhet, the strategic bombing doctrine aimed at winning wars independently by destroying the war-making capacity of the enemy through air power (Builder 1994). Right from the start, this doctrine asserted the primacy of the strategic offensive based on long-range bomber fleets. The 1953 'Air Force Manual 1-2, United States Air Force Basic Doctrine', published by the Air University after years of preparation and discussion, ended the division between official and informal doctrine. The short and broad manual brought the tactical and strategic threads together, but put a clear emphasis on the latter (Craig 2004, 224). It confidently argued that air power could contribute to the armed forces' purposes of deterrence and repel forces of aggression more flexible than the other Services. In war, the Air Force would contribute to military victory by directly and offensively dealing with the enemy's actual and potential warmaking capacity. After achieving air control, air forces could engage in peripheral action, reducing the actual enemy efforts, or more importantly in heartland operations, attacking the vital elements of the enemy's war making capacity. With regard to the strategic mission, AFM 1-2 also acknowledged the physical and psychological impact of nuclear weapons, which had found its way into Air Force thinking since 1948. The successors of the 1953AFM 1-2 version in 1954 and 1955 largely perpetuated these ideas.

In contrast to the slow doctrinal production after World War II, the Air Force responded quickly to the end of the Cold War by broadening its perspective. Already in 1990, it published the white paper 'Global Reach – Global Power', which outlined how the characteristics of the Air Force, speed, range, flexibility, precision, and lethality, could contribute to national defense beyond the Soviet deterrence (DOAF 1990). Central to the new approach was the Air Force's ability for rapid global force projection. This theme as well as the major strengths were reinforced in the AFM 1-1 basic doctrine,

which was published in 1992 (DOAF 1992; Mowbray 1995, 10-11). While the manual included very few references to atomic war and deterrence, it specified a range of other Air Force missions in the aerospace environment, including control missions, strategic attack, close air support, airlift, or surveillance and reconnaissance (Craig 2004, 229; DOAF 1992, 7). The later Air Force doctrines included little further changes, despite efforts to grasp future requirements for the Air Force, such as Air Force 2025 study in 1995 (Tirpak 1996). Thus, the versatile contribution of air power to the full range of operations from strategic attack to MOOTW and the "unique capability to project national influence anywhere in the world on very short notice" remained the major themes in the successive manuals in 1997 and 2003 (DOAF 2003, ix; DOAF 1997). Despite the variety of capabilities, the Air Force considered means to rapidly intervene, hit hard if necessary, and terminate quickly as premium assets. The recent experiences with counterinsurgency (COIN) operations had only minor effects on the Air Force's doctrinal thinking. It remains to be seen, however, whether the extensive use of drones affects doctrinal thinking within the Air Force.

In sum, the Air Force doctrine shows little change during the periods of transition. Thus, although the Air Force's first official doctrine was released in 1953, its emphasis on strategic bombing had dominated the flyers' thinking at least since the 1930s. The most decisive changes during all four periods are occurring during the 1990s. The early shift from the East-West-Conflict and strategic deterrence to rapid long-range power projection in the aerospace environment during this period remained valid for the new century's first decade.

⁹⁸ Responding to criticism of its 1984 basic doctrine for lacking historical and theoretical foundation, the new Basic Aerospace Doctrine came with a second volume, which contained a set of essays to back up the doctrinal statements.

4.5. Summary: Stability and innovation during periods of military transition

The detailed analysis of the periods of transition reveals some important findings.

(1) There is considerable variance with regard to changes indicating innovation during the periods of transition, which escape easy explanation. Assumptions derived from the democratic peace theory would expect a more or less stable push for innovation, since all periods offer new technologies and/or a changing threat environment. This is clearly not the case.

At the same time, no obvious trend separates buildup and builddown periods and variance is not related to the direction of the budget changes. This discredits two further straight-forward explanations for innovation. First, innovation is not solely a function of the international threat environment. While this does certainly not indicate the insignificance of international factors, it lends credence to the argument that international threats are filtered through domestic processes. Second, innovation is no function of resource endowment. One may either argue that innovation is the consequence of Service competition caused by fiscal scarcity or hold that innovation is a matter of large funding, since the push in new areas requires resources. Neither argument is confirmed by the findings as the analysis shows that innovations occur under conditions of small funding as well as strong funding.

Assumptions from the follow-on imperative get much closer in predicting the correct outcome. Indeed, the stability increases with the growth of the defense economy and the more recent periods of military transition show fewer innovations than during the earlier periods. But the follow-on imperative does not provide an explanation for the variance between the proximate cases.

(2) The suggested theory fares quite well in predicting the outcome for three of four dimensions. Thus, the two transitions after the Cold War significantly differ from the earlier periods in the budget, organization, and weapons acquisition dimensions. Yet, going beyond the follow-on imperative, the theory comes close in predicting the variance within the proximate cases. The match is especially good for the post-Cold War periods. The builddown during the late 1940s is also close to the theoretical expectation, although the results are less clear than expected. The predictions are least

accurate for the Korean War/Cold War case. While a strong innovativeness was expected, the empirical results show that the innovative push is only fairly strong.

Indicator	1945-1949	1950-1953	1989-1998	2001-2007
Service distribution of	+	+	-	-
budget	1			
Program distribution of	N/A	++	+	+
budget	14/11			
Service distribution of	+	+	-	+
personnel				
Geographic distribution	+	++	++	-
of personnel				
Force structure patterns	+	+	+	++
Acquisition patterns	++	++	-	+
Quality of transition	Moderately innovative	Moderately innovative	Stable	Moderately stable
Theoretical likelihood of innovation	Minor innovation bias	Innovation bias	Stability bias	Minor stability bias

Table 4.3: Comparison of periods of transition for the budget, organization and weapons acquisition dimensions 99

(3) The doctrinal & Service mission statement dimension shows no apparent systematic pattern. Neither any correlation with the budget changes nor a chronological pattern is apparent. Since societal demands do not reach into this dimension, this observation does not run counter to the theoretical expectations. But the absence of a clear pattern is still in need of an explanation.

⁹⁹ Evidence for innovation ++ = strong, + = moderate, - = small.

Indicator		1945-1949	1950-1953	1989-1998	2001-2007
Doctrine &	Navy	++	-	++	-
Service mission	Army	-	+	+	++
statements	Air Force	+	-	++	-

Table 4.4: Comparison of periods of transition for the doctrine & Service mission statement dimension

The following analysis of the causal mechanism can help to shed further light on the validity of the theoretical framework and its lack of accuracy.

5. FROM TOTAL TO COLD WAR: US MILITARY POLICY 1945-1949 AND 1950-1953

Even prior to the end of World War II, the US started the largest demobilization in its history. Defense budgets were cut drastically, millions of men were discharged and war plants converted at a rapid pace. Armed forces were, however, not fully reduced to military insignificance as during prior demobilizations, since the US position in and outlook on the international system had fundamentally changed. While the power centers in Europe and Asia lay in ruins, the United States had emerged as an economic and military power, which had the means and the intention to actively shape the postwar order. Drawing on lessons from the interwar years, the US got decisively engaged in the creation of an economic and political international system in order to bond power politics and avoid a renewed breakdown of stability.

The final breakthrough of US internationalism after the war included a demand for strong means of national defense early on. Not only were American occupation forces deployed in Europe and Asia to provide stability and security, but US capabilities also lent credence to the policy of containment, which developed during the early postwar years. Indeed, signs of a division within the victorious war alliance could not be ignored for long. The Soviet Union soon emerged as an antagonist to the intended US' new international order and a threat to American security. The deteriorating East-Westrelations were all the more severe, since the advent of advanced military technologies, especially the atomic bomb, had made the US homeland more vulnerable to outside aggression than ever before. The oceans, the protective barrier for centuries, had lost is importance, as wartime innovation shrank time and space. Thus, the transition after World War II was characterized by the unprecedented effort to transition from full war mobilization to a permanent and sustainable military establishment in a precarious world order. After initial ambiguity, two possible roads for the transition emerged: A return to a traditional wartime mobilization system but strongly reliant on nuclear air power as first line of defense competed with a balanced system based on permanent forward deployed forces and nuclear as well as conventional air and sea power.

While no conclusive answer with regard to the military policy was achieved during the late 1940s, the outbreak of the Korean War in 1950 ended all hopes for peace and

¹⁰

¹⁰⁰ For a comprehensive account of the early foreign policy situation see Gaddis (2005), Leffler (1992), and Maddox (1988).

marked the beginning of a strong American rearmament. After the successful nuclear test by the Soviet Union and the communist takeover in China during the previous year, the Korean War dispelled the last doubts with regard to communist aggression and triggered a far-reaching call to arms. Since most Americans suspected the Soviet Union behind the North Korean attack, the buildup went far beyond the immediate requirements for the Korean War. It prepared the US forces for an early showdown with the Soviet Union and shaped the industrial base for a permanent readiness. Although a direct confrontation was avoided, containment gained a military face and the US was fully engaged in the long Cold War by the middle of the 1950s.

After the chaotic situation during the immediate post-World War II years, military policy turned to air atomic power and nuclear deterrence as major means to defend the nation by the end of the buildup. Missiles and jet airplanes were developed at a rapid pace. At the same time, the occupation forces became permanent deployments to guarantee European and Asian security. Hence, the transition included innovative elements from both potential military force structure options. This course was far from inevitable and other potential innovations were not realized. The following case studis shows how the preferences of society, political actors and military actors shaped this outcome.

¹⁰¹ Readiness is a category with "a fair amount of arbitrariness." (O'Hanlon 1995, 19) Together with force structure, modernization, and sustainability, readiness is one of four components of military preparedness (Korb 1995). The DOD dictionary defines readiness as the "ability of US military forces to fight and meet the demands of the national military strategy." (DOD 2001, 449) In the words of Admiral Joseph W. Prueher, Pacific Command CINC, readiness encompasses several elements: (1) Qualified people with high morale; (2) Combat capable equipment (3) Appropriate levels of supply and maintenance for this equipment; (3) Appropriate levels of training to use the gear; (4) Tactics to capitalize on the talents of the people and the capabilities of modern equipment; (5) Ability to move the people, hardware, and support to the right place at the right time (HNSC 1998, 150).

5.1. Actors and preferences

5.1.1. Societal preferences

5.1.1.1. Common interests

Public opinion data on military policy is especially limited for the period after World War II (Cohen 1966; Abt 1965). Polling agencies have continuously gathered data, but time-series data has been produced for relatively few military policy issues. Despite limited data availability, however, there is enough evidence to obtain a plausible picture of the public's preferences on military policy. ¹⁰²

Salience of preferences

After World War II, the public expressed strong commitment to an active international role (Richman 1993; Shapiro/Page 1988). Isolationism was largely discredited after the failure to stop Nazi Germany at an early stage, Pearl Harbor, and the inevitable involvement of American forces in World War II. The resulting perspective included a military dimension almost right from the start. In contrast to earlier postwar situations, the public, while still skeptical, had stopped to regard the military as distant, un-American and unnecessary for times of peace. Indeed, military leaders were seen as war heroes and ranked high in polls on the most admired living persons (e.g. AIPO 03/1947, 12/1948). As central figures during the war, the public held especially George C. Marshall, Douglas MacArthur, and Dwight D. Eisenhower in high regard and continuously treated the latter two as potential future presidential candidates during the late 1940s. In the words of Baldwin (1949a, 98-99): "One cannot easily in a few months of history forget the high moments of yesterday, nor is it possible to turn at once – after a war so vast and so 'total' as World War II – to other forces, other figures, other men than those who led us to victory."

The international outlook and the positive attitudes towards the armed forces did not translate into a raised interest in military issues, however. By the end for the war, most Americans were aware of difficulties with the Soviet Union, but for a while they were

¹⁰² Data is drawn from Gallup (1972a), Niemi, Mueller and Smith (1989), Smith (1985), Abolfathi (1980), Erskine (1963), and The Quarter's Polls in Public Opinion Quarterly (1944-1949), edited by Mildred Strunk 1947-1949. If not indicated in the text, the polling organization and polling date is named in parentheses.

hopeful that those difficulties could be worked out and they placed great hopes in the newly created UN (Boettcher 1992, 5). Instead, domestic problems dominated the public agenda for the larger part of the late 1940s. The conversion from a war to a peace economy after World War I had caused severe economic problems and there was widespread fear of a renewed economic downturn and personal hardships after World War II. Accordingly, federal deficits, ¹⁰³ employment, inflation, housing and labor strikes were the most often named problems between 1945 and 1948.

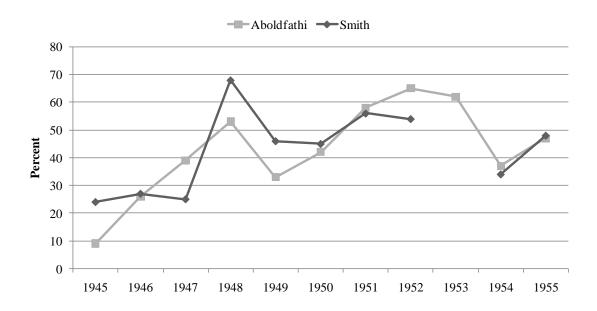


Chart 5.1: Share of international problems (Aboldfathi 1980) / problems in foreign affairs (Smith 1985) among most important problems, 1945-1955

By 1948, the public turned again outwards as the fear of war became an increasing concern matching the importance of domestic problems. The postwar optimism had rapidly vanished and the share of respondents expecting America to become engaged in war within the next ten had increased from 28 percent in fall 1946 to 62 percent in 1948 (NORC 11/1946, 11/1948 in Niemi/Mueller/Smith 1989, 52).

Opinion polls left little doubt that the difficult relationship with the Soviet Union was the reason for these fears. While 55 percent thought that Russia could be trusted to

1.0

1972b, 824).

¹⁰³ The federal budget deficits after the war were seen as a potential cause of inflation or economic crisis. In 1946, 71 percent of the persons asked in an AIPO poll preferred to keep the income tax at present rates to balance the budget rather than cutting income taxes. In another poll in 1949, more than two-thirds of the respondents wanted the government to cut expenses to balance the budget (Gallup 1972a, 596; Gallup

cooperate with the United States in August 1945, only 32 percent still believed in cooperation in October 1946 (AIPO). ¹⁰⁴ In May 1949, 70 percent believed that Russian military efforts aimed at becoming the ruling world power, whereas only 14 percent considered them as an attempt to protect itself (AIPO). This increasing anticommunism had clear implications for military policy: When asked which of three options would give the US the best chance to avoid war with Russia, a clear majority of 59 percent recommended strengthening the own military forces (NORC 09/1948). Baldwin (1947) captures the general mood quite accurately: "We alone may be able to avert the decline of Western civilization, and a reversion to nihilism and the Dark Ages." Preferences for an active international involvement and a militarily firm posture on communism became fundamental guidelines for postwar politics. As Hodgson (1976, 24) argues: "For the next twenty years, it would always be safer for a politician to demand higher defense appropriations than to propose cutting them, and the tougher the stance a President took against the Communists, the more popular he would be."

When the Soviet Union successfully tested its first nuclear device, anticommunism paired with fears of a nuclear world war. In a December 1949 AIPO poll, three months after Truman had publically announced the nuclear test of the USSR, a large relative majority of 45 percent thought that the successful test had made war more likely. This is in stark contrast to a poll only six months earlier, in which a relative majority of 48 percent had expected the advent of nuclear weapons to decrease the likelihood of war (AIPO, 03/1949). The polls indicated that the public believed nuclear weapons in American hands served a defensive purpose, whereas the distrusted Soviet Union would use the atomic bomb in an aggressive manner.

The sense of crisis and fear of a world war further increased with the North Korean attack in summer 1950. Three quarters of the public approved Truman's military response to the attack with most respondents basing their support on the need to stop the Soviet Union and the 'Reds' sooner or later (Mueller 1971). In fact, most people thought that the fighting on the Korean peninsula heralded the next total war. Four out of five expected a world war within the next 10 years in fall 1950 (NORC, 11/1950). And 55 percent believed that the US was already in World War III (AIPO, 12/1950).

-

¹⁰⁴ Until 1950, the public mood also reached a considerable level of paranoia with regard to communist intentions and actions at home. Controversies over Alger Hiss' potential engagement in communist spy activities and his trial had further advanced believes in a global communist plot.

Considering that a vast majority believed that the Soviet Union would use atom bombs against US cities in case of war (AIPO, 8/1950), total war became indeed an existential threat. Against this backdrop, international issues remained salient during the early 1950s and dropped only moderately after the Korean War turned into a stalemate and finally ended without further escalation.

Specificity of preferences

As expected, the specificity of public preferences varies strongly with the dimension under consideration.

(1) There is a relatively clear-cut political corridor with regard to the quantity and quality of military spending. The data shows that the public was supportive of defense spending, although the available polls most likely exaggerate the amount of support (Abolfathi 1980, 98; Russett 1975, 3). Even if confronted with some trade-offs, the public remained in favor of defense. Thus, against the backdrop of a preference for balanced budgets, 70 percent were willing to abstain from tax reductions in order to maintain the current military in December 1946 (AIPO). With increasing concerns over the international situation, majorities were even willing to pay more tax in order to support the military branches (AIPO 02/1948).

¹⁰⁵ The early surveys asked questions especially on issues which currently seemed particularly salient. Thus, defense spending questions were often in close temporal approximation to either political developments regarding defense, e.g. Truman's announcement of help to Greece and Turkey 1947 (AIPO poll in March 1947), or international crises, such as the Berlin crisis in 1948 (Fortune poll in June 1948). Since these events were related to emergency situations with extensive publicity, the likelihood of a bias for increased defense spending is high. Furthermore, since the questions were based on different wordings, there is considerable doubt with regard to their equivalence.

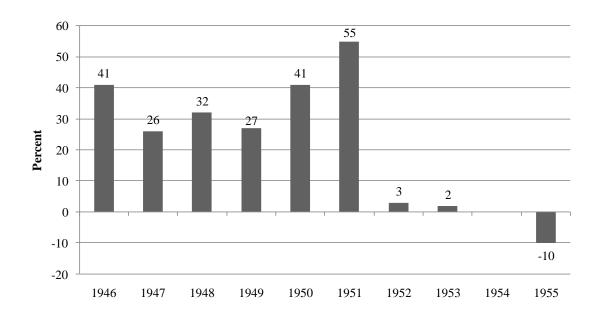


Chart 5.2: Net support¹⁰⁶ for defense spending, 1946-1955 (Abolfathi 1980, 98)¹⁰⁷

Since the public expressed support for domestic and defense spending as well as balanced budgets, it is implausible to read the defense support as a preference for an allout buildup and a one-sided spending policy. It would be inconsistent to assume that people were most concerned with jobs, inflation and other domestic issues and at the same time supported an unlimited defense if asked directly. Rather, the support for defense spending is most plausibly explained as a call for defense spending increases, which were limited by equally strong preferences for balanced budgets and domestic goals. This reading of a spending corridor for defense gains further persuasiveness when looking at the early 1950s. During late 1950 and 1951, public majorities strongly backed a high level of military expenditure and mobilization. For example, a majority of 66 percent in July and still a relative majority of 49 percent in November thought that the US industry should begin to produce planes, tanks and other war equipment on a full war-time basis and cut out making autos, refrigerators and other items people may want or need (Huntington 1961, 237; AIPO 11/1950). Yet, after the support for defense spending peaked in 1951, it sharply decreased thereafter.

¹⁰⁶ Net support is commonly used to express the preference for defense spending (e.g. Wlezien 1995, 985). It is calculated by subtracting the percentage of people who think the US spent too much or the US spending should be decreased from the percentage of people who think the US spent too little or the US spending should be increased. Thus, a positive (negative) number indicates net support for more (less) spending.

107 Data for 1951 is based on a survey in 12/1950. Data for 1954 is missing.

On the one hand, this indicates a sobering effect of the slow progress of the war effort, especially after China entered the conflict in fall (Shapiro/Page 1988, 226-227). Indeed, the war support strongly dropped in late 1951 and remained low during the coming year (Mueller 1971). On the other hand, on a more general level, the decrease can be read as a public response to the extensive federal defense spending and the heightened sense of sacrifice in accordance with Wlezien's metaphor of the public as thermostat (Wlezien 1995). In July 1950, 70 percent of the people were willing to pay more taxes to support the military branches (AIPO). Seven months later, the share of persons supporting increased defense spending even if taxes had to be raised decreased to 38 percent (AIPO, 01/1951). Moreover, the share of persons thinking that the American people had been asked for too many sacrifices in order to support the defense program strongly increased during the winter 1950-1951 (Russett 1974, 73).

Evidently, defense spending hit the ceiling of the corridor that was considered appropriate for defense by the public during the early 1950s. While the decreasing support for defense spending implies that additional spending was not welcome, it does not imply a preference for a spending decrease. A number of polls after the Korean War show that most people preferred to maintain a force at high level over a return to prewar strength. In fact, the proportion of persons preferring to maintain the current level of defense spending doubled from 36 percent in 1950 to 72 percent in 1955 (Abolfathi 1980). Furthermore, already in July 1951, 82 percent wanted the planned defense program to continue even if the war would end soon (AIPO). And in April 1953, three quarters opposed the reduction of the military's size after the war. At the same time, when the incoming Eisenhower administration moderately decreased the military budget in 1953, only 17 percent felt that this threatened their safety (Gallup 1953).

The data also reveals a partisan pattern in defense preferences. While the evidence is thin, the polls show that Democratic voters were slightly more supportive of defense spending than Republican voters throughout the postwar period (Karol 2009, 160-161). The Democrats' more supportive stance on defense policy is in line with generally more hawkish foreign policy opinions among them during the early postwar years (Belknap/Campbell 1951). After bipartisan support for a Korean involvement, Republican voters grew much more critical on US troop deployments to Korea and

¹⁰⁸ This pattern continued into the Eisenhower era and is independent of the party in power (e.g. AIPO 9/1953).

Europe in late 1951. And when Eisenhower reduced the defense spending in 1953, Democrats (26 percent) were much more likely to consider the cuts as a safety problem than Republicans (7 percent).

With regard to distributional patterns, the public's clear favorite was the Air Force, whereas the Army was the least supported branch throughout all years. Even prior to the emergence of the first nuclear bombs, a relative majority wanted to spend most money for the air services in order for the US to continue to act as a great power (Fortune 06/1945). In the following years, the Air Force remained the branch, for which the public was most willing to spend money (AIPO 02/1948, 07/1950). Hence, Gallup (1949) asserts that "airpower became a major 'love' of the American people even before military experts were willing to admit the importance of its role in warfare." In a Fortune poll in January 1946, almost 40 percent believed that the Air Force had done the most toward winning the war against Germany. For the Pacific theater of war, the Air Force (16.6 percent) ranked equal to the Navy flyers and second to the Navy (17.8) percent). And opinion polls leave no doubt that the public expected an even greater role for the Air Force in future wars. In 1949, striking 74 percent expected the Air Force to play the most important part in winning another world war (AIPO, 07/1949). This overwhelming belief in the significance of the Air Force continued into the 1950s despite the Korean War (AIPO 10/1953, 3/1955). When asked in 1952, which branch should be built up to a greater extent, 54 percent named the Air Force, 11 percent named the Army, and 8 percent named the Navy (AIPO 11/1952).

(2) In the organization dimension, rapid demobilization after the war proved the single strongest public demand after the war. Especially families of soldiers pushed for a rapid discharge of forces after victory in order to return to normal life. Although the demand was carried only by a minority, this arguably was the strongest public demand during the postwar transition, since millions of separated families with strong preferences provided a powerful societal base. Representative Goodwin (D-MA) expressed in fall 1945: "Bring the boys back home' is a cry that wells up from the heart of America today." (91 Cong. Rec., September 17, 1945, H8628)

In spite of calls for demobilization, majorities generally wanted to maintain forces at significantly higher levels than afer earlier periods of almost total demobilization. More than 60 percent permanently supported both politically discussed mechanisms of

military personnel procurement during the late 1940s and early 1950s: The Selective Service Law, which provided the executive with the power to draft men for military service, and universal military training (UMT) for every able-bodied young man. ¹⁰⁹ After the size of the armed forces was rapidly doubled during the summer and fall of 1950, 50 percent considered this strength of 3 million troops as appropriate, whereas one-third of the respondents still regarded it as to low (AIPO 11/1950).

With regard to a distributional pattern, the public suggested deeper cuts for the Army than for the Navy and the Air Force right from the start. When asked in January 1945 how many men the Army should have after the war, 12 percent answered 4 million, 17 percent wanted 2 million and 15 percent 1 million (AIPO). In late 1945 and 1946, most respondents recommended a force of only 1 million, which equates one-eighth of the Army's war strength (AIPO 10/1945, 09/1946). In contrast, people considered a number between 500,000 and 1.5 million as appropriate for the Navy postwar personnel with 1 million — one-third of the wartime personnel — as most frequent figure. After the Air Force became independent, the public clearly favored an increase of this branch. In 1949, 70 percent argued that the US should increase the size of its Air Force. This was almost 15 percent points higher than for the other Services. And as argued above, when asked during the Korean War which branch should be built up to a greater extent, a clear majority named the Air Force (AIPO 11/1952). Considering that the war burden rested mostly on ground forces, this is a strong statement.

When the issue of permanent forward deployment of troops to Europe became an issue in 1951, the public proved surprisingly ambivalent despite the relative dislike for ground forces. Thus, in an AIPO poll in January 1951, 55 percent argued that the US should send more troops to Europe to be ready to fight communism there, with Democrats moderately more favorable than Republicans. Yet in a NORC poll in the same month, only 36 approved the idea of sending large numbers of American troops to

.

¹⁰⁹ See public opinion polls by AIPO (01/1945, 03/1946, 02/1947, 10/1950, 12/1951, 2/1952, 1/1953, 8/1954) and NORC (03/1946, 07/1947, 09/1948). While the support for Selective Service decreased by the late 1940s, the military training program was permanently in public favor. Support was particularly strong among Democratic voters. More than three quarters of Democratic voters favored military training according to polls in 1945 and 1947. During the more optimistic early postwar months, the opportunity for physical training was named as main reason for support. In later polls, the policy was mostly seen as a means to strengthening national defense.

¹¹⁰ Despite preferences for a strong force, the system by which the Services released their men immediately after the war came under heavy public fire. While 72 percent considered the Army's releasing system as fair prior to V-J day, the support plumped by 20 percent points until November 1945 (AIPO).

help the defense of Western Europe. Further NORC questions reveal the public's approval was strongly conditional on the European efforts. Thus, more than half of the 56 percent of respondents, who had disapproved deployments to Europe, approved sending troops if European states increased their forces. Even during the Korean War, relative majorities considered the defense of Europe more important than the defense of Asia (e.g. AIPO 09/1950, 01/1951), but 64 percent of the full NORC sample in January 1951 thought that Western Europe was not doing all they should to build up their own defense. This pattern remained constant. In April 1951, 33 percent opposed sending troops, whereas 53 percent supported troops for Europe including 15 percent, who favored sending troops but had qualifications (AIPO 04/1951).

(3) The public preference specificity becomes significantly thinner with regard to the weapons acquisition. Only the strong preference for atomic weapons provides some guidance. Atomic bombs were widely considered a panacea after the war against Japan ended shortly after their use (Boettcher 1992, 49; Erskine 1963). Only two weeks after the bombs were dropped, a large minority of 35 percent even believed that the atomic bomb made a large army and navy unnecessary (AIPO 08/1945). Although the expectations with regard to the impact of atomic bombs returned to a more realistic position during the subsequent months, the hopes related to the weapons remained high (Erskine 1963, 162). Since atomic bombs provided the means to ultimately punish any warmonger, the US held the potential in its hands to avert war in the future and fulfill its ambition to become a force for good in the world (Parrish 1968, 103). At the same time, the indiscriminate destructive power of atomic bombs raised important moral questions which were publically discussed at length during the late 1940s. For a short time, the international control of the new technology under the newly established UN or the outlawing of nuclear weapons was favored by majorities (Erskine 1963, 167-168). Yet, since the public expected the monopoly of the US to last only shortly (Fortune 11/1945), it remained skeptical with regard to the chances of a successful international control and the majority assumed that the bomb would be used in future warfare by the US and its opponents (NORC 05/1946; AIPO 08/1950).

After the Soviet Union's atomic test triggered the fear of nuclear war, international control was largely out of question and the public was willing to make the next step in nuclear technology. Hence, the people who were aware of the decision to develop hydrogen bombs in 1949 strongly sided with the program's proponents (AIPO 2/1950,

3/1950). Since there was great uncertainty with regard to the Soviet Union's capabilities, keeping the edge in nuclear technology was widely regarded as best insurance policy. The public was not only supporting the development of nuclear capabilities, but also willing to use them. In December 1950, public majorities supported the use of atomic bombs against Chinese cities if the US got into a war with Communist China (AIPO 12/1950).

Along with the preference for atomic bombs came a preference for technological solutions in warfare. When given the choice, a majority favored to spend most of the budget in developing special military weapons and maintain only a small but highly skilled force rather than spending most on a large permanent force (AIPO 5/1952). Especially the technologies to deliver nuclear weapons were central. Since bombers remained for some time the only means to deliver nuclear ordnance, the support for the Air Force in the budget and organization dimension was closely related to the preference for nuclear weapons. And the public considered only missiles as promising alternative technology. In March 1946, NORC asked in a survey what other ways besides atomic bombing by airplanes would be used in a future nuclear attack. The largest group of 27 percent named guided missiles, whereas only 11 percent named water projections and even less named long-range guns or other means.

(4) There is no evidence with regard to the military doctrine & mission statement dimension. Only the strong preferences for air power and nuclear weapons provide some guidance here. Taken together, the public preferences point at a military radicalism that organizes the military preparations around air atomic power during both periods of transition. This military radicalism is slightly stronger among the Republicans than among Democrats.

Relevant questions	1945-1949	1950-1953	
IS THERE A STRONG SALIENCE FOR MILITARY POLICY?			
Is there a pattern of security interdependencies considered threatening?	- East-West-conflict	- Nuclear East-West- conflict	
What are the most important problems in society?	- Economic problems until 1948, thereafter economic and international problems	- Economic and international problems	
ARE THERE SPECIFIC DEMANDS IN T	THE DIMENSION OF?		
military budgets?	 Actual spending below preferred budget corridor Budget distribution in favor of Army Air Force/Air Force 	 Actual spending below preferred budget corridor until 1951, thereafter actual spending at budget corridor ceiling Budget distribution in favor of Air Force 	
military organization?	 Rapid and far-reaching demobilization Personnel distribution in moderate favor of Air Force 	 Personnel distribution in favor of Air Force Support for UMT Conditional support for troops to Europe 	
weapons acquisition?	- Support for UMT - Preference for aviation and nuclear weapons	- Preference for aviation and nuclear weapons	
military doctrine & Service mission statement?	-	-	
Is there an apparent idea connecting the explicit preferences?	- Military radicalism (air atomic power)	- Military radicalism (air atomic power)	

5.1.1.2. Special interests

World War II marked the transition from mostly in-house production especially by the Army, to reliance on private industry for weapons acquisition (Peck/Scherer 1962, 98-99). Prior to the war, business leaders had regarded the armed forces as neither an important nor a desirable partner. The almost symbiotic and lucrative war cooperation transformed this relationship, as businessmen realized that the government and especially the armed forces were promising customers and soft-hearted bankers (Barnet 1972, 37, 140-142). Yet, although the war laid the foundation for a successive establishment of a permanent privately-owned defense industry, the immediate postwar years saw most major defense contractors returning to the civil sector. The backbone of the war production had been provided by civilian companies converted for the time of war. These companies, largely based in the industrial centers of the Midwest and Mid-Atlantic, neither considered military production as their main business nor were they dependent on defense dollars. As the Office of Technology Assessment (1992, 7) argues: "Civilian production and civilian jobs were the norm for nearly everyone, and people couldn't wait to get back to them."

Thus, large wartime manufacturers such as General Motors and General Electric rapidly resumed commercial production. High amounts of private wartime savings promised a prosperous market and provided a particular incentive for manufacturers to return to the production of consumer goods (Office of Technology Assessment 1992, 6-7). The numbers of employees in the defense related industry reveal the extent of the conversion after the war. The conversion caused little economic hardships, since the majority of the former defense industry employees were absorbed by the civil industry and the unemployment rates — one of the major concerns during the postwar transition — remained small.



Chart 5.3: Number of employees in defense related industry and unemployed persons, FY 1940-1955 (OSD 2008; 2005a)

While most mass production in the North-East smoothly returned to civil production, the new aircraft industry, mostly located at the West Coast, had high stakes in the defense sector. In order to keep up with the rapid development of aircraft technology after World War I, the military departments had turned to commercial companies rather than the slow federal agencies early on (McNaugher 1989, 17-22). As federal expenditures for aircraft production amounted to almost one-third of the military procurement during the war, these private aviation firms rose to important industrial players (Peck/Scherer 1962, 108). For example, North American Aviation, producing 14 percent of the wartime planes, expanded from 6,000 employees in one factory in 1940 to 92,000 workers in five plants by 1943 (Markusen et al. 1991, 29). And Lockheed, the biggest single aircraft company after the war, expanded from 2,500 employees to 60,000 during the war. Consequently, the aviation industry's home states, Washington (Boeing) and more importantly California (General Dynamics, Douglas, Lockheed, Rockwell, Hughes), experienced a massive inflow of military funding. This war-grown industry had only a limited civil market and was strongly dependent on defense production. Therefore, the postwar procurement cuts hit them hard. For example, Boeing's workforce in Seattle dropped from its wartime peak of 45,000 to 15,000 by November 1945 (Markusen et al. 1991, 155). In their fight to keep the military connection alive, the aircraft industry was early on a potent lobbying force (Donovan 1977, 144).

Yet, its economic and strategic weight must not be overrated. To be sure, the Air Policy Commission in 1948 made clear that the permanent aviation industrial base was vital for national security and should be actively maintained even during peacetimes (Air Policy Commission 1948, 45-52). But the commission still counted 15 major airframe companies competing for contracts in the same year. Hence, the government's dependence on manufacturers was limited. In fact, the concentration of the defense industry was limited during both periods and turnovers among the top military producers, including the aviation industry, were common (Peck/Scherer 1962, 117-126). Forty companies disappeared from the list of the top 100 defense contractors between World War II and the Korean War.

Although the Korean War accelerated military production, the defense industry remained of minor political weight. The buildup was again mostly accomplished by the large companies in the industrial heartlands and the Midwest and Mid-Atlantic regions received more than 60 percent of all DOD prime contract awards with New York and Michigan accounting for 30 percent in 1952 (Markusen et al. 1991, 11-13).

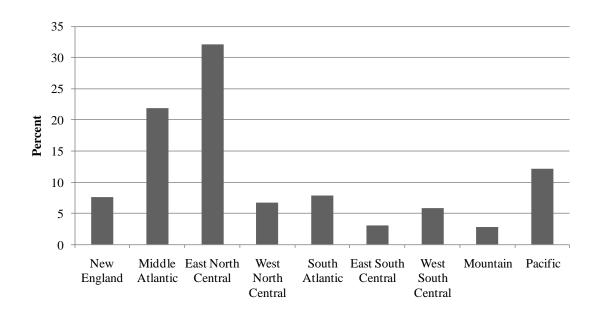


Chart 5.4: Distribution of DOD contract awards during the first six months of FY 1954 by division (Senate Select Committee on Small Business 1954)

For these companies, military production remained only a small part of their production (Huntington 1969, 7). In fact, many of them strongly criticized the renewed demand for rapid conversion and military buildup. While most airplane manufacturers supported the spending increases which had slowly gained momentum since 1948, prominent executives, including Charles Wilson, president of General Motors, and Philip Reed, board chairman of General Electric, considered the massive buildup as troublesome (Lo 1982). They warned of the negative economic consequences of defense spending, such as inflation, growing debts and taxes, and criticized lacking efficiency within the defense establishment.

Commercial defense interests gained more influence only after the Korean War, when the investment in new weapons, especially aircraft and missiles, changed not only the US military production map, but created companies and areas almost fully dependent on defense dollars. Since the more sophisticated weapons required increased specialization, the concentration of the defense sector increased despite the lawmakers' explicit intent to broaden the industrial base for a faster mobilization (Senate Select Committee on Small Business 1951). The continuous importance of aircraft and electronics and the growing emphasis on missiles set a trend towards a strong defense-dependent industry along the West Coast and relative decline of the Great Lake states. The most evident sign of this change was the displacement of New York by California as number one state with regard to the share of contract awards by 1958 (Markusen et al. 1991, 13; Peck/Scherer 1962, 111).

Some other groups sought to affect the military policy in their favor. Like the defense industry, research facilities also greatly benefited from military contracts during the war (Barnet 1972, 41-44). For example, the Radiation Laboratory at the Massachusetts Institute for Technology, the biggest established laboratory for defense research, employed a staff of 4,000 in 1945 (Leslie 1993; Kevles 1990, 239). It was the leading nonindustrial defense contractor in the US with 75 separate contracts worth \$117 million by 1945 and it remained the top academic facility for military R&D thereafter. During the late 1940s, 85 percent of the MIT research budget came from the military and the AEC (Kevles 1990, 244). In addition, the R&D efforts for the Manhattan Project at Los Alamos strongly benefitted the University of California. Since military

R&D provided prestige and funding for universities and other research institutions, many scientists were eager to maintain close ties with the federal state after the war. Yet, there resources to influence the political process were limited to their relevance as sources of information independent of the military establishment.

A number of other groups pursued special interests in military policy. The veteran organizations such as the American Legion and the Veterans of Foreign Wars, which participated in a range of defense policy questions, served as an extension of the armed forces into society. Their interest generally aimed at a strong military establishment and support for their respective Service. Military reserve associations such as the National Guard Association (NGA) and the Reserve Officers Association also supported a strong defense, but had at the same time their own wellbeing in mind. They supported especially the personnel procurement measures in the organizational dimension, which directly affected the inflow of personnel into the reserve components. Moreover, the NGA was careful to protect the autonomy of the tradition-rich National Guard against any attempts of incorporation by the War Department (Doubler 2003, 221). The director of the association, Ellard Walsh, was a highly effective lobbying force in Washington, who could rely on the support of the numerous states' rights advocates in Congress and "[w]henever the NGB [National Guard Bureau] especially needed to influence Congress, it turned to the NGA." (Mahon 1983, 200)

The Committee on Present Danger (CDP) emerged in 1950 to promote a broad military buildup. The committee was founded in August when a struggle between Secretary of State Acheson and Secretary of Defense Johnson jeopardized the implementation of the buildup as outlined in NSC-68. Driven by anticommunism and a strong security interest, R. Ammi Cutter, Tracy Voorhees, and James Conant¹¹¹ created the fast growing committee to alert the country of the Soviet threat. The latter two founders had good relations to Paul Nitze, head of the State Department's Policy Planning Staff, and were involved in the formulation of the secret NSC-68 policy document. When the public and congressional support for military buildup during the early stages of the Korean War threatened to fade away, the CPD engaged in public campaigns to warn of the Soviet threat and promote military strength beyond Korea (Sanders 1983). In December 1950, Vannevar Bush, Conant, and Voorhees made the group's first public

¹¹¹ Voorhees had resigned from his post as Under Secretary of the Army over Johnson's opposition to NSC-68. Conant was President of Harvard University.

announcement calling for support of universal military training, nuclear armament and a general buildup (Wood 1950; New York Times 1950). With Defense Secretary Marshall's consent, the committee fought also for reinforcements for Europe and the controversial military and economic support for US allies. The impact of the CPD on innovation is rather negative, since they pushed for more rather than a different military policy besides the European defense. When Eisenhower won the presidency in 1952, numerous members of the CPD joined his administration and the committee ended its activities.

Concerned over state intervention in society, family associations, organized labor, civil business, farm interest groups, education groups, church groups, and peace and civil liberty groups voiced vocal opposition to various policy options during the military transition. To be sure, hardly any group opposed the existence of some permanent defense establishment. But they rejected specific outgrowths of it, which they considered to excessively affect society and to threaten democracy. Already by the end of the war, various interest groups from the civil industry called for a rapid demobilization in order to meet the demand for peacetime workers (Gibson 1983, 91). Moreover, farm groups, labor unions and some business associations sought to block the armed forces grasp on society by opposition to universal training. They feared that this program would drain labor force in the best age from the market. Church groups, peace and civil liberty groups opposed the creation of permanent armed forces and compulsory measures on ideational grounds. While the former two categorically rejected a defense establishment of size, the civil liberty groups were particularly concerned with compulsory elements and the secrecy of military policy. The gloomy vision of a garrison state and military dictatorship fueled opposition groups such as the National Commission for the Defense of Democracy through Education which sought to defend liberal democracy. They feared not only governmental intervention in individual freedom, but the creation of a military power center which would lead the US down the same road as Germany and Japan. While their influence remained selective, especially with regard to the postwar organization, these groups acted as strong status quo powers (e.g. HMAC 1945a).

Relevant questions	1945-1949	1950-1953
IS THERE A STRONG MILITARY INDUS	STRIAL BASE?	
How large is the economy dependent on defense investments?	- Small military aviation industry	- Small, but growing military aviation /electronics industry
How large is the labor force dependent on defense investments?	- Small	- Small, but growing
IS THERE A STRONG ECONOMIC OR I	MIL. DEPENDENCE ON THE MILI	TARY INDUSTRIAL BASE?
How is the military industry spread over the country?	- Concentration in Midwest, Middle Atlantic, and Pacific states	 Concentration in Midwest, Middle Atlantic, and Pacific states
How much competition is in the defense market?	- Strong competition	- Strong competition
WHAT PREFERENCES DO ACTORS WA	TH SPECIAL INTERESTS PURSUI	E IN THE DIMENSION OF
military budgets?	 Defense industry: Protection of acquisition funding Veterans: Strong military establishment and funding for respective Service 	- CPD: Support for broad and stable buildup
military organization?	- Civil industry: Rapid demobilization - Civil liberty groups/ labor/ churches: Limit intervention in domestic affairs - Veteran/Reserve groups: support for UMT - Reserve groups: Strong and autonomous military reserve	- CPD: support for UMT/ troops for Europe
weapons acquisition?	 Defense industry: Protection/expansion of aviation programs Scientific community: Further innovations 	 Defense industry: Protection/expansion of aviation programs Scientific community: Further innovations CPD: broad buildup

5.1.1.3. Societal demands

As expected, the demand patterns vary considerable across the dimensions of military policy and the periods of transition. For the builddown 1945-1949, societal demands were biased in favor of the Air Force. They were mostly based on common preferences which provided a quantitative corridor for strong but not unlimited military preparations with a clear qualitative emphasis on the Air Force. These preferences remained weak until the threat of a military confrontation with the Soviet Union and the Korean War raised its relevance after 1948. No other groups expressed stronger alternative positions during the transition. Although the veteran and reserve groups disagreed with the aviation bias, their attention focused more on the organization dimension than on the budget. In the organization dimension, the societal demand provided a mixed pattern. Society, especially families of soldiers but also the civil industry, strongly demanded a rapid demobilization. The public support for a relatively stronger Air Force was not disputed by other groups in this context, but remained weak. The demands on UMT created an inconsistent pattern, since various special interest groups organized against UMT, whereas the public and other special interest groups constantly favored the program. In the acquisition dimension, the common preference for nuclear weapons and means for their delivery was backed by the small nuclear scientific community and the aviation industry. But all positions remained weak during the 1940s. For the doctrine & mission statement dimension, finally, neither the public nor special interests articulated any demands. Only a moderate mindset of military radicalism could provide the political and military actors with some guideline. In sum, there is a weak innovation bias pointing at an increasing emphasis on air atomic power evident.

During the buildup of the early 1950s, the common preferences hardly changed, ¹¹² but became more salient against the backdrop of the Korean War. Other groups held their position in the various dimensions of military policy. Only the CPD emerged as a new challenge to the public's preferred budget and organizational distribution and the emphasis on nuclear means. Although the CPD consisted of well-known figures and had good ties into the government, their influence should not be overestimated and it is

¹¹² The preference for air atomic power is also reflected in the positive reception of Eisenhower's New Look policy with nuclear capabilities as first line of defense: In 1954, 64 percent argued that the US was today better prepared to defend itself than it had been in 1952 (AIPO, 9/1954).

expected that the strong public preferences dominated the disputed dimensions of military policy. Hence, the societal innovation bias increased during the early 1950s.

Relevant questions	1945-1949	1950-1953
ARE THERE WEAK OR STRONG SOCIED DIMENSION OF	ETAL DEMANDS FOR INNOVATIO	N OR STABILITY IN THE
military budgets?	 weak demand for Air Force prioritization 	- strong demand for Air Force prioritization
military organization?	 strong demand for demobilization 	- strong demand for technology over
	 weak demand for technology over 	personnel / Air Force over Army
	personnel / Air Force over Army	 Moderate demand for troops to Europe
	- inconsistent position on UMT	- inconsistent position on UMT
weapons acquisition?	- weak demand for	- strong demand for
	technological solutions,	technological solutions,
	especially nuclear weapons and its means	especially nuclear weapons and its means
	of delivery	of delivery
military doctrine & Service mission statement?	- no explicit demand	- no explicit demand

5.1.2. Political actors' preferences

5.1.2.1. Congress

Although the late 1940s were highly competitive and saw repeated changeovers in the congressional majorities, ¹¹³ two central parameters in the field of military policy were shared by broad majorities on Capitol Hill and narrowed the scope of potential disagreement: (1) After the massive defense spending during the war years, political actors of both parties preferred a ceiling approach including significantly reduced defense budgets to rebalance state funding. This consensus started to fade only when federal deficits came under control by the end of the decade and the fears of a military

¹¹³ The late 1940s and early 1950s were tumultuous years for Congress. In 1946, the Democratic Party lost the majorities in both chambers for the first time since the victorious elections for the 73rd Congress in 1933. But the Republican strength was short-lived and the Democrats reclaimed Capitol Hill in 1948. In 1950, the Republicans were again on the upswing and significantly reduced the margin during the midterm elections. In the wake of the Eisenhower election in 1952, the GOP won a very thin majority. In fact, 48 Republicans faced 47 Democrats and one independent in the Senate. This majority was again lost it in the subsequent midterm elections.

conflict increased. Thus, during the early 1950s, most Democrats in Congress preferred an increase in military spending. Republicans remained much more skeptical of the administrations' military interpretation of containment and a buildup beyond the Korean War (Karol 2009, 135).

(2) Large majorities in both parties were committed to a strong anticommunism during the late 1940s and the early 1950s (Dueck 2010, 73; Barnet 1972, 18-19; Hodgson 1976, 17-18). Disagreement over the Yalta conference in early 1945 had opened a partisan cleavage with the Republicans arguing that the liberal Democrats were weak on communism and had capitulated to Stalin's demands (Dueck 2010, 70; Boettcher 1992, 49). The Truman administration's China policy and the fall of Chiang Kai-shek's nationalist regime provided further reasons for the Republicans to blame the administration's lacking determination in its treatment of communism. 114 However, the Democrats themselves, except for a shrinking progressive wing, soon came to terms with a firm stance on communism including a strong military policy. While the more conservative Southern Democrats were never close to communist thinking, especially within the party's liberal wing, with its base among the Trade Unions and the cities to the North-East, was the post-war position on communism controversial. After the Democrats' electoral defeat in 1946, the liberal movement split into a liberal and a progressive part (Beinart 2006, 4-15; Brock 1962, 39-83). While the latter did not renounce communist influences in their ranks and called for a peaceful relationship with the Soviet Union, the former, most prominently organized in the Americans for Democratic Action, vocally resisted communism as the latest manifestation of a totalitarian ideology. After the progressives' leader William Wallace was clearly defeated by Truman in the 1948 elections, the anticommunist position increasingly dominated the party. In fact, the congressional Democrats were more hawkish than the Republicans by the end of the 1940s. All leading Democrats in military policy, including the key players David I. Walsh (D-MA), long-time chairman of the SNAC, Elbert Thomas (D-UT), chairman of the SMAC, Millard Tydings (D-MD), chairman of

¹¹⁴ Reflecting the growing public resentment towards communism, the Republicans soon extended their suspicion of communism abroad to communist movements and activities within the US, the Democratic Party and the Truman administration. The anticommunist sentiment found its most aggressive and populist expression in Senator Joseph McCarthy (R-WI), who warned that the administration was infiltrated by communist traitors. He was supported by numerous conservative Republicans and even some moderate Republicans, who considered McCarthy a useful means to smear the Truman administration (Boyle 2005, 21).

the SASC, and George H. Mahon (D-TX), chairman of the merged SubHAC after 1949¹¹⁵, supported a strong defense (Keith 1991, 401-407; Blechman 1990, 23).

Besides these broad parameters on which Congress and the administration largely agreed, Congress held moderately departing views on the qualitative course of the transitions. Different perspectives on the state as well as welfare and foreign policy resulted in quite similar preferences on the course of the military transition. After the war, the New Deal coalition, which had unified the Democrats under Roosevelt, slowly disintegrated. Congressional Democrats consisted of an uneasy alliance of three groups: The liberals were flanked by Southern Democrats, the so-called Dixiecrats, to the right and progressive Democrats to the left. With the turn to a robust stance on the Soviet Union, the liberal Democrats had lost their general distaste for large defense spending and government interventions for reasons of national defense such as UMT. But since most industry in the Midwest and Middle Atlantic regions rapidly and largely successfully conversed to consumer production and the national welfare hardly depended on defense dollars, they did not see a particular need to back defense spending beyond the most obvious security needs. As each extra defense dollar would distract money from the New Deal welfare program, they preferred the cheapest way to maintain defense. After initial ambiguity with regard to this way, which left Congress largely reactive, air power emerged as the most promising means to meet these requirements by 1948. Moreover, while the liberals and the progressives hoped that atomic weapons could be placed under UN control (Brock 1962, 52-53), the former increasingly lost hope and started to consider air atomic power as an inevitable part of national defense. Many shared Senator John H. Bankhead's (D-AK) opinion: "The old methods of fighting vanished at Hiroshima." (in Washington Post 1946)

The conservative Southern Democrats slowly departed from the New Deal coalition on domestic issues, 116 but they largely shared the New Deal Democrats' preferences in the

¹¹⁵ He succeeded Albert J. Engel (R-MI), the last chairmen of the House Subcommittee on Appropriations for the Military Establishment, and Charles A. Plumley (R-VT), the last chairmen of the House Subcommittee on Appropriations for the Department of the Navy.

¹¹⁶ The rejection of civil rights for Southern blacks was the major issue that separated most Southern Democrats from the North-Eastern majority (Rae 1995, 146). Although Roosevelt had tried to marginalize these Southern conservatives, who opposed the administration's New Deal policy, during his tenure, the Dixiecrats had a strong base in the firmly Democratic South and represented a formidable element of the party. Therefore, any unified party effort especially on domestic issues was hard to achieve. In fact, the party split in three fractions during the 1948 elections. On the left, Henry Wallace ran on the Progressive Party platform. On the right, Strom Thurmond (D-SC) became the candidate of the

budget and weapons acquisition dimensions of military policy. Their preferences were based on a completely different rationale, however. The Dixiecrats had a hard time with large defense spending, state intervention and the creation of a consolidated permanent military establishment. Therefore, they repeatedly defected to the Republicans to keep military efforts in the organizational dimension in check. At the same time, the Southern Democrats shared the clear preference for a tough stance towards communism and a strong national defense (Lerche 1964, 38-39). The most prominent Southern advocate of strong defense was congressman Carl Vinson (D-GA), long-term chairman of the HNAC and HASC, who earned his nicknames 'The Admiral' and 'Mr. Navy' through his early preferences for a strong Navy. After the war, he was one of the most influential Democratic spokesmen in defense matters, supporting especially naval and air power concerns (Deering 1993, 165). A testimony before the House Subcommittee on Appropriations nicely sums up Vinson's position: "I think the Government's first obligation is its defense. I think nothing comes ahead of insuring the people of the Nation that they can be protected as far as is possible by an Army, a Navy, and an Air Force at adequate strength, which strength in turn has a stabilizing effect in maintaining peace throughout the world." (SubHAC 1949, 216) In order to provide security and at the same time keep the federal state small, Southern Democrats came to the same conclusion than the New Deal Democrats by the late 1940s: The exploitation of air power.

With the growing international tensions in 1950, NSC-68, and a promising economic outlook, the Democratic radicalism turned into preferences for a far-reaching and broad buildup to match the Soviet capabilities (Reichard 1978, 54-57). Military weakness would invite Soviet aggression and therefore increase the likelihood of World War III. A strong Air Force including nuclear weapons remained necessary, but was not sufficient to contain communism. Reliance on air atomic power was not only morally dubious, but also reduced the US strategic options and international freedom of action. The Democrats' turn to a more supportive military policy position pitted them against the conservative Republican.

Throughout the postwar years, most Republicans shared the Southern Democrats skepticism of a large federal state, state intervention and excessive defense spending.

States' Rights Party, supported by many Southern Democrats. Both parties were clearly beaten by the incumbent in the general election.

Especially conservative Republicans with their primary strongholds in the Midwest, including Senator Robert A. Taft, 'Mr. Republican' from Ohio, and Representative Joe Martin (R-MA), strongly fought against big government, growth of presidential power, high taxes and state intervention (Dueck 2010, 39-84; Matthews 1982). They rejected not only the New Deal legislation, but also an expensive and large military establishment depicting a path towards military dictatorship. Even moderate Republicans were concerned that state interventions and large expenditures justified through security needs would open the door to socialist control over the economy and society.

The resulting position on the course of transition was not only informed by the GOP's concept of the state, however, but also strongly influenced by the leading Republicans' disagreement on foreign policy. By the end of the war, the Republican Party was in a difficult transition splitting the party in two main foreign policy fractions (Woods 2003; Gould 2003, 311-314). Already in a downward trend, the traditional isolationists and America First supporters, with Taft as their leading proponent, were still a strong force in Congress (Edwards 1999, 11; Doenecke 1979, 25; Cagle 1964, 7-9). They were critical of the emerging international institutions as well as permanent deployment of troops abroad, which carelessly tied the US to other nations' affairs: Europe was primarily a European problem. Deeply distrustful of America's allies, many conservative Republicans rejected any economic and military assistance to Europe and other places and suspected Truman to exaggerate the communist threat in order to gain political support (Doenecke 1979, 118). Given the rejection of an international military commitment and involvement, Taft and other conservative Republicans settled for a military posture based on sea and air defense backed by nuclear weapons.

But a growing number of Republicans had converted to internationalism during World War II. Pearl Harbor had destroyed the belief of many former isolationists that the oceans could effectively protect the US from foreign aggression. And if the US "could not hide from the rest of the world, it must control it." (Woods 2003, 47) This advancing conservative internationalism is best represented by Arthur Vandenberg, the party's foreign policy heavyweight. Vandenberg (R-MI) shared most of Taft's positions on the role of government and free enterprise. But he strongly disagreed on foreign policy: The converted internationalist was convinced that the US should dominate in order to preserve the status quo in an uncertain world. A Pax Americana would serve

the country's interests best. Therefore, he supported the government's active international role including foreign deployments. The internationalist advance within the party was further backed by the public opinion. Given the public support for internationalism, "[b]eing tagged as an isolationist had clearly become an electoral liability." (Dueck 2010, 72) As anticommunism implied for many people a commitment to military power and at least some international involvement, the isolationists struggled with inconsistencies in their positions. After the war, many isolationists including Taft had weakened their isolationist position and called themselves nationalists which opposed communism and an active foreign policy alike. But the fact that Thomas Dewey of the GOP's Eastern, internationalist wing rather than Taft gained presidential nomination in 1948 shows the continuous difficulties of the party's conservative wing to appeal to broader constituencies (Edwards 1999, 34-36).

The political impact of Taft and the conservative Republicans on the GOP's military policy was nonetheless considerable. After Dewey's defeat in the 1948 elections and with Vandenberg sidelined by illness, Taft rose to the leading Republican spokesman for domestic and foreign policy and pushed the party towards his preferred military posture (Boettcher 1992, 117). In early 1951, nationalist Republicans launched the so-called Great Debate over the military implications of the containment strategy and deployment of troops to Europe. In a long speech before the Senate, Taft argued that "the immediate problem of defending this country depends upon control of the sea and control of the air." (97 Cong. Rec., January 5, 1951, S57) A strong military establishment including forward presence in Europe for preventive purposes would only increase the likelihood of war, hurt liberal economy, and threatened to turn the US into a garrison state.

At the same time, Taft and other nationalist Republicans moved to a position of aggressive roll-back of communism (Dueck 2010, 81). When Pacific Commander MacArthur, long-time star of the Republicans, urged a military escalation in Korea and a shift of emphasis from Europe to the Pacific prior to his discharge in April 1951, they merged the rejection of permanent military entanglements and an aggressive roll-back strategy: "Fortress America' was quickly replaced by 'Asia-first' as the new rallying cry of conservative Republicans and some Southern Democrats as they completed the transition from isolationism to an imperialism of their own." (Sanders 1983, 99) In a speech briefly after MacArthur's dismissal, Taft accused the administration of lacking

rather than excessive engagement: "It would be hard to deliberately invent a more disastrous series of policy moves than this Administration has adopted during the past eighteen months in the Far East." (in New York Times 1951c) Opening a partisan cleavage on the Korean War, the conservative Republicans argued that Truman was failing to provide sufficient resources to Korea while at the same time wasting money in Europe and spending the state into bankruptcy (Sanders 1983, 86). Although the Great Debate did not succeed and Eisenhower's nomination for the presidential candidacy over Taft marked a bitter defeat for the conservative Republicans, their positions had an important influence by moving the party towards a military radicalism based on nuclear air and sea power. 117

The party preferences on the doctrine & mission statement dimension are only evident from the context of their positions. Thus, the Democrats preferred a mixed position, which included land forces as well as long-range strategic aviation. The Republicans instead put more weight on the latter means and limited emphasis on the former.

¹¹⁷ During the early months of Eisenhower's presidency, Taft controlled the Senate and closely interacted with the administration (Edwards 1999, 60-66). His sudden death in summer 1953 robbed the conservative Republicans of their most important spokesman and leader, however. Taft's death resulted in a drastically reduced influence of the party's conservative wing.

1945-1949	1950-1953
OF CONGRESS PURSUE IN THE	DIMENSION OF
-Preference for air (atomic) power since 1948	 Republicans: Moderate support for air atomic power Democrats: Moderate
	stability bias (balanced funding)
- Democrats: Support for a permanent force and UMT	- Democrats: Support for a permanent force, UMT and forward deployment
- Conservative Republicans/Southern Democrats: Rejection of large permanent force and UMT	- Conservative Republicans/Southern Democrats: Rejection of large permanent force, UMT and forward deployment
- Support for aviation and nuclear weapons	- Democrats: Moderate stability bias (broad acquisition)
	- Republicans: Support for aviation and nuclear weapons
- Narrow preparations	- Democrats: Stability bias (broad preparations)
	- Republicans: Narrow preparations
- In parts (Republicans only partly on organization)	 In parts (Republicans not on organization; Democrats not on budgets and weapons acquisition)
- Yes (military radicalism)	Democrats: No(military conservatism)Republicans: Yes
	- Narrow preparations - Narrow preparations - In parts (Republicans only partly on organization) - Yes

5.1.2.2. President and administration

The Harry S. Truman administration

Since 1933, President Franklin D. Roosevelt had been the towering political figure who kept the ship America on course through the Great Depression and World War II. When he died in April 1945, the nation and particularly his successor were utterly shocked (Donovan 1977, 7-9). Roosevelt's political dominance would have made any succeeding President look inadequate, but Harry S. Truman seemed particularly unsuited for the job (Maddox 1988, 45-46). Especially on foreign and military policy, Truman was badly prepared to lead the nation. Truman knew neither more than an interested citizen about the Yalta conference and the state of the war alliance nor anything about the Manhattan Project. Furthermore, since the presidency took him by surprise, Truman had developed little policy positions of his own. The unexpected President lacked not only public approval and political legitimacy based on political majorities, but also professional reputation. Truman's pragmatic response to this situation was to keep things running and stick with the commitments Roosevelt had made. Without a strong power base, he was careful not to provoke public wrath especially early into his first term. ¹¹⁸

Nonetheless, he was soon forced to take positions as the end of war approached rapidly. Reflecting public fears, Truman's major concern was to avoid an economic crisis after the war. Therefore, the President stuck to the principle of balanced budgets and fiscal austerity, which he considered major measures to avoid inflation and a related economic downturn. Yet, despite fiscal austerity, he was neither willing to sacrifice welfare programs altogether nor ready to neglect his responsibility for US security (Truman 1955, 509). Thus, on the domestic side, the President sought to continue the New Deal policy in the postwar era by his Fair Deal proposals after 1946. On the foreign policy side, Truman believed that it was in America's interest to participate in global politics

¹¹⁸ At the same time, he was determined to establish presidential authority within the administration and gain a reputation as strong leader. The President valued clear lines of authority and left no doubt that the buck would stop with him (Barber 2009, 336).

¹¹⁹ It is difficult to assess whether the Fair Deal program reflected Truman's own policy interest or whether it reflected a political strategy to secure reelection in 1948. He had supported Roosevelt's New Deal policy in domestic policy and therefore might have had a genuine ideational interest in the Fair Deal. But it seems plausible that the pragmatic Truman embraced the Fair Deal as a strategy to gain public approval for reelection. After the defeat in the midterm election 1946, the Wardman Park Hotel group, a group of liberal Democrats, suggested the move to the left as key to win the 1948 election (Brune 1989, 360).

even at some costs and he was convinced that world leadership lacking a formidable military force would be futile. Yet, a sound economy and welfare had priority after the war and defense would only gain what remained under the given ceiling after all other costs were covered (May 1990, 37; Huntington 1961, 42-43).

To make the best of the limited resources available for defense, Truman pushed for efficiency. Back in the Senate, Truman had chaired a special committee to investigate cases of waste, corruption, and favoritism within the military procurement process (Ferrell 2003, 15-17). This occupation qualified his generally favorable view of the military, stemming from his World War I experience: "The function of generals and admirals is to fight battles. (...) They have no experience in business or industry, and the job of producing what they ask for should be left to businessmen under the direction of experienced civilians." (Truman in 1942 cited in Haynes 1973, 21-22) Two months after his nomination as Vice President, Truman published an article promoting unification to reduce duplications and waste (Boettcher 1992, 22). And he remained skeptical of the armed forces' pleas for additional funding throughout most of his presidency. He reasoned that without wasteful spending in the military establishment a strong defense could be maintained with less money (Donovan 1977, 138).

Truman refrained from giving qualitative directions with regard to the military transition. Instead, he relied on the administration's civilian and military staff which had significantly grown during the war. Two general positions on military policy can be distinguished within the civil administration: The so-called economizers, which dominated Truman's first term, shared the President's commitment to balanced budgets and a sound economy, yet articulated little qualitative preferences. They generally supported internationalism, containment of the Soviet Union including a military component, but were unwilling to subordinate other goals. The economizers were

After the war, Truman considered the consolidation of the military forces as a way to strengthen the coordination, end interservice rivalries, and establish clear responsibilities and hierarchies (Donovan 1982, 57). The President was skeptical of the domestic impact of a durable military establishment and opposed the creation of a central military actor such as a combined chief of staff who could challenge civilian control and exercise strong political influence (Ayers 1991, 96). But he figured that clearer responsibilities would improve civilian control of the postwar military establishment and therefore the presidential power to affect the organization.

In 1939, only about 10 percent of the federal government's civilian employees worked for national security agencies. In 1945, this share had risen to more than 75 percent, as the war had contributed to a massive expansion of the national security bureaucracy (Barnet 1972, 24-25, 28).

¹²² The most prominent exception from this consensus was Henry Wallace, the initial Secretary of Commerce and central figure of the Democrats' left-wing, who was an explicit opponent of large military

especially strong in the Bureau of Budget within the President's executive office. Under Truman's first Director of the Budget Harold D. Smith and his successor James E. Webb the office became a highly influential institution and the most vocal champion of efficiency, economy, and centralized governmental management. Both directors considered the Budget Bureau as defender of balanced budgets and a sound economy against parochial interests. In the words of Paul Appleby (1957, 156), assistant director on the Budget Bureau 1944-1947: "Fiscal sense and fiscal coordination are certainly values. The budgeting organization is designed to give representation in institutional interaction and decision-making to this set of values." Since all other executive agencies wanted a share of the budget as big as possible, the Budget Bureau considered itself as moderator and constraint at the same time: "It is on the whole rather strongly against program and expenditure expansion." (Appleby 1957, 156) Hence, without pursuing an explicit defense agenda, Smith and Webb argued that an extensive defense policy without taking fiscal and domestic needs into account would harm the state's goals in the long run (Hogan 1998, 83). The group of vocal budget balancers was complemented by the former president of the American Economic Association, Edwin Nourse, who became the first chairman of the newly established Council of Economic Advisors in 1946 (Brune 1989, 358). Although in many respects a Keynesian economist, Nourse held conservative views on balanced budgets and the wastefulness of war. He argued that states had only limited resources and would always face a trade-off between different goods. Additional spending on military power would inevitably lower the domestic productivity.

In contrast to this large group, the number of defense hawks, who pushed for a strong defense even at the expense of deficits, was initially limited to the military departments. Both secretaries of the military departments shared the opposition to underfunded and understaffed military forces, yet sought to direct additional funding to their respective organizations. Secretary of the Navy, James V. Forrestal was committed to a strong defense against any worst case scenarios, which might threaten the democratic-capitalist system (Cornell 1987). 123 At the same time, he skillfully and relentlessly fought for the

spending, which distracted money from New Deal projects. More sympathetic to the Soviet Union than the rest of the Truman administration, Wallace publically suggested a foreign policy turn and was forced to resign in 1946. With Averell Harriman succeeding Wallace, the last high level opposition to an anti-Soviet stance within the government ended (Abramson 1992, 411, 425).

¹²³ Like many other officials within the military establishment, Forrestal drew gloomy lessons from the military unpreparedness during the interwar years and the Pearl Harbor disaster.

prosperity of the Navy and thus challenged not only the economizers, but also the War Department on postwar military policy. His colleague, Secretary of War Robert P. Patterson, defended the interests of the War Department and especially fought for the continuous importance of ground forces. When the National Military Establishment was created in 1947, Forrestal became the first Secretary of Defense. 124 While the new Secretary of Defense moved to a moderating position between the civil and military preferences, the Service secretaries remained strong supporters of their organizations. For example, Air Force Secretary Stuart Symington, who became civil head of the new Air Force branch in 1947¹²⁵, was convinced not only that military strength was crucial for US security, but also that air power was central in this effort: "Believing that he should do anything necessary to keep the Air Force from being overshadowed by the other armed services, he viewed his primary job as ensuring that the Air Force received its fair share of the appropriations." (McFarland 2001, 22) The same holds true for the other Service secretaries after unification. Yet, in their struggle for funding, the secretaries disagreed on the course for military preparations resulting in inconsistent strategic advice. They canceled out each other's far-reaching suggestions and consensus was necessarily close to the status-quo and often a highly reactive patchwork. Considering all secretaries individually, they all suggested potentially innovative policies, but taken together, stability was dominant.

A more balanced position came from the State Department. While Truman's first Secretary of State James F. Byrnes played a minor role in the defense debates, his successor George C. Marshall took a more explicit position. Well aware of the political and fiscal difficulties of a permanent military force during peacetimes, he considered efforts to strike a balance between domestic and security needs as inevitable. But in contrast to other economizers, the former military leader derived a preference on the shape of the future military force from this matter of fact: Considering all branches

¹²⁴ John L. Sullivan assumed the post of the Navy Secretary (Waggoner 1947). Even before the War Department was split by the National Security Act, Kenneth C. Royall replaced the retiring Patterson as last Secretary of War. His title soon changed into Secretary of the Army.

¹²⁵ Before he joined the Truman administration in 1945, Symington was president of Emerson Electric Company, the leading producer of gun turrets for US bombers and boosters for artillery shells during the war. He became assistant secretary of war for air in 1946 and was therefore the obvious choice as the Air Force's first secretary. Thomas K. Finletter, the main author of the report "Survival in the Air Age" of 1948 which had furthered the Air Force's course, became Air Force Secretary in 1950.

¹²⁶ Fred M. Vinson, who Truman transferred from the Office of War Mobilization and Reconversion to head the Treasury Department, also strengthened the economizers' case. The moderate Southern Democrat, a personal friend of Truman and former Congressman, opposed excessive federal spending (New York Times 1953c).

equally important, he supported a policy which maintained only a small permanent force but provided provisions for rapid mobilization. Marshall's mobilization approach was the most consistent alternative innovation to the congressional air power focus. George Kennan, who became head of the State Department's newly established Policy Planning Staff, largely agreed with Marshall's balanced budget approach despite the alarming rhetoric in the X-article (Miscamble 1992). Indeed, he regarded economic and diplomatic means as major instruments of the containment policy and believed that military capabilities were of minor importance. Thus, Kennan argued that the aspiration for military strength must not put economic prosperity at risk.

By the decade's end, Truman increasingly fell victim to his public interpretation of containment as a military effort and anticommunist rhetoric, which the President employed in order to push his foreign and defense policy and offset Republican attacks. As the public, Congress, and, after initial ambivalence, the President himself turned openly hostile to the USSR, his ceiling approach, granting only the left-over to defense, increasingly came under pressure. In fact, balanced budgets seemed increasingly incompatible with the efforts to counter the 'red menace' abroad and to implement the Fair Deal at home.

Moreover, the balance between economizers and defense hawks in the administration shifted in favor of the later. Especially the arrival of Dean Acheson, who replaced Marshall at the State Department in 1949, proved most consequential. While his predecessor had been working for a mobilization system, Acheson leaned more towards a permanently strong national security to improve the credibility of US containment policy. Acheson (1969, 379) recalls in his memoirs: "Four years of trial had convinced us that agreement with the Kremlin was not then possible. Certain obstacles stood in the way that had to be removed. Among them was the existence in the non-Communist world of large areas of weakness, which by its very nature the Soviet system had to exploit. (...) Therefore, we had been at work to create strength where there had been weakness, (...) to replace the dams that once contained Russia to the east and to the west." In March 1950, Paul Nitze, the later architect of NSC-68, succeeded Kennan at the top of the Policy Planning Staff. Like Acheson, Nitze was much more critical with regard to the maintenance of peace with the Soviet Union not based on military strength. The broad qualitative preferences of these defense hawks are arguably best described in NSC-68: "In the absence of (...) elimination and the securing of these

objectives, it would appear that we have no alternative but to increase our atomic capability as rapidly as other considerations make appropriate. In either case, it appears to be imperative to increase as rapidly as possible our general air, ground and sea strength (...) to a point where we are militarily not so heavily dependent on atomic weapons." (NSC 1950, 83) Even at risk of increasing federal deficits, this group sought a broad buildup offering various strategic options.

Meanwhile, the economizers lost relevance. Since defense policy was increasingly dominated by the NSC, which created a better balance between fiscal and strategic consideration, the Budget Bureau lost relative influence (Huntington 1954a, 215-216). For a short time, the most powerful and at the same time unlikely new economizer became Louis Johnson, who replaced Forrestal as Defense Secretary in 1949. 128 In an attempt to foster his political ambitions with the reputation as strong leader, Johnson sought to exert strong civil control within the DOD. Johnson especially picked up Truman's preference for fiscal austerity and put saving pressure on the Services. He was willing to make hard and unpopular decisions with regard to the course of the defense policy, but lacked a clear strategic vision. His opposition to the defense hawks and often rude handling of conflicts soon alienated many in the defense establishment (Childs 1949; Herspring 2005, 73). Especially Acheson repeatedly clashed with Johnson and the exchange between the State Department and the Pentagon was reduced to the most formal channels during Johnson's tenure (Donovan 1982, 62). After his unsuccessful battle to halt NSC-68 and the initial military setbacks in Korea, the early resignation of Johnson, who was largely isolated within the administration by then, became inevitable. 129

-

¹²⁷ Acheson brought the former director of the Budget Bureau James Webb to the State Department to become undersecretary. The vocal defender of a balanced budget during his time at the Budget Bureau changed sides and followed the course of his new superior. Webb's successor at Budget Bureau, Frank Pace, proved less influential. When Pace left the Budget Bureau to become Secretary of the Army, Frederick J. Lawton became the new Budget Director.

¹²⁸ Johnson was selected as a reward for the effective organization of Truman's campaign financing during the 1948 election. He had a strong base among the American Legion in which he served as commander during the 1930s.

¹²⁹ The economizers' position was further weakened, as the tide in macro-economic thinking within the administration turned increasingly against the imperative of balanced budgets (Brune 1989). New ideas of military Keynesianism became a prominent economic argument first outside and then inside the government during the 1950s. Leon Keyserling, the Council of Economic Advisors vice chairman, represented this departure from Nourse's warning of economic trade-offs. When Nourse resigned in frustration and was succeeded by Keyserling in late 1949, the economic feasibility of guns and butter became the common assumption "by which the American public and its politicians justify obtaining the

Marshall returned to the administration in September to succeed Johnson. Although he did not consider military requirements as overriding other federal tasks in peacetime, he was willing to take the necessary steps in a national emergency and thus came much closer to the defense hawks' positions. Marshall was succeeded by Robert Lovett, the former Deputy Secretary of Defense, after a year in office. The highly experienced Lovett, a longtime confidant of Marshall, believed that a strong defense based on a solid industrial base was not only necessary as the Cold War took shape, but also sustainable in the long run. Shortly after becoming Defense Secretary he declared: "There is no other way but strength. We tried weakness. It didn't work." (in Lockett 1951) Like Marshall, Lovett believed that each Service had its role to play and was therefore supportive of a balanced force posture (Condit 1988, 37-38).

The Dwight D. Eisenhower administration

When Eisenhower became the 34th President of the United States, the tide turned again in favor of economic positions. Yet, this time, the administration sought to actively tie the fiscal position to a clear strategic perspective. As a former military leader, Eisenhower was able and willing to implement a strategic vision connecting the Soviet threat and the fiscal constraints. Already during the election campaign, Eisenhower expressed three insights gathered during the Truman years: "First, our defense program has suffered from lack of farsighted direction. Second, real unification of our Armed forces is yet to be achieved. Third, our defense program need not and must not push us steadily to economic collapse." (in Reston 1952) Eisenhower criticized the Truman administration for departing from its early commitment to balanced budgets and the indecisive performance in Korea (Dueck 2010, 86-87; Ferrell 2003, 169). While he was the candidate of the moderate internationalist wing of the GOP, he shared many of the conservative Republican's positions on military policy. He objected high federal taxes and spending which drained resources from society and market and promised heavy reductions in defense expenditures during the campaign (Alsop/Alsop 1952b). In his eyes, the excessive defense budgets strained the economy, fueled fears of a garrison state, and increasingly alienated the Republican Party as well as the public.

highest degree of military security without sacrificing the middle class welfare programs." (Brune 1989, 357)

A far-reaching builddown was out of question however, as the Cold War loomed beyond the Korean War. Eisenhower denied any relaxation of pressure towards the Soviet Union, which he considered a totalitarian, uncooperative regime and a long-term threat. While the Truman administration during the second term increasingly interpreted the conflict as heading towards a military showdown, Eisenhower regarded the Cold War as a permanent struggle. Against this backdrop, the President saw a strong defense and a strong economy inevitably connected. Therefore, he pursued a defense policy, which would be sustainable in the long-run.

In order to gain a comprehensive perspective on the military policy options, Eisenhower upgraded the NSC to become the major body for policy discussion and decision within the administration. He put more weight on economic considerations by making the new Budget Director Joseph M. Dodge and Treasury Secretary George M. Humphrey, both dedicated fiscal conservatives, new usual members of the NSC (Boyle 2005, 19, 28). This reduced the relative influence of the Services over other preferences. Given the desire for a sustainable balance between economy and security, Eisenhower and the NSC soon moved to a single strategic option based on air atomic power, which promised the most 'bang for a buck' and which had long developed among the public and within the Republican Party. He argued that a "great retaliatory power" would deter an attack and thus serve the national security best (in Bernstein 1971, 411).

Few political actors within the administration challenged the radical shift in military policy during his first year. As a step to improve civil control of the military, Eisenhower named Charles E. Wilson, the former CEO of General Motors, as Secretary of Defense. Wilson had little political and military experience and Eisenhower did not select him to formulate military policy, which was left to the NSC. Instead, he hoped that Wilson would use his management skills to lead the huge defense organization and implement the NSC's decisions effectively (Trask/Goldberg 1997, 69). Indeed, Army

-

¹³⁰ Like Truman, he also pursued further military assistance to allied states which contributed to the credibility of containment without significantly increasing the burden for the US economy. During a NSC meeting in March, Eisenhower is cited as having explained that "we should never forget that in defending Europe with \$6 billion of Mutual Security assistance we are getting a very great deal for our money." (Memorandum of a Special Meeting of the NSC cited in Boyle 2005, 44)

is Early on, the President asked Robert Cutler, a member of his presidential campaign team, to review the administration's national security organization. Cutler reorganized the NSC by putting it under control of a presidential assistant who chaired meetings and linked the Council much better to the President than before. Cutler himself became this assistant. Showing the raised importance of the NSC, Eisenhower missed only 29 meetings during his eight years in office (Dockrill 1996, 23).

Lt. General Gavin (1958, 155) recalls that Wilson "tended to deal with his Chiefs of Staff as though they were recalcitrant union bosses." In the struggles between the NSC and the military Services, the Defense Secretary was often the mere executor of directions.

Moreover, Eisenhower replaced the Service secretaries with former industrialists, who kept a rather low political profile and understood their task as managers. Indeed, faced with a strong group of civilian leaders, the Service Secretaries found only marginal possibilities to influence military policy. Other critical voices emerged only very selective and remained weak. For example, John F. Dulles, an important spokesman of the conservative Republican and Secretary of State in the administration, initially argued for a replacement of the containment policy by an active military policy to liberate the states oppressed by Communists (Dockrill 1996, 18; Bernstein 1971, 403-404). Yet, while he was a highly visible member of the administration, he never questioned Eisenhower's authority (Dueck 2010, 91).

Relevant questions	1945-1949	1950-1953
WHAT PREFERENCES DO POLITICAL A DIMENSION OF	ACTORS WITHIN THE ADMINIST	TRATION PURSUE IN THE
military budgets?	- remainder method (balanced budgets/domestic needs have priority), no clear strategic perspective (reactive)	- Truman: stability (rapid buildup / broad strategic perspective)
		- Eisenhower: sustainable defense spending / bias in favor of air atomic power
military organization?	- Support for UMT, no clear distributional preference	- Truman: Support for UMT, forward deployment, balanced organization
weapons acquisition?	- No clear preference	- Truman: Stability (broad acquisition)
		- Eisenhower: Bias on air atomic power
military doctrine & Service mission statement?	- No clear preference	- Truman: No clear preference
		- Eisenhower: Bias on air atomic power
Do these preferences represent societal demands?	- in parts (partial agreement on organization/no agreement on budget)	- Truman: In parts (agreement on organization/no agreement on budget and acquisition)
		- Eisenhower: Yes
Are these preferences consistent with the dominant societal idea underlying the course of military transition?	- No	- Truman: No (Military conservatism)
	(No consistent mindset)	- Eisenhower: Yes (Military radicalism)

5.1.2.3. Consistency of political actors' preferences

During the builddown, the administration and large majorities of Congress shared a broad consensus with regard to two important factors of military policy, which already unified Congress and reflected the societal position: (1) The opinions on the precise size of the defense budget and fiscal role of the federal state in general differed across and within parties, but "the President and the Congress wanted smaller budgets." (Sharp 1976, 285) (2) Most political actors shared the anticommunist stance and considered military force essential to meet this threat. Beyond these positions the two branches of government departed in important ways and consistency was low. While Congress turned to air atomic power in the budget and weapons acquisition dimensions after some hesitation, the Truman administration remained undecided beyond the commitment to sharp budget cuts. Only in the organizational dimension, did the administration share the societal position, with Southern Democrats and especially the conservative Republicans departing from this consensus.

Overall, the congressional positions reflected the societal demands much more accurately. Both parties turned to a more or less strong military radicalism based on limited defense spending and air atomic power by 1948. But the administration dominated the military policy making most of time. To be sure, Congress was eager to exercise its prerogatives that had been held back by military necessity during the long war (Sparrow 1994, 294). As Sharp (1976, 284) argues: "In the minds of a number of Congressmen, the military had become a little too lordly, possessed of too many privileges for too long a time, and they wanted to reduce it to more human proportions." But these ambitions were rarely met and Congress hardly challenged the administration in a decisive way. With low salience of military policy, lawmakers could gain little from a struggle over defense policy from a vote-seeking point of view. Instead, congressional opposition could easily backfire on lawmakers, since the administration's position was publically considered to reflect the judgments of the highly popular and decorated senior military leaders. Hence, Capitol Hill was careful to avoid the impression of unfounded disagreement with the President and especially the armed forces (Blechman 1990, 24-25). Moreover, faced with a substantially larger defense establishment and more complex budgets, the legislators often had little means to develop a comprehensive and independent position and were forced to rely on the testimonies of the administration's representatives. As Huzar (1950, 80) puts it: "The

subcommittees needed a substantial amount of faith (...) for the several-billion-dollar military budgets of the late forties." Consequently, lawmakers focused on administrative problems and minor lapses rather than on the general course of the military policy or the soundness of budget items. Congress rarely directly intervened on a broad scale and its challenges remained piecemeal.

Rather than turning towards the raised societal demands, the administration settled for a much more status quo oriented position in accordance with NSC-68 during the subsequent buildup. Only in the organizational dimension did the administration remain in sync with dominant societal preferences. And many Democrats in Congress followed this course at least in parts. Since the Democrats had the majority in both chambers until 1952, the shift of the congressional Democrats allowed for a consistent military policy position. When Eisenhower sharply turned towards a position in high congruence with the societal demands, the hawkish congressional Democrats continued to propose a more conservative force posture and challenged Eisenhower to increase defense budgets in seven out of eight years of his tenure (Huntington 1969, 2). Yet, since the Democrats lost their majority during the 1952 election, the consistency of the political actors' positions remained high.

Relevant questions	1945-1949	1950-1953	
ARE POLITICAL ACTORS' PREFERENCES CONSISTENT IN THE DIMENSION OF			
military budget?	Low consistency	High consistency	
military organization?	Moderate consistency	Moderate consistency	
weapons acquisition?	Low consistency	High consistency	
military doctrine & Service mission statement?	Low consistency	High consistency	
Do political actors share ideas on	No	- Truman: In parts	
the course of military policy?	110	- Eisenhower: Yes	

5.1.3. Military actors' preferences

The massive buildup during World War II empowered the military actors which previously had played only a very limited role. The armed forces suddenly became huge organizations with vast fiscal and personnel resources as well as political attention and weight (Barnet 1972, 24-25, 28). During the war and in its aftermath, military leaders were not only involved in military affairs, but served as presidential advisors on foreign policy and political representatives abroad. Yet, most military leaders still remembered the marginalization of the armed forces after World War I and feared to share the same fate by the war's end. 132 Thus, the Services threw all their weight into the political battles against military insignificance. The Chiefs of Staff were convinced that their job was not over after defeating the Axis Powers and tried to emphasize the necessity of permanent postwar forces. Well aware that the newly dominant US was a major target for any aggressor, they were highly suspicious of Soviet intentions earlier than most politicians and implicitly based postwar force planning on requirements of an East-West-confrontation (Dockrill 1996, 6). Planning remained piecemeal during the first two postwar years, however, since the military implications of the growing tensions were not fully visible and the armed forces lacked a clear basis for strategic planning.

As the prospects of a military conflict with the Red Army became more tangible over time, fear of military insufficiency and inferiority further fueled the resistance to postwar marginalization. In fact, early planning scenarios in response to a Soviet attack on Western Europe caused serious concerns among military leaders (Ross 1988). With occupation forces in Europe and Asia and as the only nation with enough economic and military capabilities to counter a Russian advance, there was little doubt that the US would quickly be forced into an all-out engagement. Yet, all planning efforts came to the conclusion that the American military preparations were insufficient to halt an attack on Europe: The Red Army would rapidly overrun Western Europe and push into the Middle East. To make things worse, sharp decreases in procurement funding would

¹³² In the 1920s, Congress had rejected the concept of a large standing force, dooming the military to a shadowy existence. In fact, the deeply embedded skepticism of large standing armies had resulted in rapid and almost complete demobilization after all previous American war efforts.

¹³³ Based on an intelligence report in October 1945, the Joint Chiefs of Staff estimated a Soviet Union's postwar military strength of 4.4 million troops in 113 divisions, 410 air regiments and a small navy. Hence, they concluded that the Soviet Union had the capabilities to overrun Europe excluding Britain at any time between 1945 and 1948, especially considering a demobilization of US forces (Ross 1988, 5). Although the American mainland was not threatened by Soviet forces due to their lacking naval capabilities and nuclear weapons, Eurasia seemed impossible to defend by current conventional means.

reduce not only the Armed Forces' state of readiness, but also wreck the industrial base for a quick remobilization. In the eyes of the military leaders, that kind of unpreparedness would not only frustrate a decisive early response to aggression but put the state at risk.

Therefore, the armed forces "made a habit of pointing to hot spots around the world, stressing military rather than economic or political threats, and planning for worst-case scenarios." (Hogan 1998, 164) Accurate intelligence on the Soviet military capabilities and intentions were not available until 1956, when the first U-2 spy planes started gathering information (Alic 2007, 44-45). The resulting vagueness offered the Services an easy option to tailor intelligence in support of their interests with each Service emphasizing some aspects of the Soviet threat and downplaying others. 134 When war broke out in Korea, the JCS were not only convinced that this was a Soviet plot, but also that the conflict would escalate into an all-out war with the USSR including the early use of nuclear weapons. Moreover, the numerous casualties and near disaster during the opening days of the Korean War convinced the Services that their demands for additional funds had been justified all along.

But the collective concerns for a strong national security were deflected by disagreement over the qualitative dimension of the transition, due to conflicting institutional interests in continuous prosperity. When the builddown began and the budgets dropped in 1945, tense interservice competition for strategic and therefore budget relevance erupted. Since the branches regarded their significance for future warfare as pivotal for the distribution of resources, influence and prestige, they strived to secure the biggest pieces of the cake. Each branch hoped to avoid cuts by providing or developing an indispensible contribution to the nation's defense. The conflict, which continued even after the fiscal situation relaxed in 1950, was fueled by obvious overlaps in some major capabilities. Each Service took great pains to legitimize its posture on strategic terms potentially blaming the others for duplication. Hence, all Services sought

To make things worse, the bomber force consisted mainly of medium-range B-29 bombers mostly based within the US and a first use of atomic bombs would have taken more than two weeks (May 1990, 8). ¹³⁴ In hindsight it is clear that the Soviet capabilities were persistently overestimated.

to defend their claims and made preparations for a share of the new capability at the same time. 135

Air Force preferences

Especially the Army Air Force sought to push for its long term objective of institutional independence including full control of all military aviation. Since the 1920s, the flyers had fought for strategic independence from its auxiliary role and institutional independence from the War Department. Yet, prior to World War II, the flyers' pleas were refused by the Army and Navy leaders, who considered strategic bombing "as much a theology as strategy." (Weiner 2009, 100) This situation of subordination strongly shaped the Air Force's positions, feeling permanently under siege and not taken serious by its sister Services even after independence in 1947. After the successful war, the Air Force most aggressively claimed its share in the emerging military establishment. In the words of the first Air Force Chief, Carl A. Spaatz: "[T]he Air Force believes that until international organization succeeds there is no stronger force to preserve peace, or to re-establish it if necessary, than strong air power." (in Waggoner 1948) The promises and prospects of technology played a vital role in the Air Force's preference formation. From the flyers' perspective, claims for independence and resource allocation fundamentally rested on the assumption of an independent strategic contribution of air power through strategic bombing, which achieved its final breakthrough with the emergence of nuclear weapons (Builder 1994; Futrell 1989, 365-416; Caraley 1966, 73-79). After initial hesitation to focus on strategic bombing and embrace nuclear weapons, the Air Force doctrine, organization and weapons acquisition was increasingly shaped by this mission. By 1948, The Air Force fully focused on strategic bombing and sought to control the technologies on which their relevance rested. It vocally claimed responsibility in aviation, especially strategic air power, at least including all land-based aircraft. It also tried to monopolize the access to nuclear

¹³⁵ The branches were even willing to use their channels to Congress to push their interests against their superiors. While civil control was increased between 1947 and 1953, the Services were quick to make their own preferences in case of disagreement with the Defense Secretary heard. A DOD legislative liaison officer during the Kennedy administration described the relation between OSD and the Services to the point: "Legislative liaison in DOD is like riding a tiger. If he feels friendly, OK. If not, look out, you're in trouble." (in Holtzman 1970, 138)

technology and to gain sole responsibility for unmanned land-based aviation, although airplanes were the Service's favored tool.

Army preferences

In contrast to the Air Force, the Army generals considered the ground forces' contribution as most basic and necessary regardless of the technological state: Only ground forces could ultimately decide a war. But reading its history as a cycle of mobilization and demobilization, the Army feared that the nation would again abandon its most obedient servant (Scoggs 2000, 113; Cohen 1995; Hewes 1975, 135-136). Especially the challenge of aviation and nuclear bombs contributed to "something of an identity crisis" within the postwar Army (Craig 2004, 221). A JCS study in late 1945 concluded that the Army would only have a minor role in future nuclear warfare, since nuclear weapons would be most effectively deployed by air against industrial centers. Therefore, the study continued, would the new weapon affect the future balance of military branches (Midgley 1986, 6-7): Manpower would only be needed for postwar stabilization and occupation duties, while the Air Force and the Navy do the actual fighting. Indeed, nuclear bombing seemed to be the only realistic option in case of war against the overwhelming ground forces of the Red Army (Linn 2007, 154-155). An article in the Reader's Digest said in 1948: "Choosing to fight Russia with divisions is like choosing to fight a lion with a bowie knife." (Huie cited in Gavin 1958, 101)

The generals responded to this situation with a strategy, which can be described as 'entrenching': They tried to defend and consolidate their claims and slowly work towards a better position especially in the budget, organization, and doctrine & mission statement dimensions. Since the Army provided the bulk of the occupation forces, there was always a minimum position to fall back to. At the same time, the Army leaders promoted unification partly in order to transfer the competition for resources inside a joint institution, in which the Army hoped to play out its institutional weight more effectively. Highly suspicious of the Marine Corps' intentions, they also tried to secure the full ground war mission against opposition from the naval forces. Moreover, as a large permanent force was considered unlikely, Army leaders pushed UMT and the buildup of reserve forces to institutionalize the vital support with manpower and prepare for a rapid mobilization. The Army's continuous case for the enduring importance of

ground forces gained new weight, when Truman ordered largely unprepared and underequipped troops into Korea. The initial defeat of the hastily deployed forces became a decisive experience for the generals and 'No more Task Force Smith' their lasting argument against peacetime marginalization in the age of US global interests. Beyond the focus on maintaining and controlling the Army's core competencies, the general's sought to exploit new technologies in order to expand into the new emerging missions. Especially the development of missiles and tactical nuclear capabilities were considered promising new fields in weapons acquisition.

Navy preferences

Like the Army, the Navy faced a challenge to its raison d'être after the war. Prior to the war, the Navy had proudly considered itself the first line of defense, keeping approaching aggressors at bay and thus assure essential time for mobilization at home. With the defeat of Japan, the last opponent with a capable high-sea fleet had disappeared, however, and the Navy mission had largely lost its relevance (Davis 1966, 188). Since the Soviet Union's power rested on land capabilities rather than naval forces, the emerging East-West-conflict did not close this strategic gap. And it was neither evident how the Navy might contribute to land missions nor expected that the USSR would develop formidable naval capabilities in the short run. To make things worse, the emergence of long-range aviation and nuclear power generally put the relevance of the naval forces for future military operations in doubt. Not only could planes simply cross oceans, concentrated sea power would also offer a welcome target for nuclear bombs. Already experiences from the Pacific theater during World War II had proved battle fleets vulnerable to air attacks and generally inflexible.

The Navy did not settle for a consolidation of its core competencies, which had sharply lost importance, but rather sought to actively reclaim relevance by open up new capabilities and missions. As the emerging opponent was a land power, the Navy tried to emphasize its capabilities which reached beyond the high seas in the doctrine & mission statement dimension. In the organizational dimension, the focus moved to the means which allowed inland power projection. Moreover, the Navy opposed unification not only due to its longstanding preference for autonomy and decentralized structures (Friedman 2009, 76), but also for the threat it posed to the existence of the Marine

Corps and the naval flyers. Both means were the Navy Department's central contributions in a potential inland war with the Red Army. The Navy especially tried to improve its position through additional air power capabilities, potentially including nuclear assets. Already during the war, the Navy and the Army Air Force had bitterly fought over the appropriate place for air power. After the war, the Navy pushed, on the one hand, for a larger contribution of its carrier based aviation. On the other hand, the Navy was in Forrestal's words "fanatic" (Forrestal cited in Hogan 1998, 52) about a role in land-based air power including antisubmarine warfare, over-water reconnaissance, and the protection of shipping. Besides the aviation arm, the admirals were constantly pushing for a large Navy, including large surface vessels and submarines. Hence, Builder (1989, 21) argues that the Navy was the "hypochondriac" of the Services, consistently concerned about its size, which it most often found insufficient.

Taken together, the Services' competition and animosities could only produce a continuous position of strategic plurality. An equal share of resources and missions was the only feasible compromise among the chiefs. Yet, given the limited budgets, this left all Services short of their wishes and the civil-military relations were continuously shaped by the Services' struggle to overcome the budget ceilings. Since the political actors did not yield, the Services could only increase their position at the expense of the others.

Relevant questions	1945-1949	1950-1953
What preferences do military actors purse in the dimension of		
military budget?	- All Services: Preferences for increased budgets and budget shares	- All Services: Preferences for increased budgets and budget shares
military organization?	- Air Force: Preference for strategic bomber wings	- Air Force: Preference for strategic bomber wings
	- Army: Preferences for active personnel, UMT, reserve	- Army: Preferences for active personnel, UMT, reserve
	 Navy: Preferences for overall number of ships and capital ships 	 Navy: Preferences for overall number of ships and capital ships
weapons acquisition?	- Air Force: Preferences for strategic bombers, air superiority fighters	- Air Force: Preferences for strategic bombers, air superiority fighters, missiles
	- Army: Preference for missiles	- Army: Preferences for missiles, tactical nuclear weapons
	- Navy: Preference for aircraft carriers, missiles	- Navy: Preferences for aircraft carriers, missiles, submarines
military doctrine & Service mission statement?	- Air Force: Preferences for strategic bombing, increasingly nuclear bombing	- Air Force: Preferences for strategic bombing including nuclear bombing
	- Army: Preference for the status quo (enduring relevance of the soldier)	- Army: Preference for the status quo (enduring relevance of the soldier)
	 Navy: Preference for inland power projection and antisubmarine warfare 	- Navy: Preferences for inland power projection and antisubmarine warfare

5.2. The military policy process

5.2.1. Strategic Planning and the defense budget

5.2.1.1. Builddown

Years of uncertainty

As the war ended, the budget was clearly out of balance. While the FY 1940 budget earmarked 1.7 percent of the GDP for national defense, the share had risen to 37.5 percent of the GDP in FY 1945 (OSD 2008, 208). War efforts had not only raised the expenses, causing considerable state deficits, but also displaced domestic welfare programs and inflated the federal state. Against this backdrop, the civil leaders set and defended firm ceilings on military appropriations for all budgets in the late 1940s (Kolodziej 1966, 38). The armed forces responded with two major tactics to the challenge on their claims. (1) They used their expert status to warn of international threats and lacking preparations and, at times, the "[t]he gap between what seemed politically feasible and what the military said was necessary was alarmingly wide." (Hammond 1962, 275) (2) They sought to split the political actors and tried to find support among lawmakers: "When senior military leaders felt attacked, they turned to their allies on the Hill to help override what they perceived to be a weak president." (Herspring 2005, 84) But the Services fought most often up-hill battles during the late 1940s as the consensus on decreased budgets remained strong among the political actors even in the face of growing tensions with the Soviet Union: "The United States government evidently took a calculated risk by drastically reducing its armed forces after 1945 and maintaining austere defense budgets throughout the late 1940s." (Ross 1988, 155)

Since the administration's economizers gave little direction beyond the ceilings and the Joint Chiefs were deadlocked in their struggle for resources, the resulting budget process lacked a clear policy perspective and was predominantly reactive. Especially between 1945 and 1947, the strategic course of the military transition was in limbo and the distribution of military budgets was based on ad-hoc demands. The weak societal demands had no influence on the budget process during these early postwar years. The demobilization consumed much political attention and the salience of defense issues beyond the builddown was small. Moreover, the future threat environment was still opaque and the military implications of new technologies not fully clear.

In late 1945, the White House issued direction for the FY 1947 military budget, the first postwar budget and Truman's first full request: After the FY 1946 budget had provided more than \$40 billion, the Services had to share approximately \$13 billion including \$8 billion for occupation costs or no more than 20 to 25 percent of the estimated government budget (Hogan 1998, 72). In what would become a common pattern during the 1940s, the Services Chiefs failed to agree on shares under these ceilings and summed up their individual wish lists for a total of \$22 billion. When Truman did not significantly deviate from his ceiling and cut equally from the Service requests, the JCS complained that the envisioned budget would not allow for sustaining an adequate occupation force. During the subsequent hearings, Secretary of War Patterson assured the congressmen "that these figures represent the very minimum necessary to carry out the tasks." (in SubHAC 1946, 12) Although Vinson attacked the recommendation on the House floor as insufficient, the President remained victorious, as the final FY 1947 defense budget was only slightly above the administration's request. Yet early on, "Truman began to see himself as besieged by disloyal insubordinates and a rebellious Congress." (Hogan 1998, 79)¹³⁶ Since the budget sought to finance no more than the Services' most urgent needs, the Army Ground Force that carried most of the occupation duties gained the largest share.

After the success of the FY 1947 budget which even produced a small surplus, the President was determined to keep the saving course for the FY 1948 budget. Again, Truman's final budget request was far below wish lists of the Services, who again tried to convince Congress of their need for additional funding (SubHAC 1947a, 1401-1402; Campbell 1947, 458). Yet, the situation in Congress had changed to the worse for the military leaders in 1947: They now faced a Republican majority determined to stop the growth of the federal state. After an electoral campaign against excessive spending and taxation, the Republicans regarded their success as a popular mandate to critically scrutinize public spending including the large defense account (Huzar 1950, 171). Especially the personnel heavy and cost intensive Army Ground Force was in the Republican's focus. Albert J. Engel (R-MI), new chairman of the Military Affairs Appropriations Subcommittee, explained later: "During the war (...) I have refrained

¹³⁶ This was not the end of the conflict, as Truman fixed the defense expenditures below the approved amount which caused bitter resistance by the armed forces. The Navy even considered recalling its fleet from the Mediterranean and the Army threatened to terminate its occupation services in Europe to save money. But neither did Truman and his budget staff falter nor did the Services follow through with their threats.

from calling the attention of the House to the outrageous, willful, and unnecessary waste of the taxpayers' money. The war is over. The War Department continues to throw money down the military rat hole despite every effort." (94 Cong. Rec., January 22, 1948, H451) But not only the War Department suffered deeper cuts, as all pleas by CNO Nimitz did not save the Navy from reductions (SubSAC 1947, 26). In the end, Congress cut the FY 1948 defense budget to little more than \$10 billion. In an early show of Republican support for air power, the Air Force emerged with the largest share in new money.

Taft had even recommended a defense budget of only \$7 billion and arguably only the growing ascertainment of the future threat environment and the emergence of the containment policy during 1947 protected the Army from additional cuts (Edwards 1999, 19-25). A year after George F. Kennan's 'long telegram', had emphasized the futility of a peaceful co-existence with communist Russia, Truman publically called for a containment of communist expansion in Europe and beyond in March (Gaddis 2005, 19-20). Right from the start, a capable military force was considered an important element for the credibility of this emerging foreign policy strategy. Hence, the support for Greece and Turkey was backed by the presence of the 6th US fleet in the Mediterranean Sea. These raised tensions were a powerful argument against further cuts and shifted the governmental balance in favor of the administration (e.g. Leroy Johnson (D-CA) in 93 Cong. Rec., June 4, 1947, H6359).

The cumbersome rise of air power

It was not before 1948 that an extensive public debate on the quantity and quality of postwar military policy occurred. After five months of preparations the Air Policy Commission issued its final report 'Survival in the Air Age' in January 1948, which provided a clear strategic vision and had a decisive impact on subsequent debates (Hurd 1948b). Truman had appointed the commission, chaired by Thomas K. Finletter, to assess the strategic and economic significance of aviation and to recommend on the future course of aviation policy. The final report was utterly clear in its central message: "We believe that it is the overwhelming view of those most qualified to know that the country must have a new strategic concept for its defense and that the core of this concept is air power." (Air Policy Commission 1948, 10) Expecting the nuclear

monopoly to last only shortly, the Finletter Report argued that only air atomic power would provide the retaliatory means to credibly deter nuclear aggression. Therefore, it recommended starting an immediate buildup of aviation and nuclear weapons.

Moreover, the leaders of the aviation industry had been able to make their preferences heard during the commission's hearings. They had warned in strong words that US air power was disintegrating due to a lack of funding and long-range planning (Hurd 1947). Hence, the Finletter Report recommended the funding of a ready aviation industrial base in order to be prepared when the US nuclear monopoly would be broken. While the commission suggested giving additional money to the Air Force despite the difficult fiscal situation rather than shifting money from the other branches, it left little doubts that this relative reorientation would face Service resistance: "We view with great anxiety the pressures from many sides directed towards the maintenance of yesterday's establishment (...); of a determination to advance the interest of a segment at the sacrifice of the body as a whole." (Air Policy Commission 1948, 30) The Air Policy Commission expressed hope that the civil leaders, especially the newly established Defense Secretary, would be able to overcome these difficulties and achieve "the maximum in security for the minimum cost." (Air Policy Commission 1948, 30)

Truman only reluctantly released the report, since its message threatened not only to foster strong disturbances in the newly unified military establishment, but constituted also a strong challenge to the administration's course of fiscal austerity (Lazarowitz 1999, 927). He accepted the relative importance of aviation and nuclear technologies, but was initially determined to keep defense spending in line. Therefore, he requested a FY 1949 defense budget of only \$11 billion, but he provided the Air Force with largest share (Hurd 1948a). Yet, after communists took over Czechoslovakia in February and Truman called for a firm stand before joint Congress, the Services could capitalize on the changed threat environment. Shortly after Truman's speech, Army Chief Bradley told the SubHAC: "The time to start building toward the Army which can perform the minimum functions which will be expected of it in an emergency is now. Any appreciable delay (...) may be disastrous." (in SubHAC 1948a, 4) Air Force Secretary Symington argued that the defense expenditures "must be balanced against the terrible consequences of defeat and slavery through failure to have developed adequate air power." (in SubHAC 1948b, 3)

The situation in Europe caused Truman to propose a defense budget supplemental. While the President aimed at "a peace program, not a war program" to avoid any provocation, the Services suggested additional funding of up to \$22 billion, which Defense Secretary Forrestal cut to a recommendation of \$9.5 billion (in New York Times 1948b). Yet, the Services and Forrestal were unable to overcome strong opposition to the still substantial supplemental from the White House. The prospects of the European Recovery Plan and tax cuts, which the Republicans sought to push in a second attempt through Congress, considerably limited the administration's fiscal leverage. Hence, the Defense Secretary was finally forced to settle for a \$3 billion supplemental, mostly benefiting the Army which convincingly claimed serious personnel shortcomings in case of an emergency in Europe.

Although Truman called on the Services to present a unified position before Congress from now on, Forrestal, with limited institutional power, continuously failed to keep the Air Force under control. Symington recalled in a later interview that the Defense Secretary suggested him to quit, after he had told Forrestal that he could not accept the FY 1949 defense budget and refused to support it before Congress. Symington replied to the Defense Secretary: "I won't support it, and I won't quit." (in Donovan 1982, 53; see also McFarland 2001, 25) Opening deep rifts with its sister Services, the Air Force Secretary and leading officers heavily lobbied Congress, in which support for air power was growing fast. Indeed, rather than responding to public demands since 1945, Congress warmly welcomed the Finletter Report and the final report of the bipartisan Congressional Aviation Policy Board as the longed for guidance in their search for an efficient defense posture (Norris 1948). Yet, in contrast to the report but in line with the public preferences, the lawmakers strongly focused on the Air Force and remained indifferent with regard to Navy aviation.

¹³⁷ With the Finletter Report and its popularity in mind, the Air Force leaders openly challenged the administration's commitment to balanced forces even before the supplemental was sent to Congress. In their testimonies for the FY 1949 budget, Air Force Secretary Symington and the Air Force Chief of Staff Carl Spaatz criticized the authorized size of their branch as insufficient and claimed that the calculated costs to meet their requested buildup were hugely exaggerated. Forrestal tried to outflank and isolate the rebellious Air Force within the military establishment, by asking the JCS to assess whether the administration should support a larger Air Force. But his plan backfired as the JCS engaged in log-rolling and submitted a response which ignored any economic considerations in April. Unable to agree on a common position concerning the future force, the Chiefs settled for a maximum position with each Service estimating its own requirements proportional to a proposed buildup of the Air Force (Hogan 1998, 106).

¹³⁸ The Congressional Aviation Policy Board, which had studied air power policy on behalf of Congress, reinforced the conclusions of the Finletter Report in its final report in March 1948 (Baldwin 1948a).

Thus, the House overwhelmingly passed an amendment introduced by the usually economy-minded HAC chairman John Traber (R-NY), providing additional \$822 million for the Air Force's procurement. Especially Carl Vinson backed this amendment, providing money for the first step of a five-year-program to build up the Air Force, against strong resistance of the administration (94 Cong. Rec., April 14, 1948, H4449, April 15, 1948, H4530-4542; Strout 1948b). The Senate approved the House's supplement with only two nays, although the Truman administration had continued to oppose the additional funding and some lawmakers had voiced concerns over its fiscal implications (94 Cong. Rec. May 11, 1948, S5408; SubSAC 1948; Trussell 1948a). Angry about what he considered an insubordination by the Air Force leaders, the President refused to spend the additional \$822 million in the FY 1949 (Condit 1988, 4). Lawmakers voiced outrage, but considered the issue not important enough to put further pressure on the administration. With the supplemental favoring the Army and Truman withholding the additional money for the Air Force, the ground forces gained again the largest share of the budget.

Towards the end of the decade, the conflict between the political and military actors over the course of the military transition within the administration ran increasingly out of control, making reasonable coordination by the Defense Secretary almost impossible. Although the President and his economic advisors set a planning figure of \$15 billion for the FY 1950 defense budget in May 1948, Forrestal instructed the Services to base their initial calculations on military considerations rather than budget constraints. As a result, the Services came up with requests for \$30 billion in total (Donovan 1982, 59). Again, the request was not the outcome of a concerted effort for a common defense, but the sum of the Services' individual estimations to meet the Soviet Union's capabilities. Since the request was clearly unrealistic, Forrestal recommended a ceiling of \$14.4 billion¹⁴⁰ and asked the JCS to revise the budget request in cooperation with the OSD's budget advisory committee. The resulting compromise still proposed a total of \$23.6 billion, presenting the Defense Secretary with a dilemma: On the one hand, the Service chiefs concluded that \$15 billion was simply not enough money for the tasks at hand.

¹³⁹ Although the economizers did not regard the additional defense expenditures as a real danger to the economy, the Council of Economic Advisors argued in its quarterly memorandum to the President that "[e]very citizen must recognize that further diversion of productive effort to military uses inevitably involves some sacrifice of civilian types of consumption." (in Brune 1989, 361)

¹⁴⁰ This recommendation is below Truman's ceiling due to estimated \$600 million for stockpiling strategic materials.

On the other hand, Forestall failed to convince the President or any other influential member of the administration of the need for spending above Truman's ceiling. He finally evaded the showdown with either side and submitted a proposal with three budget scenarios to the White House: The first scenario summed up to \$23.6 billion, the second option asked for a middle ground solution of \$16.9 billion and the third model kept the \$14.4 billion ceiling (Alsop/Alsop 1949). Truman immediately approved the \$14.4 figure and thus incurred not only the wrath of the Services, but also further damaged the standing of Forrestal.

When Truman sent the request to Congress, he stressed the importance of a balance between the branches in anticipation of congressional opposition, since the request again provided almost similar amounts to all three Services (Norris 1949). But the air power advocates on Capitol Hill rapidly moved to challenge the request. Vinson, new HASC chairman, declared it a "mistake" to divide the budget equally in order to keep the Services "satisfied." (in Norris 1949) He even suggested a budget increase for all Services of almost \$1.7 billion in total and argued "that we can ill afford, in these troubled days, to fail to give heed to the views of the Joint Chiefs of Staff as is proposed in the President's budget." (in SubHAC 1949, 216) Yet, the House Appropriations Committee only agreed on an increase in the Air Force budget of \$800 million by shifting funding from other defense programs (Waggoner1949).

As in earlier years, lawmakers expressed their support for air power only by adding to the Air Force accounts, but without a reference to the parallel societal demands. When Harry Sheppard (D-CA), member of the SubHAC, introduced an amendment backed by numerous HASC members from both parties to provide additional \$300 million for the Navy flyers, Mahon and other members of the appropriation committee and subcommittee moved to oppose the changes. Albert J. Engel (R-MI), ranking minority member on the SubHAC, argued: "If the Navy is not getting an adequate number of planes with that money, it is because they are spending the money for super carriers and other weapons than airplanes. (...) If they are short of airplanes in this bill it is because they themselves, Mr. Chairman, did not put them in." (95 Cong. Rec., April 13, 1949, H4527) And Mahon urged the House: "But please let us not try to divide the defense dollars into three equal parts. (...) We are not the servants of the Army and Navy and the Air Force. We are the servants of the American people." (95 Cong. Rec., April 13, 1949, H4528) In the end, the House voted Sheppard's amendment down.

In the Senate, the SubHAC, chaired by Elmer Thomas (D-OK), reported a return to the administration's initial request, after the representatives of the Air Force largely refrained from challenging the administration's original budget request. Air power advocates, led by conservative Republican Knowland (R-CA), who tried to add at least some additional money for the aviation buildup, suffered a further defeat on the floor, as a clear majority followed the committee's recommendations (Washington Post 1949a). Most opponents of additional Air Force funding in the Senate did not deny the need for a buildup of air power and the recommendations of the Finletter Report, which the air power advocates vehemently referred to. They rather argued that this was not the time to hurry, since new technologies were on the way and the administration including the Air Force had not asked for more at the moment. A statement of the conservative Republican Wherry (R-NE), Senate Minority leader and member of the SubSAC, made this congressional subordination clear. Referring to Air Force Secretary Symington, he argued: "During the Eightieth Congress, (...) he came out for a 70-group air force, and I supported him. Now the Secretary (...) comes before the committee and is perfectly willing to take a 48-group air force. Once again I rely upon his judgment." (95 Cong. Rec., August 26, 1949, S12305) While air power supporters argued that the Air Force Secretary was testifying under orders, a clear majority of the Senate was unwilling to take on the administration.

The successive deadlock in conference could only be solved after the Senate agreed to the House's increases for the Air Force with the understanding that Truman would again withhold the money (95 Cong. Rec., October 12, 1949, S14355). The overall appropriation in October 1949 was only slightly above the administration's request. While the Navy and Army gained almost similar shares, the Air Force was the major beneficiary. But the President indeed denied spending the additional money and

¹⁴¹ The FY 1950 defense budget was not the only congressional debate with military significance during summer and fall of 1949. After yearlong negotiations, the administration asked for ratification of the North Atlantic Treaty in August. As expected, isolationists from the right and the left feared the loss of autonomy and opposed the US participation in a predominantly European alliance, which they considered a departure from centuries of American foreign policy tradition (Doenecke 1979, 160). In the end, they proved unsuccessful to overcome the bipartisan support backed by Vandenberg and the Senate ratified the treaty with a clear majority on July 21, 1949 (Briggs 1994, 42). Four days later, the administration submitted a military assistance request. Despite increased short-term expenditures, Truman believed that military assistance would save money in the long run by enabling US partners to carry some of the military burden of containment. Again, isolationists and fiscal hawks including powerful Southern Democrats objected to the program. In fact, it is questionable whether Congress would have passed the military assistance bill without the successful nuclear test of the Soviet Union (Kaplan 1988, 37). But against this background, Congress enacted the Mutual Defense Assistance Bill in October 1949. The JCS

protesting lawmakers saw no possibility to force the President to change his position (Washington Post 1949b).

Summary

While the domestic impact on the budget size is apparent, the influence of societal demands on the budget distribution is small. Early societal preferences for a distribution in favor of the Air Force did neither affect the administration nor Congress. Thus, societal demands had no early influence on the budget distribution, which was largely driven by ad-hoc needs. Only by 1948 did the Congress decisively move in support of air power and thus met societal demands. But public demands, which were specific since 1945, were hardly involved in this turn. Independent expert opinion, expressed in the Finletter Report, the Congressional Aviation Policy Board report, and Service members' testimonies were much more decisive. While the aviation industry was able to influence the turn through the Finletter Report, no further impact of societal demands is evident.

5.2.1.2. Buildup

The implementation of NSC-68

By 1950, the limitations of a military policy with continuous spending caps and no a clear qualitative priority became increasingly apparent. After Truman requested another balanced defense budget including \$13.1 billion in new budget authority for FY 1951 and Defense Secretary Johnson indicated that this budget would become the model of defense spending through FY 1952, Air Force Secretary Symington publically complained that an "arms outlay of 13.5 billion, in the 'cold war' with Russia, is not buying military superiority." (in McFarland 2001, 35; see also Norris 1950a; 1950b) There existed only two possible solutions to this dilemma: Either to set qualitative priorities or to spend more money. While the public and congressional majorities had

was less than enthusiastic about the alliance and military assistance to allies (Kaplan 1984, 69-70). They feared the redirection of parts of their already strained budgets for European military assistance. Furthermore, they were concerned that the formal engagement in European security left no exit options and could drag the US into a war with the numeric superior Red Army over European mainland. Given the allies' weakness, they would remain of little help in a military conflict for some time.

come to the conclusion that the former option was most appropriate, the administration had made only slow progress with regard to a prioritization, as the Services had kept the political costs of any changes from the status-quo high. ¹⁴² Instead, fueled by the Soviet Union's successful nuclear test and the communist takeover in China, Acheson and Nitze started to challenge the economizers' budget ceilings by 1950 (Gaddis 1980, 166).

The formulation of NSC-68 in spring 1950 became the defense hawks' political vehicle to break the economizers' phalanx. 143 According to Acheson (1969, 374), the document's purpose was "to so bludgeon the mass mind of 'top government' that not only could the President make a decision but that the decision could be carried out." Its authors sought to provide coherence to the erratic national security policy by calling for a defense policy closely tied to the Soviet Union's capabilities and predominantly based on military rather than economic necessities. NSC-68 marked the departure from Kennan's emphasis on political and largely reactive containment to a more robust and active response to communist expansion (NSC 1950, 99). In line with the Finletter Report and against the background of the unexpected early end of the nuclear monopoly, NSC-68 argued that the Soviet Union would possess enough nuclear bombs to seriously harm the United States by 1954. 144 Based on this forecast, Nitze and the NSC study group stressed that the current US military policy was insufficient to meet the Soviet buildup and international commitments. Thus, in order to be prepared by 1954, the report concluded: "A building up of the military capabilities of the United States and the free world is a precondition (...) to the protection of the United States against disaster." (NSC 1950, 92) NSC-68 did not specify the costs of the buildup, but there was no doubt that a significantly increased funding would be necessary and the members of the NSC-68 working group informally assumed annual budgets of \$40

¹⁴² While the administration's military policy did not depart from the balance, military strategy relied on air atomic power nonetheless. Thus, the JCS's war plans 'Pincher' in 1946 and 'Halfmoon' in 1948 put emphasis on atomic bombs (Ross 1988; Millett/Maslowski 1984, 477; Rosenberg 1979, 64,67). And the NATO's strategic concept in January 1950 assigned the strategic bombing mission to the US (Kaplan 1988, 39). This caused a strange mismatch as the US hardly possessed the arsenal of nuclear bombs and means of delivery to justify its strategic reliance on nuclear power (Millett/Maslowski 1984, 477-478).

¹⁴³ Based on a directive of Truman in January to review the US foreign and security policy, NSC-68 was prepared by a study group of State and Defense Department officials chaired by Paul Nitze. It's threat assessment largely reconfirmed NSC-20/4, drafted by Kennan and approved in 1948, arguing that the Soviet Union had the capabilities to overrun continental Europe as well as the Middle East within six months and that they would possess the means to attack the USA by atomic, biological and chemical air strikes by 1955 (Donovan 1982, 27-28).

¹⁴⁴ The report estimated that the Soviets already possessed 10-20 atomic bombs, would have 45-90 in 1952 and at least 200 in 1954 (NSC 1950, 66).

billion or more (Nitze 1980, 173; Acheson 1969, 377). With regard to the quality of the transition, NSC-68 ran counter to the public and congressional position. It argued that the US should maintain a broad force posture and build up a spectrum of means, which allowed responding to different levels of Cold War escalation and symmetrically balancing any Soviet capability (Gaddis 1980, 168-169). Nuclear means were a necessary but by no means sufficient part of these balanced preparations.

The authors of NSC-68 were well aware that a buildup faced particular hurdles within a democracy: "The whole success of the proposed program hangs ultimately on recognition by this Government, the American people, and all free peoples, that the cold war is in fact a real war in which the survival of the free world is at stake." (NSC 1950 108) The message of NSC-68 was kept simple and blunt on purpose to reach the average citizen (Acheson 1969, 375). Thus, the defense hawks sought to create a responsive influence by the public. But the public showed no sense of urgency before to the Korean War and remained passive. In fact, after a hike in 1948, the salience of national security, while still fairly large, was decreasing for the second year in a row (Smith 1985). Hence, the public did not provide any help in the defense hawks' campaign to implement NSC-68 (Hammond 1962). Moreover, Millard Tydings (D-MD) and Brien McMahon (D-CT), both important figures in defense policy, urged new international arms control efforts in the face of the Soviet Union's nuclear tests rather than a buildup in Congress in February 1950 (Acheson 1969, 377-378). And within the administration, the defense hawks made only slow progress in promoting the policy recommendations of NSC-68. After Defense Secretary Johnson had repeatedly clashed with Acheson and Nitze during the formulation of NSC-68, he finally approved the report in April, which was supported by all Service secretaries and Chiefs of Staff (Acheson 1969, 373-374). But Truman postponed his final approval and asked the NSC to specify the programs and resulting costs first. The President figured that the review of the document from a budgetary point of view would make sure that representatives of the economizers could join the review group and probably calm its ambitions.

The review indeed resulted in a stalemate between economizers and defense hawks that could not be solved before North Korean troops crossed the 38th parallel and attacked

¹⁴⁵ Resembling Keyserling's thinking, the report leaned towards a Keynesian logic and argued that massive short-term military investments and state deficits would foster economic prosperity and thus contribute to a balanced budget in the long run.

South Korea on June 25, 1950 (Fautua 2006, 6). The US administration read this aggression as part of a broader Soviet strategy on weakening and testing Western commitment to containment and responded quickly: Only five days after it became apparent that South Korea would otherwise be rapidly defeated, Truman directed the deployment of US ground forces, which marked the full engagement of America into the war (on Korean War see Stewart 2005, 217-250; DOA 1956, 464-486). As Washington Post columnists Joseph and Stewart Alsop (1950) wrote: "Now, (...) a grim spirit of urgency informs Washington."

The administration backed the military effort by rapidly expanding the defense budget. Although the regular budget, finally approved by Congress in September, provided only \$13.2 billion, additional funds were requested soon. In order to cover the war expenses, Truman asked Congress in summer for an \$11.6 billion supplement for FY 1951 which Congress approved with little adjustments. In fact, while lawmakers fought over the blame for the bad preparations prior to Korea, they shared Vinson's analysis of the situation: "It is a situation that demands the utmost concentration of effort, the greatest forbearance, the greatest willingness to sacrifice we have ever had. Above all, it requires that for the indefinite future our people and this Congress must keep as our first thought the maintenance of an adequate defense." (96. Cong. Rec., July 25, 1950, H10984) Against this backdrop, Congress quickly rallied behind the administration. Together with additional supplemental budgets in fall 1950 and spring 1951, 146 the overall FY 1951 budget exceeded \$48 billion. Since the Army carried the main burden of the war in Korea, the largest share of the emergency funding went to the Army.

But the other Services had little reason to complain, as the crisis in Korea provided the defense hawks with the necessary urgency to finally overcome the economizers' resistance to a general buildup in accordance with NSC-68. The war was not only a powerful demonstration of the international system's fragility, but also underlined the defense hawks' claims concerning the qualitative inadequacy of the US military preparations including the implicit reliance on strategic nuclear weapons (Cagle 1964, 12-13). Public opinion skyrocketed in support of a robust answer to the communist aggression. Against this backdrop, the recommendations of NSC-68 became the

¹⁴⁶ For the second supplemental, the JCS initially requested \$20 billion, which was reduced to \$11 billion on November 22. Yet, when Chinese forces entered the war three days later, arguments for a faster mobilization won the upper hand again. Thus, Truman agreed to a NSC recommendation on a supplemental of \$16.8 billion including more than \$9 billion for the Army.

foundation of the administration's military policy even before its policy conclusions were formally approved in September 1950: "The once-disregarded document dominated the whole scene, and all its clauses, including the four-year defense time schedule, became the policy makers' law." (Alsop/Alsop 1950) While the public rallied behind the administration, the acceptance of NSC-68 inevitably implied the denial of the societal demands for a prioritization of the Air Force. In fact, more of the same rather than an innovative redistribution became the central guideline and the need for a balanced buildup was hardly questioned for the rest of Truman's tenure.

Only the discussion on the long-term costs of a buildup until 1954, the year of maximal risk according to the NSC-68, remained controversial and skeptical voices with regard to its costs quickly returned. 147 Indeed, public support for an unconditional buildup soon threatened to ebb away, as the early military engagements revealed the strength of the opponent. The creation of the Committee on Present Danger was a response of the defense hawks close to the administration in order to sustain the public support for the buildup and thus maintain pressure on the economizers. 148 But the international situation, especially the Chinese intervention, rather than the public opinion or the CPD contributed most to the defense hawks' case. For the economizers, not the current societal demands, but the fear of a future public backlash in opposition to excessive spending had significant weight. Marshall and Lovett were well aware that a farreaching mobilization would impact on the economy and domestic welfare which in turn could undermine public support for the buildup and the President in general (Condit 1988, 230-233). Thus, Marshall suggested reviewing the JCS's initial estimates of \$235 billion for a balanced armed forces' buildup over a five-year period. Although Truman formally approved the policy recommendations in NSC-68 in September, he agreed with Marshall and ordered a second estimate of its budgetary implications. 149 In cooperation with the Budget Bureau, Defense Undersecretary Lovett drove the JCS

¹⁴⁷ Only a minority of the extended budgets over the following years was spent for the war effort. Between FY 1951-1953, 60 percent of the defense budget was spent on a general buildup as outlined in NSC-68.

¹⁴⁸ E.g. Johnson accepted the reality of the threat, but carefully scrutinized the Service's proposals against the NSC-68 requirements in order to avoid unnecessary spending.

¹⁴⁹ NSC-68 had several additions. NSC-68/1 included military programs and their projected costs estimated by the Services and submitted to the NSC by Secretary Marshall in September. NSC-68/2 contained the policy conclusions of NSC-68. In fall 1950, NSC-68/3 and NSC-68/4 which became the basis for the FY 1952 budget planning adjusted the scenarios outlined in NSC-68 to the new reality of the Korean War and the Chinese intervention. It called for substantial active forces, a large supply of war reserves, and a mobilization base in case of a global conflict (Hogan 1998, 322).

estimates to \$131 billion. A final decision was not taken, however, as Truman finally instructed the group to focus on the FY 1952 budget and postponed the discussion about the overall buildup.

Despite this temporary setback, the implementation of NSC-68 happened quickly. In December 1950, Truman approved NSC-68/4, which advanced the 1954 buildup goal to mid-1952 reflecting an increased fear of escalation after the Chinese intervention. A month later, Truman (1951) used the State of the Union Address to draw a grave picture of the international situation and to ask Congress to enact tax increases for a continuous military buildup and further US efforts in Asia and especially Europe. 150 With the buildup accelerating, the Services estimated requirements of \$82 billion for the FY 1952 defense budget, which Lovett later referred to as "letters to Santa Claus." (in Condit 1988, 250) Arguing that the economy would not be able to supply goods and services to the extent of the Services' request, the Budget Bureau reduced the request to approximately \$49 billion. Yet, with the armed forces complaining that the Budget Bureau had partially cut into vital programs, Lovett added some additional money focusing on equipment such as aircraft and ships, which took long production times. Thus, the Navy and the Air Force benefited disproportionally in their procurement accounts. Although this prioritization was partly consistent with the societal demands, it resulted from technical rather than political considerations.

The final budget request of \$56.2 billion was met with some doubts on Capitol Hill. Especially lawmakers in the House questioned whether such high expenditures were still necessary as the Korean War had settled into a stalemate and first negotiations were on the way (Condit 1988, 258; Stevens 1951a). The suspicion of lawmakers that the

-

¹⁵⁰ Since political and military actors prepared for a potential total war with the Soviet Union rather than the limited war in Korea, far-reaching economic steps were taken. On December 15, 1950, Truman declared a national emergency and announced the establishment of the Office of Defense Mobilization (ODM) to coordinate rearmament efforts and defense production. The ODM sought to create a permanent and sufficiently large defense industrial base to sustain a large military program without hurting the economy in the long run. Moreover, Congress passed the Defense Production Act in 1950 in order to avoid inflation and supply problems. The bill included standby controls over wages, prices, and rents. Furthermore, it allowed the government to expand defense plants, restrict credit, allocate scarce commodities, and settle labor disputes. Although the Act was subject to considerable controversy, Congress renewed it in 1951 and 1952. Especially Truman's seizure of steel mills to avoid supply shortage in the name of national security in April 1952 caused heavy opposition and damaged the President's reputation (Hogan 1998, 344-355). Eisenhower terminated the economic controls soon after his inauguration, but maintained procurement clearly larger than during the late 1940s (Huntington 1961, 79-80; Doughty 1979, 14). This would keep production lines in operation and thus available in case of an emergency (Watson 1986, 150-152; Snyder 1962, 400-406). It also allowed better planning and more stable income for military suppliers, which would benefit the defense economy.

Services did not need and were not able to properly manage the large amounts of money was further raised by various stories of waste in the national press (e.g. 97 Cong. Rec., August 8, 1950, H9540-9541). Moreover, the American public had grown increasingly unwilling to make further sacrifices in the name of national security and demonstrated general disappointment with the war situation in Korea. But central lawmakers still shared the administration's grim assessment of the international situation and the resulting need of a balanced buildup. When introducing the FY 1951 appropriation bill in the House, Mahon, Chairman of the SubHAC, told his audience: "In my judgment, there is only a minimum hope that our difficulties with Russia can and will be solved short of war. (...) Let us, therefore, accelerate our military buildup program and seek to become stronger in guns and planes and plans (...) in order that we may be fortified mentally, spiritually, and physically for the testing days ahead." (97 Cong. Rec., August 8, 1950, H9543) To be sure, some isolationists and fiscal conservatives articulated disagreement with the administration's buildup in quantitative terms. For example, Representative John T. Wood (R-ID), an outspoken opponent of the UN and NATO, strongly blamed the CPD for their attempts to support the administration's policy "and thereby hasten the day so fervently hoped for by Joe Stalin when we will have spend ourselves into bankruptcy." (97 Cong. Rec., February, 8, 1951, H668) But with the conservative Republicans shifting from isolationism to an aggressive roll-back strategy, they did neither seriously question the quantity nor the quality of the request.

In fall, the Senate voted for a budget even larger than the administration's request, since the negotiations in Korea had run into first difficulties. The final congressional compromise provided \$55.5 billion including an additional billion for American air power, in response to complaints that the Air Force lacked behind with regard to its general buildup goals. While this made the Air Force the main beneficiary of the budget, the congressional euphoria with regard to the air atomic power had markedly decreased since the Soviet Union's nuclear test. Conservative Republicans remained focused on air and sea power, but especially the Democrats were less sure of the utility of the former panacea: "Those who flippantly talk about flying over some far-away land and tossing out an atomic bomb and coming home and saying, 'The war is over,' have not thought this thing through." (Mahon in 97 Cong. Rec., August 8, 1950, H9543)

Early stretch-out of the buildup

While Congress approved the FY 1952 budget, plans for a further buildup within the administration came to a sudden end. Unprepared for the massive buildup, the economy showed strong difficulties to cope with the rapidly increasing military demands in equipment and services during 1951 and the military production for NSC-68/4 fell significantly behind schedule. 151 Given the eminent problems in the production, the President, the OSD, other economizers, and officials involved in the mobilization effort doubted that the economy could tolerate defense budgets like the FY 1952 budget in the long run. They feared that a breaking point in the civil economy would further undermine public support for the long-turn buildup program, which had already markedly cooled off (Condit 1988, 276-277; Stevens 1951b). Numerous prominent executives and the Chamber of Commerce publically warned that government spending would lead to large scale inflation and argued that mobilization should not go any further (Lo 1982; New York Times 1951d). Philip Reed, chairman of General Electric, criticized the administration's plans, arguing that the "peak of the program is too high and comes too soon." (in Forrest 1951) He added that "the dangers from another serious wave of inflation may be as great or greater than the dangers of further warlike moves on the part of Russia." The OSD finally decided for the early creation of a strong plateau rather than to continue preparing for a peak year, arguing "that an arms production line in being is better than large and rapidly aging war reserve stocks." (Norris 1952) In October 1951, the stretch-out of the buildup and benchmark for FY 1953 defense spending of \$45 billion, almost \$20 billion below the JCS' wishes, was approved by Truman. The buildup of the Air Force, which still lacked behind the other Services, gained by far the largest share in the budget request. Again, while the stretchout was driven by the anticipation of a public backlash, the Air Force prioritization was based on technical consideration.

Lovett was convinced that the OSD's efforts had taken out all the 'fat' and was possibly cutting "a little into the muscle" (Hinton 1952; see also Alsop/Alsop 1952a), but lawmakers received the request again with caution. Against the backdrop of public dissatisfaction, especially the Republicans but also fiscal conservatives among the Democrats grew concerned over the political implications of the buildup during an

¹⁵¹ The sudden buildup created shortages in raw materials, railroad cars, machine tools, and labor force.

election year, especially since a further international escalation seemed less likely: "With income taxes fresh in mind and an election at hand, Congress is in a mood to emphasize butter rather than guns." (Strout 1952) Moreover, as the economy was only slowly meeting the buildup, the DOD's budget carryover since FY 1951 had increased sharply and fostered complaints over waste. Hence, leading Democrats were unable to prevent the Republicans and the fiscal conservative Democrats to moderately reduce the budget to \$43.9 billion (Condit 1988, 280; Morris 1952; New York Times 1952). Taft's calls for a stronger prioritization on air power remained again unheard (Childs 1952).

Public backlash and the New Look

In 1952, public majorities put their growing dissatisfaction with Truman's military and Korean policy to the ballot. The Democrats lost the presidential election and majorities in both chambers of Congress. Their presidential candidate, Adlai E. Stevenson, had campaigned on the promise to essentially continue NSC-68 including balanced forces. He had argued that the economy could support the military expenditures that security required (Bernstein 1971, 410, 424). High expenditures and taxes as well as inflation and casualties in Korea were the inevitable price to pay for freedom. In contrast, Eisenhower had called for reduced defense spending and a sustainable military with strong retaliatory power, but without a fixed target as outlined in NSC-68 (Huntington 1961, 64-76). While both presidential candidates had promised to end the Korean War, only Stevenson had made clear that he fully agreed with Truman's decision to keep the war limited. Eisenhower had argued instead that he "always stood behind General MacArthur in bombing those bases on the Yalu from which fighter planes are coming." (in Bernstein 1971, 419)

To be sure, the different conceptions of military policy were certainly not the only reason in favor of the Republican candidate. Other important issues including corruption, taxes and costs of living were also debated. But most domestic concerns were increasingly put in relation to and dominated by the Korean War and the general buildup to fight communism, which were seen as the reasons for the unpopular governmental economic interventions and excessive spending (Bernstein 1971, 429-430). From the public point of view, the former war hero Eisenhower was not only more qualified to end the war, but also promoted the more efficient military policy option. He

was clearly more in line with societal demands promising to end the war, cut taxes, and reduce excessive expenditures and prioritize air power (Stevens 1953a).

When Truman proposed his last budget, requesting \$41.3 billion in new budget authority equally distributed across the Services, there were widespread expectations that further reduction would follow with the new President. But when Wilson asked the Services shortly after taking office to estimate the impact of reductions for a \$35 billion in FY 1954, the proposed cuts caused tumult among the armed forces (Childs 1953a). The Services argued that they could not fulfill their tasks, especially the war in Korea, with reduced spending bringing the US in a strategically vulnerable position. Yet, Eisenhower regarded Truman's overall budget request with a deficit of \$9.9 billion as unacceptable. In April 1953, the Republican administration issued NSC-149/2, concluding that a strong economy based on balanced budgets and moderate taxes was the essential foundation for a sustainable security (Hogan 1998, 393, 401; Watson 1986, 61). And almost all cabinet members agreed that defense spending, accounting for 73 percent of the federal budget in 1953, was the area in which real savings should be achieved (Boyle 2005, 27). As an early sign of tightened civil control, the NSC agreed on reductions despite the Services' complaints. The final FY 1954 defense budget request was \$5.2 billion smaller than the Truman proposal, but did not include any further decisions with regard to the qualitative course of military policy yet (New York Times 1953a).

Most savings should come from the reduction of new money for the buildup of the Air Force, which still had a large carryover of unobligated money from earlier procurement appropriations (Snyder 1962, 397-399). Since the assumption of a fixed date of maximum danger was replaced by a continuous state of preparedness, the administration considered it feasible to stretch the Air Force buildup beyond 1955. Of the three Services only the Army gained some additional money, reflecting the administration's intention to provide sufficient funding for the war efforts. Thus, the Army rather than the Air Force gained the largest share of the budget in Eisenhower's first defense budget.

Reactions were mixed on Capitol Hill following a continuous pattern for most of Eisenhower's years (Norris 1953a). The Republicans were split between the internationalist and the conservative nationalist wing. Some backed the administration's

request, e.g. HASC chairman Dewey Short (R-MO), and some - with the end of the Korean War in sight – called for additional cuts. Chairman of the HAC, John Taber (R-NY) as well as chairman of the SubHAC, Richard Wigglesworth (R-MA), and the conservative wing with Taft and Daniel A. Reed (R-NY) among others called for further spending cuts to reduce taxes. In contrast, most Democrats were unwilling to be seen as soft on defense (Dueck 2010, 93). They wanted to continue the buildup and therefore criticized the Air Force cuts. Even prior to the budget request, former Air Force Secretary Symington (D-MO), minority leader Johnson (D-TX) and Jackson (D-WA) had urged the administration to refrain from additional cuts (Childs 1953a). Now, Democrats attacked the administration arguing that "our first line of defense is certainly not the place to fulfill campaign promises" (Maybank (D-SC) in New York Times 1953a) and that the Air Force cuts were "too big a gamble." (McCormack (D-MA) in Norris 1953a) Samuel Yorty (D-CA), an Air Force veteran and representative of a district with large aircraft industry, even embarrassed the administration by disclosing internal Air Force statements that the cuts would reduce its combat power below the absolute minimum (Hinton 1953a).

The Air Force leadership denied their involvement in this disclosure, but there is no doubt that the Services fought hard to reinstate the lost funding. The outgoing Army and Air Force Chiefs Collins and Vandenberg testified before Congress that the reductions increased the security risk. Especially the latter openly attacked the administration's sudden turn to more economy, which would threaten the US strategic capabilities and had caused confusion among the Service's planning (Norris 1953b; Hinton 1953b). Against this opposition, Wilson took efforts to defend the Air Force funding from attacks by Democratic lawmakers and at the same time prevent further cuts by the Republican majority. Eisenhower repeatedly publically intervened in the debate, supporting the administration's budget request. Although the request's priorities ran counter to the public position, the new President could build on his high approval rates, the public reduced support for defense spending and the belief that the savings would reduce waste and not compromise the national security (Hilsman 1958, 737; Gallup 1953). In the end, the House voted down several Democratic amendments to increase the Air Force budget largely along party lines, but followed the SubHAC recommendation to reduce the administration's request by an additional \$1.4 billion with the largest share coming from the Army account (Christian Science Monitor 1953). The Senate closely followed the House bill with the Republicans again defeating Democratic amendments for more Air Force spending and the final budget departed little from the administration's request (Leighton 2001, 88-113; Hinton 1953c).

While the budget debates for FY 1954 went on in Congress, the Eisenhower administration prepared its military strategic reorientation. Already in May, Eisenhower announced the replacement of the Joint Chiefs and the CJCS as a sign of the break with the past and an assertion of civilian control. Taft had argued for some time that the current chiefs stood in the way of a new military policy, since they were clearly committed to Truman's positions (Taylor 1959, 20; Childs 1953b). 152 In the same month, the Eisenhower administration launched the so-called Project Solarium to identify the most fiscally and strategically sound defense policy for the coming years. Three independent task forces compared the financial implications of three policy options towards the Soviet Union: A containment option, an aggressive roll back option, and a position which relied on the threat of total war (Dockrill 1996, 33-35). Besides the task forces, Eisenhower directed the new CJCS, Admiral Arthur W. Radford, to propose a military posture based on the implications of NSC 149/2 (Trest 1998, 158). The CJCS's final report argued that the new strategic perspective would require a clear emphasis on nuclear deterrence. All other elements of the national security would have to give in order to finance nuclear capabilities without straining the budget. The report furthermore suggested a reduction of troops in Europe and Asia and the creation of a mobile defense force.¹⁵³

The results of both assessments were integrated after hard bargaining in a new policy paper in October 1953. The end product, NSC-162/2, framed the so-called New Look policy, in which the ambivalence between the desire for less expensive defense without putting American and allied security at risk was a basic theme. Dockrill (1996, 2, 36-42) identifies four differences in NSC-162/2 compared to previous policy: (1) The NSC-68's massive buildup for the year of maximum danger was replaced by moderate constant armament for the long haul. This perspective should detach US military policy from the prior tendency to constantly react to external events and provide more

-

¹⁵² He suspected especially CJCS Bradley to be a Truman partisan after the general had publically sided with the administration during the Great Debate on deployments to Europe.

¹⁵³ Critics of the proposal, including State Secretary Dulles, doubted the ability of American allies to offset the reduction on the US side and feared that the partners would misread the redeployment as an isolationist move.

coherence.¹⁵⁴ The capacity of the economy and the availability of new weapon systems became the primary criteria (Snyder 1962, 498). (2) The national security must not jeopardize the democratic state and economic stability; (3) The US should use nuclear weapons as major means of deterrence. This far-reaching reliance on nuclear weapons departed from Truman's preparations for the full mission spectrum and established "massive retaliation as the first line of defense." (Hogan 1998, 467); (4) The US should promote increased allied efforts and deploy less forces abroad. As Eisenhower argued: "We cannot be a modern Rome guarding the far frontiers with our legions." (in Dueck 2010, 98)

In sum, the logic of the New Look turned the force planning of NSC-68 upside down, since it "started from the internal objective of economy and the balanced budget, moved from there to the idea that significant economies could be made only by a 'selection' of military means (...), from there to the need for devising a strategy which would permit such 'selection', and, finally, to the need for a 'national policy' directive sanctioning such a strategy." (Snyder 1962, 498-499) With regard to the budget distribution, the New Look was a strong innovation from the prior focus on balanced budgets, which characterized most Truman years. To be sure, already earlier budgets had emphasized air power, but for technical reasons related to the slower buildup of sophisticated equipment rather than for an explicit strategic rationale.

Especially the Army, for which the New Look was "an unmitigated disaster" (Bacevich 2002, 87), did not accept this change without a fight. Although NSC-68 had eased the conflict, the Army leaders had followed the debate on nuclear strategic bombing with strong concerns for some time (Ridgway 1956). In the generals' eyes, the new administration's focus on nuclear deterrence not only reduced the role of the Army to an auxiliary branch, but also dangerously narrowed strategic options and left no room for gradual escalation. Maxwell Taylor, the later Army Chief of Staff, wrote Ridgway shortly after the Korean War in 1953: "An outstanding impression from the operations in Korea has been the ineffectiveness or inapplicability of many of our modern weapons to the requirement of the Korean type of limited war." (Taylor 1959, 15) The New Look fundamentally contradicted this Army experience. In the Army leaders' perspective, the war had proven the limits of deterrence and the risk of failing to prepare for

¹⁵⁴ Yet, the debates over a bomber gap in 1955 and a missile gap after the Sputnik-shock in 1957 show the limits of this detachment (Roman 1995).

conventional war. A sound armament policy should prepare forces for combat, instead of speculating on the avoidance of combat. Furthermore, Ridgway questioned the morality of a strategy, which allowed for the annihilation of cities and other civil targets. Against this backdrop, the Army organized resistance at all levels. Within the administration, the Army Chief challenged the New Look, but failed to convince the JCS or the NSC. 155 As all attempts to convince the political actors had failed, the Army escalated the conflict over the New Look a year later by taking the case to the public. The Army's attempts to create public support were particularly damaging, as they revealed cracks in the US determination to engage in nuclear war. 156

But the President's commitment to the New Look was steadfast. Radford outlined the new strategy to the public in December 1953, arguing that "[o]ffensively, defensively and in support of other forces, air power is a primary requirement." (in New York Times 1953d) In a speech in January, Secretary of State Dulles (1954), who had framed the underlying concept already in a 1952 Life Magazine article, publically introduced the term 'massive retaliation' (Dueck 2010, 96). The New Look came very close to the public position and caused therefore little public controversy. In fact, societal demands had a large impact on the New Look policy. While the details of NSC-162/2 were the result of extensive strategic consideration within the administration, the prior elections had strongly reduced the administration's policy options. Majorities had voted for less state intervention and less federal spending and therefore blocked the option of large defense spending. At the same time, voters had sided with Eisenhower's notion of strong retaliatory power rather than with Stevenson's balanced budget approach.

Although Wilson contended that the transition to the New Look would be evolutionary rather than revolutionary, the administration started to implement the new prioritization with the FY 1955 defense budget. Prior to the full formulation of NSC-162/2, Dodge and Eisenhower had pressured Wilson to realize further savings for FY 1955, but in the strategic limbo especially the Army and Navy had pushed for balanced budget shares

.

¹⁵⁵ Within the DOD, CJCS Radford stood with the civil leaders and the Air Force, the main beneficiary of massive retaliation, had little reason to complain. While CNO Carney was sympathetic to some of Ridgway's arguments, he preferred to secure a role for the Navy in the new strategy and refrained from openly siding with the Army.

¹⁵⁶ Indeed, Eisenhower had come to the conclusion that the advent of thermonuclear weapons had made any war with the Soviet Union an unthinkable catastrophe and thus left only a credible deterrence as feasible option (Linn 2007, 165). Any doubts that the US might use nuclear weapons could entice the Soviet Union to test the US determination leaving no other options than nuclear escalation or being caught bluffing.

(Alsop/Alsop 1953). Thus, Wilson presented an initial request of more than \$42 billion in October 1953. Eisenhower was furious about the Services' request and told them to accept the administration's new priorities (Hogan 1998, 408-409). The Pentagon subsequently reduced defense expenditures to \$37.5 billion including \$29.9 billion in new budget authority, cutting almost \$3 billion from the Army's request (Bacevich 2002; Norris 1953c). On Capitol Hill, Army leaders attacked the budget and its distribution. Ridgway made clear that "a reduction in the order of magnitude that we are making will certainly (...) leave us with less combat effectiveness than we had when we started." (SubHAC 1954, 54) Implicitly challenging massive retaliation, he argued: "Man is the master of weapons and not their servant." (SubHAC 1954, 49) But Republican lawmakers met these complaints with little goodwill. Only the Democrats supported the Army and renewed their calls for stronger defense. Senators Albert Gore (D-TN) and John F. Kennedy (D-MA) as well as the representative John W. McCormack (D-MA) criticized the conclusions of the policy review and the second year reductions in the defense budget (100 Cong. Rec., June 16, 1954, S8327-8347). They feared that a sole reliance on massive retaliation might lead to World War III (New York Times 1954). Yet, an attempt by Kennedy to add \$350 million to the Army budget to maintain two divisions was defeated. Despite some doubts among the press (e.g. Alsop/Alsop 1954; Baldwin 1954a), the majority of the lawmakers was willing to give the New Look a chance.

Summary

The link between societal demands and the administration's budget prioritization is surprisingly weak during most of the buildup years. While the extensions and the subsequent stretch-out of the defense budgets were roughly in line with societal demands, the distribution of the budget – even when leaving the immediate war funding aside – clearly differed from the dominant societal preferences. Especially during 1950 and 1951, in which the salience was high and the largest impact from common preferences was theoretically expected, the match with governmental positions was particularly weak. Societal demands played no role in the administration's turn to NSC-68, which qualitative implications Congress accepted without hesitation. In fact, the advocates of NSC-68 were aware that their broad buildup plans ran counter to the

societal positions at the time. While the Korean War changed the tide in the administration and silenced Congress, societal demands returned after a short period of support for broad mobilization to a more critical position as the war made little progress. Yet, the public beating of the Democrats during the elections in 1950 remained moderate. In contrast, the presidential campaign two years later was strongly shaped by the different conceptions of military policy, the disappointment over the Korean War and the rejection of further sacrifices for mobilization. While the specificities of the military policy were not yet fully clear, Eisenhower argued for a sustainable retaliatory force during his election campaign and promised to end the limited war in Korea and excessive federal expenditures. Early in office, Eisenhower turned indeed to a budget distribution, which met the public demands.

5.2.2. Military organization

5.2.2.1. Builddown

'Bring the boys home'

V-E Day marked the beginning of the greatest postwar demobilization of US armed forces in history. Driven by the American people's desire to return to normal life and the imperative to return people to the civil economy, the active duty personnel of 12 million was rapidly and drastically reduced (OSD 2008, 204; DOA 1956, 446-447). Planning for this impressive task had begun long before the war's end (Sparrow 1994, 31; Ballard 1983, 54). The Services reasoned that early planning would prevent an uncoordinated demobilization as after World War I and provide the foundation for a

¹⁵⁷ In an early attempt to coordinate military demobilization within the military establishment, General Marshall presented War Department plans to the JCS in 1943. Based on this preparatory work, the JCS quickly agreed on several basic planning assumptions: (1) V-J would take at least a further year after V-E; (2) a partial demobilization would be possible after V-E; (3) the US would maintain a force of 400,000 personnel in Europe after victory, partially as occupation force and partially due to lacking shipping capacities for redeployment; (4) some form of universal military training should be enacted to meet postwar military requirements; (5) all troops in Africa, the Middle East, South America and the Atlantic which were not required for their contribution to the Pacific war should be withdrawn or at least reduced; (6) requirements for a future international police force may be disregarded during the immediate planning (Gibson 1983, 49; Schnabel 1996, 92-93). Furthermore, the JCS accepted a point system as mechanism for personnel demobilization as suggested by the Roosevelt administration's National Resources Planning Board. Although it was abolished in 1943, the board significantly contributed to the report 'Demobilization and Readjustment' which laid out 96 recommendations for the transition including the recommendation to discharge military personnel on an individual instead of a unit level (Gibson 1983, 42). The report also became the basis for the Mustering-out Pay Act and the GI Bill, both enacted in 1944, which provided legislation for a successful reintegration of veterans after the war (Ross 1969, 67-124; Sharp 1976, 14-18).

significant postwar force, which they considered vital in the new environment (Sparrow 1994). As Secretary of War Stimson argued during his farewell statement in 1945: "[W]e must never again allow ourselves to be caught in a state of complete unreadiness." (Stimson 1945)

The Services planned a rapid demobilization which would lead to a substantial permanent peacetime force of 25 Army divisions, 70 Air Force groups and 339 major combat ships for the Navy (Rearden 1984, 15). After the surrender of Japan, assistant Army Chief Edwards told lawmakers that the Army aimed at a postwar strength of 2.5 million including the Army Air Forces by the end of FY 1946 (in HMAC 1945b, 3-8). This represented a significant reduction from the wartime force, but it was almost ten times larger than the personnel levels in 1940 (OSD 2008, 204). While Edwards explained that this was not the figure at which the draw-down would finally level off, the War Department was clearly pushing for a personnel strong postwar force. The Navy Department was less concerned with personnel but ambitious with regard to its force structure. Determined to fight for a big and independent postwar Navy, Basic Post-War Plan No. 1 of April 1945 planned to keep most ships after the war, although many would be put in inactive reserve (Davis 1966, 113-114). During hearings in the House Naval Affairs Committee in fall 1945, the Navy outlined an active fleet including 10 aircraft carriers, 5 battleships, 31 cruisers, 70 submarines, and 135 destroyers (HNAC 1945, 1167; Davis 1966, 202-203, 211-212). At the same time, it proposed to reduce its war force of 3.3 million to 558,000 by September 1946. The Marine Corps were to shrink by three-quarters and reach 116,000 personnel.

Yet, when actual demobilization gained momentum, the departments' plans became soon obsolete and the military leaders were forced to react to societal demands. The administration came under enormous public pressure for fast demobilization after the Japanese surrender. Although in hindsight it seems clear that only a minority of the American people held strong preferences for rapid demobilization, the continuous calls to 'bring the boys home', the public fears of economic hardships after the war and the general preference for significantly smaller postwar forces clearly reduced the government's leverage. Especially family members of deployed soldiers pushed for rapid release of their husbands, fathers or sons. Truman (1955, 509) recalled in his

¹⁵⁸ The Basic Post-War Plan No. 1 was the last of several Navy plans. Earlier plans were soon dismissed as the directive became to "think big" (Davis 1966, 106).

memoirs: "Despite the dangerous speed with which the program was being carried out, public pressure on me and on the heads of the services for even faster demobilization continued to mount."

The Army Ground and Air Forces soon started to voice the negative military implications of the rapid and indiscriminate demobilization (Donovan 1977, 127). In November, the European Commander Eisenhower estimated that his troops "could operate in an emergency for a limited period at something less than 50% normal wartime efficiency." (Sparrow 1994, 266) And Deputy Commander Clair Streett, Continental Air Force, informed his superior that "we will have soon reached a point, if it has not been reached, at which the Army Air Forces can no longer be considered anything more than a symbolic instrument of National Defense." (in Craven/Cate 1983, 569) Truman agreed with the military leaders' concerns, but was unwilling to risk public wrath. In fact, the President even raised the pressure on the War Department by publically promising in September that more than 2 million soldiers would be home by Christmas.

The speed of the Navy demobilization was hardly less drastic (Huntington 1961, 35-36). In September 1945, Navy planers assumed a reduction of only 336,800 personnel for Navy, Marine Corps and Coast Guard until the end of the year, due to continuous needs for naval capacities for occupation tasks and especially the return of soldiers and supplies (Schnabel 1996, 97). Just six weeks later, Navy officials adjusted their numbers assuming up to 1.2 million separations for the same time span causing concerns similar to the War Department's worries. Only one-third to one-half of the Navy warships was still considered ready to fight by fall 1945 (Gerhardt 1971, 32). In October, Forrestal wrote that the nation was "going back to bed at a frightening rate." (in Boettcher 1992, 48) Yet, an attempt by Vinson to fix the Navy's postwar strength early on through a Concurrent Resolution entitled 'Composition of the Postwar Navy' failed, as the Senate – by request of the President – did not take up the Resolution for consideration (New York Times 1945b). Still, while the demobilization was realized faster than planned, the Navy remained close to its target in personnel and force structure (OSD 2008).

In contrast, the societal pressure forced the personnel-heavy War Department not only to accelerate the speed of demobilization, but to adjust its depth, which seemed to make the Army's worst nightmares of renewed insignificance come true. As opposed to rather

abstract costs of military policy, the separation from their loved ones was regarded by many as too much of a sacrifice in peacetimes. And the ground forces, whose strength rests on large personnel rather than technology, suffered disproportionally from these societal demands. In November 1945, the War Department departed from its initial target of 2.5 million and submitted a force target of 1.63 million by July 1946 and 1.34 million the year after, both numbers including 400,000 for the Army Air Force. In January 1946, the new Army Chief Eisenhower warned that the US would "literally 'run out of Army'" by April if the discharge rate was not reduced (in SMAC 1946a, 341). But at the same time, he admitted to Congress that he had never expected the "emotional wave to get men out of the Army (...) would reach proportions of nearhysteria." (SMAC 1946a, 340) In fact, when the War Department announced a slowdown of demobilization, furious soldiers waiting for their return caused revolt-like scenarios. In February, the Army further reduced its target strength to 1.07 million still including 400,000 for the Army Air Force by the end of 1947. These force level reductions were accelerated by congressional action in June 1946, limiting the Army to 1.55 million by July 1946 and 1.07 million a year later (Schnabel 1996, 108-109; SMAC 1946b).

When the last non-voluntaries were discharged and thus the official Army demobilization came to a close by the end of June 1947, the War Department was very close to the public's preferred number of one million but significantly below its own preferred figures. Lt. General James Gavin (1958, 106) sums the impact on the Army: "We were not demobilizing the Army, we were absolutely destroying it." The remaining Army Ground Forces personnel included only 685,000 men and women of which more than half were on occupation duty (OSD 2008, 204). Of 91 combat-trained Army divisions on V-J Day only ten under strength divisions were left at the end of the demobilization of which only 2 divisions were combat ready (Rearden 1984, 12, 316).

The government had proved unable or unwilling to resist the societal pressure, although the President and Congress were aware of the negative implications of a far-reaching demobilization (e.g. Acheson 1969, 196). In his memoirs, Truman (1955, 509) calls the

¹⁵⁹ The Separation Centers, which ran on fully capacity during the fall 1945, had discharged more personnel than expected by the War Department. They actually discharged in September 1945 597,000 personnel (instead of estimated 450,000), in October 1.2 million (instead of estimated 550,000), in November 1.2 million (instead of estimated 750,000) and in December 1.1 million (instead of estimated 750,000) (SMAC 1946a, 340).

overall demobilization of more than ten million active duty forces within two years "the most remarkable demobilization in the history of the world, or 'disintegration', if you want to call it that." But political actors backed away from challenging the public's strong demand. An editorial in the New York Times (1945a) accurately sums the situation: "[T]he cry that rings loudest through the land and makes every Congressmen jump in fear of his job is, 'Bring the boys home,' with its accompanying demands for (...) a demobilization of our 'citizen' army in favor of a small 'volunteer' army." Without the government's backing, the Services could hardly sell society on the need for a much larger armed force than before the war (Pogue 1987, 158). As Sharp (1976, 285) argues: "The boys came home in the final analysis, though, because the people wanted them home."

The struggle for a permanent military establishment

With societal demands clearly blocking the road to a personnel heavy force posture, last hopes to sustain a large postwar active duty ground force faded. Therefore, the generals put all their efforts into the establishment of permanent mechanisms for manpower procurement, which would at least fence against complete insignificance and secure the availability of military personnel in case of a national emergency. ¹⁶¹ Strongly inspired

-

¹⁶⁰ Senator Millard Tydings chose a telling electoral theme during his senatorial reelection campaign in Maryland in 1944: "Win the war, win the peace, bring the soldiers home quickly." (Keith 1991, 391-392) ¹⁶¹ The War Department's second major effort to increase its position, the unification of the armed forces, proved even more controversial and only partially successful (Sparrow 1994; Ward 1993; Caraley 1966; SASC 1947). The National Security Act established the National Defense Establishment consisting of the Departments of the Army, Navy and the newly created Air Force as largely autonomous units with direct access to the President. The JCS was formally established as a body for coordination between the branches. A Secretary of Defense became responsible for general policy direction as well as control, supervision and coordination of the armed forces. Furthermore, the act established the Munitions Board and the Research and Development Board to coordinate defense acquisition, the National Security Resource Board to make preparation for a possible mobilization, the CIA, and the NSC. To the disappointment of the Army, the act left the autonomy of the Services largely unaltered and coordination weak. The newly established Secretary of Defense lacked an own department, putting him in a weak position towards the Services. The limitations of the new military establishment became almost immediately apparent. Expressing the growing disillusion among lawmakers, Mahon complained in April 1949: "Each service is angling for prestige, a place in the sun, a larger slice of the national defense dollar. During the war there was glory, and money, and manpower sufficient for all; but the peacetime situation is entirely different." (95 Cong. Rec., April 12, 1949, H4428) Overshadowed by the conflict between the Navy and the Air Force about their role in strategic air power, Congress finally enacted the committee recommendation in an amendment to the National Security Act. The Services lost their autonomous position and became components of a single Department of Defense, which replaced the National Defense Establishment. With the DOD as executive department, the military departments lost their direct access to the National Security Council and the Cabinet. The amendment provided a chairman for the JCS

by World War II, the War Department's planning was directed towards another total war in which the US would need large numbers of men (Hewes 1975, 133-134). But in contrast to previous wars, military leaders assumed that the luxury of sufficient time for a broad mobilization would be lacking, given the deep international involvements and the technological progress which had reduced early-warning time. With the ideal option for a strong and ready force foreclosed, Army Chief Marshall regarded a small peacetime force with a well-trained civil base organized in a strong reserve as a second best solution, since it would reduce mobilization time without causing substantial costs (Doubler 2003, 220). But to staff the active duty and reserve forces, a permanent inflow of personnel was necessary. Unfortunately, the Army, which had the largest requirement in personnel, was the least popular branch for voluntary enlistments and relied most on compulsory schemes. Yet, the extension of the wartime Selective Service System was considered only a short-term solution to offset for current personnel shortcomings. In the long run, Universal Military Training was supposed to become a central and permanent pillar of national security (Gerhardt 1971, 3).

Representatives of the War Department outlined the innovative UMT idea before the House Select Committee on Post-War Military Policy (1945b) already in June 1945. ¹⁶² Supported by witnesses from the Navy and the reserve components, the War Department argued that universal training would be vital for the maintenance of strong ground forces. Moreover, UMT would not only increase readiness and deter potential aggressors, but also improve the health, skills and democratic persuasion of young Americans. Due to its large impact on individual lives, UMT became a highly controversial domestic issue. Most of the press, public opinion, business groups such as the Chamber of Commerce and veteran groups, most vocally the American Legion, strongly supported the policy (House Select Committee on Post-War Military Policy 1945b; Hogan 1998, 125-128). Indeed, universal training seemed to be the perfect institution for a country skeptical of large standing armies, but with a strong sense of civic duty (Boettcher 1992, 6). Yet, the public position was inconsistent, as a coalition of domestic groups including churches, labor, liberal and libertarian groups and

as central advisor to the President and defense secretary. The post of the Secretary of Defense was significantly upgraded.

162 The House Salect Committee and Project Committe

¹⁶² The House Select Committee on Postwar Military Policy, the so-called Woodrum Committee after its chairman, was established in early 1944 to investigate all matters of postwar military requirements (House Select Committee on Postwar Military Policy 1945a). It included seven representatives each from the Military Affairs and Naval Affairs Committee and nine further representatives from the House.

educational associations strongly opposed the proposal early on. They voiced concerns over a militarization of society, rejected governmental interference in individual liberties and considered a compulsory training as entirely un-American. Nonetheless, the House Select Committee on Postwar Military Policy (1945a, 2) recommended further congressional steps to establish UMT.

In fall 1945, the President, who shared Marshall's reasoning (Truman 1955, 510), picked up the measure and proposed legislative action on UMT. His plan outlined a force based on small regular troops and backed by an extended National Guard and Service reserves as well as a pool of ready citizens trained under UMT (Truman 1945, 3). To meet criticism, which characterized UMT as undemocratic and an unlimited extension of the Selective Service System, Truman (1945, 3) stressed: "Trainees under this proposed legislation, however, would not be enrolled in any of the armed services. They would be civilians in training." The successive hearings on UMT largely echoed the earlier debate, showing strong disagreement between societal advocates and opponents of the program (HMAC 1945a). Congress itself was split, as the Southern Democrats and conservative Republicans rejected UMT. To be sure, conservative lawmakers liked the idea of civic duty and physical training. But they were radically opposed to a program which strongly intervened into people's affairs based on legal compulsion. Taft regarded UMT "as the weapon of a totalitarian state." (in Eckel 1948) Against this backdrop, the HMAC repeatedly postponed action and Truman finally withdrew his proposal in early 1946 for another introduction after the coming midterm elections.

The administration prepared a new attempt to implement a modified version UMT in spring 1947. To provide further support, Truman established an Advisory Commission on Universal Training in December 1946, which endorsed UMT as a matter of military necessity in its final report. After the coup in Czechoslovakia, Truman condemned the Soviet Union's foreign policy and called upon the Congress to enact UMT to meet manpower shortage. In summer 1947, the HASC held again hearings on universal training, now stripped of the alarming term 'military'. Although the opinions were still strongly divided during the hearings, the committee, in absence of seven Republican committee members, voted unanimously to report favorably on the UMT bill. Despite this success and the support of the SASC chairman Chan Gurney (R-SD), universal training soon faced new obstacles (Rearden 1984, 14-15). With the consent of the

Republican leadership, the House Rules Committee, chaired by Leo Allen (R-IL), an open opponent of UMT, blocked floor consideration on the program for more than ten months (Trussell 1948b). In the meantime, pending UMT became a victim of the increased popularity of air power on Capitol Hill.

Despite the drastic demobilization, the Army Air Force had not given up their ambitious postwar goal of 70 regular air groups in an independent branch. Yet prior to 1948, Truman and Congress largely ignored the Army Air Force's pleas (Cagle 1964, 9-10). When the Air Policy Commission sided with the Air Force and recommended a rapid buildup of 70 groups, the tide turned. The subsequent popularity of air power in Congress meant the factual death blow to the administration's proposal for universal training. While Truman and Forrestal argued that an air power buildup and UMT would be vital supplements to each other, Congress saw it more as an either-or-decision against the backdrop of their public promises of fiscal constraint (Strout 1948a). Especially conservative Republicans and Southern Democrats argued that balanced force structures, as sought for by a UMT implementation, were outdated and should be abandoned for the sake of a much more efficient air power buildup (Norris, 1948; Eckel 1948). And although the number of outright opponents of UMT was small, majorities sided with air power and against UMT in an either-or decision.

The public preference for aviation over manpower and the inconsistent demand patterns on UMT most likely contributed to this solution, as presidential elections were coming up by the end of the year. Uncertain of the societal demands, Republicans feared a public backlash from this intervention in civil liberties. With numerous interest groups expressing strong resistance during the hearings, the air power solution was clearly less costly in political terms. Hanson Baldwin (1948b) commented in the New York Times that in an election year "Congress would like to buy defense with dollars and not with their constituents." Thus, despite desperate efforts by the Army and the civil administration, Congress denied money for universal training in favor of additional spending for the first step towards a 70-group Air Force in its FY 1949 legislation. Although the chances of UMT diminished, legislative action on the program continued and especially Truman did not dismiss universal training. The administration's FY 1950

¹⁶³ E.g. an amendment by Senator Henry C. Lodge (R-MA), a moderate Republican, to provide funding for the full 70 groups in the FY 1948 budget was rejected on the floor (93 Cong. Rec., July 10, 1947, S8605-8610).

request provided again funding for UMT, but only money for 48 air groups, down from 55 groups in FY 1949 (Norris 1949). ¹⁶⁴ In response, the House shifted the money earmarked for UMT to move again towards 70 air groups as promoted by Mahon and Vinson (95 Con. Rec., April 12, 1949, H4431-4432; April 13, 1949, H4546).

The House's decision did not imply the procedural defeat of UMT, but it meant its final political defeat. Voluntary enlistments in combination with the Selective Service System, which allowed for ad-hoc adjustments rather than stable personnel procurement, became the Army's only option (Ross 1969, 36-38). By the war's end, Congress had enacted the Armed Forces Voluntary Recruitment Act, suspending the post-World War I peacetime manpower limits and permitted the Services to enlist individuals of 17 years and older for 3, 2 or 1.5 years. Selective Service was supposed to expire in May 1946, but with UMT pending, the generals called for an extension of the induction system. After controversial hearings, the House and Senate finally agreed to extend the program for another nine months (HMAC 1946; SMAC 1946c). 165 The Army Ground Forces made strong use of the Selective Service System between September 1945 and June 1946 to meet its authorized strength (Selective Service System 2007). Although a growing number of voluntary enlistments during the second half of 1946 raised hopes that future needs could be met without Selective Service, the Army came again into trouble to fill its ranks after the system expired in early 1947. As the Army threatened to run short of more than 100,000 troops in 1948, Forrestal and the JCS decided at the Key West conference on the Services' roles and mission that Selective Service should be reenacted (Rearden 1984, 316-317; Hammond 1963, 475-476). In June 1948, Congress approved Selective Service for another two years to induce men between the age of 19 and 25 for 21 months of active service and 5 years of subsequent reserve service (House of Representatives 1948).

At the same time, the postwar buildup of reserve forces was far from efficient and made only slow progress (Crossland/Currie 1984, 79-95; Mahon 1983, 198-207; DOA 1956, 452). Significantly fewer than expected war veterans enrolled for the reserve components after the war and the reserve units lacked federal money for adequate

¹⁶⁴ Since the Air Force decided to increase the number of B-36 bombers in heavy air groups from 18 to 30, the decline in the number of air planes is less significant.

¹⁶⁵ The act provided age limits of 19 to 44 and a ceiling for the overall Army, Navy, and Marine Corps forces of 1.07 million, 558,000, and 108,000 respectively by July 1, 1947 (SMAC 1946b; Sparrow 1994, 254-257).

equipment and training. With limited personnel inflow and little funding, the federal Army reserve, the so-called Organized Reserve Corps, and state-organized National Guard competed for relevance. In the wake of the unification in 1947, the War Department, the Defense Secretary and the President supported an effort to unify the Army reserve components under federal control. Afraid of losing its autonomy and suspicious of the 'regulars', the National Guard Association quickly rose in opposition to the proposal and its official publication announced "The Battle is On!" (in Mahon 1983, 201) After the intervention of NGA director Ellard Walsh, Congress, stressing the power of the states, turned the administration's advance down (Mahon 1983, 200). Thus, the reserve organization remained fractured and underfunded until the Korean War. While the National Guard, which insisted to be the first reserve component to be called-up in case of an emergency, achieved an acceptable buildup until 1950, especially the Organized Reserve Corps fell behind earlier expectations. In 1948, Brig. General E.A. Evans, director of the Reserve Officers Association, told lawmakers: "The unorganized condition of the Army and Air Reserves substantiates the statement of Secretary of State George Marshall that our security forces are nothing but a hollow shell." (in HASC 1948, 6530)

Summary

While Truman frustrated a clear air power prioritization during the late 1940s, society and Congress in turn blocked the road to a personnel heavy force. The consequence was an implicit reliance on air atomic power, the only possible trump, by the end of the transition. As Herken (1988, 196) concludes: "The rapid demobilization (...), budgetary constraints, and the de facto rejection of peacetime universal military training by Congress and public opinion, (...) assured the victory of air power by default." The societal resistance to large permanent forces especially struck the ground forces, losing a disproportional share of troops during the demobilization and thereafter. As the Navy's attempts to benefit from the support for aviation were in vain, the Air Force was the only branch which significantly increased its relative share in personnel between 1947 and 1950 (OSD 2008, 204). Societal demands clearly contributed to this outcome. Special interests put strong direct pressure on the government to rapidly release personnel after the war leaving the political actors little leverage. At the same time, the

inconsistency of societal demands on UMT provided lawmakers with the leverage to oppose the administration's attempts to implement the program.

5.2.2.2. Buildup

Rapid force expansion in response to the Korean War

The outbreak of the Korean War proved the fragility of the international order, which the Services had sought to prepare for. Yet, it did not resemble the kind of conflict, they had been preparing for. In the Pacific rather than Europe and limited rather than total, the Korean War caught the US administration by surprise. Especially the shortage of ground forces became immediately apparent. The Army's FY 1951 budget provided funding for 630,000 personnel in 10 divisions, of which one in Germany and four in the Far East were on occupation duty (Condit 1988, 58-59, 224). All Pacific divisions, which were closest to Korea, were under strength and not combat ready, lacking organic infantry, artillery and armor. Further divisions in the US were either under strength or unsuitable for the war on the peninsula.

Against this backdrop, the administration and Congress started a far-reaching buildup of troops even prior to the deployment of the first ground forces to Korea. On June 28, lawmakers overwhelmingly voted for a year-long extension of Selective Service, which had been pending since January (Gerhardt 1971, 127-129). Two days later, Congress raised the authorized Army strength to 837,000 men and the Air Force strength to 502,000 men for 70 air groups. The buildup gained urgency as the lack of military preparedness became dramatically apparent during the early days of the conflict. Underequipped and outnumbered, the first, hastily deployed 540-men task force Smith suffered 180 casualties during first contact with North Korean forces and was forced to retreat. Although the magnitude of the early war problems was not fully reported and therefore not immediately clear to the public (e.g. Parrott 1950), the military failure put the Truman administration and especially Defense Secretary Johnson under pressure.

¹⁶⁶ The Marine Corps was down to two divisions at 36 percent of their combat strength.

¹⁶⁷ The 24th Infantry Division which was the first division on the Korean peninsula suffered 30 percent losses within the first 18 days after their landing. Even the early arrival of reinforcements did initially not stop North Korean progress.

Within ten days after the first deployment, commanding General MacArthur called for reinforcements raising the requirements from two to eight divisions (Condit 1988, 60). And Truman announced on radio that he had authorized an increase in end strength – from 1.5 million to more than 2.1 million –, the use of Selective Service, and the activation and call-up of National Guard and Reserve units (Condit 1988, 61-62; Galloway 1957, 468-471). Moreover, he called on Capitol Hill to remove the legal force size ceilings. Lawmakers quickly responded, passing legislation to suspend personnel ceilings for 4 years and extend all existing enlistments for 12 months (Hammond 1962, 351). While Congress was well aware of the public dislike for large-scale inductions of personnel, they felt that the international emergency situation outweighed domestic concerns. As Dewey Short (R-MO), ranking member of the HASC, told his colleagues: "It is tough for a 30-year-old man, fighting in the rice paddies of Korea, his wife and a couple of kids in Japan or back home (...). But, ladies and gentleman, liberty is the first casualty of war. (...) All of us are going to be required to do things we do not want to do." (96. Cong. Rec., July 25, 1950, H10987)

The Korean War triggered not only an immediate buildup of forces. It also had a direct impact on the Services' long-term estimates in accordance with NSC-68. A week prior to the North Korean attack, the JCS had estimated their force requirements to implement the pending NSC-68 proposals at 12 Army divisions, 324 Navy ships, and 69 Air Force wings (Condit 1988, 228-240). By September, the Services had drastically increased their recommendations for the required force: 18 Army divisions, 1,161 Navy ships, 95 Air Force wings, and a total of 3.2 million men by 1954. As the political actors wanted a broad and far-reaching buildup, the Services were hardly constrained in setting their force structure goals. While concerned over the fiscal and economic implications of this force growth, the Chinese intervention dissolved any doubts and NSC-68/4 advanced the Service force objectives to be reached by mid-1952 (Condit 1988, 251). Quickly more of the same rather than a significant change became the implicit directive.

European defense and a new attempt for UMT

To meet the dramatically raised personnel levels, Truman sought not only the extension of Selective Service, which was to expire in July, but also a renewed implementation of universal military training in 1951. Already in 1950, the National Guard Association,

the Reserve Officer's Association, and the American Legion joined for another attempt to implement UMT (Mahon 1983, 207). Yet, the success of both measures was soon threatened from two directions. (1) After the Truman had urged additional and potentially permanent US efforts for European defense in his 1951 State of the Union Address, the conservative Republicans in Congress, which disliked compulsory efforts to begin with, picked the renewed efforts to implement personnel procurement schemes as a chance to challenge the administration's international commitments. Thus, the measures became subject to the Great Debate between nationalists and internationalists, as the former blamed the administration for promoting the personnel procurement schemes in order to acquire manpower for Europe.

(2) Only hours after Truman had called for extension of Selective Service and urged for a stronger commitment to Europe in his 1951 State of the Union Address, Kenneth S. Wherry (R-NE), a conservative Republican and Senate floor leader, introduced a resolution "declaring it to be the sense of the Senate that no United States ground troops shall be sent to western Europe pending determination by the Congress." (97 Cong. Rec., January 8, 1951, S94) He picked up a claim of Taft and other Republicans questioning the legal authority of the President to send troops without congressional approval, as Truman had indicated in a press conference in the first days of January (Krock 1951). When the Pentagon outlined its UMT plan on January 11, Representative Quentin Burdick (R-ND) explicitly linked all these issues by arguing that "the only reason the President wants to draft 18 year old boys is that he intends to use them in Europe regardless of what Congress (...) thinks." (in Sanders 1983, 89)

But in the atmosphere of international crisis, opponents had trouble to counter the calls for deployments to Europe by the administration, by many Democrats in Congress, and by members of the CPD (Sanders 1983, 92-95). As a sign of the raised importance of the North Atlantic Pact and US commitment to permanent European defense, Truman had announced in his State of the Union Address that General Eisenhower had been selected to coordinate the pact's preparations as Supreme Allied Commander of Europe. On the same day, the CPD had published an article in the New York Times (1951a) arguing that "General Eisenhower must be given full support by the American people. We must do this by creating balanced armed forces of great strength and by giving the people of Europe a sense of our unity with them." The public remained only moderately supportive, however. But congressional resistance to further forward deployments

started to melt in February, when Eisenhower returned from Europe and briefed lawmakers that the European allies had made efforts to improve their own defenses and urged them to abstain from troop limitations (Acheson 1969, 494-495; Trussell 1951). In the end, Taft and his allies quickly lost the Great Debate and the Senate approved reinforcements for Europe on April 4. The decision was the final step to change the mission of the US forces in Europe from occupation to European defense and thus to make forward deployments permanent.

With regard to military preparations, the commitment to Europe implied a need for ground forces, but it did not predetermine a decision on the mechanisms of personnel procurement. While opinion polls showed the silent majority still in support of UMT, various societal groups and especially the Republicans in Congress continued to voice strong opposition to compulsory training (New York Times 1951b). After a successful start in the Senate, the bill ran into strong opposition in the House. Suspecting the administration of fear-mongering and still opposed to a permanent peacetime conscription, the conservative Republicans and Southern Democrats threatened to defeat the bill on the floor. In order to pass at least an UMT framework, the House leaders were forced to introduce an amendment, which required Congress to pass additional legislation at a later point in time to put the UMT program actually in operation (Trott 1951a). Hence, the opponents of the program were able to postpone the factual start of UMT and thus successfully withdrew the final congressional decision from the current emergency situation. Despite strong pressure from the administration, the House upheld the amendment during conference making the Universal Military Training and Service Act basically useless (Washington Post 1951). It turned out short after, that the opponents of UMT had calculated correctly: As the situation in Korea relaxed during the following months, the House of Representatives rejected the successive proposal on UMT execution and the program never came into operation (Watson 1986, 164; Huntington 1961, 59). Thus, the Services were again forced to rely on voluntary enlistments and Selective Service, which Congress continued until 1955. 169 Without

¹⁶⁸ The final resolution approved the sending of armed forces as might be needed for the European defense, but not more than four divisions without further congressional approval.

¹⁶⁹ With UMT most likely lost and drawing lessons from the difficulties in Korea, the administration sought to reorganize the reserve forces (Crossland/Currie 1984, 102; Mahon 1983, 210-212; Galloway 1957, 473-482). In 1952, Congress passed the Armed Forces Reserve Act which divided the reserves into three categories: (1) Ready Reserve could be mobilized by Presidential order. All induced personnel was automatically transferred to the Ready Reserve after the active duty years; (2) Standby Reserves and (3) retired Reserve could only be mobilized by congressional declaration of emergency or war. After

UMT, the compulsory Selective Service seemed a necessity for a country at war. In fact, it had become an accepted element of US military policy and remained until the mid-1960s (Selective Service System 2007; Gerhardt 1971, 133). Due to Selective Service, the rejection of UMT did not limit the buildup.

Balanced force expansion in response to NSC-68

While the battle over UMT occupied Congress, the armed forces started to push for further expansions of their capabilities before the scheduled leveling-off period was to begin (Condit 1988, 261-262). In summer 1951, the Army, which had reached its 18 division force objective, asked for 3 additional divisions. The Navy, at 1,037 ships, requested to increase its approved size to 1,191. And the Air Force, 8 wings short of its approved 95 wings, called for 163 wings including 25 troop carrier wings by the end of FY 1954. After interservice rivalry had decreased with sufficient money for all Services pouring in, the Air Force's massive request brought the competition back. The Army and Navy considered the flyers' objective as breaking the balance between the Services, since even the enormous budgets could not carry all three expansions. After the cautious congressional reactions to the FY 1952 budget, the Services expected further large budgets to face close congressional scrutiny and potential reductions.

Unwilling to pay the bill for the Air Force buildup, the Navy and Army challenged the Air Force's force planning target during the budget preparations for FY 1953 arguing that 138 wings would be a sufficient number. Furthermore, they challenged the Air Force's composition of wings demanding to provide more tactical and less strategic wings. Against the backdrop of the Korean War, especially the Army felt that the flyers had lost sight of the tactical support and put too much emphasis on strategic capabilities. Considering the size and composition as vital for their independent strategic significance, the Air Force resisted both claims. The resulting deadlock made an intervention by Lovett necessary, whose decision carried considerable weight for the future course of the transition. As Baldwin (1951a) put it: "Mr. Lovett's decision (...) will either reassert the past principle of 'balanced forces', i.e. a team of all services integrated to a common strategy, or it will give clear-cut priority to the Air Force." As

intervention by the National Guard Association, the final law reaffirmed the priority of the National Guard for being called to service, as part of the ready reserve.

in prior years, the OSD predominantly sided with a balanced approach, as the resulting compromise set the Air Force objective at 143 wings including 17 troop carrier wings. ¹⁷⁰

When the administration decided to stretch-out the buildup, the US had established an impressive force (Linn 2007, 164; Condit 1988, 292; Huntington 1961, 60-61). From the end of FY 1950 to the end of FY 1952, the Army had doubled its divisions and was confident to be able to halt a potential Soviet invasion in Europe. The Navy had almost doubled its active combat ships including an extension from 9 to 16 carrier groups and the Marine Corps had increased from 2 to 3 divisions. While clearly short of its newly approved size, which it did not expect to reach until FY 1955, the Air Force had extended its 42 combat wings and 6 troop carrier wings to 95 wings including 15 troop carrier wings. The armed forces overall manpower had reached 3.6 million (OSD 2008, 204). During the two years of buildup, the political actors had strongly backed a balanced distribution. Consequently, the shares in personnel in FY 1953 hardly differed from FY 1950.

With Eisenhower's arrival, the stretch-out turned into reductions. While Truman had aimed at a high defense plateau, Eisenhower considered only a smaller plateau as sustainable and put early pressure on the Services. ¹⁷¹ Even before the New Look was formalized, personnel reductions, creating quick savings, were on the administration's agenda. Already NSC 149/2 in April directed overall personnel reductions of 250,000

¹⁷⁰ When the Air Force criticized the Navy's plan to build a third Forrestal-class aircraft carrier a year later, Lovett again choose a balanced response. He included only funds to partly finance the carrier in the budget (Stevens 1952b).

Eisenhower backed his push by reforming the military establishment, which still did not function satisfactory (Leighton 2001, 21-43; Baldwin 1953). Therefore, Wilson formed a committee to study reform recommendations. In April 1953, the Rockefeller committee, named after its chairman Nelson A. Rockefeller, emphasized four areas for improvement (Stevens 1953b): (1) Clear lines of authority and responsibility; (2) Enable the Defense Secretary to clarify the service roles and missions; (3) Make use of modern planning models; (4) Increase economies without decreasing military readiness. In order to strengthen the civil authority, the committee argued that the Defense Secretary and the Service Secretaries had to gain increased power within the DOD. It recommended the replacement of the Munitions Board, the Research and Development Board and other agencies and offices by assistant secretaries within the OSD. Moreover, since the JCS was considered ineffective due to the Service parochialism of its members, the Rockefeller committee recommended taking it out of the chain of command. Additionally, the chairman should gain more powers to organize the JCS substructure and thereby additionally freeing the chiefs for their primary task of strategic planning and advice. Eisenhower accepted almost all recommendations and only the proposal to enable the Defense Secretary to clarify the Service roles and missions was not included (Strout 1953). When Eisenhower put the reorganization plan before Congress, only the reform of the JCS caused heavy resistance on Capitol Hill. Echoing earlier concerns, opponents of the proposal feared that the increased authority of the CJCS was a step towards military dictatorship, creating a "Prussian-style general staff." (New York Times 1953b). The supporters finally succeeded when a motion to dismiss the reorganization was defeated on the House floor.

until the end of FY 1954 (Watson 1986, 61-63). The successive turn to nuclear deterrence resulted in further reductions in personnel. After numerous debates between the Services and the OSD, the administration approved intermediate FY 1955 force levels of slightly less than 3.03 million and final force levels of 2.8 million to be reached in 1957. By far the largest reductions came from the Army, which lost one-third of its manpower between FY 1953 and FY 1956. In contrast, the Air Force manpower remained virtually unchanged and, while its buildup of wings was reduced and stretched over a longer time span, the number of wings still grew to 131 by FY 1956 (Watson 1986, 84).

To compensate for the reduced active duty personnel, the Eisenhower administration planned to improve the manpower mobilization base (Huntington 1961, 81-82). Since the New Look emphasized the first month of a war, a pool of trained personnel, which could be activated on short notice, was essential. But a renewed UMT proposal was considered politically unfeasible especially for a Republican administration. Instead, Eisenhower turned to improve the current reserve system, which provided only insufficient numbers of trained personnel. The administration proposed a national reserve plan not unlike UMT, which included a mixture of voluntary and compulsory recruiting. Yet, Congress significantly modified the bill along the familiar patterns by dropping the compulsory element from the bill. The final Reserve Forces Act in 1955 aimed at the buildup of a total of 2.9 million reserve forces by 1960.

Summary

The transition during the early 1950s saw virtually no intended qualitative change in personnel or force structure prior to Eisenhower's election. In fact, the Truman

¹⁷² In December 1954, Eisenhower decided to accelerate the reductions to reach the 1957 goal already a year earlier.

year earlier. ¹⁷³ The Army maintained a combat strength of 18 divisions and 10 regimental combat teams after the reductions (Huntington 1961, 79). The Navy was cut by 130,000 leading to a reduction of 100 active ships between 1953 and 1955. Another 60 ships were cut by 1956. The Marines faced reductions of 60,000 from their 1953 level.

¹⁷⁴ The Reserves forces included 1.7 million in the Reserve and additional 313,355 in the National Guard in 1953. The largest part of these forces was Army reserve with 1.07 million men. The Navy had 665,571 men available and the Marine Corps 78,455. The Air Force could resort to 276,182 reservists. Approximately 80 percent of the Reserve Forces were part of the Ready Reserve.

¹⁷⁵ The Act obligating volunteers and induced personnel to serve 5 years in the Ready Reserve and offered a special training program for young men, which consisted of 6 month training followed by 7,5 years in the Ready Reserve.

administration was actively engaged in keeping all Services sufficiently supplied and the DOD in balance. With the exception of the conservative Republicans, who challenged the administration especially during the Great Debate, Congress did hardly question this balance. Societal demands played only a selective role during this early buildup. After brief support for a broad buildup, public demands returned to an air power bias. Yet, the political actors did not respond to the public's turn and remained focused on a broad buildup. The administration made only stronger efforts to win over the public with regard to European defense, although forward deployment does not go easy with the emphasis on air power. Although it is not clear whether the administration's efforts were successful, there is no evidence that the issue damaged the administration. In seems that in the face of a national emergency, society gets more willing to follow the administration's lead and thus societal demands get weaker rather than stronger. Eisenhower's turn to a force posture, which met international commitments more in line with the societal demands, occurred only after the Korean War had lost its momentum.

5.2.3. Weapons acquisition

5.2.3.1. Builddown

The slow turn to atomic power

World War II was a powerful demonstration of the American industrial power with an annual production of 50,000 aircraft, 20,000 tanks, 80,000 artillery pieces, and 500,000 trucks in 1944 (Vawter 1983, 7-8). After victory, the administration pursued radical procurement cuts and conversion of the mobilized mass production to rapidly revitalize the civil economy. Military contract termination was pushed forward on large scale and with very kind concessions to the contractors (Markusen et al. 1991, 8; SubHAC 1946, 128). Very little new procurement occurred during the builddown period and the armed forces had to rely on the enormous war surpluses of equipment and munitions. With the congressional support for air power, the raised international tensions and

¹⁷⁶ In February 1944, the Office of War Mobilization, which functioned as the administration's major planning cell for demobilization, submitted the 'Report on War and Post-War Adjustment Policies', commonly referred to as Baruch-Hancock-Report. The report recommended an aggressive procurement contract termination, payment of obligations, clearance of government properties from private contractors and the sale of surplus property after the war.

warnings of insufficient equipment, the tide briefly seemed to turn in 1948.¹⁷⁷ But the administration's strict budget ceilings kept procurement low (Millis 1958, 197-198).

Considering the many war time inventions, many political and military actors argued that large scale procurement made little sense at this point in time, since the procured new systems would quickly be trumped by new developments. As William Allen, president of Boeing, noted with some concern: "It was the fashion following the end of the war that everything built in the past was completely obsolete." (in Parrish 1968, 128) Therefore, political actors preferred focusing on R&D and restrained from reducing this budget title along the procurement account (Huzar 1950, 174). ¹⁷⁸ Largely in line with public opinion, they regarded further pushes in technology inevitable to keep the military edge in an uncertain world and thus provide national security in the long run. Francis Case (R-SD) arguably expressed the opinion of most members of the SubHAC by stating that "a little money spent for research and development can save catastrophes that cost a great deal more as well as making a definite, positive contribution to the success of any mission or any action in the prosecution of war." (SubHAC 1946, 556) For the Services, R&D efforts promised an additional payoff beyond advanced national security: Weapon innovations constituted a central means to lay claims on contested military missions and expand one's own significance in the postwar environment. As Armacost (1969, 7) argues: "[T]he expectation is widely shared that successful weapons development efforts may enhance a Service's claims for both additional money and missions."

Beyond the general affinity to technology, societal demands contributed only moderately to the direction of R&D efforts. While the demands particularly pointed at a strong interest in atomic bombs, the advent of atomic bombs inspired surprisingly little military innovation after the war (Parrish 1968, 103-109). The indiscriminate destructive power of atomic weapons raised difficult moral questions and many

¹⁷⁷ General Lutes, Staff Director of the Munitions Board, stressed a severe shortage of basic equipment in February and doubted whether the Army would be able to equip more than 50 percent of its forces within the first 18 month of a military crisis (Rearden 1984, 317).

¹⁷⁸ Government sponsored military research became a major source of national R&D funding after World War II (Kevles 1990, 244-245). The Military Establishment accounted for 62 percent of all federal R&D expenditures by 1948 and supplied about 25 percent of the total R&D funds available in the industrial sector during the late 1940s (Kevles 1975, 20) In 1949, the Services and the AEC accounted for 96 percent of all federal dollars spent for physical science research at US universities. The Navy's Office of Naval Research sponsored almost 1,200 research projects in almost 200 universities and financed some 2,500 science PhDs.

scientists, political and military actors were disgusted by the prospect of nuclear warfare. The political discussions on placing atomic weapons under UN control or even outlawing the weapon altogether left the Services uncertain on the benefits of further acquisition efforts. Beyond these political considerations, there was large confusion on the impact of the weapon, due to the secrecy surrounding nuclear developments (Rosenberg 1979, 64-65). While the Air Force emphasized its role in strategic bombing and had dropped the first atomic bombs, it was in fact unsure about the handling and operational utility of these weapons for future warfare. The situation was worse for the Navy and the Army, which had no experience in the use of atomic devices (Reinhardt 1964, 3). Since the postwar nuclear tests only studied the effects of nuclear warheads for strategic use, especially the Army had difficulties to assess the potential use of nuclear weapons in its field of operations. Although the atomic bomb was developed under the direction of the War Department, the Army gained no clear data on the effect of nuclear weapons on future battlefields until 1951. Unsure of the impact of nuclear weapons on future warfare and their roles in a potential nuclear war, the armed forces approached the major wartime invention much more hesitantly than the public.

One of the major reasons the Services finally started to focus more on nuclear weapons was only indirectly related to the societal influence: With Truman blocking off additional spending and Congress preventing a buildup of personnel, both decisions affected by the society, nuclear weapons were the only feasible military option. Since AEC funding was not subject to the defense budget ceilings, atomic bombs could substitute the lack of funding for conventional means. Yet, when the interest of the Air Force and the other Services slowly grew in 1947, atomic energy had almost been isolated from military influence. The Atomic Energy Act, which Truman had finally signed after two years of debate in August 1946, provided only a very limited military access to nuclear R&D. 179 An attempt by the Services to gain at least responsibility for

¹⁷⁹ Early on, control over the R&D of atomic energy was of major interest for civil and military leaders. In October 1945, Truman brought the issue of nuclear control before Congress where two proposals dominated the successive discussions (Feaver 1992, 93-94). Representative Andrew J. May (D-KY) and Senator Edwin C. Johnson (D-CO) sponsored a bill, which largely resembled a War Department's proposal to include an almost equal number of military and civilian commissioners. The bill was strongly criticized as a draft by the military to assure military control of atomic energy (Senate Special Committee on Atomic Energy 1946, 390; HMAC 1945c). While the HMAC, chaired by May, reported the May-Johnson bill favorably, the Senate decided to set up a Special Committee on Atomic Energy, chaired by Brien McMahon (D-CT), to consider the bill. McMahon proposed an alternative bill in December 1945, suggesting a commission under full civilian control, in fact excluding the military forces altogether. Providing a feasible compromise between military concerns and civilian control, Vandenberg (R-MI)

weapons' custody was also rejected by the President. 80 Still considering an international control of atomic bombs feasible, Truman wanted to keep early military reliance on atomic bombs limited and devoted little attention to atomic energy matters beyond the creation of the AEC (Rosenberg 1979, 66-69). In fact, personnel and facilities for the acquisition of atomic bombs were reduced after the war and the demand for more economy severely constrained peacetime atomic activities (Rosenberg 1979, 65-66).

The political reluctance and the Services' ambivalence and lacking access considerably constrained early military activities in the field of nuclear weapons and created a mismatch between preparations and military strategy, which increasingly relied on atomic bombs as deterrent to Soviet aggression. There were no long-term plans and no dynamic activity with regard to acquisition of nuclear capabilities. The stock of atomic bombs increased only slowly from 2 bombs in 1945, to 9 bombs in 1946, and 13 bombs in 1947 (Ross 1988, 12). In 1948, the nuclear stockpile had reached 50 bombs with little improvements in quality. This was still not enough to win a war with the Soviet Union, 181 but neither the public nor arguably many political and military actors were fully aware of these early deficits. Even actors who knew of the situation had little interest in publically addressing the issue which would have scared the people and revealed the true state of the nuclear production to the Soviet Union. Therefore, the public lacked the crucial information to specify its demands and potentially address the political actors' lack of progress. Thus, society put much of its hope in a capability, which was actually not available in sufficient numbers for most of the postwar transition.

Only towards the end of the decade did nuclear acquisition become more vivid. With growing international tensions, the Air Force's stronger commitment to air atomic

finally sponsored an amendment which added a Military Liaison Committee with a consulting function to the civilian AEC.

¹⁸⁰ General Lewis Brereton, chairman of the Military Liaison Committee, summed the major argument in 1947: "It is prerequisite to national security that all possible means of defense be available to the Armed Forces for instant use. (...) The Armed Forces must have them ready and be prepared to use them when so ordered." (in Feaver 1992, 114) After the AEC and the Pentagon failed to reach an agreement, the parties presented their case directly to the President in July 1948. Truman turned the Services' request for the transfer of nuclear weapons down and the civilian control remained complete. Feaver (1992, 105) concludes that "it seems clear that lawmakers feared a virulent American militarism more than an immediate Soviet attack."

¹⁸¹ Indeed, the JCS informed the AEC in fall 1947 that a military requirement for approximately 400 Nagasaki type bombs existed and called for accordant buildup until 1953 (Rosenberg 1979, 67).

power,¹⁸² and the Finletter Report's recommendation for a retaliatory capability, the political actors, especially Congress slowly became more committed to nuclear means (Schilling 1961, 27-28). While doubts concerning the feasibility of air atomic strategies persisted within the administration, the President had lost hope that an international agreement could be reached and came to the conclusion that atomic bombs were a central means in the future national defense by the end of the decade. With new emphasis on air atomic power and more efficient technologies, the stockpile of bombs was rapidly rising. The AEC informed the JCS that 400 bombs would be available by 1951 (Rosenberg 1979, 73-75).

The push for aviation and interservice conflicts

In contrast to the slow start for nuclear means, R&D and limited procurement of aviation means, often with a potential application in nuclear war in mind, became the Services' most dynamic acquisition efforts during the transition period. While aviation was another public favorite and less constrained by secrecy, more than a general or indirect influence of societal demands was not evident. Societal demands were very unspecific and political actors' control over the R&D agenda limited. Indeed, the Services clearly dominated the fractured field of conventional acquisition after the war

¹⁸² The Air Force claimed sole responsibility for the Armed Forces Special Weapons Project, the Services' military counterpart to the AEC, and for strategic target selection. Both requests were repelled by the other branches and the door for future Army and Navy nuclear projects remained open.

by the other branches and the door for future Army and Navy nuclear projects remained open.

183 Before the war, the armed forces had rarely cooperated with civilian scientists and engineers (Kevles 1975). Although the National Research Council and the National Academy of Science provided an institutional link between civil and military research, the Services largely ignored these organizations as a source of innovation. Therefore, Vannevar Bush, "the chief architect of wartime science policy" (Leslie 1993, 6), mobilized civilian military research not through these weak institutions but through the National Defense Research Committee and its successor, the Office of Scientific Research and Development, during the war. But after successful civil coordination of military R&D during the war, the balance shifted towards a fragmented structure strongly controlled by the military during the late 1940s (Peck/Scherer 1962, 71-72). As the political actors failed to establish an early postwar framework, each military department realized plans for 'in-house' organizations for research coordination (Hogan 1998, 224-229; Leslie 1993, 7; Kevles 1975). In summer 1946, Congress approved the creation of the Office of Naval Research to coordinate the Navy's military research and negotiate R&D contracts with research facilities and private business. The War Department also established its own Research and Development Division to coordinate and advice in the field of military research. And the Air Force followed after independence by establishing the Air Research and Development Command in 1950. In order to improve coordination and avoid duplications in fields of common interest, the National Security Act of 1947 established the Research and Development Board to advice the Secretary of Defense on R&D progress and needs (Kevles 1990, 246). But the board, which was nominally the most powerful advisory group, had severe problems to gain influence on the defense R&D process. This shift to military dominance in R&D met with the armed forces' already established dominance in procurement. The Munitions Board, which was continued after the war by Executive Order and became part of the military establishment in 1947, had only a limited impact on the coordination and planning of procurement.

(Dancy 1977, 349). To be sure, society and political actors framed the process by limiting the budgets, preferring R&D over procurement and expressing more or less strong hopes in aviation. But beyond these broad guidelines, the Services were basically left to design their programs. The civil authorities intervened only when the Services could not solve deadlocks by themselves, Service competition resulted in obvious inefficiencies or conflicts threatened to escalate into a public struggle.

Congressional micromanagement was as limited as cases of clear pork barrel politics. In those rare cases where parochial economic interests played a role, their weight was limited. For example, Representative Aime J. Forand's (D-RI) attempt to forbid the Navy from shifting its plant for torpedo production and overhaul from Newport, Rhode Island, to Forest Park, Illinois, failed. The most dependent aviation sector was benefitting at least in parts from the aviation R&D, which prevented a potentially strong conflict of interests here. Except for the vocal advocacy during the testimonies of the Finletter Commission, the aviation industry did hardly pressure political actors to intervene in the acquisition process. Hence, companies were either unable or unwilling to translate economic weight into political power and the Services' parochial interests, resulting in innovation and waste, had most impact on the field.

Air support, which had proven vital during the war, is a case in point. Besides the weak aviation industry, neither society nor political actors had a clear position and the acquisition was almost completely shaped by interservice competition. Although the Army Air Force had promised to provide strong tactical aviation in return for the War Department's support of its independence, the Air Force was reluctant to divert money from long-range bomber and advanced fighter acquisition, which it considered vital for its independent role (Schlight 1996, 199; Wall Street Journal 1949). At the same time, jealously guarding its stakes, it rejected Army attempts to build its own close air support aviation and thus essentially taking over the mission. As an Army official complained in 1951: "[T]he Air Force has made repeated efforts to cripple and curtail our whole aviation program." (in Beach 1951)

This competition on organic aviation hampered the early progress with regard to helicopters, which were used for rescue and transport missions during World War II and

⁻

¹⁸⁴ Forand introduced an amendment to the FY 1947 budget bill which was passed by the House but turned down with small margin in the Senate.

became an important asset during the Korean War. After Air Force independence, the Army and Air Force agreed to limit organic Army aviation to fixed-wing planes weighing no more than 2,500 pounds and rotary-type aircraft with no more than 4,000 pounds (Condit 1988, 298; Beach 1951). The weight restrictions severely limited the Army's options and reduced the incentive to push for helicopter developments. Moreover, the Air Force, which functioned as the Army's aircraft purchasing agent, was reluctant to support an uncertain project like the helicopter and further prevented significant R&D efforts (Trest 1998, 148; Bradin 1994, 76-77). Although the Bell Aircraft Company, which struggled to survive after the war, gained the Army's interest in the acquisition of advanced helicopters, the lack of money and the Air Force's suspicion prevented far-reaching efforts (Bradin 1994, 80-81; Doughty 1979, 4). "The helicopter is aerodynamically unsound," the Air Force officer in charge for the project argued, continuing that (...) [n]o matter what the Army says, I know that it does not need any." (in Gavin 1958, 111) Hence, the Army continued to acquire only small amounts of rotary systems for limited missions and an early innovation was missed. 186

In the field of missile development, Service competition resulted in a more innovative but hardly efficient dynamic. The political actors' interest was stronger here, since missiles were an attractive alternative to manned aviation (Werrell 1985, 103). They were cheaper than planes and could be used without risking a pilot's life. Given the expectation that missiles would be able to carry nuclear weapons in the future, they promised to conduct the air atomic mission more efficient than the manned aviation. For the Services, missile R&D held the opportunity to acquire a share in the so far unassigned mission of unmanned aviation and thereby potentially gain access to nuclear means. The public support for missiles as a potential means to deliver nuclear ordnance arguably had a passive influence in strengthening the Service's hopes in the field. Baldwin (1946) even argued: "[T]he struggle for control of the long-range missile

¹⁸⁵ The Marine Corps, which pursued the development of helicopters for their amphibious missions, were only slightly more successful (Millett 1991, 456). Although the Navy cooperated with the Air Force to save money, the Marines were not able to develop a helicopter which met their requirements for heavy lift by 1948.

overall, the Army acquisition efforts were most limited in the immediate postwar years. To develop a picture of the necessary equipment for future ground forces, Marshall established the War Department Equipment Board chaired by General Joseph Stilwell soon after the war (Midgley 1986, 2). The so-called Stilwell Board underlined the importance of further research and made recommendation for future capabilities. It argued for a continuous importance of ground forces, but emphasized nuclear weapons as first line of defense (Cagle 1964, 5). But without access to nuclear R&D and with the smallest funding for weapons acquisition of all Services, the Army achieved only limited improvements.

program is in one sense a struggle for survival." Indeed, all Services independently pursued the development of missile systems and – in the case of the Army – advanced artillery systems without much coordination (Midgley 1986, 11-13).

Especially land-based missiles caused early controversies within the War Department, as the Army considered missiles as enhanced artillery, whereas the Air Force saw them as additional aircraft. The Army Air Force identified missiles as an attractive asset for their mission already during the war and claimed sole responsibility within the War Department. A successive agreement in late 1944 rejected an exclusive responsibility at this early stage of the technology. Instead, the responsibilities were divided along technological criteria: The Army Service Forces gained responsibility for ground-launched ballistic missiles and the Army Air Force received the responsibility for air-launched missiles and cruise missiles. In other words, "winged missiles looked and performed like aircraft and therefore went to the AAF, wingless missiles looked and performed like artillery and, hence, went to the ASF." (Werrell 1985, 80)

This did not settle the issue for long and the Army Air Force continued to claim full control of the long-range missile development after the war. While some still considered the maintenance of numerous programs and service cooperation as reasonable, scientific and industrial leaders complained in 1946 that the War Department was wasting resources because of duplications in the missile field (Neufeld 1990, 22). The successive intervention by military and civil leaders ended with the Army reluctantly agreeing to place research priority for guided missiles under the Army Air Force control. Yet the questions of operational responsibility remained unsettled before unification. ¹⁸⁷ In September 1947, the Army and the newly independent Air Force agreed on sharing missile R&D in areas of concern for both Services. Under budget pressures, the Air Force had decided to put most weight on the development of air-to-air and air-to-ground missiles, which would enhance the capabilities of its manned aircraft (Neufeld 1990, 8). But a request by the Army to gain control over all surface-launched missiles was blocked by the JCS in 1949.

The situation looked hardly easier between the Navy and the Air Force. Considering the Air Force's Matador program as a direct threat to its mission, the Navy launched the

_

¹⁸⁷ The Army would control tactical surface-to-surface missiles and surface-to-air missiles to protect field forces from air attack. The Air Force would control strategic surface-to-surface missiles which do not directly affect the tactical operations and surface-to-air missiles for area defense (Neufeld 1990, 52).

Regulus program, which was comparable to the Matador, as a response in 1947 (Werrell 1985, 114). Regulus, as the Army's Hermes, was not only an attempt to remain in the missile race, but also an clear effort to break the Air Force's hegemonic access to nuclear technology beyond the limited carrier-based aviation. The Matador-Regulus competition caused an obvious duplication, but the OSD failed to reach a compromise, as the two Services heavily fought for their programs. Given the limited budgets, hardly any of the numerous missile projects could be financed properly. When the budget cuts hit the departments in FY 1947 and again in FY 1949, numerous missile development programs had to be canceled or downscaled.

For the Air Force, missiles were only a secondary area of conflict in the context of its efforts to control aviation capabilities. The focus of its acquisition rested on manned aviation, as the rapid improvement of airplanes was regarded as crucial task. In a speech in June 1946, Symington warned against a future attack by aircrafts "with supersonic speed, carrying atomic bombs, which in a few seconds would leave the target a glowing dome of destruction." Therefore, he concluded that "the surest defense (...) is our ability to strike back quickly (...) to neutralize a hostile attack at the source. For such action only air power has the reach and speed." (in McFarland 2001, 11) By 1948, the Strategic Air Command (SAC) under General Curtis LeMay became the Air Force's symbol for its new importance as guardian of national security through strategic air power (Kaplan 1983, 40). Although Truman repeatedly withheld additional funding for air power, there was a concrete incentive for the Air Force to push into this area which had the support of Congress. Ranking Member of the HAC Clarence Cannon (D-MO) arguably voiced the opinion of many lawmakers after 1948: "The airplane is the supreme weapon. It is the controlling, dominating, and decisive weapon of any war." (94. Cong. Rec., May 11, 1948, H5599) Since congressional support for air power was based on the Finletter Report rather than societal demands, the societal influence on the plane acquisition was again only passive. From societal and congressional perspectives, the Air Force had to improve first of all its air superiority fighter and long-range bomber fleet. Thus, the rapid introduction of the B-36 and B-50 were supposed to back the SAC's credibility to attack any place with nuclear weapons if necessary. Besides these short-term solutions, the Air Force pushed the conversion to jet-powered planes. In 1948, Air Force Secretary Symington assigned "the greatest importance" to the

acquisition of the jet-propelled B-52 (Trest 1988, 156). The F-84 and F-86 followed suit.

The revolt of the admirals

Society played only a larger role, when the Air Force's acquisition activities after 1948 pitted it against the Navy. The latter's weapon acquisition was drastically reduced with only a few ships under construction after the war (Hammond 1963, 467-469). Therefore, the Navy focused on capabilities, which seemed particularly important in the new environment. Besides anti-submarine warfare, the development of advanced heavy aviation means clearly outbalanced other projects. 188 The most central element of this aviation program was the development of a new and large class of flush-deck aircraft carriers, which had elated Navy leaders since the war. When design studies began in 1945, the technologically advanced supercarrier was considered a logical extension of the World War II carriers. Since it would allow for the launch of potentially nuclearequipped long-range bombers the admirals soon regarded the new carrier also as its primary road to a nuclear mission. In late 1947, Assistant CNO Daniel Gallery suggested in a memo that "the time is right now for the Navy to start and aggressive campaign aimed at proving that the Navy can deliver the Atom Bomb more effectively than the Air Force can." (in Rosenberg 1978, 254) Although this radical position met skepticism among senior admirals and Navy Secretary Sullivan denied any ambition to take over the Air Force's strategic bombing mission, there is little doubt that the Navy pushed for a share in nuclear warfare inspired by the general mood in favor of air atomic power (New York Times 1948a). Navy representatives referred to the supercarrier as 'atomic carrier' as early as 1947. After years of starvation, the project was planned to become the starting point for a whole range of new ship types.

In March 1948, Forrestal told the Chiefs that the President had approved the construction of the prototype supercarrier. But although the Congress had appropriated money for the first-year costs in the FY 1949 budget and appropriations for FY 1950 were on a good way in Congress, the project came to a sudden end (McFarland 1987).

¹⁸⁸ Thus, Senators were displeased to learn that the Navy had used \$25 million especially provided by Congress for antisubmarine programs to save its other aviation programs after Defense Secretary Johnson had subsequently cut the FY 1950 appropriations (SubSAC 1950, 200-202).

Defense Secretary Johnson, newly arrived in office, canceled the Navy's supercarrier five days after the ship's keel was laid in April 1949. Searching for efficiency, Johnson concluded that the Services' acquisition portfolio was leaving all Services short of their needs and provided suboptimal outcomes. He therefore asked the JCS to decide on the fate of the disputed supercarrier project, which tied large amounts of funding. Preferring a continuous investment in intercontinental air power, the chiefs of the Air Force and Army considered the project a waste of scarce resources and a duplication of the Air Force's strategic mission. Thus, the JCS decided 2 to 1 that the project should be canceled in favor of a continued buildup of the Air Force's fleet. Both Services had heavily lobbied Congress and the public to create support for their central projects. Now, the Air Force seemed to have won the upper hand. To make things worse for the Navy, Johnson's new budget provided not only no money for the canceled supercarrier, but also reduced the active carrier force from 8 to 4 and the Navy air groups from 14 to 6 (Millett/Maslowski 1984, 481).

In an immediate reaction to the cancelation, Secretary of the Navy Sullivan, who had not been consulted on the decision, resigned. Other naval leaders, fearing for the Navy's very existence, were not willing to accept Johnson's ruling without a fight. In a series of events, which was later called the revolt of the admirals, they publically challenged the quality of the postwar military transition. An anonymous document, prepared by Cedrick Worth, special assistant to Under Secretary of the Navy Kimball, without the knowledge of his superiors, marked the beginning of the revolt. In parts based on rumors, the paper argued that the Air Force's B-36 long-range bomber was an inferior weapon system and only approved for production, due to unsound favoritism on the hands of Johnson and Symington (McFarland 1987). As rumors made their rounds in Washington, James Van Zandt (R-PA) revealed these allegations before the HASC and called for an investigation (Hogan 1998, 186-187; Hurd 1949). Vinson responded by announcing hearings in the HASC, "to give the information to the public that the public desires, as to whether or not we are purchasing what is best for the defense of the country." (HASC 1949a, 5)

It soon turned out during the hearings that the claims of corruption were untrue (Christian Science Monitor 1949; Conklin 1949). Still, naval leaders, including CNO Denfeld and Under Secretary Kimball used the opportunity to publically warn of the currently low moral within the Navy and to question the strategic, fiscal and moral

feasibility of B-36 procurement and the reliance on nuclear bombing (HASC 1949a; 1949b; Hammond 1963). Led by Admiral Arthur W. Radford, CINC Pacific Fleet and former VCNO, the Navy's witnesses pointed out that the bomber was easy prey for Soviet jet-engine fighters and only capable of imprecise strategic bombing (HASC 1949b). Connecting to the moral discussions on nuclear weapons, the admirals claimed that the Air Force's promise of strategic air power ultimately rested on indiscriminate atomic bombing and was therefore immoral. Furthermore, the sole reliance on the unproven promise of strategic air power and the Air Force's attempt to monopolize strategic capabilities narrowed strategic options and threatened national security. The Air Force defended the B-36 as a leading-edge weapon system and emphasized the soundness of their strategic outlook. From the outside, the controversy soon resembled Services out of control including all kinds of mudslinging. In fact, the admiral's open challenge to the administration's military policy provoked the anger of other Pentagon officials. The heaviest blow to the naval position was dealt by CJCS Bradley, who responded to what he considered an "open rebellion against the civilian control" by arguing that "[t]his is no time for 'fancy dans' who won't hit the line with all they have on every play, unless they can call the signals." (HASC 1949b, 533, 536)

In the end, the admirals earned some understanding by Congress, but clearly lost the battle. They proved unable to alter the public position, which remained in strong favor of the Air Force and air atomic power. Hence, the Navy neither benefited in budgetary terms nor was the supercarrier saved (Allard 1984, 293). Moreover, as a late consequence of the revolt, Johnson removed Louis E. Denfeld, the Chief of Naval Operations, for his open challenge to the Defense and Navy Secretaries' testimonies. Indeed, the flyers' case for the B-36 seemed even more valid than before, although the committee members agreed that only the test of war would prove the validity of positions. The revolt of the admirals was the strongest civilian intervention in military acquisition and a situation in which societal demands had a direct, but largely responsive impact. The public's clear and unchanged support for the Air Force confirmed the emerging paradigm shift in the military preparations away from the Navy

¹⁸⁹ With the supercarrier canceled, the Navy's focus moved from the construction of carriers to antisubmarine capabilities, including nuclear-powered submarines, to counter the growing Soviet undersea fleet. Four Mitscher-class frigates, equipped with modern antisubmarine weapons, and three hunter-killer (SSK) submarines, equipped with sensors and weapons to detect and destroy enemy submarines, were laid down in FY 1950 (Allard 1984, 295-296).

and the sea as first line of defense to the Air Force and the air as dominant medium of operations.

Summary

Besides this clear responsive influence, only a moderate impact of societal demands is evident. As expected, there was hardly any political influence based on the defense industry's demands. On the contrary, the most central actors, such as Vinson (D-GA), Mahon (D-TX), Walsh (D-MA), Short (D-MO), Gurney (R-SD), or Taft (R-OH) did either not come from states with relevant defense industry or pursued policies, which did not clearly benefit the constituency's defense industry. For example, Taft supported air power rather than tanks and automotive production, Ohio's strong card (Markusen et al. 1991, 13, 18). The unspecific and weak public preferences had also only little impact. Covered by secrecy, the acquisition of atomic bombs did hardly meet the public expectations and only other decisions with societal participation had an indirect influence on the Services turn to nuclear weapons. With regard to the aviation where the relevant information was available, the public provided only broad guidelines and general influence for innovation. The Services were largely free to act within the fiscal constraints, as the political actors only intervened when obvious problems arose. These interventions provided the rare opportunity for the societal demands to connect to the acquisition process. In this context, the revolt of the admirals proved highly influential for the course of the transition.

5.2.3.2. Buildup

The test of war

In 1950, a new dynamic and urgency took over the whole weapons acquisition. Backed by public support, the procurement of weapon systems was rapidly expanded. The overall FY 1951 acquisition funding was more than five times larger than the prior year's acquisition funding and continued to rise in FY 1952 (Condit 1988, 241, 259). But the massive buildup immediately revealed the limitations of a system of industrial mobilization, as the industry struggled to meet the armed forces' suddenly raised

demands and production faced shortages in raw materials, machine tools, and labor force. For example, the placement of new production lines for ammunition, which were effectively all closed or converted in the late 1940s, took up to 24 months. Hence, supplies for the Korean battlefield increased very slowly in spite of sufficient appropriations. Initially, the production lag was offset by large World War II leftovers, but the heavy use of artillery fire rapidly shrank the stockpiles. ¹⁹⁰ The Army soon faced supply shortages and had to draw from shipments destined for military assistance to allies and from the supply for the European occupation forces to prevent ammunition shortage in Korea (Condit 1988, 157-161). During 1952, the Army even had to restrict the use of critical ammunition until the industrial production kicked in and increased supply reached the Korean battlefield in November. The tank production, which was rapidly accelerated early into the war, faced similar problems and was still running six to nine months behind schedule by the end of 1951 (Abel 1952).

The changing international situation and NSC-68 triggered not only a push for more, but also for better weapons. R&D funding tripled between FY 1950 and FY 1952 and approximately two-thirds of the US scientists and engineers were occupied with defense programs by late 1951 (Kevles 1990, 251). R&D funding continued to rise even after the procurement was first stretched and then drastically reduced in 1952 and 1953 (Armacost 1969, 30). Since the New Look sought weapons for their general deterrent value rather than for short-term deployment, the permanent technological edge became more central than the quantity of weapon systems (Markusen et al. 1991, 30). By 1955, the DOD and AEC spent together almost 50 percent of the total federal R&D expenditures (Clayton 1970, 40).

The decision to develop thermonuclear weapons

Various innovations resulted from these R&D efforts, but the impact of societal demands was again only selective. While many acquisition efforts coincided with public

¹⁹⁰ For example, the 38th Field Artillery Battalion fired in one operation 11,600 rounds in 12 hours which equals a rate of 1 round per minute per 4.13-inch howitzer (Doughty 1979, 11).

While the funding for nuclear R&D increased quickly, non-nuclear R&D did not rise until the outbreak of the Korean War. Indeed, with the tightened budget ceilings by 1950, R&D came under considerable pressure by the decade's turn. For example, the Office of Naval Research, working fairly unconstrained during the late 1940s, came under pressure to direct its research funds more closely to naval needs and to justify its programs more explicitly (Sapolsky 1979, 388).

demands, the unspecific common preferences had little apparent causal weight. In contrast, special interest groups gained in the decisions for the development of thermonuclear weapons early importance. Already prior to the Korean War, Truman ordered the development of thermonuclear capabilities and the expansion of nuclear weapon stockpiles in the wake of the Soviet Union's atomic tests (Condit 1988, 5-6; Rosenberg 1979, 80-84; Schilling 1961). 192 Given the slow progress in the field of nuclear weapons during the late 1940s, the decision to develop H-bombs was the first major innovation since the advent of atomic bombs (Huntington 1961, 298). Due to the secrecy surrounding nuclear R&D, most societal interests were excluded from the decision. This allowed civil scientists occupied with nuclear R&D to play an important role despite their limited resources. Especially Ernest O. Lawrence and Edward Teller urged the Services and lawmakers early on to support the development program in response to the outside events (Huntington 1961, 300-304). Despite a negative recommendation by leading scientists including J. Robert Oppenheimer and a split position within the AEC, the military chiefs, central political actors in the administration including Johnson and Acheson, and lawmakers in the Joint Committee on Atomic Energy backed the program. Lawrence and Teller benefitted greatly from the decision with regard to their reputation and research project funding. 193 Especially Teller had advocated the H-bomb development for some years and returned to Los Alamos to work on the project shortly after the decision was taken. While the public did not participate in the decision to develop thermonuclear weapons, it clearly backed the effort. When it finally learned of the program, 73 percent answered by late January 1950 that the US should try to make the new bomb (Gallup 1972b, 888). The accelerated nuclear R&D efforts resulted in a first successful thermonuclear explosion in 1952 and

¹⁹² With a nuclear exchange on short notice becoming a real option, the AEC's control of nuclear weapons started to crumble. Already in early July 1950, Truman approved the transfer of non-nuclear components of nuclear weapons to US forces in Britain. The nuclear components would remain in AEC custody and only transferred if necessary. Within the successive weeks, the President allowed for the storage of non-nuclear weapon components in the Pacific and on aircraft carriers. In April 1951, Truman approved a request by Air Force Chief Vandenberg to transfer nine complete nuclear bombs to Guam. The AEC agreed after ensuring its involvement in any decision to use nuclear weapons. The process continued with the election of Eisenhower, who considered A-bombs, in contrast to H-bombs, as regular weapons and wanted them to be treated like it by the DOD. The OSD established the position of an assistant to the secretary for atomic energy in 1953, which improved the DOD's role in nuclear acquisition (Feaver 1992, 158-159).

¹⁹³ Lawrence worked at the University of California Radiation Laboratory at Berkeley. With the growing importance and funding of nuclear R&D, a second Radiation Laboratory at Livermore was established in 1952 to further spur innovation. Both laboratories closely worked together and were named after Ernest O. Lawrence.

contributed to increasingly smaller warheads, which reduced the requirements for delivery capabilities and broadened the range of applications.

Conventional R&D and continuous interservice conflicts

Whereas Congress refrained from challenging the acquisition process in qualitative terms even more than during the late 1940s, the political actors within the administration made efforts to improve their control and coordination of the weapons acquisition during the early 1950s (Dancy 1977, 350; Peck/Scherer 1962, 73). A first step was taken in late 1950, when Truman appointed a director of guided missiles to coordinate the numerous missile projects. A year later, Truman established a Scientific Advisory Committee in the Office of Defense Mobilization (ODM) to advise the President as well as the ODM director on scientific questions. Under Eisenhower, the committee became a continuous voice within the NSC. Civil control was further strengthened by the DOD reorganization in 1953, which replaced the toothless Munitions Board and Research and Development Board with assistant secretary positions within the OSD. Yet, all these efforts did hardly result in an improved connection between societal demands and weapons acquisition, however.

Innovation during this period stemmed rather from two other sources. (1) The war made painfully clear that the reliance on World War II equipment was insufficient to match the North Korean forces equipped with advanced capabilities from the Soviet Union. This created a powerful argument for acquisition, which the political actors could hardly resist and provided the military actors with considerable leverage. For example, the T34 tank proved almost unstoppable for the first US forces on the peninsula and only the hasty deployment of larger rocket launchers, medium tanks 196 and close air support

¹⁹⁴ In the same year, the National Science Foundation was established to increase the civil coordination on defense R&D. However, it failed to acquire a significant influence on the military R&D. Although it was widely expected that the National Science Foundation would pool basic research efforts after the Korean War, the Office of Naval Research successfully undermined a strong role for the new institution (Kevles 1990, 259).

¹⁹⁵ The placement within the ODM was a political compromise. A review, prepared by investment banker William T. Golden in December 1950, suggested the appointment of a Science Advisor to the President, informed of all R&D activity. Yet, the newly established National Science Foundation feared losing relevance by the creation of a presidential advisor. Furthermore, the ODM argued that the post of a science advisor should be based in the ODM, since the advisor would deal basically with mobilization issues.

¹⁹⁶ The Army deployed mainly M4 Sherman tanks and M46 Patton, an improved version of the Pershing tank.

solved this problem in successive months. The administration rapidly responded by appropriating money for vastly expanding the development and production of innovative medium and heavy tanks, the first significant efforts in the field of mechanized ground systems since World War II (Norris 1950c).

Moreover, the Russian MiG-15 jets, which were first reported from the Korean theater in November 1950 and increased to 1000 jets by June 1952, proved superior to the US propeller planes and the Air Force's first fighter jet F-80 (Condit 1988, 75, 83). ¹⁹⁷ Even the F-84 Thunderjet had trouble to keep up with the enemy aircraft in rate of climb and combat ceiling and was therefore largely tasked with close air support operations (Condit 1988, 128). Only the hastily deployed F-86 Sabre was initially on par with the MiG fighters in air combat. This created a powerful incentive to further push fighter development, resulting in the evolutionary F-100 Super Sabre and the innovative design of the F-104 Starfighter.

The war also offered the Navy an opportunity to prove the value of its capabilities after the lost political battle in 1949. In fact, naval forces played a particularly prominent role during the highly successful amphibious landing at Inchon in September 1950 which changed the war tide in favor of the UN forces. Additionally, up to four aircraft carriers simultaneously supported the US forces in Korea and importantly contributed to close air support and air superiority missions, although the Navy's propeller planes and its jet fighter F9F Panther proved inferior to the MiG-15 fighters. The war efforts as well as the revealed deficits helped the Navy's course at home and the political actors refrained from again challenging the construction of the lead ship of a new carrier class.

(2) Despite increased funding and war needs, the Services continued to compete for dominance in disputed areas and pushed for related acquisition. Driven by Service competition and war requirements, the Army's increased integration of organic aviation was taking shape in the early 1950s. After the Army had only half-heartedly pursued the acquisition of helicopters during the late 1940s, the Korean War proved a watershed in the Army's desire for organic aircraft (Bradin 1994, 78-88). Unsatisfied with the Air Force's support, it pushed for a rapid expansion of helicopters, which proved a highly valuable asset in the mountainous Korean territory. Since the earlier Army-Air Force

¹⁹⁷ The F-94 Starfire, a stretched version of the F-80, which was used to protect bomber groups in battle fared better, but played only a minor role (Bright 1992, 217-218).

agreement severely limited the Army's possibilities to expand its air capabilities, Army Chief Collins asked Air Force Chief Vandenberg to grant a waiver for the helicopter procurement in September 1950 (Norris 1950d). The latter turned down the request, fearing a growing challenge to the Air Force's mission. As an Air Force officer explained: "Whenever you let them branch out, it's like letting them get a foot in the door." (in Beach 1951) After continuous interservice feud, tests, and requests, the weight restrictions on Army aviation were surprisingly lifted a year later (Norris 1951). Army aviation was instead limited to functions within a 50-mile radius of the combat zone, which did not duplicate the Air Force's tasks. This did not settle the issue for long, however. As the Army increasingly took measures to organizationally separate its aviation assets from the Air Force, the latter intervened in 1952. The subsequent struggle ended in a new memorandum, which increasing the Army's aviation radius to 100 miles, but reinstated weight restrictions at 5,000 pounds. The latter made nonetheless good use of the relaxed restrictions and increasingly built up its organic aviation components, which substantially enhanced the ground forces' means in future wars (Futrell 1989, 348-349).

In the field of missile systems the general influence of societal demands for air atomic power remained apparent. After slow progress during the 1940s, considerable dynamics resulted from the increasing funds during the early 1950s. By the end of the transition period, missiles had advanced to a major factor in strategy and tactics (Baldwin 1954b). The establishment of an OSD Director of Guided Missiles showed the political actors' raised interest in the efficient acquisition of these alternative means to deliver nuclear ordnance. Yet, as during the 1940s, the development was accompanied by almost permanent conflicts over the appropriate place for missile development and operation and a lot of the dynamic must be attributed to interservice conflicts (Watson 1986, 179-182). In fact, the Air Force grew increasingly concerned by the ambitions of the other branches. Although the flyers still focused on manned aircraft, they feared to lose control over the new aviation systems, which posed a potential threat to its prerogatives (Builder 1994, 167). As late as 1954, an Air Force officer wrote: "The attitude of Air Force personnel, individually throughout the Air Force and collectively in the major commands, seems to best be described as a combination of skepticism, indecision, and

¹⁹⁸ Especially bomber airplanes were central and the Air Force started to prepare for the successor of the B-52, the B-70, as soon as the former became available after the Korean War.

indifference." (in Werrell 1985, 103) But the Air Force leaders considered missiles as planes and were not willing to prematurely give up on them. ¹⁹⁹ Especially the Army contested this responsibility for missiles, which it still considered as self-propelled artillery shells (Army Almanac 1959, 209). Moreover, with the raised importance of nuclear means, the Army considered missile technology more than ever as its path to nuclear participation. Hence, the free rocket Honest John and the tactical surface-to-surface missiles Corporal, both introduced in 1953, were potentially capable to carry nuclear warheads (Cagle 1964; Bragg 1961). And the Army was running further promising projects to develop the short-range ballistic missile Lacrosse and medium-range ballistic missile Redstone (Braun 1963, 453-455). Emphasizing the all-weather utility of its innovative artillery and tactical missiles, the Army challenged not only the Air Force's responsibility for missiles but also the flyers' close air support mission (Norris 1954; Stevens 1952a).

Against this backdrop, the Air Force sought to draw clear lines of responsibility. Already in December 1949, the Air Force blamed the other Services for illegally developing strategic missiles (Neufeld 1990, 54). It furthermore criticized the Navy for duplicating the Air Force's air-to-air missiles. The flyers gained an early victory in 1950, when the Defense Secretary Johnson approved exclusive jurisdiction over the development of long-range strategic missiles and short-range missiles for air war to the Air Force (Armacost 1969, 27). Yet, the other Services continued missile 'studies and designs' hoping to bypass the restriction with their evolutionary approach that might almost accidently result in complete missile systems. Hence, the general question on the responsibility for ground-launched missiles remained contested and the development continued on a broad basis. In 1951, Air Force General Vandenberg sought to limit the Army's missile development to surface-to-surface missiles with a maximum range of 150 miles. Unsurprisingly, Army General Collins opposed Vandenberg's claim arguing that this limitation would violate the principle that every commander should have control of all the means needed to carry out assigned missions. The Research and Development Board, the Munitions Board, the Director for Guided Missiles, and other institutions for coordination proved unable to satisfactorily solve this conflict during Truman's second term (Neufeld 1990, 66).

¹⁹⁹ To underline the aircraft character of missiles, the Air Force even used their designation for bombers and fighters for missile projects.

When the Army asked the DOD for permission to purchase some of the Navy's Regulus missiles to assist the development of its Hermes program in 1953, the conflict revived. Since the Air Force considered Hermes and Regulus outside of the Army responsibility, it opposed the request and suggested the discontinuation of the Hermes program. The debate was settled by the OSD, which argued that the Army could participate in the Navy's test program to evaluate the missile without purchasing it. A report on the state of the missile programs brought new dynamic to the coordination process in early 1954 (Watson 1986, 182-185). While rejecting the charge of duplications, the final report argued for a clarification of Service missions to avoid duplications in future missile development. Therefore, the JCS established a committee to develop a framework for missile responsibilities in June 1954. The committee's draft pointed out that the Air Force should be responsible for intercontinental surface-to-surface missiles and that the Army should develop surface-to-surface missiles for use against tactical targets within its zone of combat operations. Although the Air Force would be allowed to develop surface-to-surface missiles for their functions in close air support, the report recommended that the Air Force should focus on manned aircraft.²⁰⁰

The development of continental defense

An additional committee was necessary to solve the outstanding issue of anti-aircraft missiles which slowly gained importance.²⁰¹ Although the advent of atomic weapons and aviation made continental defense against air attack a plausible project, anti-aircraft missiles like other systems for defense purposes were no Service priority and made only slow progress after World War II (Huntington 1961, 326-341). The Air Force, which had principal responsibility for air defense, preferred to focus on the buildup of SAC and the offensive strategic bombing mission. It made only small steps to embrace

²⁰⁰ However, many questions remained unsolved and would provide cause for further interservice conflict (Watson 1986, 185-186). The most public incidence of interservice rivalry was the Thor-Jupiter controversy over the responsibility for IRBM systems (Armacost 1969).

²⁰¹ With the growing importance of air defense, the Air Force claimed sole responsibility for this mission and suggested sharp budget cuts for the Army's anti-aircraft Nike missile program. Nike had made good progress, while the Air Force anti-aircraft system GAPA had been canceled in 1949 and the successor program BORMAC was far from being completed. The Army planned to equip 40 anti-aircraft artillery battalions with Nike systems by FY 1955. The compromise, approved by Wilson in fall 1954, saved Nike, since it allowed the Army to develop anti-aircraft weapon systems with horizontal ranges up to 50 nautical miles, while the Air Force would develop missiles with greater range.

continental defense and in parts even obstructed progress.²⁰² To be sure, the flyers were constructing a radar network of 79 stations and provided 15 air-defense wings by 1952. The Army further equipped 57 battalions of anti-aircraft artillery around the United States. But the growing nuclear capabilities of the Soviet Union additionally fueled the issue of continental air defense and by the end of 1952, the Truman administration had largely come to the conclusion that more efforts should be made for continental defense (Watson 1986, 111-116). Yet, the outgoing President was in no position to challenge the status quo and left the final decision to his successor. When Eisenhower assumed office, the ODM's Science Advisory Committee argued that the current air defenses were inadequate to counter a potential Soviet attack and should be advanced by new anti-aircraft defenses and an early warning radar line across Canada (Hogan 1998, 378-379).

After a deadlock between economizers, especially Treasury Secretary Humphrey, Budget Director Dodge and Defense Secretary Wilson, and proponents of continental defense, including most prominently Secretary of State Dulles, Eisenhower finally turned to an aggressive buildup of continental defense capabilities in fall. The Soviet Union's successful thermonuclear tests in summer strongly contributed to this decision. The decision was again made without much public awareness and the public lacked the information to take a strong position on continental defense. Consequently, the debate between supporters and opponents of continental defense within the administration was shaped by speculations on the public position: The economizers argued that society was sick of the strong defense spending and would not approve additional funds for continental defense, whereas the proponents of continental defense argued that society would support the effort if they just knew of the magnitude of the Soviet Union's nuclear capabilities. The latter urged the President to publically reveal the information on the Soviet nuclear capabilities in order to create public support, but the administration refrained from fully informing the public on the issue at hand.

²⁰² Thus, the Air Force leaders refused to approve the conclusions of an Air Force study group in 1952, which made a strong argument for a continental defense system, and did not recommend the report for NSC consideration.

Summary

Societal demands played an even smaller role during the buildup than during the prior builddown. The Korean War provided the military actors with a powerful leverage to dominate the acquisition process. This is not to say that military actors pursued programs which obviously ran counter to societal positions. In fact, society wanted innovation and got innovation; it wanted a focus on technology and got a focus on technology. But hardly any innovation was directly or indirectly caused by societal demands. Since Congress refrained from challenging the administration's broad defense spending, even the incentive to push into a particular area in response to societal preferences lost relevance. Only the scientists as a special interest group made a direct impact on the innovation of thermonuclear weapons.

5.2.4. Military doctrine & Service mission statement

5.2.4.1. Builddown

There was little doubt that military forces were necessary in the postwar world, but the precise political and military formulation of the Services' purpose took shape only slowly. The uniqueness of the situation and the strategic uncertainty with regard to the goals as well as means of national security during the postwar years obstructed early solutions. Although the Truman Doctrine and containment policy framed a foreign policy perspective, its military implications were vague. Without precise political guidance, early Service planning focused solely on the prospect of an all-out war with the Red Army most likely in Europe. Yet, the Services disagreed over lessons of World War II and favored different ways of preparation for future war (Gavin 1958). Moreover, the Services expected the new technologies to transform future warfare, but their actual implications on their roles and functions were still unclear (Rearden 1984, 385).

All they felt certain about was that that their prominence and even existence was tied to their ability to quickly formulate a plausible role for their own branch and to secure a large share of the relevant postwar missions (Wolfe 1994, 7-15). Ironically, the National Security Act in 1947, which was supposed to unify the armed forces, further fueled the conflict over roles and missions. Since each branch sought to maintain its autonomy and

importance even within the new Military Establishment, the Services engaged in farreaching functional differentiation, demarcating their claims from outside challenges.

The Committee on National Security Organization, which was established in 1947 to
evaluate the national security establishment, concluded that "each service has ambitions
of fighting the whole war or a large part of any war itself." (in Norman 1949)
Competition prevented a true unification beyond institutional reorganization and a clearcut differentiation of responsibilities. The subsequent Key West agreements in 1948 on
Service functions did not clarify the responsibilities in contested missions, but moved
the debate from a question of clear separations to the hardly easier question of
coordination and cooperation. Wolfe (1994, 3) concluded in retrospect: "Key West did
not apportion roles and missions in a way that maximized cooperation and coordination
among the components of a single fighting organization. Instead, it reduced friction
among fighting forces that sought to remain separate to pursue individual strategies to
guard distinct organizational interests."

203

The Services' doctrine & mission statement formulation was closely tied to this struggle for relevance in the postwar years' roles and functions. Societal demands did not actively intervene in the field of doctrine formulation. In fact, not even political actors exercised influence beyond the roles and mission debates. Thus, the Services were largely free – within the limitations of roles and functions – to formulate their doctrine & mission statements and thus outline their contribution to future warfare. Only a general societal influence is evident, since the societal military radicalism based on air atomic power was one background against which the Services chose their positioning. Besides responding to the new international and the technological environment, doctrine also served as an argument for the branch's relevance in spite of or because of the societal mood and in competition to the other branches.

²⁰³ Especially the agreement in the contested air power functions were complex: While the Navy got responsibility for the close air support for Marine Corps, the Air Force was put in charge for the Army's air lift and close air support. Furthermore, the Air Force gained the primary responsibility for the area of strategic bombing, but agreed to generally allow the Navy to develop atomic weapons for naval campaigns without creating a strategic air force.

As the most popular Service, the Air Force's doctrine formulation after the war stemmed strongly from its ambition to dominate all aviation capabilities and the desire to outline its significance as an equal component of the armed forces. Some Air Force representatives even called for a reversal of the prior hierarchy: "The function of the Army and Navy in any future war will be to support the dominant air arm." (Doolittle 1949) Yet, the ambitions faced two problems: (1) The Naval continuous claims for an aviation mission of its own constituted an annoying challenge to the Air Force's uniqueness. Air Force Chief Spaatz complained in a Life magazine article after the Key West accords, which maintained naval aviation, that "the Nation is dissipating its wealth and wasting aviation talent in supporting two air forces." (in Futrell 1989, 200) (2) Critics, especially within the other branches, disputed the significance of strategic bombing and thus the Air Force's strategic significance independent of ground forces (Gavin 1958, 99). Indeed, after early confusion over its future focus, the flyers' had turned to strategic bombing, whereas interdiction and especially close air support gained less attention (Bradin 1994, 76).²⁰⁴ Strategic bombing was jealously guarded as the Army Air Force's and Air Force's main argument to overcome the old air-ground interdependence expressed in its only official doctrinal document FM 100-20 (Mowbray 1995). Doubts with regard to the significance of strategic bombing were particularly damaging in this context. But the administration's Strategic Bombing Survey, a review of the air power impact during World War II, concluded in contrast to the widely held popular belief that strategic bombing did not decide the war especially in Europe (GPO 1945). To make things worse, the demobilization left hardly enough bombers to credibly promise decisive strategic bombing operations.

Atomic power provided the obvious means to upgrade the strategic bombing mission beyond any doubts. Most students of strategy were indeed convinced that nuclear weapons elevated aviation systems to the major weapon platform in future warfare (Kaplan 1983, 35-37). But the Air Force initially struggled to integrate nuclear power in its strategic bombing doctrine (Herken 1988, 209-217). With a far-reaching debate on

²⁰⁴ The flyers failed, however, to explicitly formulate this doctrine in a new publication. They were well aware that the combination of official FM 100-20 and the implicit strategic bombing doctrine seemed ad hoc and ambivalent. Therefore, Air University, established in 1946, was charged with reviewing FM 100-20 and developing a framework for future doctrine development (Jones 1997, 1). But numerous disagreements within the Air Force and few resources circumvented early success and the doctrine remained implicit.

the morality of nuclear weapons and limited technological information, skepticism and confusion concerning the impact of a full embracement of the new weapon persisted within the branch (Greenwood 1978, 220).²⁰⁵ Especially traditional air power proponents feared a reduction of the large air force in being, since a nuclear doctrine would rely on a few special air wings and make massive bomber formations as well as tactical aviation unnecessary (Parrish 1968, 104).

Only after 1948, did atomic bombing start to dominate the Air Force (Huntington 1961, 309). By then, the likelihood of an international control had greatly diminished and the Finletter Report provided a powerful backing for a nuclear mission. General Hoyt Vandenberg, who became Air Force Chief in 1948, and Major General Curtis LeMay, who became commander of SAC few months later, dispelled most doubts within the branch and by 1949, Baldwin (1949b) observed: "[T]he Air Force is wedded (...) to the theory of victory by long-range atomic bombardment. All of its major energies, the greater part of its appropriations and most of its emotional interest go to this oneweapon concept."²⁰⁶ SAC, the institutional embodiment of strategic bombing, became central to the Air Force: "LeMay's SAC would own the Air Force; SAC was the Air Force; and SAC was the world's most awesome and respected military force." (Builder 1994, 146; emphasis in the original) Requiring little doctrinal adjustment, LeMay shifted SAC's emphasis from conventional strategic bombing to strategic deterrence based on the threat of retaliation by nuclear bombing during his tenure. This shift in emphasis occurred largely unnoticed by society and without direct congressional participation (Huntington 1961, 309).

The transoceanic Navy and its struggle for the strategic bombing mission

While the Air Force's turn to strategic deterrence perfectly underlined its claim for a large postwar role, the Navy found itself in a much less favorable situation by the war's end. To be sure, victory in World War II provided a major vindication for the Navy, proving its crucial strategic value especially in the Pacific (Palmer 1988, 7). But from a

²⁰⁵ The Air Force's war planning contributions proved still limited by late 1947, due to lacking information concerning the availability and use of atomic bombs (Greenwood 1978, 230).

²⁰⁶ The fighter pilots, better represented by the tactical focus in FM 100-20, subordinated their preferences in order to achieve and defend the superior goal of independence. Thus, despite the Air Force's promise to provide the Army with strong tactical support forces during the unification debates, the tactical components were successively reduced under Vandenberg.

functional and doctrinal point of view, the end of World War II pushed the Navy into deep crisis. While it had confidently considered itself America's first line of defense before the war, its achievement of global dominance and the advent of new technologies during the war put the Navy's prior image and doctrine in strong doubt (Huntington 1954b, 487). This is also reflected in public opinion which had clear positions on the relevance of the Air Force and the Army but seemed unsure about what to think of the Navy in between. Early on, the Navy faced strong claims of obsolescence from the Army Air Force, since the latter considered the Navy's postwar capital ship, the aircraft carrier, a challenge to its position. Lt. General James Doolittle predicted in 1945: "As soon as airplanes are developed with sufficient range (...) there will be no further use for aircraft carriers." (in SMAC 1945, 308) Later, an Army Air Force officer went even further: "Why should we have a Navy at all? (...) There are no enemies for it to fight except apparently the Army Air Force." (in Huntington 1954b, 484)

Naval officers and secretaries responded by a twofold strategy to this situation. First, they downplayed the strategic significance of nuclear weapons and argued that invention did not threaten the relevance of the Navy (e.g. Cranwell 1946). Forrestal told lawmakers that he considered the reliance on atomic bombs, without really knowing their impact, would be a risky gamble, concluding: "[I]t seems that our national policy with respect to such an important instrument as the Navy must be based only on the best thinking available; and we should beware of any conclusions based on unproved theories." (SubHAC 1947b, 26) This argument was more than rhetoric. In fact, many admirals continued to consider the high-sea defense vital despite the dawn of nuclear power and long-range aviation. They insisted that any aggressor, regardless of whether equipped with nuclear weapons or not, still had to cross oceans before attacking US mainland and therefore the Navy would still provide the first line of defense. Moreover, many naval officers considered nuclear bombing as a highly dubious concept. As Rear Admiral Daniel V. Gallery, assistant CNO, argued in 1948: "It is a strategy of desperation and weakness. I believe we should abandon the idea of destroying enemy cities one after another until he gives up and find some better way of gaining our objective." (in Rosenberg 1979, 70) Finally, nuclear weapons could hardly meet all relevant military needs. The protection of free trade and transport on the seaways remained an important mission even in a world without rival sea powers. In this vein, Forrestal testified before the House Naval Affairs Committee in late 1945: "In the

future, as in the past, the key to victory and to the freedom of this country will be in the control of the seas and of the skies above it." (HNAC 1945, 1164)

Second, given the nature of the opponent, the technological opportunities and the societal preferences, the naval leaders pushed into the field of air power to find relevance beyond the oceans (Fisher 1995). Being the 'world's unchallenged policeman' was clearly not enough to secure continuous prosperity for the Navy. Airpower seemed in this context not only vital to protect the surface fleet from air attack, but it provided means to extend the Navy's relevance beyond the high-sea. Therefore, Forrestal wrote in 1945: "The Navy, if it is to keep pace with the public mind and the changing character of war, must be an air Navy." (in Cornell 1987, 96) Even prior to the war's end, the Navy Secretary had identified the Soviet Union as most likely future opponent and started to team up allies within the branch to prepare the Navy for this scenario. Together with the group of young officers, including Chester W. Nimitz, Forrest Sherman, and Louis Denfeld, he prepared a new naval role, which turned from high sea battles and command of the sea towards forward, offensive operations and sea based inland power projection (Palmer 1988, 12; Huntington 1954b, 491). Submarines, air force carriers and amphibious capabilities should create a role for the naval forces in future land warfare with the Red Army. Sherman outlined the Navy's plan for future war in early 1947: In case of Soviet aggression, the naval forces would engage in early submarine warfare while carrier task forces would attack targets at sea and ashore with amphibious forces reinforcing and seizing forward positions (Palmer 1988, 37). Despite resistance from the battleship community and proponents of Mahan's traditional doctrine, aircraft carriers, "the only air bases that can be made available near enemy territory without assault and conquest" (Nimitz 1948), replaced the battleship as capital weapon platform and major strategic asset of the Navy.

This focus on carriers and carrier task forces left even the door for a future strategic bombing and nuclear mission open, which would place the Navy in the most promising and best funded section of the military establishment. In fact, the Navy emphasized its strategic capabilities in the first general postwar doctrinal statement 'US Fleet Publication Number One, Principles and Applications of Naval Warfare' in 1947 (Rosenberg 1978, 250-251). And CNO Nimitz (1948) confidently predicted on his day of departure in 1948: "In addition to the weapons of World War II the Navy of the future will be capable of launching missiles from surface vessels and submarines, and of

delivering atomic bombs from carrier-based planes." Nimitz's successor Denfeld and VCNO Radford continued to push the Navy's role in aviation from direct support for naval operations to strategic bombing (Palmer 1988, 49-51).

However, with the cancelation of the supercarrier in 1949, this attempt suffered a terrible setback. During the subsequent hearings, CJCS Bradley made clear that the attack of land targets was not the primary purpose of the Navy and further efforts in this direction would only distract resources from its central mission of high-sea control (HASC 1949b, 528). He told Congress: "It is easy for men to lose the perspective of long range plans and understandably difficult to keep a steady hand on the tiller of the primary mission. But if they can't do it themselves, then the American people must do it for them." (HASC 1949b, 528) He recommended a return to high-sea control with a stronger focus on anti-submarine warfare. With no public resonance for the Navy during the revolt of the admirals, the naval doctrine was in limbo by the end of the decade.

The Army's claim for enduring relevance

Given the societal distaste for large standing forces, the Army was hardly in a better – even though more predictable position – than the Navy. While the occupation duties in Europe and Asia provided temporal importance and guaranteed a proportion of the budget, its long-term perspectives were grim. With the advent of new technologies making the Army Air Force the rising star, the Army Ground Forces struggled to make a good case for its contribution. Early after the war, the Army held conferences and organized committees to review their postwar situation. The findings were unpleasant: A report by the War Department's operations and plans division in 1946 contended that the air was the new primary medium of attack (Alsop/Alsop 1946). While airborne troops would gain new importance, ordinary ground forces were merely needed for occupational and policing duties.

Since the Army expected the least and latest gains from the new technologies, the generals took a defensive position to protect the traditional Army mission (Sheehan 1988, 60-61). They fought against the perception of nuclear weapons as panacea for a cheap national defense. Army Chief Eisenhower said in 1947: "[W]e cannot permit complacency or an 'atomic bomb mentality' – a possible modern counterpart of the

'Maginot Line mentality' to lull us into another post-war apathy." (in Horne 1947) He also emphasized that bombers relied on bases, which would need a conventional defense (Midgley 1986, 7). Without denying the importance of the other branches, Army leaders continuously reminded political actors that only boots on the ground could ultimately win wars and a one-sided air power buildup would result in an unbalanced and weakened force (Doughty 1979, 2). Army Chief Bradley told lawmakers in 1948: "[A]II phases of any future war will require highly trained soldiers in mobile, organized units and equipped with the best weapons which can be given them. Without these trained men there is no way for the air and naval arms to deliver their efforts to the enemy. These men of which I speak are the Army." (in SubHAC 1948a, 4) Army officials went even further and turned the popular perception upside down, arguing that the Air Force had still only a supporting role by preparing the Army's decisive ground attack (Linn 2007, 159).

Since the Army leaders had little incentive to emphasize the importance of nuclear bombs, doctrinal publications paid little attention to the technology's impact on future ground warfare. With no other state in possession of nuclear weapons and the breakthrough of tactical nuclear weapons in the future, there was little urgency for farreaching preparations. Thus, the 1949 Field Manual FM100-5 discussed the dangers of radiation and radioactive material and scenarios for Army-Air Force cooperation, but did not mention any tactics for nuclear battlefields (Gavin 1958, 112; DOA 1949, 60). Rather, Bradley considered the Army's victorious war performance in World War II as a template for future conflicts (Kretchik 2001, 143). Since the Services expected the next war to be a total war mostly fought in Europe again, major lessons from the European battlefield were still valid. Yet, the manual had no regional focus and rather discussed tactics along different terrains for a global applicability (Doughty 1979, 2-3).²⁰⁷ Even beyond the total war focus, the Operations Field Manual 100-5 mirrored in most aspects its 1944 predecessor.²⁰⁸ Both manuals stressed that "in spite of the advances in technology, the worth of the individual man is still decisive." (DOA 1949, 17; War Department 1944, 27) And they both heavily leaned towards conventional war

²⁰⁷ Although the Field Manual spent considerable time discussing defensive operations, it left no doubt that only attacks would produce crucial military effects: "Through offensive action, a commander preserves his freedom of action and imposes his will on the enemy." (DOA 1949, 21)
²⁰⁸ Therefore, the Army added additional tanks to infantry divisions and infantry to armored divisions.

Therefore, the Army added additional tanks to infantry divisions and infantry to armored divisions. Thus, the Army became overall heavier, even though the infantry remained the central unit within tactical considerations.

based on massed troop deployment and concentration of fire power. Only some changes in ground warfare found their way in the 1949 manual. Thus, while the infantry remained the central unit, Army leaders were convinced that the close support of mechanized units could greatly enhance infantry performance (Doughty 1979, 4-5). Moreover, infantry units should gain firepower by organic artillery and additional fire support by naval units and especially tactical air force (DOA 1949, 93).²⁰⁹ Thus, the Army tried to uphold its relevance from a conservative position, which highlighted the enduring principles of ground war and tried to qualify the impact of air atomic power. Stability rather than innovation was the result.

Summary

Societal demands and even the political actors' preferences did hardly reach into the field of doctrine formulation. Thus, the Services were largely free to outline their contributions to future war. Yet, their doctrine formulation responded not only to the threat environment and the technological realities, but also included the general societal mood in favor of air atomic power. The Air Force and the Navy fought over the dominance in aviation, which was merged with a nuclear relevance by the end of the decade. In contrast, since the Army had little chances to benefit from air atomic power early on, it took a conservative position that downplayed the novelty of the postwar situation.

5.2.4.2. Buildup

The war in Korea provided the first test for the armed forces' doctrinal thinking in the post-World War II environment. But preparing for a war with the Red Army in Europe, military leaders were taken aback by the opponent and the location of the war. Despite the early suspicions that the Soviet Union was the driving force behind the North Korean attack, the war on the Korean peninsula looked nothing like the expected all-out

²⁰⁹ Air-Ground Operations Field Manual 31-35 was published in August 1946 to coordinate the interaction of the different branches. Yet, a conflict around the Air-Ground operations evolved between the Air Force and the Army Artillery. The Artillery promoted the broad organic integration of tactical air control parties, advising ground forces on the best use of aviator support, into artillery battalions. However, the Air Force successfully resisted the integration under artillery control (Doughty 1979, 3).

war. Moreover, Truman's decision to refrain from nuclear escalation robbed the armed forces of their most decisive advantage and made prior war planning obsolete. Since 1948 and even more so after the successful A-bomb test of the USSR, nuclear weapons had taken an increasingly prominent place in US war planning. In case of a nuclear showdown, planners argued by 1950 that nuclear weapons should be used early on to destroy the enemy's strategic capabilities before being used to avoid considerable destruction (Feaver 1992, 130). But the weapon around which most planning circled was held back for political reasons during this first war of the nuclear age. Surprisingly, this experience had very little impact on the doctrine & mission statement formulation of the Services. Not only was the Soviet Union still looming behind the Korean War and the Service competition unsolved, but the societal general influence was unchanged in favor of air atomic power. Even the political actors did not push for doctrinal adjustment in response to the Korean War. In contrast, the Eisenhower administration embracement of societal demands in the other dimensions raised the incentives to pursue an air atomic power doctrine even further. Thus, the Services treated the war as an outlier which provided little guidance for future conflicts.

Reassurance of strategic bombing

Especially the Air Force tried to downplay potential lessons from Korea. Indeed, the war was bad for the Air Force, which had focused the most on the strategic impact of air power (Mowbray 1995, 6). Since Truman denied air attacks on China and nuclear escalation, the adversary's war making capacities were out of reach and strategic bombing soon ran out of valuable targets. Therefore, the Air Force largest missions in Korea were again interdiction and close air support. But the Air Force's strong emphasis on its bomber fleet and air superiority fighters during the late 1940s had left the close air support component weak (Bradin 1994, 74-75). Army troops jealously looked at the Marine Corps' organic air support, which seemed more committed and better prepared for close-air support.

From the flyers' perspective, the experience of Korea threatened the strategic bombing doctrine and thus its newly earned institutional independence. Hence, former Air Force Secretary Finletter claimed in 1955 that "the Korean War was a special case, and air power can learn little there about its future role in United States foreign policy in the

East." (in Jones 1997, 5) And the first postwar Air Force doctrine, finally released in spring 1953, served to reassure the branch as well as the political actors and society that the focus on strategic bombing was still unchanged and valid. 210 AFM 1-2 referred to World War II experiences of total war rather than to Korean-style limited war and highlighted the importance of strategic bombing and atomic air power. The main chapter on airpower argued that "no nation can long survive unlimited exploitation by enemy air forces utilizing weapons of mass destruction." (in Jones 1997, 4) New versions of AFM 1-2, which followed in 1954 and 1955, included only marginal changes from prior basic doctrine. Therefore, Mowbray (1995, 8) concludes that "1955 found the Air Force with basic doctrine that was little more than a derivative of FM 100-20." Indeed, after the battle for independence and its recognition as a Service with distinct roles and functions, the Air Force ceased to discuss air power theory (Builder 1994). Despite the changing requirements, reformulation of doctrine was considered a danger to the very pillars on which the institution was built. Public approval and Eisenhower's turn to nuclear deterrence reassured the flyers in their preferences by allowing the Air Force to benefit from its unquestioned commitment to nuclear bombing. Rather than new doctrinal thinking, the Air Force was more than ever concerned with its means. Already in 1952, Vice Air Force Chief Twinning told lawmakers: "The Air Force is not bound to any fixed doctrine or concept. It grew out of scientific achievement." (SubSAC 1952, 672)²¹¹

Confirmation of the transoceanic strategy

For the Navy, the Korean War was a quite positive experience. It offered an opportunity to prove its military value beyond high-sea control and improve its difficult situation back in Washington after the setbacks during 1949. Especially the amphibious assault at Inchon was widely praised and underlined the continuous relevance of amphibious landings in the nuclear age (Trott 1951b). Moreover, aircraft carriers were in high demand and the naval aviators proved better prepared for close air support than the Air

²¹⁰ AFM 1-2 was the first of a number of doctrinal documents published over the next two years. In fall of 1953, Air University issued four operational doctrines for theater air operations, air defense operations, and air operations in conjunction with amphibious operations. In May 1954, a strategic air operations manual was added. None of the additional manuals did depart from the major themes of AFM 1-2.

²¹¹ Against this backdrop, advances in missile technology and a new generation of officers pushing for a warfare based on guided missiles threatened the bomber community and SAC.

Force flyers, due to their superior interaction with ground troops. With naval forces conducting or contributing to critical operations during the war, the Navy made political ground at home (Rosenberg 1978, 264). But after the admirals had badly burned their fingers with their push into a far-reaching role in strategic aviation, the Navy settled for a balanced position between high sea control and expeditionary capabilities. To be sure, the emphasis on early offensive operations against the Soviet Union was maintained and the capability for strategic bombing was effectively reached during the early 1950s. But the admirals formulated their claims more carefully and humbly. In 1952, CNO Fechteler outlined naval strategy before Congress: "It is generally appreciated that a navy must keep the oceans free for our use in time of war (...). What may not be understood is the fact that in the fast carrier task force the Navy has the ability to carry the war to the enemy in its initial stages, to knock out his coastal bases, (...) and to put him on the defensive at the outset." (in SubSAC 1952, 1030) Unsure about the Soviet Union's capabilities, the naval leaders swung between submarines, land-based aviation or missiles as the most serious threat to naval operations (Palmer 1988, 68-92). With the introduction of the New Look, the Navy's focus on forward operations was blurred by a focus on nuclear deterrence. In a strategy of massive retaliation, naval missions, besides providing means for a second strike, had little importance. Hence, the offensive doctrine increasingly turned to a defensive approach focused on the prospect of a nuclear exchange.

Army resistance to the New Look and the turn to the nuclear battlefield

While the Korean War proved the Army's reluctance with regard to the novelty of the post-World War II situation right, its postwar doctrine still turned out only partially adequate. FM 100-5 had focused on the prospect of global war requiring all-out mobilization and did not account for the outbreak of a limited war (Dougthy 1979, 7-12). With regard to tactical concepts, the doctrine also proved flawed and the North Korean and Chinese armies repeatedly found ways to exploit tactical weaknesses of the UN ground forces. The doctrine neither foresaw the difficult territory nor provided guidance for the extensive battles from defensive positions or the Chinese human wave assaults. Thus, the Army learned painful lessons during the Korean War and adapted slowly during the war, improving especially defensive tactics.

But when the Army published its new FM 100-5 in 1954, it was no comprehensive adaption of lessons learned in Korea. While it included some lessons from the Korean War, ²¹² Army leaders largely argued that prior doctrine was proved right during the war and thus change would be unnecessary. This emphasis of continuity with prior manuals was largely directed against the administration's defense course after the Korean War. Indeed, FM 100-5 was a crushing military statement in rejection of the New Look and massive retaliation (Linn 2007, 168-169; Bacevich 2002; Doughty 1979, 12-16). Army Chief Ridgway used the manual as a policy tool to oppose Eisenhower's preference for the Air Force and reliance on nuclear weapons, which leading Army officers saw a threat to their role within the defense establishment. For the generals, the Korean War carried the most important lessons for the national security strategy rather than for the individual Service preparations: It reinforced the Pearl Harbor lesson that the outbreak of an unexpected war with US involvement can hardly be anticipated early on and more fundamentally that deterrence could fail. In their eyes, Task Force Smith demonstrated the failure of Truman's military policy, starving conventional means, while implicitly relying on the promise of nuclear bombs.

But rather than drawing the right lessons from this renewed failure of military preparation, Eisenhower pushed the bias against conventional forces even further (Gavin 1958, 125). Against this backdrop, FM 100-5 was a manifest for the continuous necessity of ground combat forces with the soldier as enduring foundation for victory. Rebutting the prospects of becoming an auxiliary branch, the manual made clear that "Army combat forces do not support the operations of any other component." (DOA 1954, 4) Furthermore, it advocated limited conventional war over massive retaliation: "In general, indiscriminate destruction is unjustifiable in a military sense, since the Army destroys the instruments of enemy political force but does not destroy the bases on which a peace can be built when the conflict is over." (DOA 1954, 5) After acquiring a copy of FM 100-5, the New York Times featured a front side story titled "Army Is Top Military Force of US, It States in Manual", making the Army's criticism public (Leviero 1955).

²¹² For example, artillery support gained more prominence in the 1954 FM 100-5. Since artillery was less mobile, defense tactics also gained more consideration in the new Army doctrine. It described two defensive tactics, of which the mobile defense absorbed some of the lessons from Korea (DOA 1954, 117-118). An additional lesson from the Korean War was the broader discussion of night combat (DOA 1954, 157-161).

Despite this attack on massive retaliation, a closer reading of FM 100-5 reveals that the Army's treatment of nuclear means was ambivalent and not fully dismissive. The manual discussed nuclear bombs as "an extremely powerful means of fire support." (DOA 1954, 94) And it instructed commanders to "consider atomic fires as additional firepower of large magnitude to complement other available fire support for maneuvering forces, or he may fit his maneuver plan to the use of atomic fires." (DOA 1954, 40) Thus, while the Army rejected the strategic use of atomic weapons on moral grounds, it left the door open for their tactical use on the battlefield. Indeed, progressive thinking on the tactical use of nuclear weapons was underway within Army circles since their growing importance became obvious in 1949 (Doughty 1979, 16-18; Gavin 1958, 112-116).

As the Eisenhower administration did not yield to the Army's fierce attacks on the New Look, the turn to a nuclear doctrine seemed a matter of Service survival and only after the period of transition did the political pressure foster innovation in the Army doctrine. After 1954, several field tests were run to assess the need for organizational and tactical adjustments for the nuclear battlefield (Abel 1954). The results suggested the advantage of dispersed small battle groups over a linear battlefield formation building the foundation for the so-called Pentomic division. The innovative Pentomic concept was approved in 1956 and had major impact on tactical thinking and as Sheehan (1988, 89) puts it "constituted one of the most significant peacetime changes in operational and tactical doctrine in the annals of military history." Until 1958, all Army divisions were pentomic and the nuclear battlefield became the standard for tactical planning.

Summary

Although the Korean War differed strongly from World War II, it left little marks in the Services' doctrine. Since the Soviet Union remained as a threat, the public remained in favor of air atomic power and the Service competition continued, the Korean War was treated as an outlier. Eisenhower's turn to nuclear deterrence confirmed the Services' resistance to doctrinal change during the war. Societal demands had again only a

²¹³ For a detailed description of the Pentomic concept and its development see Sheehan (1988, 89-148) and Midgley (1986, 31-85). With hindsight, the pentomic concept proved highly flawed (Linn 2007, 178-179; Sheehan 1988, 140). It was soon recognized as failure and lasted only until 1961.

general influence. Only when the public turned active during the elections 1952, the influence temporarily became indirect.

5.3. Summary

During both periods of military transition, only little innovation can be attributed to societal demands. To be sure, between 1945 and 1949 the societal demands were consistent on most issues but weak. In the annual budget process, the dominance of the President prevented any prioritization of air power. In the organizational dimension, the inconsistent societal position on UMT allowed Congress to depart from the administration's support for this innovation. In the weapons acquisition, there was a widespread innovative activity, especially in aviation technologies, but the societal positions provided only a general influence in conventional R&D and an indirect influence in atomic R&D. With Truman opposing large budgets, Congress rejecting UMT and societal demands blocking a personnel-heavy force, nuclear weapons were the only feasible military option prior to the war. In the doctrine & mission statement dimension, the society failed to articulate a position at all and only the societal mindset of air atomic power constituted a general influence.

While common preferences faced little competition from special interests, their influence remained largely unspecific and passive. Only the strong demand of the soldiers' families had a direct effect resulting in rapid demobilization with a subsequent discrimination of personnel over technology Moreover, during the revolt of the admirals, in which Congress explicitly appealed to the public, the public position played an important but responsive influence. It remained steadfast in its support for long-range aviation at the expense of the supercarrier. Most innovative dynamics during the builddown period were not caused by the weak societal demands, but resulted from political and interservice struggles to meet the changed and uncertain international and technological environment. Societal demands rather had a conditional effect, affecting the chances of innovative initiatives within the political process.

In contrast to the theoretical expectations, societal demands did not gain additional influence between 1950 and 1952, despite the strongly increased salience of national security issues. In fact, the public demands became even more passive until they

intervened during the 1952 elections. After the defense hawks had failed to create a responsive public influence in support of NSC-68, the war caused a strong support for the administration's defense efforts. Against this backdrop, the Truman administration's commitment to balanced budget distributions and a balanced organization became even more decisive. Although the public rapidly returned to its preference for air power, the administration focused on a balanced buildup and sought quantitative rather than qualitative changes. Acheson (1969, 421-422) commented on the political situation in late 1950: "It was often said that the Truman Administration and, particularly, the Secretary of State were 'unpopular' and had trouble with Congress. It is true that many uncomplimentary things were said, but in Washington it is better to get what one wants than to be loved." Yet, as the buildup put an emphasis on the time-intensive products first, there was an unintended relative shift in favor of air power nonetheless.

While NSC-68 hardly met dominant societal demands, only limited public influence is apparent during the early buildup. While the administration made efforts to gain public approval during the Great Debate on deployments to Europe, the public's reaction was small. In the dimension of weapons acquisition, the war provided the armed forces with additional leverage and further reduced the weight of societal demands. Only the scientists as a special interest group made a direct impact on the innovation of thermonuclear weapons. The impact on doctrine formulation remained general.

The public finally respond to the inconclusive situation in Korea and the marginalization over military policy during the elections in 1952. Eisenhower's subsequent military policy strongly realigned with the public demands in the budget and organization dimensions. Hence, the election outcome directly affected military policy in most dimensions. The doctrine & mission statement dimension was only indirectly affected by the societal demands. Doctrine formulation remained the military actors' domain to respond freely to the environment in their quest for relevance.

Relevant questions	1945-1949	1950-1953		
WHO IS DOMINATING THE POLITICAL PROCESS IN THE DIMENSION OF				
military budget?	Political actors (administration)	Truman: Military/Political actors (administration)		
		Eisenhower: Political actors (administration		
military organization?	Political actors	Military actors /Political actors		
weapons acquisition?	Military actors	Military actors /Political actors		
military doctrine & Service mission statement?	Military actors	Military actors		
WHAT IS THE INFLUENCE OF SOCIETAL DEMANDS ON MILITARY INNOVATION IN THE DIMENSION OF				
	No influence	Truman: No influence		
military budget?		Eisenhower: Direct influence		
military organization?	Direct influence (demobilization)	Truman: No influence / responsive influence (forward deployments)		
mintary organization?	No influence (rejection of UMT)	Eisenhower: Direct influence		
weapons acquisition?	Indirect influence (nuclear R&D)	Truman: Direct influence (nuclear R&D)		
	General influence (aviation R&D)	General influence (aviation R&D)		
	Responsive influence (supercarrier controversy)	Eisenhower: Direct influence (aviation R&D / continental defense)		
military doctrine & Service	General influence	Truman: General influence		
mission statement?		Eisenhower: Indirect influence		

6. NEW CHALLENGES: MILITARY POLICY BETWEEN 1990-1998 AND 2001-2007

With the fall of the Berlin Wall in 1989, the US "again emerged victorious from forty years of war." (McCormick 1998, 1) When the Soviet Union and the Warsaw Pact finally collapsed two years later, the US armed forces were already in the middle of a renewed downward transition. The economic slowdown of the late 1980s and large budget deficits put the government under early pressure to meet the calls for a peace dividend. 214 Yet, there was considerable uncertainty with regard to the future force posture, as the US was forced to fundamentally rethink its foreign and military policy (Haass 1995; Cimbala 1995; Adelman/Augustine 1990). Without the overwhelming threat of the 'Evil Empire', the US "was freer to pursue a wide range of foreign policy goals, and at the same time less compelled to do so." (Dueck 2010, 254) In this uncertain situation, three broad paths emerged for the military transition: First, a departure from prior high-intensity conventional war and a stronger focus on smaller scale contingencies and low-intensity operations, meeting the armed forces' operational experiences of the 1990s. In fact, a range of formally suppressed conflicts erupted in the power vacuum of the post-Cold War and called for US military attention (Luttwak 1996, 34). The very conventional Gulf War in 1991 was rather an outlier in a series of low-intensity missions including Somalia, Haiti or Bosnia (Dumbrell 2009). Second, proponents of the Revolution in Military Affairs (RMA) argued that the strategic pause after the Cold War allowed for radical modernization of the forces to meet future threats. New military threats would inevitably emerge and only an aggressive push for information-age innovation could guarantee continuous US military superiority. 215 Third, a conservative course, which left the spectrum of capabilities essentially unchanged.

During the 1990s, the latter approach largely prevailed despite numerous low-intensity operations and pressure from RMA advocates. With the terrorist attacks on September 11, 2001, military policy gained new momentum. Like the buildup in 1950, the attacks were perceived as a call to arms (Leebaert 2003, 614) Already during the late 1990s, the armed forces, Congress, and military experts had grown increasingly concerned about the reduced state of readiness and had called for an end of the procurement holiday

²¹⁴ For an economic discussion of the term see Intriligator (1996).

²¹⁵ Andrew Marshall compared the 1990s to the phase between the end of World War I and World War II, which was characterized by significant military innovation (Owens 2002, 208-209). This comparison indicates of course that the next war would come and early preparation might determine its outcome.

(Schmitt 1998).²¹⁶ Therefore, a renewed transition towards a stronger force was initiated, reaching beyond the immediate punishment of the aggressors and the Global War on Terror (GWOT). The administration early on committed to a RMA inspired transition, now labeled transformation. But the realities of the GWOT soon redirected military attention from preparing for the future to meeting present challenges. Especially the costly counterinsurgency operation in Iraq provided a powerful counterweight to the conventional and future-oriented focus of transformation efforts. With the support for transformation on the one hand and the necessity for increased emphasis on low-intensity conflicts and strong persistency of the status quo on the other, innovation remained fragmented.

6.1. Actors and preferences

6.1.1. Societal preferences

6.1.1.1. Common interests

Salience of preferences

With the end of the Cold War, the public's interest in international issues plumped. Support for an internationalist US foreign policy remained strong, but the public was hardly concerned with issues outside the own borders anymore (Richman 1996; 1993). Already by 1990, the threat of war with the Soviet Union, the formerly most salient international problem, sharply dropped and public opinion towards Russia grew friendlier (Gallup 02/1989, 02/1990, 08/1991). To be sure, skepticism remained and even after the fall of the Berlin wall, 21 percent of the public expected a hard-line crackdown to end the reforms in Russia (Gallup 12/1989). In fall 1991, more than half of the respondents said that there was still a 'cold war' between the US and the Soviet Union (Gallup 08/1991, also 09/1990). But the wariness with regard to the Russian transformation did not entail a strong attention on international problems.

Only the temporary military missions, most prominently Iraq 1991, and the problems of terrorism and arms control gained some public attention. Yet, attention was either of a

²¹⁶ The situations before World War II and the Korean War were cited as examples which struck the US unprepared and therefore almost ended in failure. In the words of Chabraja (1999), Chairman and Chief Executive of General Motors: "There is no such thing as a peace dividend – we pay for it one way or the other – either in increased cost for our nation's defense, or in human misery."

limited duration or of relatively low salience. In fact, a significant proportion of the public did not see the US as facing major foreign policy problems at all. Hence, when asked to name the biggest foreign policy problems in 1998, more than a fifth of the respondents in a CCFR poll did not name even one problem (Rielly 1999, 10).

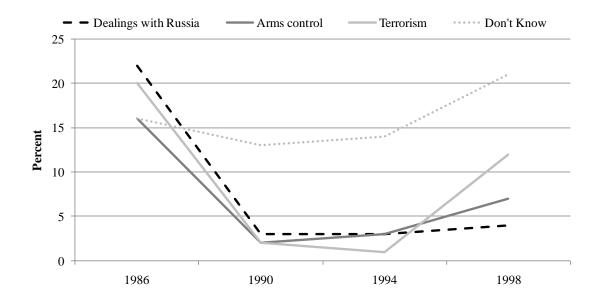


Chart 6.1: Trends in public opinion on selected foreign policy problems mentioned as one of "the two or three biggest foreign policy problems facing the US today", 1986-1998 (CCFR 2002)

The public turned inwards, instead (Jones, C. 1999; Richman 1993). Faced with an economic downturn and soaring federal deficits, domestic problems dominated the public agenda. As Weiner (1996) concluded: "Ever since the Berlin Wall became a speed bump in 1989, polls and interviews suggest that people are far more interested in their pocketbooks, schools and neighborhoods than in America's role as the last great superpower." Thus, in 1991, almost 80 percent, a 20 percent point increase over 1985, agreed with the statement: 'We should not think so much in international terms but concentrate more on our own national problems and building up our strength and prosperity here at home' (Potomac in Richman 1996).

Defense issues regained moderate importance during the 2000 election campaign²¹⁷, but only the terrorist attacks on September 11, 2001, finally brought security concerns back

²¹⁷ The changing emphasis is clearly evident in the election campaigns. After the budget deficit together with economic and social issues had fully dominated the elections during the 1990s (Gallup 10/1991, 12/1994, 12/1996), 70 percent considered the candidates' position on national defense as extremely or

to the front. The share of people, finding it extremely important for the government to deal with military and defense issues, more than doubled between in January and October 2001 (Gallup polls in Torres-Reyna/Shapiro 2002). Although economic issues soon regained the top ranking position, two issues with implications for defense, terrorism and – after 2003 – the fear of war, remained in the top group of most important problems and even dominated public concerns after 2004.

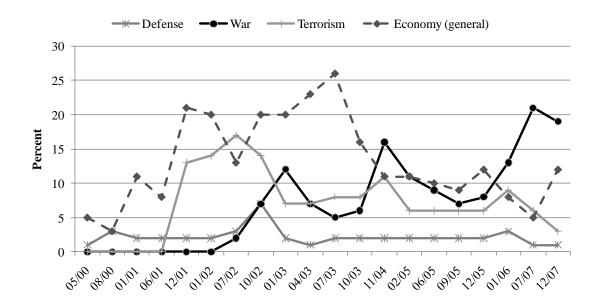


Chart 6.2: Most important problem facing the country today, 2000-2007 (CBS/New York Times polls)²¹⁸

Specificity of preferences

As during previous periods of transition, the specificity of preferences differed greatly along the dimensions of military policy. After the Cold War, the specificity also varied greatly between the two periods of transition. During the 1990s, the public articulated very little specific preferences. Given the low importance of international issues and the lack of threats, this is rather unsurprising.

very important for their voting decision during the 2000 election campaign (Gallup 07/2000). While defense still clearly ranked below social issues, such as education, health care, or the economy, it was more relevant than during previous elections. Especially Republican voters considered national defense as an important issue. Asked on the top priority for the Bush administration's first 100 days, 9 percent of the Republicans named foreign policy and defense, whereas only 1 percent of the Democrats named this

priority (Gallup 12/2000). ²¹⁸ Prior to 4/03, the wording of the question was: What do you think is the single most important problem for the government to address in the coming year?

(1) In the budget dimension, only demands concerning the budget size were specific during both periods of transition. The public clearly supported a downsizing of the armed forces during the early 1990s. In fact, relative majorities considered the amount of defense spending as too high already since the early years of the Reagan buildup. And with the demise of the Soviet Union, the demand for demobilization peaked in 1990 and continued thereafter. Clear majorities preferred to redirect defense dollars in order to reduce the budget deficit (Gallup in Torres-Reyna/Shapiro 2002; PIPA 1996).

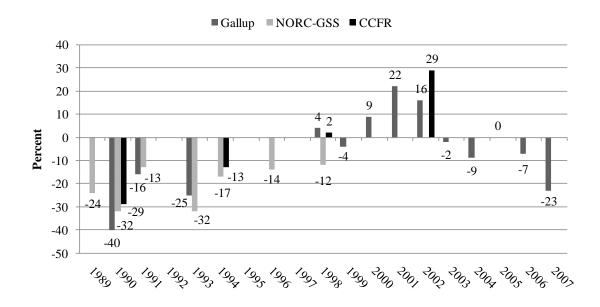


Chart 6.3: Net support for defense spending, 1989-2007 (based on CCGA 2008; Carroll 2007; Moore 2006; Torres-Reyna/Shapiro 2002)²¹⁹

While the public called for a peace dividend, it did not push for an unlimited demobilization (Ullman 1995, 50). Five aspects of the data indicate that the public favored a quite high floor for defense spending even after the end of the Cold War. First, CCFR polls in 1994 and 1998 and a 1996 PIPA poll consistently show that the

²¹⁹ Gallup asked: "There is much discussion as to the amount of money the government in Washington, DC, should spend for national defense and military purposes. How do you feel about this? Do you think we are spending too little, too much, or about the right amount?" NORC-GSS asked: "Turning now to the business of the country—we are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on... the military, armaments, and defense?" CCFR asked: "Below is a list of present federal government programs. For each, please select whether you feel it should be expanded, cut back or kept about the same... defense spending." The Gallup polls since 2001 were all conducted in February. Hence, the high support for defense spending in 2001 is actually seven months prior to 9/11.

public considered the maintenance of global military superiority as an important foreign policy goal (CCFR 2002; PIPA 1996). Although no enemy directly threatened American territory, people believed that the US had global interests that required strong military capabilities, including the promotion of international stability. As Bacevich (2008, 2) observes: "Americans became accustomed to thinking of their country as 'the indispensable nation'." Second, many people considered the maintenance of large defense spending as insurance for unforeseeable threats. In 1996, half of the respondents agreed with the statement: "If defense contractors stop building certain weapons, it would be hard to get those industries geared up again in the future. Therefore, even if some of the weapons may not be strategically necessary right now, they should still continue to produce them. Things might change so that we would need them later." (PIPA 1996)

Third, society continued to see the military as a highly trustworthy, morally integrated organization (Burk 2001, 247). There is some reason to argue that the 40 years of public support for a large standing force and internationalism had established a relationship that outlasted the end of the Cold War. Luttwak (1996, 35) rightfully argued: "The Cold War lasted so long that nobody remembers any prewar normality to which the military should revert." The very successful war with Iraq further contributed to the popularity of the military. Colin Powell (1995, 532) recalls in his memoirs: "We had given America a clear win at low casualties in a noble cause, and the American people fell in love again with their armed forces." Norman Schwarzkopf, commander of the Iraq campaign, and CJCS Powell ranked very high in the public's list of the most admired men between 1991 and 1996 (Gallup 12/1991, 12/1992, 12/1993, 12/1994, 12/1995). Fourth, even people without a direct benefit from defense dollars were concerned over the economic impact of demobilization (Bartels 1994). In 1996, a substantial minority of 43 percent agreed with the argument that "[t]he U.S. government should not cut defense spending because many people will lose their jobs when bases are closed and factories are shut down." (PIPA 1996) Fifth, the percentage of people considering defense spending as too high decreased relatively quickly and by the end of the 1990s, the supporters of more and less spending were almost in balance. Thus, the public again

²²⁰ This observation is backed by CCFR pools between 1990 and 1998 in which increasing relative majorities believed that the US plays a more important role as world leader than 10 years ago (CCFR 2002). Moreover, 73 percent of the respondents believed in 1994 that the US would play a greater role in the next ten years.

reacted as a thermostat to the defense reductions and considered the floor to be reached by late 1990.

Around the end of the decade, the group calling for an increase in defense spending slightly exceeded or leveled the proponents of a decrease in most surveys (Torres-Reyna/Shapiro 2002; see also Rielly 1999, 9). Yet, as Kugler (2001, 113) described the situation prior to the terrorist attacks: "The reality is that while the American public wants a strong military and accepts current defense budgets, it is not clamoring for a big, expensive buildup." This strikingly changed after 9/11, when 58 percent argued that defense spending should be given priority over all other federal programs four months after the attacks (Gallup 01/2002). But the new importance that terrorism gained did not translate into an unconditional support for military spending. While the public wanted the perpetrators of 9/11 punished, a majority of people were skeptical of the military bias in the GWOT, which they considered of limited use (e.g. PIPA 2003; PIPA/KN 2005). In the eyes of many people, the war on terrorism did not justify an unconditional buildup and the balance on defense spending turned surprisingly fast against the supporters of increased spending.

Reviewing the downturn with a focus on partisan positions, net support for defense spending was disproportionately caused by people, who identified themselves as Democrats or Independents. Thus, while Republicans remained almost stable in their positions, the other groups increasingly opposed the level of defense spending.²²²

²²¹ Large majorities supported robust measures such as air strikes and the deployment of ground troops against terrorist training camps (CCGA 2008). And more than four out of five respondents approved the Afghanistan War in various polls (Gallup, 10/2001, 01/2002, 09/2002).

The problem perception reveals a parallel pattern: Two years after the attacks, only 7 percent of the Democrats in contrast to 17 percent of the Republicans named terrorism still as a major problem (Gallup, 08/2003). This coincided with a different threat perception during the 1990s. In 1996, 47 percent of the Republicans and only 31 percent of the Democrats considered Russia enough of a threat to justify maintaining current levels of defense spending (PIPA 1996).

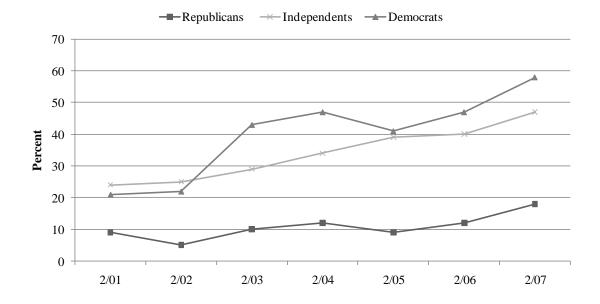


Chart 6.4: Partisan trend on military spending, 2001-2007 (percentage saying "we are spending too much on national defense and military purposes", Gallup data in Carroll 2007)

This apparent partisan gap on defense policy during the GWOT is hardly new (Simon/Lovrich 2010; Hinckley 1992). Other studies have observed a deepening ideological and partisan gap among the public already since the Vietnam War (Goertzel 1987; Kriesberg/Murray/Klein 1982; Russett 1975). In comparison to the post-World War II years, partisans have switched positions, with the Democrats undergoing the largest change: Moderately more hawkish than the Republicans after World War II, the Democrats turned to a highly critical position on military means after the Vietnam War which continued into the post-Cold War periods. People with conservative ideology were more likely to support defense spending, to encourage a young person to join the military, and in general more favorably of the military than other ideological groups (Leal 2005; Bartels 1994). In addition, Republicans were more likely than Democrats to support more military spending (PIPA 1996; Rielly 1991, 33). The argument that the US should keep acquiring more advanced weapons to protect against unforeseeable threats fared also much better among the Republicans than among the Democrats (PIPA 1996). With the partisan shift, national defense had become Republican turf. In contrast to the late 1940s, the public clearly considered the Republican Party as the better managers of foreign and defense policy after the Cold War (Campbell/O'Hanlon 2006; Gallup 9/1991, 11/1991). Indeed, even Democratic partisans considered the Republicans as being more capable of handling defense (Jacobson 2003, 218).

With regard to the distribution of defense spending during the 1990s, the available evidence is very weak. Neither the press nor polling results reveal any plausible position on the general distribution of the budget. Assuming that the media and polling agencies picked up relevant or controversial issues, the public either did not care or was largely satisfied with the status quo. In fact, the public expressed a general satisfaction with the armed forces in various polls, which allows for the careful conclusion that the public indeed preferred stability. In 1990, two-thirds considered the national defense as about right at the time (Carroll 2007). And almost three-quarters regarded the armed forces as adequately prepared to meet military threats in 1996 (PIPA 1996). While the preference for technology over personnel continued, there is no evidence that this translated into support for a particular branch (PIPA 1996).

With the GWOT, the preferences on the quality of the armed forces again became more specific. Yet, the public prioritization ran not clearly along Service lines, but rather along different missions: "Americans show a strategic preference for shifting away from large-scale nuclear and conventional war priorities, and toward the personnel-intensive requirements of unconventional warfare, peacekeeping, and the development of capabilities related to the war on terrorism." (PIPA/KN 2005). Already a PIPA poll in 2002 revealed a similar, although less pronounced, strategic prioritization (PIPA 2002, 2): 44 percent supported spending increases on military personnel for salaries, housing and other benefits and only 7 percent called for a decrease. In addition, 61 percent supported spending increases for areas of the defense budget that support the military's ability to fight terrorism, such as intelligence or Special Operation Forces (SOF), whereas only 18 percent called for an increase of the defense budget items that were not for military personnel or necessary for fighting terrorism, such as submarines or nuclear weapons. In other words, although the preferences can be translated in a moderate prioritization of the Army, the major demand went along mission lines with support of means for irregular operations with strong reliance on large personnel and informationage equipment. This shifting emphasis from high-intensity war with conventional means to low-intensity war with transformation equipment ran through all dimensions during the buildup period.

(2) The positions in the organizational dimension strongly follow the budget dimension. Hence, there is little evidence for strong preferences in the organization dimension during the 1990s. While majorities considered the DOD planning standard that the US

needs to be prepared to fight two major regional wars simultaneously as excessive, it is not clear what this implied with regard to the quality of the force organization (PIPA 1996). Only a preference for reduced forward deployment to Western Europe is evident. Thus, the mean of the responses in a 1991 CCFR poll was 181,300 troops for Western Europe, approximately 120,000 below the current levels (Rielly 1991, 35).

In contrast, the public expressed a clear preference for additional ground forces and SOF after 9/11 (PIPA/KN 2005, 7-10). With the wars in Iraq and Afghanistan and the subsequent occupation efforts, this preference became stronger and provided support for the Army. In May 2001, relative majorities still held a familiar preference for the Air Force (Gallup 05/2001). Asked about the most important branch today, 42 percent named the Air Force and only 18 and 15 percent named the Army and the Navy respectively. By 2004, the Army led the list with 25 percent, slightly more than the Air Force's 23 percent (Gallup 05/2004). While 23 percent considered the Marine Corps' most important, the Navy had dropped to 9 percent. With the US turning again outwards, preferences for a reduction of overseas bases decreased. Majorities between 53 and 57 percent considered the number of military bases abroad as appropriate between 2002 and 2008 (CCGA 2008, 31-32).

Once again, a partisan pattern became apparent after 2001: Democrats supported a more pronounced turn towards a personnel-heavy force than the Republicans. Already in 2002, the Republicans were slightly more supportive of budget items unrelated to military personnel and the war on terror than the Democrats (PIPA 2002, 2). And in 2005, majorities of Republicans still disapproved reductions in the number of aircraft carriers, bombers, destroyers, submarines, and air strike capabilities, whereas Democratic majorities supported cuts (PIPA/KN 2005, 10-11).

(3) Weapons acquisition was marked by a broad indifference with regard to the choice of particular weapon systems or the emphasis on a particular Service during the 1990s. The missile defense, a highly controversial issue during the 1980s and again in the new century, is a case in point: In a 1996 Gallup poll, the share of supporters and opponents was almost exactly equal and a relative majority of 37 percent did not articulate any position at all (Gallup 07/1996).

Only a strong preference for technological advanced weapons over personnel is clearly evident. Although public majorities believed that the Pentagon often went overboard in its push for improvements, the continuous push for technological innovation was clearly accepted as insurance against unforeseen threats. Moreover, technology was considered a life-saver for soldiers. Indeed, almost 9 out 10 articulated a willingness to spend whatever is necessary to have the best technology to protect soldiers' lives (PIPA 1996). On the intervention side, this public concern for soldiers' lives is a long debated phenomenon. Since the Vietnam War, political actors, media elites - and indeed enemies of the US - perceived the American public support for military operations as highly unstable and dependent on war casualties and media coverage, which could severely undermine military success (Gelpi/Feaver/Reifler 2009, 5). Therefore, public support became a central precondition for military intervention in the Weinberger-Powell-doctrine, the prominent statement of the armed forces' lessons learned for the conduct of interventions after Vietnam.²²³ The belief in the public casualty sensitivity was reinforced by the Somalia disaster in 1993 and the successive hasty retreat of US forces. Daalder, White House Bosnia specialist in the mid-1990s, argued with regard to the political actors: "They believe that Somalia demonstrates conclusively that you cannot have any casualties. They take this as a matter of faith." (in Harden/Broder 1999; see also Steel 1995) While this perceived casualty sensitivity in interventions is still subject to considerable debate²²⁴, there is little doubt that the public supports military preparations, which minimizes the risk of casualties in future wars. Thus, technologies as insurance and live-safer were continuously popular among the public.

But there is no clear evidence whether this technology bias backed evolutionary modernization and RMA programs alike or only one of them. After the media coverage during Desert Storm, the public was most likely aware of the promises of informationage warfare and impressed by the potential of high-tech systems. And the press contributed further information on RMA thinking during the following years. For example, a Time Magazine's issue titled "Cyber War" and with a lead article called

.

²²³ In fact, Dauber (2001) makes a compelling argument that Weinberger's initial six conditions for the use of force were increasingly collapsed into the demand for public support as major requirement, which heavily affected the debates over military interventions during the 1990s. In this context, the Army's 1993 operational doctrine FM 100-5 argued: "The American people expect decisive victory and abhor unnecessary casualties." (DOA 1993, 1-3)

There is strong evidence for an at least partial exaggeration of the public's casualty sensitivity by elites (for an overview see Gelpi/Feaver/Reifler 2009; 2005). Hence, Kull/Ramsay (2000, 98-99) show that the political and media elites misread the public, among which only a minority favored immediate withdrawal, after the battle of Mogadishu in October 1993 (see also Burk 1999b). Most scholars agree that potential and actual casualties affect the public's cost-benefit-calculations, but it is neither the only nor the pivotal factor. Yet, since foreign and defense policy were only minor issues during the 1990s, the political process did not correct this misperception.

"Onward Cyber Soldiers" in 1995 introduced the ideas of information warfare to a broader audience (Thompson/Waller 1995). But the public remained indifferent with regard to a prioritization for either RMA or modernization.

This changed with the transition after 2001, during which especially Democrats but also Republicans preferred transformation over modernization. Moreover, the public preferred additional equipment in line with the stronger focus on irregular warfare.

Majority would reduce (percent)	Majority would not reduce (percent)
Number of nuclear weapons (65)	New advanced communications (69)
Nuclear war capabilities (65)	Equipment for infantry and Marines (64)
New types of nuclear weapons (62)	Intelligence (62)
Large land war capabilities (58)	Peacekeeping capabilities (58)
Large naval war capabilities (58)	Capabilities to fight insurgents/guerillas (56)
New types of destroyers, bombers, submarines (52-55)	New high-tech bombs and missiles (55)

Table 6.1: Public priorities with regard to weapons acquisition in the budget (PIPA/KN 2005, 7-10)

Although differences between Democrats and Republicans were still rather small in 2002, Republicans and Democrats strongly disagreed on the acquisition of new conventional means by 2005 (PIPA/KN 2005, 10-11; PIPA 2002, 2). The former opposed cuts in the modernization of bombers, submarines, high-technology bombs and missiles (58 percent, 56 percent, and 72 percent respectively), whereas the later supported cuts in these items (67 percent, 64 percent, and 53 percent respectively). Although Gallup polls show a clear net support for a missile defense system on a national level, the Democrats were again significantly less supportive than the Republicans (PIPA/KN 2005, 11; Gallup, 03/2000, 02/2001, 02/2002, 02/2003). 225

²²⁵ This partisan split can explain the paradoxical observation that a substantial and growing minority of persons considered the national defense not strong enough despite growing defense spending during the

(4) The doctrine & mission statement dimension is again the most uncertain dimension. There is no evidence for a position during the 1990s. Since there are hardly any qualitative preferences in the other dimensions as well, it is even difficult to identify an underlying mindset. A clearer picture emerges with the GWOT. While there is again no explicit position on military doctrine, a strong support for irregular operations is apparent. Yet, while the Republicans continuously prefer a position of moderate military conservatism, which does not neglect conventional means, the Democrats quickly moved to a position of strong military radicalism with a full focus on irregular warfare with information age equipment.

Relevant questions	1990-1998	2001-2007		
IS THERE A STRONG SALIENCE FOR MILITARY POLICY?				
Is there a pattern of security interdependencies considered threatening?	- No	- Transnational terrorism		
What are the most important problems in society?	- Economic and social problems	- Economic and international problems (terrorism, war)		
ARE THERE SPECIFIC DEMANDS IN T	THE DIMENSION OF?			
military budgets?	 Actual spending above preferred budget corridor until 1998 (Stable distribution) 	- Republicans: Actual spending is below and after 2002 within preferred budget corridor / stable distribution - Democrats: Actual spending is below and after 2002 above preferred budget corridor		
		/ distribution in favor of irregular warfare and transformation		
military organization?	support for technology over personnelstable distribution	- Democrats: turn from conventional forces to personnel /ground forces and SOF		
	 less forward deployment to Europe 	- Republicans: Stable force structure		
weapons acquisition?	- technology bias, but indifference with regard	- transformation from heavy and large systems to information-age equipment		
	to the acquisition projects	- Support for missile defense		
		- Republicans: support of modernization		
military doctrine & Service mission statement?	-	-		
Is there an apparent idea		- Republicans: moderate military conservatism		
Is there an apparent idea connecting the explicit preferences?	- No	 Democrats: Military radicalism based on transformation and irregular warfare 		

6.1.1.2. Special interests

The end of the Cold War was marked by a significant reduction in military procurement activity, which put the defense industry in a difficult spot. Although the post-Cold War transition was gentle in comparison with earlier builddowns, central conditions, which smoothed the transition after World War II did not exist (Gholz/Sapolsky 1999; Office of Technology Assessment 1992, 11). 226 Many defense contractors had fully specialized on military production during the Cold War and had no civil market to return to (Markusen 1993a). Moreover, the generally weak state of the economy offered little incentive to conduct the difficult and painful conversion and push into the civil market. Hence, especially large military platform producers, most dependent on defense dollars, called for a "do-or-die policy: make weapons or shut down." (Uchitelle 1992a) They rejected to follow the administration's call for conversion into civil production like during prior builddowns. The most significant trend was therefore a strong concentration of defense companies largely through mergers and acquisitions as companies tried to improve their competitive position in the struggle for shrinking resources. 227

While the production side suffered some downsizing, the military service industry expanded significantly during the 1990s and into the GWOT (Avant 2005; Singer 2003). Against the backdrop of shrinking defense budgets and yet high operation tempo, outsourcing became a popular attempt to increase efficiency. When the US forces defeated the Iraqi forces in 2003, 10 percent of the personnel deployed to the theater of operation were members of private security companies (PSC) performing logistics, training, and operational support of weapon systems for the military forces (Avant 2005, 1-2). By spring 2004, more than 20,000 PSC personnel supported regular forces and civil agencies and organizations in their effort to reinstate public order in Iraq. As these service firms' major assets are experienced personnel for all kinds of tasks of a military organization, it can be assumed that they have a strong interest in a military policy, which keeps defense efforts high, but reduces regular military personnel. But the analysis provides little evidence that PSCs exercise relevant political influence.

227 For an overview of the defense industrial relations and reforms see Schörnig 2007.

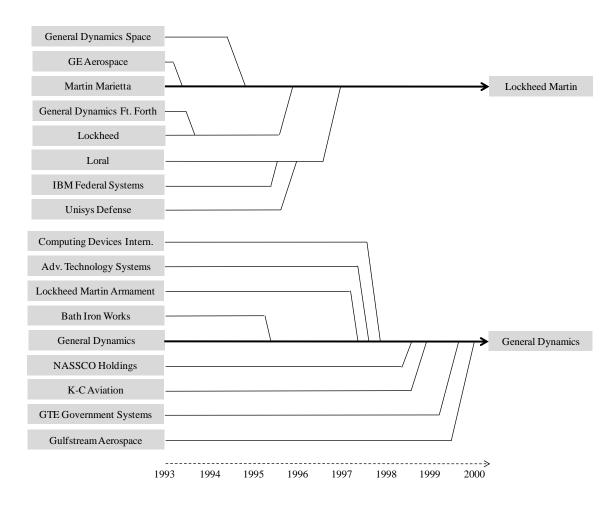


Chart 6.5: Selected examples of defense industrial consolidation, 1993-2000 (Druyun 2001, 4)

After the Clinton administration initially backed the consolidation of the defense industrial base, it became increasingly skeptical by 1997. Political actors feared that the companies' enormous size and increasingly monopolistic position provided them with a precarious amount of political leverage (Druyun 2001, 4). Thus, the DOD denied the merger Lockheed Martin and Northrop Grumman and refused the acquisition of Newport News Shipbuilding by two different bidders.

Although the consolidation period started to phase out after the administration changed position (SIPRI 2001, 302-305), the defense industry concentration reached new heights during the 1990s (Weidenbaum 2003; Flamm 2000, 55). In FY 1992, McDonnell Douglas, Northrop, Lockheed, and General Dynamics, the four major aerospace companies, received 26 percent of the contracts going to the top 100 defense contractors. After the market concentration of the 1990s, the top 4 aviation companies accounted for 50 percent of the market. By 2002, the defense industrial base had

consolidated into five giant companies: Lockheed Martin, Northrop Grumman, Boeing Integrated Defense, General Dynamics, and Raytheon (Watts 2008, 33-34). Only Lockheed, Boeing, and Northrop Grumman still competed for manned aircraft production at the prime contractor level. General Dynamics and the BAE Systems' American subsidiary were the only remaining relevant manufacturers of armored vehicles. And all six big shipyards for Navy constructions were owned by General Dynamics and Northrop Grumman. Market concentration resulted in an increasing strategic relevance of the remaining contractors. The administration faced a situation in which the economic decline of any major manufacturer threatened to create either a monopoly or even end the US ability to produce leading-edge systems in a sector.

The consolidation of the defense industry did not result in a proportional reduction of production capacities. Although some production lines were closed, the overcapacity in the defense industry ranged from about 25 percent to 40 percent by 1994 (Gholz/Sapolsky 1999; Grier 1994). And while jobs within the defense economy were reduced, overall employment in the sector decreased only very modestly, remaining significantly larger than after World War II or the Vietnam War.

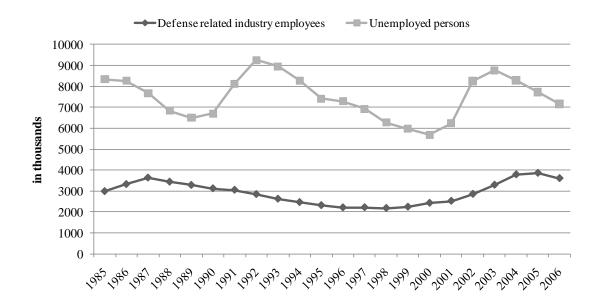


Chart 6.6: Number of employees in defense related industry and unemployed persons, FY 1985-2006 (OSD 2008; 2005)

Druyun (2001, 5) identifies two reasons for this excessive production capacities. First, the government failed to create incentives to close facilities. Second, the companies feared that closings would result in reduced political support in their struggle for survival. Indeed, defense companies used not only their strategic significance, but also their economic weight to lobby for defense dollars. While the economic importance of the defense industry on a national scale was limited, the fear of mass lay-offs in an already weak economy was a powerful scenario to their advantage (Office of Technology Assessment 1992, 10). In fact, a number of states and regions benefitted heavily from defense spending. Especially the South Atlantic division with Virginia²²⁸ and Florida and the Pacific division with California and Washington received disproportionally large amounts of defense dollars.

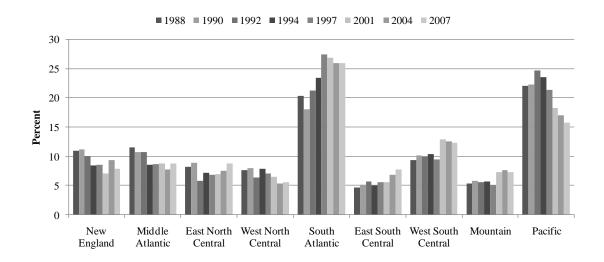


Chart 6.7: Distribution of DOD contract awards by division, 1988-2007 (U.S. Bureau of the Census 1990-2008)

A comparison of defense dollars per capita further reveals that defense dollars had a particular strong impact on the New England states Connecticut, Massachusetts and, to a lesser extent, Maine. Thus, 1 out of 5 workers had a military-related job in southeastern Connecticut, (Grier 1993). Maryland, Missouri, Mississippi, and Alaska did also have a large per capita benefit from defense spending. In later years, Arizona and Hawaii joined this list.

²²⁸ Virginia's share is in parts caused by the military establishment and consultancies close to the Pentagon.

	1990	1992	1994	1997	2001	2004	2007
1.	CT	ME	VA	VA	VA	VA	VA
2.	MO	VA	MO	AK	AK	CO	AK
3.	MA	MS	AK	MO	HI	AK	CO
4.	VA	CT	MD	HI	MD	MD	AZ
5.	AK	MA	MA	MA	ΑZ	ΑZ	MD

Table 6.2: States with the largest contract awards per capita (U.S. Census Bureau 1990-2008)²²⁹

The regional economic and general strategic relevance of the defense industry provided it with two powerful levers to influence the political process in favor of the status quo. In fact, with decreasing defense dollars to allocate, the contractors tried to keep production lines open and secure modernization programs, which promised less technological and economic risk than RMA programs. William A. Anders, chairman of General Dynamics, recommended that contractors should "lobby for every military dollar that can be squeezed from Congress and the Administration, and from foreign sales." (in Uchitelle 1992a) And Tom Culligan, vice president at McDonnell-Douglas, said: "We have told our managers of weapons programs that their survival depends on how well they can sell the customer and we have told our officers to get in there and try to keep all our programs alive." (in Uchitelle 1992a)

The GWOT somewhat relieved the defense contractors as new acquisition funding poured into the system. As the DOD started to rebuild and modernize its machinery worn out in the occupation operations, the defense industry returned to larger production (Haberkorn 2006). Indeed, the expansion of the DOD's acquisition program under Bush strongly benefited the defense companies and the number of employees in the defense related industry rose from 2.5 million in FY 2001 to 3.8 million in FY 2005 (OSD 2005a, 215). The defense industry remained a powerful lobbying force and protected their programs against uncertain alternatives. Most profit is gained from large-scale procurement of tested systems rather than from extensive R&D with little

²²⁹ Population numbers were not annually adjusted. The calculations for the 1990s were based on population in 1990. For the years after 2000, calculations are based on population in 2000.

subsequent production. Hence, the emphasis remained on modernization rather than transformation.

While the defense industry tried to protect the status quo in the weapons acquisition, other groups, such as the Association of the US Army, continued to act as a societal extension of their respective Services' interest. Especially the reserve interest groups, most notably the National Guard Association, sought to keep the status quo in the organization dimension. In size and quality, the reserve forces had reached a very high level by the end of the Cold War and Doubler (2003, 302) even argued that the National Guard in summer 1990 "had never been in better shape." With decreasing defense resources, the reserve associations fought to avert a negative impact for the reserve. After all, a reservist earned about \$5,000 to \$6,000 dollars a year for their participation in a reserve unit (Schmitt 1992a). Traditionally suspicious of the regulars, the NGA feared that the Army would intentionally pass most cuts of the transition to the reserve in order to preserve active forces. Hence, it used its influence and good connection to Congress to protect the National Guard's stakes. The reserve groups' influence rested on two major pillars. On the one hand, reserve forces had strategic relevance, since they provided a relatively cheap pool of personnel available for active military service if a shortage arises. On the other hand, reserve units had an important impact on constituencies as "a source of jobs as well as considerable local pride." (Lancaster 1991)

Relevant questions	1990-1998	2001-2007		
IS THERE A STRONG MILITARY INDUSTRIAL BASE?				
How large is the economy dependent on defense investments?	- Yes	- Yes		
How large is the labor force dependent on defense investments?	- Large	- Large		
IS THERE A STRONG ECONOMIC OR M. BASE?	MILITARY DEPENDENCE ON THE	E MILITARY INDUSTRIAL		
How is the defense industry spread over the country?	- concentration in South Atlantic, Pacific states / strong impact on New England states	- concentration in South Atlantic, Pacific states / strong impact on New England states		
How much competition is in the defense market?	- Strong concentration, little competition	- Strong concentration, little competition		
WHAT PREFERENCES DO OTHER ACT OF	ORS WITH SPECIAL INTERESTS	PURSUE IN THE DIMENSION		
military budgets?	- Defense industry: Protection of acquisition accounts	- Defense industry: Protection of acquisition accounts		
	- Service associations: Back Service preferences	- Service associations: Back Service preferences		
military organization?	- Service associations: Back Service preferences	- Service associations: Back Service preferences		
	- Reserve groups: Strong and autonomous military reserve	- Reserve groups: Strong and autonomous military reserve		
weapons acquisition?	- Defense industry: Protection of weapons programs / modernization programs	- Defense industry: Expansion of weapons programs / modernization programs		
doctrine & Service mission statement?	-	-		

6.1.1.3. Societal demands

With the exception of the strong defense industry and the NGA, societal interests in military policy were very weak during the 1990s. While the international situation strongly changed by 1990, the public hardly articulated any specific preferences indicating a demand for innovation during the subsequent transition. Rather, it seems that the public remained satisfied with the status quo. Only the permanent preference for advanced technology in order to save lives indicated a demand for innovation within the organization and weapons acquisition dimensions. Yet, while this common preference for technology over personnel did not necessarily collide with the reserve groups' stability bias in the organization dimension, the weak common preference in the acquisition dimension clashed with the much stronger stability bias of the military industry, which sought to preserve the beneficial status quo. Again, no explicit preferences were articulated in the doctrine & mission statement dimension. And since the societal preferences were so weak, there is not even a clear set of ideas underlying the military preparations. Thus, the societal actors articulated very little promising demands for innovations during the 1990s.

With the GWOT, the public's interest in military policy returned and more specific preferences were articulated. But the growing partisan split after 2002 prevented a consistent public demand in the military budget and weapons acquisition dimension. In contrast to the late 1940s, the cleavage cannot be fully translated in a prioritization of one branch over another. Rather, the disagreement ran along military missions with Democrats calling for a focus on irregular warfare and Republicans preferring a moderately more balanced force posture, which also pays attention to conventional capabilities. Hence, the latter continuously preferred a position of moderate military conservatism, whereas the Democrats moved to a position of strong military radicalism. Both groups agreed that personnel for irregular warfare should be increased, which created a strong demand in the budget and organizational dimensions.

In the weapons acquisition dimension, the interplay of common demands and defense industry's demands created a strong but inconsistent position. Especially the Democrats' preference for transformation ran counter to the defense industry's strong conventional force bias. The Republicans' preferences were somewhere in between these two poles, arguably slightly leaning towards transformation. Since positions of

military radicalism and conservatism competed within society, the societal demands in the doctrine & mission statement dimension remained again uncertain.

Relevant questions	1990-1998	2001-2007	
ARE THERE WEAK OR STRONG SOCIED DIMENSION OF	TAL DEMANDS FOR INNOVATIO	ON OR STABILITY IN THE	
military budgets?	Weak demand for distribution stabilityStrong demand for	- Strong demand for funding in support of irregular warfare and transformation	
	stable weapons acquisition funding	- Inconsistent demand for conventional capabilities	
	- Weak demand in favor of technology over personnel		
military organization?	 Weak demand for reduced forward- deployment to Europe 	- Strong demand for personnel/Army, Marine Corps, SOF	
	- Protection of reserve forces		
weapons acquisition?	- Strong demand for stable weapons acquisition	- Inconsistent demand for conventional equipment vs. transformation	
military doctrine & Service mission statement?	- no explicit demand	- no explicit demand	

6.1.2. Political actors' preferences

6.1.2.1. Congress

In contrast to the late 1940s, the parties in Congress held strong departing views on foreign and defense policy by the end of the Cold War. Without the threat that had tied congressional military policy options, the major incentive to reach across the aisle disappeared. Hence, partisan competition extended into the field of foreign and defense policy, which strongly affected the legislative dynamics as well as the relations between government and Congress (Wilzewski 1999; Holsti/Rosenau 1996). As both parties actively tried to influence the administration's defense trajectory according to their respective preferences, debate and conflict over defense policy significantly

increased.²³⁰ Greater competition and at the same time greater publicity of defense issues further spurred the incentive for office-seekers to engage in defense policy debates.

The split in party positions on defense policy, which became influential after 1990, can be traced back to a sudden and radical shift in defense policy positions during the 88th Congress in 1963 and 1964 (Karol 2009, 144; Fordham 2007). The civil rights and antiwar movement shattered the Democratic Party's liberal Cold war coalition during the 1960s and a new powerful fraction to the left of the traditional threads rapidly gained influence (McKay 2009, 107; Edsall 2004; Rae 1995). Driven by a post-material, highly educated class, these new liberals, who subsequently split into a left and a neoliberal thread, were skeptical of strong defense and the use of force. While the more technocratic neoliberals increasingly moved to the party center, especially the liberal left wing with its base among minority groups, feminists and gay activists, was reflexively opposed to a hawkish military and foreign policy. Fighting Reagan's military buildup, the liberal left dominated the party by the 1980s and maintained significant influence after the Cold War. They called for a large peace dividend to invest in domestic needs. As the Americans for Democratic Action²³¹ (2008) argued in a policy statement, which was adopted in 1994 and reaffirmed in 2007: "An accurate and reasonable evaluation of the Pentagon's post-Cold War needs would make possible massive reductions of defense spending. In any case, the U.S. military strategy itself is not justified, since it assumes a U.S. role of policeman of the world, supplanting and undermining the role of the UN."

But the left's dominant position had never been undisputed and centrist Democrats started to challenge it by the mid-1980s (Beinart 2006, 68). Dissatisfied with the liberals' course, which had not yielded electoral success during the 1980s, a group of centrists from the South²³² and the West, including Sam Nunn (D-GA) and Richard Gephardt (D-MO), established the Democratic Leadership Council in order to return the party to a more middle-ground position and regain popular majorities (Rae 1995, 150-

²³⁰ A clear indicator of the competition is the increased number of proposed amendments to defense legislation, although most amendments were voted down or dropped in conference.

²³¹ While the Americans for Democratic Action were created as an anticommunist alternative to the party's progressive wing during the 1940s, they had moved to an anticommunist but dovish position over Vietnam.

²³² Although the most conservative Southern Democrats had joined the Republicans, the Southerners were still a force in support for military spending within the Democratic Party (Lowndes 2008). The growth of military installations and defense industry in the South added a strong parochial interest to this position.

153). The new platform, which blended liberal and conservative positions to an agenda including equal opportunities for all, moral behavior, fiscal discipline as well as anticommunism, strong defense and global spread of democracy, soon gained popularity (Beinart 2006, 77).

By the end of the Cold War, the supporters of the Democratic Leadership Council, the so-called New Democrats, had acquired a solid counterweight to the liberal left. Given the alarming budget deficit and the decline of the Soviet Union, the New Democrats supported the liberal's call for a peace dividend during the early 1990s, but declared that the "armed forces must remain large enough to deal with other threats to our security, and (...) should gain in flexibility, mobility and quality of equipment and training what they lose in numbers." (Democratic Leadership Council 1991; see also Galston 2004, 78) Hence, the centrists sought to use the transition as a qualitative reconfiguration, calling for a robust research into new military technologies and strong capabilities for quick crises response. The postwar defense should depart from the focus on containment to create a force, which would be able to rapidly respond to the full spectrum of contingencies, including humanitarian interventions. The new posture would rest on less forward deployment and more mobility assets as well as less quantity and more quality. At the same time, the imperative for savings was seen as an opportunity to increase efficiency within the DOD. Especially Nunn, the New Democrats' most powerful defense spokesman, did not hesitate to challenge the administration on military policy and efficiency. As SASC chairman until 1994, he concentrated authority on defense issues to an extent that observers called the committee "Sam Nunn Inc" (Lindsay 1994, 61; see also Von Drehle/Dewar 1993). 233

Despite the growing influence of the New Democrats, the party's stance on military policy remained reluctant during most of the 1990s (Griffith 2005). Only by the end of the century, the party had shifted to the center and leading Democrats voiced preferences for a strong defense (Kaplan 2000). Since the deficit problems were under control, there was little reason to refrain from more activities in the field of defense. With Al Gore (D-TN) and Joe Lieberman (D-CO) running in the 2000 election, the

.

²³³ Sam Nunn was also one of three names which Clinton thought of as Defense Secretary. But because of his critical stance before the Iraq War, he was not suggested for the Defense Secretary's post (Woodward 1991, 36; Kenworthy/Broder 1990; SASC 1990). Due to his willingness to publically criticize the President, he was neither seriously considered as successor of State Secretary Warren Christopher in late 1996 (Roy 2008, 32, 42).

Democrats had nominated two outspoken defense hawks to challenge the Republicans (Beinart 2006, 86). And the Democratic Leadership Council's agenda for the new century argued with regard to military policy: "A strong, technologically superior defense is the foundation for US global leadership. Yet the United States continues to employ defense strategies, military missions, and force structures left over from the Cold War, creating a defense establishment that is ill-prepared to meet new threats to our security. The United States must speed up the 'revolution in military affairs' that uses our technological advantage to project force in many different contingencies involving uncertain and rapidly changing security threats – including terrorism and information warfare." (Democratic Leadership Council 2000) The agenda's signatories included influential lawmakers, such as John F. Kerry (D-MA), Joe Lieberman (D-CO), Charles Robb (D-VA) and Ellen O. Tauscher (D-CA).

Hence, Democrats voiced support for additional defense funding and transformation even before 9/11. Ike Skelton (D-MO), ranking minority member on the HASC, blamed Bush for inadequate funding of the armed forces and Senate minority leader Tom Daschle (D-SD) warned that Bush's proposed tax cuts could damage the national defense (Karol 2009, 147-148). Only with the Iraq War turning into a long-lasting and costly insurgency, old cleavages between the liberal left's skepticism of military power and the more centrist and conservative Democrats reopened. The qualitative preferences remained on advanced means for multilateral engagement. Thus, the Democrats strongly called for troop increases and blamed the administration for insufficiently equipping the forces during the war on terror.

NMD remained arguably the only advanced capability, where leading Democrats took a negative position. To be sure, many Democrats liked the idea of a missile defense, but opposed Bush's aggressive and unilateral push for an early NMD. Carl Levin, chairman of the SASC in 2001, and numerous other Democrats feared that a retreat from the ABM treaty would cause a new arms race (Moens 2004, 100). As the Democratic Leadership Council (2001) argued: "We need a 'third way' on missile defense that accepts the basic idea, (...) deploys it only if and when it becomes feasible, and shares it with others in order to promote stability."

While the Democrats' defense preferences moved from a liberal-left to a center positions, the Republicans moved from a moderate conservative to strongly a

conservative position during the 1990s. Already in the 1950s and 1960s, Republicans had started a significant convergence around conservative positions based on libertarianism, traditionalism and anticommunism (McKay 2009, 95; Ashford 1995; Kohn 1994). The Reagan administration, promoting small government, strong defense and a tough stance on communism, could build on this conservative coalition with a relatively coherent profile during the 1980s. But with the demise of the Soviet Union, anticommunism as an important bond of the GOP and justification for strong defense disappeared. While most Republicans felt obliged to Reagan's political heritage and conservatism remained strong, there emerged disagreements over the party's future course including foreign and defense policy (Greene 2000, 61).²³⁴

Realists, nationalists and interventionists competed over a post-Cold War military policy, although all three threads agreed that the maintenance of strong military forces was necessary (Dueck 2010, 252-256). Realists were most skeptical with regard to humanitarian interventions and feared military overextension arguing that the use of military power should be limited to the protection of the most vital US interests. At the same time, they supported US international commitments to preserve regional power balances and were willing to pursue multilateral strategies based on largely instrumental considerations. Nationalists largely agreed on the realists' reluctance to humanitarian interventions, but strongly disliked international commitments as well as multilateral action which tied the US' hands and called for military primacy and assertive use of military power. Interventionists shared the nationalists' position except for their support for moral ends in foreign policy. Thus, interventionists sought to use military force more freely including interventions to end humanitarian crises or prevent genocide.

Already during the early 1990s, nationalism emerged as the predominant position within the congressional GOP. The traditional, more moderate and pragmatic position within the GOP, which included numerous realists and argued that politics should stop at the water's edge, was successfully challenged by a new generation of conservative Republicans dominated by nationalists. Major initial cleavage between both groups was not foreign or military policy, however. Rather, the new generation of conservatives called for a more aggressive ideological competition with the Democratic Party: "The

²³⁴ A minor neo-isolationist school, which called for a reduced international involvement in tradition of the old isolationists, was never able to gain significant influence. Its most prominent protagonist was Pat Buchanan, who recommended bringing the troops home and dissolving US alliances.

Old Guard was accused of being too pragmatic, passive and even secretly in league with the Democratic majority." (Koopman 1996, 83) The charge was led by Newt Gingrich (R-GA), who organized a coalition of economic conservatives, national defense conservatives, and social conservatives including numerous upcoming Republicans such as Dick Armey (R-TX), Tom DeLay (R-TX), Duncan Hunter (R-CA), Dan Coats (R-IN) and Connie Mack (R-FL) in the Conservative Opportunity Society (Edwards 1999, 269-292; Koopman 1996). While initially focused on a domestic agenda, these conservative Republicans also developed a foreign and defense agenda by the end of the Cold War. During the congressional campaign in 1994, which brought the Republicans into a majority position in both houses, they were able to rally the party behind a joint manifesto, the Contract with America, to offer voters a policy-oriented alternative to the Democratic majorities (Ashford 1998; Koopman 1996, 25).²³⁵ While the Contract, the first product of the newly aggressive GOP, strongly focused on domestic issues, it included a nationalist commitment to the US superpower status based on strong defense and the preference for unilateral over multilateral solutions. The Republicans promised to implement a National Security Act "to ensure adequate resources to protect the national security of the United States." The "downward spiral" of defense spending should be reversed and an anti-missile defense system rapidly deployed (House of Representatives 1994).

While a public majority had never heard of the Contract with America prior to the midterm election, the manifesto provided temporary unity among the Republicans and marked a conservative roadmap for the coming years (Jones, C. 1999, 108). At the same time, it strengthened Newt Gingrich, the new Speaker of the House, in his attempt to control the party and seize the national agenda from the President after the electoral victory. Indeed, Gingrich pursued an openly confrontational course, using the media as a platform to challenge the President and to call for a return to Reagan's conservative approach of military power and supremacy. In 1996, he gained a strong ally in Trent Lott (R-MS), who succeeded Dole as Senate Majority Leader (Schmitt 1996). Gingrich

²³⁵ After the 1994 victory, the Republicans dominated Congress until the midterm elections in 2006. The only short exemption occurred during the 107th Senate. The Republicans lost 4 Senate seats in the 2000 election, resulting in a tie between Democrats and Republicans. While the latter initially became majority party due to the tie-breaking vote of the Vice President, they lost their majority when the former Republican Senator James Jeffords switched to independent in June and caucused with the Democrats (Greenstein 2003, 9). Yet, this Democratic Senate majority was lost again in the midterm election 2002. ²³⁶ When Floyd Spence (R-SC) became new Chairman of the House Armed Services Committee, it was renamed as Committee on National Security (HNSC).

referred to Lott as his mentor and both men had worked closely together during Lott's earlier time in the House (Edwards 1999, 270).

To be sure, the nationalist course was never undisputed. Realists continued to challenge nationalists for their ideological perspective and their dislike for international commitments. Moreover, the nationalist stance increasingly merged with interventionist positions. Early on, the Conservative Opportunity Society had connected to conservative think tanks such as the Heritage Foundation and the American Enterprise Institute and to conservative intellectuals, which provided important programmatic input. In the field of defense policy, especially neoconservatives, who had joined the GOP during the 1970s, gained considerable influence on the conservative Republicans' preferences after the Cold War. Originated "among disillusioned liberal intellectuals" (Kristol 2003), this group of former Democrats promoted the moral superiority of American values and the promotion of these values abroad (Kirkpatrick 2004; Gould 2003, 397-398). 237 They called for a neo-Reaganite interventionist foreign policy based on active global leadership and the export of American exceptional values (Kristol/Kagan 2004; Kristol/Kagan 1996). With strong skepticism of international institutions and cooperation, robust military power to intervene unilaterally if necessary was a central element of their agenda. Neoconservative positions had a strong appeal to the conservatives and repeatedly influenced Republican positions during the 1990s.

Despite continuous differences, a basic consensus with regard to military preparations was apparent. Rather than making a qualitative decision, Republicans were most concerned with broad defense funding: "Whether America builds 20 B-2 bombers or 30 is less important than giving its military planners enough money to make intelligent choices that are driven more by strategic than by budget requirements." (Kristol/Kagan 1996, 23) From the perspective of many conservative Republicans, the call for strong defense did not contradict the promotion of tax cuts, since the government's inefficiency and failure to limit welfare expenditure was the cause of the budget imbalance. Moreover, a technology bias in the Republican positions is apparent. In 1997, Gingrich outlined a future agenda including the "commitment to defend freedom around the world along with 'the best defense that science and technology can create'."

²³⁷ They rejected what they considered the liberal Democrats' "moral self-flagellation" (Khong 2008, 253) and the increased 'dovishness' and departure from anticommunism in foreign policy in the wake of the civil rights and anti-war movement (Rae 1995, 162). On the domestic side, the neoconservatives preserved some basic Democratic positions (Ashford 1995, 130-132).

(Edwards 1999, 317) Particularly the NMD, a heritage of the Reagan era, gained broad support from Republicans. Major disagreement remained on the foreign policy goals: The nationalists and realists preferred preparations along traditional lines centered on conventional war whereas the neoconservatives preferred additional efforts to additionally meet all kinds of missions below regular war. Yet, the former maintained the dominant position and neoconservatives required the help of sympathetic congressional leaders, such as Gingrich and Bob Dole (R-KS) to gain influence (Dueck 2010, 256).

The preferences for a strong defense stance gained little momentum during the 1990s, however. Given the public's low interest in international issues, many Republicans, who agreed on substance, considered defense spending and even the national missile defense as a second order problem. They preferred the more urgent and popular policies of balanced budgets and tax cuts over additional defense spending. As Schick (2003, 96) argued: "Tax policy is one of the few issues that unites Republicans; spending, by contrast, divides them." Even Gingrich admitted: "I'm a hawk, but I'm a cheap hawk." (in Schmitt 1995a) Indeed, the party position was torn between deficit hawks and defense hawks and Republicans had trouble to formulate a consistent position for most of the 1990s (Morrison 1995, 276). Only when the increasingly balanced budgets by the end of the 1990s made trade-offs less painful, did the Republican's call for more defense dollars become louder. Accordingly, the GOP strongly backed the administration's GWOT and the related defense expenditures. Due to their issue ownership in military policy, they heavily benefitted from the salience of international problems and their support for the buildup during election in 2002 and 2004 (Griffith 2005). As this did not dampen their preferences for tax cuts, they were even willing to accept temporal deficits. Yet, when the deficit became massive after some time, the party's deficit hawks started to put pressure on the administration in order to cut expenditures.

Beyond these partisan divisions, lawmakers strongly agreed on the necessity to protect the defense industry in the weapons acquisition dimension especially during the 1990s. As Jim Sasser (D-TN), the chairman of the Senate Budget Committee, told his colleagues in 1994: "We are now into an era of military pork barreling in this country. We are not responding to external threats. We are responding to internal threats of job losses as a result of cutting the military budget." (140 Cong. Rec., March 23, 1994,

S6177-6178) And Representative Montgomery, a conservative Democrat from Mississippi, summed up: "That's the name of the game out there, keeping people working." (in Apple 1991) But the support for the defense economy was not limited to Democrats. Numerous Republicans, including Gingrich, Lott, John Warner (R-VA), William Cohen (R-ME), fought vehemently to keep the defense industry in their constituencies busy. This caused numerous conflicts over the shrinking resources which blurred party lines. Moreover, the protection of defense industry and labor and the abstract support for technological innovation and RMA thinking created an ambivalent stance at times: RMA is good, but only as long as it does not threaten my constituency's industry.

Relevant questions	1990-1998	2001-2007		
What preferences do members of Congress pursue in the dimension of				
military budget?	- Democrats: departure from large containment forces to small rapid response forces	- Democrats: departure from containment to rapid response forces /irregular operations capabilities		
	- Republicans: Stability bias (conventional strategic perspective)	- Republicans: Moderate stability bias (broad strategic perspective but support for irregular operations capabilities)		
military organization?	 Democrats: Smaller, more flexible, mobile and qualified force 	- Large forces		
	- Republicans: Stability bias, but less forward deployment	- More SOF		
weapons acquisition?	- General technology bias	- Democrats: transformation bias, but opposition to early NMD		
	- Protection of defense industry labor	 Republicans: broad buildup including transformation 		
	- Republicans: Support for NMD	- Protection of defense industry labor		
military doctrine & Service mission statement?	- Democrats: broadening scope to include new challenges	- Democrats: focus on irregular challenges		
	- Republicans: Stability bias	- Republicans: broad preparations		
Do these preferences represent societal demands?	- Republicans: Yes, as far as societal demands are articulated	- Yes, reflecting societal inconsistencies		
	 Democrats: In parts (disagreement on budget) 			
Are these preferences consistent with the dominant societal idea underlying the course of military transition?	- No clear societal mindset apparent	- No consistent societal mindset apparent		

6.1.2.2. President and administration

The George H.W. Bush administration

With a solid 53.4 percent of the popular vote in the 1988 presidential election, the moderate Republican George H.W. Bush succeeded Ronald Reagan in 1989. As former Vice President, CIA Director, and ambassador to China and the UN, Bush was commonly regarded as a highly experienced foreign policy expert. He also had the credentials for a commander-in-chief, having served as one of the youngest naval pilots in World War II and had been honored with the Distinguished Flying Cross (Greene 2000, 13). In contrast to the strongly conservative profile of Reagan, Hill and Williams (1994, 3) describes Bush as "the ultimate pragmatist, rejecting what he dismissed as the 'vision thing' in favor of an approach which (...) regarded compromise as the norm." (see also Herspring 2005, 298) Already in his nomination speech in August 1988, he stressed two central elements of his agenda which heavily impacted his later defense policy (Bush 1988; see also Oberdorfer 1988). In order to increase his appeal to conservative Republicans, he put early pressure on the federal expenditure side by famously excluding the option for new taxes. Since the Bush administration sought to ultimately eliminate budget deficits, which threatened the economic wellbeing and concerned the public, cuts in defense expenditures were mandatory (Bush 1991).

But following a neorealist approach, Bush resisted calls for a one-sided budget driven builddown. Against the backdrop of the Soviet Union's transition, he declared: "Weakness tempts aggressors. Strength stops them. I will not allow this country to be made weak again. (...) A prudent skepticism is in order." (Bush 1988) Reluctant to let the guard down too early, he took a reactive position that tied the quantity and quality of the US forces directly to the Russian capabilities. Bush promised to "move toward further cuts in the strategic and conventional arsenals of both the United States and the Soviet Union." As Dueck (2010, 235-236) sums Bush's position: "His instinct was not to offer grand designs for American foreign policy but rather to move wisely and incrementally on a case-to-case basis in order to promote basic U.S. interests – to 'first, do no harm'."

Other planning criteria only gained importance after the irreversible decline of the Soviet Union slowly became reality. In summer 1990, Bush made clear: "The United States would be ill-served by forces that represent nothing more than a scaled-back or a

shrunken-down version of the ones that we possess. (...) What we need are not merely reductions, but restructuring." (Bush 1990) And he named three areas of particular importance: (1) Continuous research as insurance against future threats; (2) Improvement of rapid response capabilities, including long-distance air- and sealift; (3) Maintenance of high readiness to quickly respond to emerging crises. At the same time, Bush remained skeptical of military interventions for humanitarian goals and operations which did not meet the Weinberger-Powell-doctrine (Dueck 2010, 246-248). Moreover, the prudence with regard to the Soviet transition did not fade and deterrence, forward deployment and measures to counter emerging conventional threats remained central. Hence, Bush's 1991 National Security Strategy pledged to promote democratic change in the Soviet Union, "while maintaining firm policies that discourage any temptation to new quests for military advantage." (Bush 1991)

Highly interested in foreign policy, Bush had particularly informal and close relations with the administration's key figures in foreign and security policy: NSA Bent Scowcroft, Secretary of State James Baker, and Secretary of Defense Richard Cheney. Bush's major advisors had known each other for a long time, had worked together and developed close personal relations. As David Gergen (1989) wrote in the Washington Post: "These three men share the bond of having fought in the same trenches during the presidency of Gerald Ford." And they had learned the same lesson: Play as a team, exercise strong top-down guidance, and with regard to foreign and defense policy "keep your guard up." Scowcroft, a retired Air Force Lieutenant General and NSA in the Ford administration, was the only true defense specialist among the three men and his selection was received as a clear sign of a departure from the Reagan administration's policy (Gordon 1988). The centrist Scowcroft had criticized Reagan's ideological evilempire-rhetoric and his stance on military policy, especially on arms control, missile deployment and SDI (Woodward 1991, 50-51). As Bush's friend and foreign policy advisor during the election campaign, both strongly agreed on defense policy positions. In the new team, Scowcroft functioned as 'honest broker' and tied the foreign and defense policy close to the White House and Bush. Early on, Scowcroft and Baker, another long-term friend and political ally of Bush, agreed that the former would stay out of the operational policy and keep a low profile.

At the same time, Scowcroft and Baker did not publically intervene in the defense secretary's resort. While arms control remained a joined task with clear guidance from the White House, the military transition was largely left to Richard Cheney, who moved to the Pentagon after the Senate narrowly rejected the nomination of John Tower (King/Riddlesperger 2002). Scowcroft had strongly advocated the nomination of the congressman from Wyoming and former chief of staff in the Ford administration. Although Cheney was no outspoken defense specialist and had never served in the armed forces, he was familiar with the administration's bureaucratic processes and therefore a plausible candidate to direct the DOD. In contrast to the rest of the national security team, Cheney had a clearly more conservative profile of a "hardline cold warrior." (Herspring 2005, 300) Since entering the House in 1978, he had voted for every defense spending raise, had supported the Reagan buildup and was highly skeptical with regard to the Soviet transition, predicting that Gorbachev would "ultimately fail." (Woodward 1991, 106; see also Rosenthal 1989) But he was not uncompromising, as Korb explained after Cheney's nomination: "Cheney approaches defense basically from a conservative viewpoint, but he's practical enough to know that you can't get out too far ahead of the consensus." (in Rosenthal 1989) Without a strong defense background, he was often forced to rely on Deputy Secretary of Defense J. Atwood and undersecretary of defense for policy Paul Wolfowitz. ²³⁸

Together with Baker and Cheney, Scowcroft built a team that at times appeared closed and insulated from external advice (Garber/Williams 1994, 188). Thus, other actors within the administration played only a limited role. On defense policy, Cheney sought to concentrate power within his office early on and marginalized the Service secretaries (Moore/Tyler 1990a).²³⁹ The Office of Management and Budget (OMB), the successor of the budget bureau, had also only limited influence (Wildavsky 1988, 365; Jones/McCaffery 2008, 78-79).²⁴⁰ In accordance with Bush's stance, the

²³⁸ Wolfowitz had made first DOD experience as deputy assistant secretary of defense during the Carter administration, but had strong conservative views and far-reaching connections in the Republican national security circles. He was an outspoken supporter of a broad and strong defense to back leadership after the Cold War and appeared as a vocal supporter of the Desert Storm campaign in 1990. Although Wolfowitz was not selected by Cheney and the two men did not develop a close relationship, the former played an important role in shaping the military policy of the Bush administration.

²³⁹Cheney's solitary leadership style complicated his relationship with the military branches and Congress. Les Aspin, the HASC chairman, called him the "the Sphinx" (Woodward 1991, 322) and relied more on the NSA for defense information.

²⁴⁰ The OMB's influence decreased after the reforms under Defense Secretary Robert McNamara. Rather than reviewing the defense budget independent of the DOD, the OMB works within a DOD team to frame a joint recommendation. In contrast to domestic budgeting, the final decision for the budget which is sent to the President is not made by the OMB but by a joint group within the Pentagon. Thus, if the OMB wants to cut the budget, it has to negotiate with DOD representatives. And as a tradition dating back to

administration's major foreign and security actors preferred very limited quantitative and qualitative changes. Scowcroft closely followed Bush's line, fearing "that Gorbachev could talk us into disarming without the Soviet Union having to do anything fundamental to its own military structure and that, in a decade or so, we could face a more serious threat than ever before." (Bush/Scowcroft 1998, 14) And while Baker and the State Department were more optimistic with regard to the Russian reforms, especially Cheney resisted mounting outside pressure and agreed only to cosmetic reductions in defense (Bush/Scowcroft 1998, 44; Moore/Tyler 1990a). Reflecting his distrust of the Soviet Union, Cheney preferred current readiness over uncertain innovations and cutting conventional systems rather than strategic systems.

Hence, despite the economic pressure, the administration pursued a wait and see policy, which was unwilling to let the guard down early. Early defense reviews did not result in a significant qualitative change (Trask/Goldberg 1997, 112).

The William J. Clinton administration

It may seem ironic that the Bush administration, highly experienced and successful in foreign policy, failed to anticipate the impact of the end of the Cold War on domestic preferences. To the surprise of most commentators, Bush lost the reelection in 1992 to William J. Clinton, who had correctly anticipated the changing tide and campaigned on a domestic agenda around the well-known slogan 'It's the economy stupid'. 241 During the campaign, the Arkansas Governor portrayed himself as a New Democrat combining a program of deficit hawkishness, free trade, traditional liberalism, law and order positions, and welfare state reform (Gillon 2008, 84-87; Purdum 1995). At the same time, he criticized Bush's reactive behavior in the changing world, called for a new post-Cold War vision and even expressed some hawkish foreign policy preferences, including a tough stance on communist China (Kaplan 2000, 24-25; Clinton 1992, 422).

the Kennedy government, the budget director would have to appeal to the President in cases of large budget decisions which the Secretary of Defense did not approve (Jones/McCaffery 2008, 78). ²⁴¹ A debate with a national defense focus, the Republican's strong field, was hardly promising for a Democratic candidate, especially after the successful Iraq War. And exit-polls indicated that the Democratic campaign made the right choices. While voters who were concerned about deficit reduction, the most prominent issue of the election, were evenly split between Bush and Clinton, the latter won among voters who regarded the economy, health care, education, and the environment as important issues (Jones, C. 1999, 55, 72-73).

But the hopes of defense hawks were soon disappointed, as Clinton's foreign policy, formulated with the help of NSA Anthony Lake, put little weight on defense issues. With the Cold War clearly over, the new administration believed that the nature of national security itself had been transformed by the rise of new challenges, including the proliferation of WMD, regional tensions, ethnic conflict, terrorism or the environment (Dueck 2010, 252). Therefore, it abandoned containment and turned to a strategy "of engagement and enlargement" to maintain global leadership and stabilize and extend the market capitalist democratic word system (Clinton 1995; see also Clinton 1999; Brinkley 1997; Lake 1993). Although most new challenges had a military dimension, defense and military policy played a very limited role in the administration's considerations. The most prominent defense issue was how to shape a leaner and less expensive force and practice more international burden sharing. Thus, Clinton emphasized the aspect of defense with the "greatest domestic political significance." (Ullman 1995, 72) Already the campaign booklet 'Putting People First' had made clear: "We can reduce substantially our military forces and still protect U.S. interests." (Clinton/Gore 1992, 132) In his first State of the Union Address, the President promised the audience to "do everything I can to make sure that the men and women who serve under the American flag will remain the best trained, the best prepared, the best equipped fighting force in the world", but made clear that the new world situation allowed to "responsibly reduce our defense budget." (Clinton 1993) Furthermore, drawing from the Vietnam experience, Lake argued that the US needed to respond strongly to aggression, but also to recognize the limits of American military power (Dumbrell 2009, 16).

As military means were deemphasized, the qualitative preferences resembled an ambitious collection of pragmatic steps without a coherent foundation. The strategic elements "Shape, Respond, Prepare" (Shalikashvili 1997)²⁴² accurately sum the requirements for the new force: "Shaping the international environment, responding to the full spectrum of crises, and preparing now for an uncertain future." (Flournoy/Tangredi 2001, 142) Thus, military forces should be ready to actively shape the international situation across the full spectrum of operations with the response to

²⁴² Although 'Shape, Respond, Prepare' was first explicitly articulated in 1997, it is arguably a good summery of the continuous qualitative preferences within the administration.

threats from so-called backlash or rogue states at the high end.²⁴³ This implied an early balancing act between the preparations for conventional operations along traditional lines and a new emphasis on irregular operations. Moreover, the US should use the strategic pause to prepare for the likely future missions by modernizing the Cold War force.

Given the low relevance of military policy, its implementation was largely left to Defense Secretary Les Aspin and the DOD (Hammond 1994, 174). Besides Nunn, Aspin was one of the few Democratic heavy weights in military policy, who showed "an encyclopedic grasp of defense and national security." (Pearson 1995) He had touched defense policy first in the late 1960s, when he had worked as Systems Analyst under Defense Secretary McNamara during his time in the Army. As a representative from Wisconsin, he joined the HASC in 1970 and became its chairman in 1985. 244 Given the Clinton's weak record on defense, Aspin seemed an obvious choice to overcome the image of being soft on defense, a Republican challenge that followed the President most of his tenure. Already during the election campaign, Clinton's lacking military background had been widely considered one of his political weak spots and opponents had attacked him for having evaded military service and participating in the antiwar movement during the Vietnam War (Rust 1993). The impression of a weak commander-in-chief was further strengthened by the Clinton administration's early attempt to end the ban on gays in the military, a concession to his liberal constituency, which severely strained civil-military relations.

Of Clinton's three defense secretaries, Aspin was the most ambitious with regard to quantitative and qualitative changes. On Capitol Hill and during the Clinton campaign, he had strongly challenged the Bush administration on its careful stance towards the Soviet transition (Woodward 1993). Considering a reversal of Gorbachev's reforms highly unlikely, Aspin issued position papers calling for a fundamental bottom-up review of defense programs, which would result in additional savings as well as a better prepared force. Rather than guided by an implausible Soviet resurgence which resulted

²⁴³ Without a peer competitor in the foreseeable future, regional powers, resisting the democratic wave, were considered the greatest security risk and most likely sponsors of terrorism and weapons' proliferation (Lake 1993, 17).
²⁴⁴ Aspin had vocally opposed the Vietnam War and was considered a moderate left-wing Democrat when

Aspin had vocally opposed the Vietnam War and was considered a moderate left-wing Democrat when he became HASC chairman. Yet, he alienated Democratic supporters by supporting Reagan's buildup (Deering 1993, 166-167). After he narrowly evaded deposition in 1987, he turned to a more inclusive style of leadership which allowed him to consolidate his power.

only in a smaller, increasingly outdated Cold War force, military planning should be focused on the requirements of the recent post-Cold War scenarios (Grunzinger 1996, 2-3). Therefore, Aspin suggested a smaller force, sufficient for one major conflict and additionally a Panama-size contingency. In qualitative terms, Aspin's plan was hardly a radical approach. He preferred to cut across all branches with a slight emphasis on personnel reductions and additional rapid response capabilities. Moreover, his plans put faith in high technology, which would allow the Services to accomplish similar operations in future with smaller forces.

When Aspin gained the chance to implement his defense vision, many doubted that he could make the DOD work for his preferences after years of critical scrutiny and challenges as lawmaker. As Woodward (1993) argues: "To perhaps the most authoritarian organization in the nation, Aspin brings a decidedly nonauthoritarian personality." In fact, Aspin had an unfortunate year in the Pentagon overshadowed by the bitter debate over the ban of homosexuals in the military and the death of 18 soldiers in Mogadishu. New York Times journalist Weiner (1996) described Aspin later as "an absent-minded professor who had appalling relationships with the military." Although Aspin finally resigned in fall 1993, his policy preferences had set the course for the rest of Clinton's tenure and his successors pursued only limited changes.

In February 1994, Aspin's Deputy William J. Perry, on leave as a professor of engineering at Stanford University, succeeded him as Secretary of Defense (Devroy 1994). Perry was highly regarded by the Services and congressional defense experts. He had gained Pentagon experience during his time as Undersecretary of Defense for Research and Development in the Carter administration (Weiner 1996; Dumbrell 2009, 18). He had therefore been in a central position when the Pentagon launched the offset strategy embracing ambitious technological developments to offset Soviet quantity with US quality. In spring 1979, Perry had outlined the Pentagon's goal before Congress: "First of all, we will be able to see targets on the battlefield any time of day and in any kind of weather. Secondly, we will be able to make a direct hit on any target we can see.

-

²⁴⁵ Aspin outlined four force sizing options based on recent military missions (Ippolito 1994, 97). Depending on the sought for capabilities, options A to D provided means for increasingly challenging tasks on top of a foundation including nuclear forces as well as mainland defense (Grunzinger 1996, 2-3). Option A was the cheapest version, providing forces for one Desert Storm equivalent major regional conflict (MRC) and a peacetime operation at the same time. The largest option D, provided forces for one MRC and an extensive hold operation in the style of the Provide Comfort operation. Aspin favored Option C.

Third, we will be able to destroy any target we can hit." (SASC 1978, 5510) Given Perry's history and affinity for technological solutions, it is not surprising that he was the most supportive defense secretary with regard to the RMA during the 1990s (Owens 2000, 81-82). As a recognized expert in weapon technology, he was "identified with a technocratic position and believes in using technology to substitute for humans on the battlefield." (Chapman cited in Markoff 1994) While he had a strong preference for modernization, Perry considered a ready force able to fight two major regional wars simultaneously as essential (Trask/Goldberg 1997, 121).

When Perry, who greatly eased civil-military tensions, decided to leave the Pentagon after Clinton's first term, William S. Cohen became Defense Secretary. Prior to his appointment, the Republican with the reputation of being an independent mind had served as senator of Maine and member of the SASC for 18 years (Priest/Dewar 1996; Baker/Harris 1996). He was not only an expert of military issues, but also a moderate, who constantly searched for bipartisan solutions on controversial policies, such as missile defense. As first Republican in the Clinton administration, Cohen's nomination was regarded as a signal to the Republican Congress to seek a less competitive cooperation. During the nomination hearings, he told lawmakers his first important problem to solve would be "how do we maintain a level of readiness that we need in order to send troops into difficult situations when required, to balance that and declining budgets with also the prospect of a huge wave of procurement requirement that are coming along." (in SASC 1997a, 40) At the same time, he indicated resistance to further defense cuts and additional spending for advanced weaponry, even at the cost of reduced personnel (Trask/Goldberg 1997, 127). In office, Cohen pursued very pragmatic middle-of-the-road positions along the White House lines. Accepting the budget realities, he tried to manage the most problematic inconsistencies without the ambition of fundamental change.

The George W. Bush administration

After the closest, most partisan, and most controversial election in more than a century, George W. Bush succeeded Clinton in 2001 (Fortier/Ornstein 2003, 138). Given the still low salience of international problems, domestic issues were on top of Bush's campaign agenda based on the commitment to compassionate conservatism, which combined

conservative position on economic issues with a more moderate stance on social programs (Greenstein 2003, 6; Berke 2000). In fact, Bush was not a foreign and military policy expert. But with the help of former defense and foreign policy officials Condoleezza Rice and Wolfowitz, the campaign still articulated clear positions on national security issues to benefit from one of the traditional party's strong domains. Former Defense Secretary and Vice presidential nominee Richard Cheney characterized Clinton's presidency with regard to national defense as "eight years of neglect and misplaced priorities." He continued to argue that the increase in overseas deployments "has brought serious problems of readiness, recruiting, retention and morale." (in Von Drehle 2000) The claim was supported by retired General Schwarzkopf and CJCS Powell. The latter, who became the Bush administration's Secretary of State, told an audience: "It's time to face the reality that we have given our wonderful military force too many missions that we are not prepared to fund them for." (in Boyer 2000) The Bush campaign also criticized Clinton's extensive deployment of the armed forces and pledged to refocus the military on its most central tasks. Rice famously said in 2000: "We don't need to have the 82nd Airborne escorting kids to kindergarten." (in Gordon 2000; see also Greenstein 2003, 6)

Hence, although the threat scenario still included rogue states, proliferation of WMD, and terrorism, relations with Russia and China and the emergence of a peer competitor moved to the top of the Bush administration's early military agenda (Singh 2006, 14). Realist and nationalist rather than interventionist positions dominated the early Bush administration. It was only after 9/11 that a strong interventionist element was included. The emphasis shifted from peer competitors to the triangle of terrorism, rogue states and weapons of mass destruction (Bush 2002a). But since the administration linked terrorism and proliferation with the threat of rogue states, it maintained a very conventional, state-based perspective (Daalder/Lindsay 2003, 107, 135; Bush 2002c).

Since terrorism was tied to states, the changing focus did not affect the central qualitative military preferences. Already in late 1999, Bush (1999) had named two major defense policy objectives: "I will defend the American people against missiles and terror. And I will begin creating the military of the next century." Related to the threat of advanced missile technologies in the hands of rogue states, the former pledge aimed at the accelerated development of a NMD. The latter promise explicitly referred to military transformation based on "a revolution in the technology of war", which

would guarantee US military preeminence in the long run (Bush 1999). In the GWOT, Bush reinforced the theme of military supremacy, asserting that "America has and intends to keep military strengths beyond challenge. Thereby making the destabilizing arm races of other eras pointless and limiting rivalries to trade and other pursuits of peace." (Bush 2002b) But the National Security Strategy made clear that reliance on deterrence would no longer suffice to provide national security and the administration added a proactive option to eliminate threats before they could strike the US (Bush 2002c). In the eyes of the civilian leaders, this combination of increased defense and "bringing the war to the bad guys" (Bush cited in Woodward 2002a, 281) further strengthened the case for NMD and military transformation. A networked, smaller, faster, more flexible and precise force was considered the best answer to the terrorist challenge.

When Bush pledged additional defense efforts prior to 9/11, he had no repetition of the Reagan buildup in mind. Transformation should not be achieved by budget increases, but rather by shifting money from obsolete programs. Bush promised that he would initiate "an immediate, comprehensive review of our military" and give the Defense Secretary "a broad mandate to challenge the status quo." (in Lemann 2001) The highly experienced and intellectually capable bureaucratic infighter Donald Rumsfeld was considered the right person for this task of standing up to the sometimes stubborn Service bureaucracies and implementing organizational reform and military transformation.²⁴⁶ He was an important figure in the Republican defense community with a close relationship with Cheney and the reputation of a defense hawk. Although no outspoken RMA advocate, Rumsfeld had proven his support for the national missile program as chairman of the Committee to Assess the Ballistic Missile Threat to the United States (Ricks 2001a). Moreover, he held close ties to the Project for the New American Century (PNAC), a neoconservative lobbying group founded in 1997. 247 Rumsfeld was one of the signatories of the PNAC's Statement of Principles, which argued that American foreign and defense policy was adrift and the US global role at risk, due to Clinton's policies and the Republicans' indecisive opposition. To readjust

²⁴⁶ After Rumsfeld had served as a Navy pilot between 1954 and 1957, he first gained political experience as a four-term Republican member of the House supporting fiscal conservatism and strong defense. During the Ford administration, he worked initially as chief of staff and later as Defense Secretary, opposing Kissinger's course of arms control and limited military spending.

²⁴⁷ The PNAC was founded by William Kristol, the chief editor of the Weekly Standard and a leading neoconservative.

the policy, the PNAC urged that "we need to increase defense spending significantly if we are to carry out our global responsibilities today and modernize our armed forces in the future." (Abrams et al. 1997) In the presidential election year, PNAC called for the new administration to transform the armed forces exploiting the RMA and advocated a return to defense planning for US preeminence (PNAC 2000, ii-v).

Other Republican defense experts returned with Cheney, Rumsfeld and Powell to the Pentagon. Thus, Wolfowitz became Deputy Secretary of Defense. While he lacked the managerial assets required for the post and had an uneasy relationship with Rumsfeld, Wolfowitz benefited from the support from the Vice President's office (Cockburn 2007, 101-102). During the Clinton administration, Wolfowitz had worked at Johns Hopkins University and contributed to the neoconservative agenda for the next Republican calling for a removal of Saddam President, especially Hussein Khalilzad/Wolfowitz 1997). Like Rumsfeld, he had signed the PNAC Statement of Principles and was a member of Rumsfeld's committee on the ballistic missile threat. Wolfowitz was largely tasked with policy formulation in the new administration, whereas Rumsfeld focused on managing the Pentagon and push transformation (Moens 2004, 63). Together with Douglas Feith, the new undersecretary of defense for policy, and Richard Perle, the influential chairman of the Defense Policy Board Advisory Committee and close confidant of Rumsfeld, Wolfowitz formed the neoconservative network within DOD circles. Stephen Cambone, who had also served in Rumsfeld's missile committee, became the Defense Secretary's early point man on transformation (Herspring 2010, 80). After starting as special assistant to the Defense Secretary, Cambone was soon promoted to principal deputy undersecretary of defense for policy.

In order to provide additional intellectual and administrative push for transformation, which "soon acquired the aura of an official ideology" (Davis 2010, 20), Rumsfeld also sought the support of nonpartisan military experts (Gordon/Trainor 2007, 9). Since transformation built on the RMA concept, many early RMA advocates joined the team (Davis 2010, 16-17). Hence, after having been marginalized under William Cohen, Andrew Marshall, the director of the OSD's Office of Net Assessment (ONA) and a central figure in the RMA debate, became a valued OSD advisor again (Maddrell 2003). RMA advocate and member of the 1997 National Defense Panel, Andrew Krepinevich, also joined the inner circle of transformers. But the arguably most influential transformer in the new administration was Arthur Cebrowski, who had been appointed

director of the new Office of Force Transformation in late 2001 (Kagan 2006, 285). As member of the Joint Staff and president of the Naval War College, Cebrowski had been central in the development of the Navy's Network-Centric Warfare concept during the 1990s (Blaker 2006).²⁴⁸

More radically than Aspin, the transformers envisioned a networked, technology based force, which strongly departed from the personnel-intense static Cold War force. Officially the transformers promised a more efficient force, which could meet the full spectrum of international threats and the public's distaste for messy and bloody wars at the same time (Rumsfeld 2002). A closer look reveals, however, that transformation implicitly focused on high-end conventional war and thus shifted Clinton's implicit balancing act between irregular and traditional operations in favor of the latter (Boot 2005).

Right from the start, Rumsfeld sought to concentrate power on military policy within the OSD and made clear that other actors would not intervene in DOD affairs. Two months into the Bush administration, a high ranking official said with regard to transformation: "It's already clear that Colin Powell and Condoleezza Rice are not going to be players." (in Wilson 2001b, 812) Powell, the moderate Secretary of State with long-time military experience, was arguably the administration's most cautious actor with regard to the top-down transformation and the emphasis on military power in the conduct of foreign policy. This pitted him and the State Department against the conservatives in the Pentagon and the Vice President's office (Perlez 2001). With the NSC as arena, the groups disagreed over many issues including missile defense deployment and policy towards North Korea, Taiwan or the Middle East (Hult 2003,

-

²⁴⁸ The group was complemented by some military officers, whose freethinking and criticism of the military status quo had attracted the civilians' interest. Rumsfeld's valued the advice of Army Colonel Douglas Macgregor who had published an influential book on Army force structure reform titled 'Breaking the Phalanx" in 1997 (Scarborough 2004, 43-44; Macgregor 1997, 87). Macgregor continued to advocate Army transformation in testimonies before Congress and publications (Macgregor 2003). The group of transformers also included retired Air Force General Charles Horner, who promoted the use of precision fire to paralyze the enemy's command and control points, a concept called 'Shock and Awe'. This Air Force concept is closely related to effect-based operations: The goal of effect-based operations is to achieve a situation which is described as Shock and Awe, i.e. a paralysis of the opponent's will to continue fighting (Kagan 2003, 8-9; Ullman/Wade 1996). Hence, overwhelming forces is directed at commando posts, centers of political decision-making or crucial infrastructure causing an early breakdown of the adversary with comparatively little effort.

²⁴⁹ Powell's reluctance was not shared by Deputy Secretary of State, Richard L. Armitage (Woodward 1991, 47). Armitage, a friend of Powell back from their time in the Reagan administration, had been a member of the National Defense Panel, which criticized the QDR and promoted a full embracement of the RMA in 1997.

63). But the realist NSA Condoleezza Rice, advisor on the Soviet Union during G.H. Bush's presidency and close confidante of G.W. Bush, soon failed to provide the balance between the competing groups (Kessler 2007; Burke 2005). Cheney and Rumsfeld operated as an "iron wall on defense and war policy that no one could get around." (Woodward 2008, 195) Thus, the Defense Secretary successfully claimed direct access to the President on military decisions, marginalized the State Department's influence on defense issues, and rejected any interference by NSC staff (Scarborough 2004, 6-8). Since the latter was not in the chain of command, he considered NSC intervention as a direct attack on his prerogatives. Especially after 9/11, Rumsfeld made sure that he remained the strongman on military policy within the DOD and the administration. Mitchell Daniels, director of the OMB, and his successor in 2003, Josh Bolton, fought a futile battle to keep the federal deficit in check, as the DOD requirements soared (Moens 2004, 54-55).

Moreover, Rumsfeld sought strong control within the DOD, since he believed "transformation hinged more on leadership and organization than it did on technology." (Rumsfeld 2011, 295) Therefore, he selected Service secretaries, who would commit to transformation. Except for Thomas White, the new Army Secretary, who was selected by the White House as a return for his support of the Bush campaign, Rumsfeld picked Service secretaries from the business world he knew he could work with to carry the reforms into the branches (Cockburn 2007, 112-113). James Roche, who became Air Force Secretary, came from the Northrop Grumman Corporation, had contacts in neoconservative circles and was a longtime associate of leading RMA advocate Andrew Marshall (Kaplan 2003a). The new Navy Secretary, Gordon England, also had a background with a defense contractor, General Dynamics. Yet, while their influence remained small, especially White, but also Roche soon became advocates of their Services rather than Rumsfeld's agents of change. After White was forced to resign in 2003, the Defense Secretary tried to transfer James Roche to the Army signaling that he was "determined to impose sweeping changes on the Army." (Ricks 2003; see also Kaplan 2003a) When a scandal forced Roche to remove his nomination and to resign instead, Rumsfeld selected Francis Harvey, another CEO and loyal Rumsfeld ally, over

²⁵⁰ During the election campaign, Rice had served as central foreign policy advisor. On military policy, Rice shared G.H. Bush's realist perspective and strongly supported transformation, recommending in a Foreign Affairs article that "U.S. technological advantages should be leveraged to build forces that are lighter and more lethal, more mobile and agile, and capable of firing accurately from long distances." (Rice 2000, 51)

Les Brownlee, the acting Army Secretary. Brownlee reported that Rumsfeld had told him "he preferred to have a businessman as the secretary and not a former career Army officer." (in Gertz/Scarborough 2004)

Distrustful of the military leaders, the OSD also sought to reduce the influence of the Service Chiefs. CJCS Shelton assured the incoming Rumsfeld that the Joint Staff would be loyal to the new administration, but the Defense Secretary was concerned that the Goldwater-Nichols Act had created a competing power by strengthening the JCS (Gordon/Trainor 2007, 7-8). CJCS Shelton (2010, 418) recalled later: "As I transitioned into the Bush administration, it felt more like some members of his team had a particular agenda (...) and if you were going to be part of their team, you had better be willing to vote in that direction or you probably would be looking for another job — which made expressing honest opinions more challenging." In fact, Rumsfeld pushed the CJCS to give his military advice to the President through the Defense Secretary rather than directly. He criticized numerous duplications between the Joint Staff and the OSD and repeatedly called for a consolidation within his office (Shelton 2010, 408-413; Scarborough 2004, 136). Moreover, he controlled the military promotion process down to the two-star level and micromanaged operational tasks (Herspring 2010, 79-80).

By late 2006, Rumsfeld resigned against the backdrop of mounting public and political discontent with the occupation in Iraq and military officers' opposition to his top-down leadership. He was replaced by Robert Gates, a moderate Republican, who was considered a pragmatist and consensus-builder (Kaplan 2008; Kitfield 2006). With more emphasis on the immediate requirements of Iraq and Afghanistan, Gates shifted attention away from transformation towards a broader posture. In an effort to make a new start, Gates forced Army Secretary Harvey to resign and did not continue the tenure of CJCS Pace. He portrayed the GWOT as a worldwide irregular campaign and warned that "we must not be so preoccupied with preparing for future conventional and strategic conflicts that we neglect to provide all the capabilities necessary to fight and win conflicts such as those the United States is in today." (Gates 2009) At the same time, he was tied by the fiscal realities, which made a slow-down of the defense growth inevitable. Thus, a balancing of the force posture required a moderate shift from preparing for the high-end of operations to the low-end of operations.

Relevant questions	1990-1998	2001-2007		
What preferences do political actors within the administration pursue in the dimension of				
military budgets?	 Bush: stability bias (reactive) Clinton: reduced defense spending / emphasis on rapid response and modernization 	- Initially limited defense spending, strong buildup after 9/11 / support for transformation and early NMD		
military organization?	Bush: stability biasClinton: Bias in favor of technology over personnel	- Bias in favor of technology over personnel		
weapons acquisition?	 Bush: Acquisition in response to Soviet capabilities, moderate support for NMD Clinton: Support for modernization /moderate support for RMA 	- Transformation and early NMD		
military doctrine & Service mission statement?	Bush: deterrence and regional responseClinton: Full-spectrum preparations	- Transformation bias		
Do these preferences represent societal demands?	 Bush: Yes, as far as societal demands are articulated Clinton: Disagreement on organization and weapons acquisition 	- Disagreement on organization, partial disagreement on budget and weapons acquisition		
Are these preferences consistent with the dominant societal idea underlying the course of military transition?	- No clear societal mindset apparent	- No consistent societal mindset apparent		

6.1.2.3. Consistency of political actors' preferences

In contrast to the post-World War II years, lawmakers were much more confident to challenge the administration on military policy. Congress had significantly increased its means and authority to influence the administration's defense policy since the 1950s.

By establishing the CBO and upgrading the GAO, the lawmakers had greatly improved their analytical capacity to challenge the administration's requests. Moreover, the extended scope of annual authorizations has put the armed services committees in a position, where micromanagement of the defense budget became possible. While the means already existed prior to 1990, only the end of the Cold War and the resulting military transition provided the context for their extensive usage. The reality of the East-West-conflict had limited congressional opposition to the administration's defense course. But against the backdrop of the diffuse and overall less threatening post-Cold War environment, Congress was more confident in challenging the administration's policy.

Bearing in mind the government was divided for most of the 1990s, the lack of opponents raised the incentives to use foreign and military policy as an arena for partisan divisions. Since the Democrats in Congress did not agree with Bush's stability bias and the Republicans in turn did not agree with Clinton's suggested transition, almost permanent inconsistency followed. Moreover, without an urgent threat lawmakers were more willing to use military policy with a focus on domestic economic considerations (Stockton 1995, 244). Art's (1985, 241) assessment proved in many cases correct: "Taking credit for protecting, expanding, or starting a program is electorally more worthwhile than more diffuse policy oversight." Due to their different constituencies, lawmakers were much more responsive to the regional defense economy and the state based reserve groups than the President, which resulted in additional inconsistencies in the weapons acquisition and organization dimension.

Congressional assertiveness sharply dropped after 9/11. Both parties rapidly rallied behind the administration and its military policy course of transformation and – to a lesser extent – NMD. Since the nation under attack soon turned into a nation at war, Congress continued to back the President even after the shock of 9/11 faded. Only the weapons acquisition remained somewhat conflicting, as Congress continued to protect weapons projects and the Democrats opposed NMD. Only after the Iraq War got out of hand, did the Democrats and later the Republicans resume a more critical position, challenging the administration's military preparations and calling for adjustments. While Congress supported the administration's transformation focus on substance, especially Democrats became increasingly displeased with the limited preparations for

irregular challenges. This reflects growing societal demands for more emphasis on irregular operations including additional personnel.

Relevant questions	1990-1998	2001-2007		
ARE POLITICAL ACTORS' PREFERENCES CONSISTENT IN THE DIMENSION OF				
military budget?	Low consistency	High consistency, but decreasing		
military organization?	Low consistency	High consistency, but decreasing		
weapons acquisition?	Low consistency	Moderate consistency		
military doctrine & Service mission statement?	Low consistency	High consistency, but decreasing		
Do political actors share ideas on the course of military policy?	No clear societal mindset apparent	No consistent societal mindset apparent		

6.1.3. Military actors' preferences

When the Cold War ended, the US armed forces looked back at a long experience as important actors in foreign and security politics. Over the years, the members of Congress with first-hand military experience had significantly decreased, but the Services had learned to make "greater and more sophisticated use of organizational expertise and resources in order to shape political decisions." (Black 1987, 46) More importantly, they had learned to live with each other and had settled for a ceasefire in their competition for resources, which was hardly seriously tested prior to 1990. But with the demise of the Soviet Union, military leaders were well aware that they faced a difficult transition. For 40 years, the East-West-conflict had guaranteed substantial defense budgets and the lowest Cold War budgets in FY 1978 and FY 1979 still equated 4.6 percent of the GDP, which nonetheless caused the forces to warn of a 'hollow

²⁵¹ The share of Congressmen with military experience was below 47 percent in the House and 66 percent in the Senate in the 101st Congress. It further decreased to 31.3 percent and 43 percent respectively in the 106th Congress.

Yet, Scroggs (2000), who conducted numerous interviews with lawmakers, committee staff and Pentagon officials, argues that the strategies and influence of the Services strongly differed. The Army was considered reactive, clumsy and least sophisticated. The Navy was regarded as most effective in presenting its interests to Congress and the Air Force was seen as most astute in creating legislative support (Scroggs 2000; see also Woodward 1991, 74). A former OSD official argued with regard to continuous differences between the Services' liaison strategies: "The Air Force will try to outsmart you. The Navy will pretend you don't exist. The Army will try to out-cooperate you." (in Scroggs 2000, 58)

force'. Now, more severe cuts were expected. Two major guidelines shaped the position and preferences of the Services by the end of the Cold War.

First, the Goldwater-Nichols-Act of 1986 had significantly reduced the power and autonomy of the Services within the DOD (Lederman 1999; Chiarelli 1993). On the one hand, the act clearly separated the contributions of the Services and the unified commands and improved the standing of the CINCs, who had previously lacked any institutional power to advance their requirements (Wolfe 1995, 26). While responsibility to organize, train, and equip forces remained with the Services, the planning and execution of operations became the task of the unified commands (White 1996). The Service chiefs were taken out of the chain of command running from the President through the Defense Secretary to the CINCs. Moreover, the CJCS' position within the DOD was greatly improved by making the chairman principal military advisor to the President and Defense Secretary and assigning him a stronger role in strategic planning, training and doctrine development, in order to promote joint forces and operations. Hence, the political influence of the Service Chiefs largely depended on the leadership style of the CJCS and his civilian superiors.

Colin Powell, CJCS under G.H. Bush and Clinton, made good use of these new powers and some regarded him as "the most powerful military leader since George C. Marshall." (Kohn 1994) Although Cheney articulated early displeasure with the CJCS' concentration of power, Powell made sure that all military information went through him as principal military advisor (Woodward 1991, 162). With first-hand experience of the Army's difficult reorientation after the Vietnam War, he used his power to set the agenda for a smooth and balanced transition of the armed forces into the post-Cold War era. Powell (1995, 375, 401-403, 436) recalls in his memoirs: "I saw it as my main mission to move the armed forces onto a new course, one paralleling what was happening in the world today, not one chained to the previous forty years." His successors, John Shalikashvili and John Shelton, were less central in the defense planning, but also played an important role, causing Marine Commandant Mundy to warn of a declining importance of the Chiefs already in 1994 (Lederman 1999, 91).

²⁵³ Reforms with the same intention by Eisenhower in the late 1950s had not had the sought for effects. The lawmakers' new attempt to institutionally separate the military missions came in response to growing dissatisfaction with the performance of the DOD during the early 1980s (e.g. Luttwak 1985).

²⁵⁴ In fact, Cheney told Powell to stop funneling all information in late 1989, since he felt cut off from departing opinions (Powell 1995, 425).

New in office, Rumsfeld sought to reduce the CJCS' influence. Yet, Shelton was determined to defend the prerogatives of his office and rejected Defense Secretary's proposals, which strained the civil-military relations right from the start of the new administration. When Shelton's term ended in September 2001, Rumsfeld selected Richard Myers, who was more willing to comply with the Defense Secretary's preferences (Gordon/Trainor 2007, 53). The two men developed a very close working relationship and military officials and lawmakers complained that the former failed to provide independent advice (Shanker/Schmitt 2002). In fact, the congruence between their positions was so high that John McCain (R-AZ) told Rumsfeld after listening to his testimony during a SASC hearing in 2004: "I do not need General Myers' response. I know it will be exactly the same as yours." (SASC 2004a, 36) Cockburn (2007, 111) describes Myers even as an "abused puppy" under Rumsfeld. His successor Peter Pace, the former Vice CJCS, was also closely associated with Rumsfeld and his transformation and was criticized for not stepping up to the civilians (Cloud 2005). Blamed by lawmakers for his deferent role especially with regard to the Iraq War, Gates decided not to continue Pace's chairmanship in summer 2007 after only two years in office. Loren Thompson, a Lexington Institute analyst, argued about Pace's successor Michael G. Mullen: "He represents a general trend in the administration away from crusaders and toward problem-solvers." (in White/Ricks 2007)

Second, the Vietnam War had left deep marks in the armed forces' positions. After the messy counterinsurgency operation in Vietnam, which caused political and societal turmoil, almost broke the institution, and resulted in a loss of prestige and reduced resources, the armed forces responded by a strong focus on high-end conventional war. This bias found its clearest expression in the Weinberger-Powell-doctrine, which underlined the return to the American Way of War focused on the total war with the Red Army. Initially formulated by Secretary of Defense Weinberger in 1984, the doctrine stated six conditions for the use of military force (Campbell 1998, 364-365; Powell 1995, 302-303): (1) Vital interests of the nation or its allies must be at stake; (2)

-

²⁵⁵ On a more basic level, the armed forces became "more traditional in its values: Republican, conservative, and increasingly conscious of itself as a separate entity in American society." (Kohn 1994) When Clinton became new Commander-in-Chief, the Armed Services were highly skeptical of the Democrat, who had evaded military service in Vietnam and participated in the antiwar movement, but now wanted to implement changes. In May 1993, Air Force Maj. Gen. Harold Campbell told an audience at a NATO base in the Netherlands that "Clinton is a 'gay loving,' 'pot smoking,' 'draft dodging' womanizer." (Rust 1993)

²⁵⁶ Since CJCS Powell relentlessly fought for the adherence of these conditions prior to Desert Storm, the conditions were often referred to as Powell doctrine after the overwhelming victors in Iraq.

A clear commitment to victory must exist; (3) Political and military objectives must be clear; (4) Forces must be properly sized; (5) Reasonable assurance of public and Congressional support must be secured in advance; (6) Military force must be used as a last resort. From the military officers' point of view, the internal refocusing after Vietnam had a direct impact on the successful missions in Panama and Iraq as well as the revival of the forces. Hence, these six conditions remained the Services' gold standard after the Cold War. Probably backed by budgetary incentives, ²⁵⁷ organization, acquisition and doctrine & mission statement were heavily focused on these conventional, fire-power intense warfighting scenarios (Avant/Lebovic 2002).

Army preferences

As during the prior builddown, Army Chief Carl E. Vuono and his successor Gordon Sullivan chose a reactive approach to the upcoming transition (Adams 2006, 27). 'No more Task Force Smith' became again the mantra, as the Army concentrated its efforts to keep the impact of cuts limited and maintain a ready force despite downsizing (Jackson 2009, 47; Gellman 1991b). In fact, reductions in personnel were even more painful than during previous transitions, since the voluntary Service members unlike earlier generations of draftees were not happily leaving the all-voluntary force (Cohen 1995, 2). Since the static threat of the Soviet Union made way to a range of potential challenges all over the world, the Army conducted gradual steps to redefine itself as a lighter fast-response force in order to maintain its strategic relevance (Gordon 1990c). Against this backdrop, the numerous operations of the 1990s were received with ambivalent feelings. On the one hand, the deployments underlined the relevance of a rapid response Army and provided an argument to keep reductions limited. On the other hand, most missions hardly looked like the generals' favored tasks. More than its sister Services, the Army, which had suffered the worst breakdown after Vietnam and experienced its resurrection in Iraq, was biased in favor of conventional warfare (Campbell 1998). Hence, the open-ended peacekeeping missions of the 1990s strained not only the maintenance of the troops and produced little positive publicity, but they also challenged the preference for conventional war and revealed the one-sidedness of

²⁵⁷ Avant and Lebovic (2002, 149-150) argue that the support for the missions varies with the perceived support by the Services' two principals, which indicates a budgetary or at least political calculus underlying these positions.

the Army's strategic responsiveness. While this put pressure for additional qualitative changes on the Army, the generals resisted substantial turns during the 1990s.

The Army neither aggressively turned to the information revolution until the end of the century. Rather, it was willing to trade technological modernization for large and capable forces in being and settled for limited conceptual studies and war games as well as incremental adaptation of new technologies. Only after the Kosovo War and into the new century, was transformation increasingly accepted within the Army as a means to regain relevance in the changing environment. Especially Operation Enduring Freedom was a painful experience for the Army, since the Pentagon pushed for a war plan with few ground forces to reduce preparation time and prove the power of transformation. ²⁵⁸ Thus, small and flexible SOF rather than regular ground forces conducted the majority of the ground missions. Against this backdrop, the need for transformation was clearly evident. Already in 1999, Army Chief Shinseki had challenged the status quo with the words: "If you don't like change, you'll like irrelevance a lot less." (in Rumsfeld 2011, 651) Yet, the Iraq War and especially its aftermath distracted increasing resources from transformation. Neither the focus on conventional war nor transformation, which carried over the bias on high-intensity, conventional war, had prepared the Army for the counterinsurgency operation in postwar Iraq. The sudden demand for boots on the ground and passive protection did not fit in the continuous technology-driven push for transformation, which emphasized light and mobile units. Yet, after the turn to transformation by the end of the century, "the Army has been remarkably resistant to amending or scrapping its preferred vision of future war." (Jackson 2009, 58) Hence, Army's preferences were caught between short-term requirements for the counterinsurgency and transformation for future relevance.

²⁵⁸ While the Army played a prominent role during the Iraq War, it could again not prove its full capabilities. The Army's first fully digitalized division had to be rerouted after Turkey denied passage and entered Iraq when the war was effectively over (Cordesman 2003, 242). In contrast, the Marine Corps played an important role during the war and especially in its aftermath. Although they had focused on high-intensity warfare during the 1990s, the Marines always considered low-intensity warfare a part of their mission (Long 2009, 130).

Air Force preferences

More than 40 years after independence, the Air Force still actively struggled with its relevance. Thus, "survival of the service" still was, according to Mowbray (1995), "the single overriding intellectual feature of Air Force thinking." Although the fighter pilots rather than the bombers dominated the Air Force since the 1970s, their concern was still closely related to the claim of strategic independence and technological superiority, especially in the field of advanced fighter planes (Wordon 1998; Builder 1994, 179). When the Cold War ended, the Air Force sought the leading role in rapid response missions pitting it against the Army and the Navy's carrier battle groups. Based on the Weinberger-Powell-doctrine's thinking, the flyers argued that only airpower could conduct the quick and low-risk operations, which the public was willing to support (Gordon 1990c). Air Force Chief Michael Dugan was even relieved of his duty in September 1990, after he had made comments to the press which indicated the superiority of air power over the other arms and disclosed details about Desert Storm (Atkinson 1990). After the impressive results of Desert Storm, the aviation branch argued that the war had proved the decisiveness of air power, which could win a war independent of ground forces and with less risk (Kitfield 1998). Thus, confidence, autonomy and technology were still closely intertwining. Against this backdrop, the Air Force preferences for the builddown were focused on modernization rather than force structure: A smaller, but technologically advanced force was the goal.

In this context, the RMA was considered a promising development and the Air Force felt rather well placed in the course for transformation (Bolkcom 2006, 2-4; Kohn 2001, 12). Air Force officials argued that the Air Force had demonstrated two of three relevant elements of transformation, the introduction of new technologies and operational concepts, already during Desert Storm 1991. And organizational change, the third element of the Air Force's transformation conception, had followed after the war. While the flyers expressed satisfaction with their efforts, they argued for further transformation of air warfare and an extension into space and cyber space. But the Air Force's optimism was not untroubled, as the GWOT held numerous unloved operations and strained readiness. With only few fixed targets of strategic importance, independent air strikes were of little use in the Afghanistan War. Instead, airpower provided close air support, attacking targets provided by special operation teams on the ground. Moreover, the demand for forward bases delayed and limited the involvement of the short-range

Air Force planes. Hence, more than 70 percent of the combat sorties during Enduring Freedom were flown by Navy aviators launched from six participating aircraft carriers in the Arabian Sea (Lambeth 2005, x). The successive counterinsurgency troubled the Air Force even further, since its utility in such a campaign is limited. Due to PGM, UAVs and C⁴ISR capabilities, the Air Force provided crucial tactical support, but could hardly underline its claim for strategic independence, advanced planes, and increased resources. While the flyers tried to protect the capabilities, on which its relevance in the GWOT rested, the flyers considered preparations for a potential Chinese aggression as a more promising long-term focus.

Navy preferences

With the end of the Cold War, the Navy was again forced to search for relevance. Like the other Services, the admirals had focused on traditional high-sea control and all-out confrontation with the Soviet forces including strategic strike capabilities. While the Navy argued that high-sea control and forward presence based on carrier battle groups had not lost any of their importance, scarce resources forced the Navy to more actively push into other areas as well. The Gulf War, which was publically considered a major success of the Army and the Air Force rather than the Navy, further underlined this need for a reorientation. ²⁶⁰ Thus, a combination of expeditionary means, conventional strike capabilities and forward presence moved to the center early on (O'Neil 2002). While this made adjustments in its mission statements necessary and required a closer cooperation of the Marine Corps and the Navy, there was little incentive to change the force's posture. In fact, the Navy strongly fought to keep its capital ships active and continued to consider the number of ships as an important measure for the branch's health. Therefore, the Navy adjusted its doctrine and developed concepts to improve area access enforcements, but protected its force structure and Service shares against the backdrop of the transition.

²⁵⁹ The Iraq War was also far from perfect for the Air Force. Instead of an initial air campaign as in Desert Storm, the Army successfully opted for a simultaneous ground and air attack to achieve most surprise. And when the ground invasion started early to stop Iraqi forces from sabotaging oil fields, the sequence of action was completely turned upside down (Weiner 2009, 109).

²⁶⁰ The Navy was not only seen as a mere supporter, but also blamed by the media as unable and unwilling to fully participate in joint operations (Ullman 1995, 82).

In the trade-off between current operations and future capabilities, the Navy sided with the former and adjusted only evolutionary to technological change. While broad conceptual thinking on transformation was conducted within the Navy, the admirals remained cautious and embraced only modest changes to its weapons acquisition. From the admirals' perspective, there was little reason to fundamentally change course. The long-time GWOT tied the Marines to occupation duties, but provided little links for the Navy. Thus, the Navy contributed to different missions but lacked a clear focus by the end of Bush's presidency.

Relevant questions	1990-1998	2001-2007		
What preferences do military actors purse in the dimension of				
military budget?	- All Services: preferences for increased budgets and budget shares	- All Services: preferences for increased budgets and budget shares		
military organization?	- Air Force: Preference for quality rather than quantity	- Air Force: Preference for quality rather than quantity		
	 Army: Preference for active personnel, especially light forces 	- Army: Preference for large active personnel		
	 Navy: Preference for large number of ships and capital ships 	 Navy: Preference for large number of ships and capital ships 		
weapons acquisition?	- Air Force: Preference for modernization of fighter planes	- Air Force: Preference for modernization of fighter planes, UAVs		
	- Army: Preference for modernization of conventional weapons systems	 Army: Preference for transformation of weapons systems Navy: Preference for 		
	- Navy: Preference for modernization of conventional weapons systems	modernization of conventional weapons systems, in parts transformation of weapons systems		
military doctrine & Service mission statement?	- Air Force: Preference for rapid global air power response	- Air Force: Preference for rapid global air power response		
	- Army: Preference for conventional rapid response	- Army: Preference for conventional rapid response / counterinsurgency		
	- Navy: Preference for expeditionary means and forward presence	- Navy: Preference for expeditionary means and forward presence		

6.2. The military policy process

6.2.1. Strategic planning and the defense budget

6.2.1.1. Builddown

The peace dividend and Base Force Plan

When the Cold War ended, the DOD had already been working with shrinking budgets for three years. As the soaring federal deficits during Reagan's second tenure became worrisome, the feast of the early buildup had increasingly turned into famine (Weidenbaum 1992, 6-9). In order to get the deficits under control, fiscal discipline has been enforced through deficit control acts since 1985, which automatically cut spending if the budget exceeded fixed deficit targets, and the large discretionary defense budgets were an obvious field for savings (Williams 2001, 4-5). First signs of far-reaching changes in the Soviet Union put additional pressure on the defense budget, as society and Congress claimed peace dividends. Yet, society provided little guidance beyond the demand for defense cuts. Since the political actors in the Bush administration did not believe in an imminent decline of the Soviet Union and remained cautious, they also failed to frame the subsequent transition early on.

Colin Powell took the initiative instead and made early steps to prepare for the inevitable transition. He was aware that only a well prepared plan could convince the public and Congress of the need for sustained robust forces and prevent the administration from losing control (Metz 2000, 7). In other words, only a comprehensive plan would save the military from arbitrary congressional clear-cutting. After Powell became CJCS in summer 1989, the Joint Staff became the dynamic center for transition planning.²⁶² During his time as NSA in the Reagan administration, he had come to the early conclusion that the Soviet Union was in irreversible transformation and sought to manage the successive inevitable demobilization "to minimize their impact on military capabilities and interservice rivalries." (GAO 1993, 15) Within days after the fall of the Berlin Wall, Powell was able to present the first outlines of the socalled Base Force Plan to Bush, Cheney, and Scowcroft stressing new military requirements in a rapidly changing world (Lewis/Roll/Mayer 1992, 21).

²⁶¹ The Gramm-Rudman-Hollings statute I and II, enacted under Reagan in 1985 and 1987 respectively, established deficit ceilings to balance the budget within 6 years (LeLoup 1993). The reductions were equally divided between domestic and defense items (Ippolito 1994, 28-31).

²⁶² Already the Joint Staff of CJCS Crowe started force structure studies (Jaffe 1993; McCormick 1998, 30-37).

Skeptical about an early transition but unwilling to lose control, Cheney instructed Wolfowitz to pick up planning in cooperation with the JCS. Yet the momentum was with the military and "Cheney let Powell and the service chiefs decide which forces should be reduced." (Herspring 2005, 325) Hence, Powell had achieved what Knight (2000) calls a "brilliant preemption", reversing the 'normal' top-down relationship between the civilian principals and the military agent (Korb 2000). This had significant impact on the quality of the transition, since the Base Force Plan, the most consequential reorganization plan of the 1990s, enshrined a large amount of stability and determined the roads in which change was to take place early on (Korb 2001, 38).

Assuming that the Soviet aggression would slowly cease to be an immediate threat, the Base Force Plan departed from threat based military planning, due to the uncertainty of the international situation as well as the lack of plausible threats (Gordon 1990d; Goldstein 2002, 320). As Powell joked after operation Desert Storm: "Think hard about it, I'm running out of demons. I'm running out of villains (...) I'm down to Castro and Kim II Sung." (Powell 1991 cited in Kaufmann/Steinbruner 1991, 45) Therefore, the requirements for the Base Force were determined by a capabilities based approach, which did not focus on particular enemies but estimated the minimum forces needed to meet abstract objectives in any real manifestation: Preserve US leadership, protect US interests and meet enduring defense needs (Troxell 1997; Larson/Orletsky/Leuschner 2001, 9). These goals were transferred in four conceptual force packages: Strategic forces to deter nuclear opponents, Atlantic forces to project force across the Atlantic, Pacific forces to project force across the Pacific, and US based contingency forces to meet emergencies (GAO 1993, 16).

Of central importance for planning was the introduction of the Two-Major-Theater-War-standard at the high-end of the deployment continuum: The size of the conventional forces should allow the US to rapidly deploy sufficient troops to simultaneously win two major theater wars (2-MTW) in any place. Beyond the two-war-standard, the armed forces should be capable to conduct all kinds of smaller scale

.

²⁶³ In 1992, the US Military Strategy outlined the relationship between Base Force and military strategy and national security strategy in detail (JCS 1992; Bush 1991). The strategy stressed four basic tasks of the Armed Forces: Strategic deterrence and defense, forward presence, crisis response, and reconstruction (Snider 1993b). The military strategy lined out that the forces must be capable to conduct missions along the whole possible spectrum from operations other than war to global nuclear war. Yet, it assumed that peacetime missions are more likely than regional conflicts. Global nuclear war was considered the least likely event.

operations and guarantee nuclear deterrence. This framework allowed the armed forces to reorganize and provide a rational for transition without fully abandoning reversibility in case of a reemerging threat by the Soviet Union. At the same time, the plan introduced two innovative elements to meet the new environment: (1) It reduced the emphasis on forward deployment which in turn raised the importance of mobility means; (2) It put weight on the conventional capabilities and reduced the relevance of the strategic arsenal.

In order to avoid renewed interservice battles, the Base Force framed a transition which McCain had previously called "the worst of all possible worlds" (in Thompson 1990): It took care of proportionality and spread the pain of the builddown equally across the branches (Owens 2000, 32-34). Disagreement within the administration was only about the projected savings resulting from the Base Force: Powell and the Joint Staff expected the plan to allow for overall 25 percent budget reductions, whereas the reluctant Cheney estimated only 10 percent cutbacks. Despite the ambiguity with regard to the plan's fiscal implications, Cheney approved the Base Force as official DOD plan on August 1, 1990, after the President had indicated his support for the concept (Powell 1995, 457-458). A day later, Bush publically announced the new Base Force Plan at the Aspen Institute, referring the "needs of regional contingencies and peacetime presence." (Bush 1990, 677) Since Iraq had invaded Kuwait just the previous day, the continuation of robust forces gained additional plausibility.

At the same time, the Gulf crisis prevented a full public campaign on behalf of the new plan. The administration, especially Powell, had planned to use this campaign in order to seize the initiative from Congress (Jaffe 1993, 36-37). Indeed, while the Base Force emerged within the DOD, the Bush administration faced fierce criticism from Congress after submitting its budget request for FY 1991 in early 1990. Bush had rejected the Democrats' calls for new taxes and presented a national defense budget request of \$307, which provided only minor reductions and would clearly violate the deficit target of the deficit control act. Fearing an automatic budget reduction that would hurt the domestic and defense accounts alike, especially the Democratic majority pushed for more reductions in the defense category and criticized the administration's lacking account for the ongoing Soviet transition (Wines 1990). The administration defended its cautious request and Bush told an audience in February 1990: "I would rather be called cautious than I would be reckless." (in Devroy 1990; see also HASC 1990) But

Congress largely shared Sam Nunn's disappointment: "[I]n summary, I have concluded that the Bush administration's 1991 defense budget proposal is based on a 1988 threat and a 1988 strategy." (136 Cong. Rec., March 22, 1990, H5035) Lawmakers were convinced that further cuts were possible. Yet, liberal Democrats, calling for steep cuts, and centrist Democrats as well as lawmakers with defense dependent constituencies still clashed over the right amount of cuts in the Budget Committees (Morgan 1990).

In March, Nunn complained that figuring out an appropriate defense budget was almost impossible, because "with threat, strategy and program assumptions that are, at minimum, two years out of date, we are left with very important blanks in the FY 1991 defense budget." (Gordon 1990b) Hence, lawmakers started to do what Powell had feared: They suggested various post-Cold War plans of their own in order to provide a rationale for reductions. To meet the charges of lacking strategic foundation and fend alternative proposals off, DOD officials increasingly relied on aspects of the Base Force Plan in their testimonies. In June 1990, Cheney outlined before Congress that by FY 1995 there would be a 25 percent force reduction and 10 percent budget reductions. And on the day of Bush's speech at the Aspen Institute, Cheney and Powell briefed the leaders of the armed services committees and appropriations committees on the Base Force Plan, who responded favorably but indicated that they were likely to disagree on the force size (Jaffe 1993, 37-38). A far-reaching debate on an alternative or more radical transition was avoided and a potential influence of societal preferences largely foreclosed.

Since the FY 1991 budget did not meet the deficit control act's deficit target even after substantial cuts by Congress, ²⁶⁶ Bush and the Democratic congressional leaders agreed on an alternative scheme to reduce the budget deficit during the coming budget rounds already prior to the defense budget act. The Budget Enforcement Act introduced less

.

²⁶⁴ E.g., the influential Republican senators William S. Cohen (R-ME) and John McCain (R-AZ) proposed an alternative defense plan, which they argued would double Bush long-term cuts (Dewar 1990a).

²⁶⁵ Cheney's testimony triggered a prompt reaction by Aspin who questioned why a 25 percent force structure reduction would result in only minor budget cuts.

²⁶⁶ The Base Force Plan did not stop Congress from cutting heavily from the administration's request and Powell soon felt that the Base Force was more the ceiling than the intended base for force preparations. But while in the Senate the centrists around Nunn prevailed, liberal Democrats supported by Aspin shaped the House's decision. Thus the former proposed \$289 billion and the later recommended \$283 billion (Adams/Cain 1990). The final budget was substantially smaller than the administration's request, but very close to the Senate proposal, including what Peter Grier (1990) of the Christian Science Monitor called a "Gulf dividend" (see also Jaffe 1993, 42-43).

ambitious and more flexible caps on discretionary spending on defense, domestic, and international programs until FY 1995 and banned transfers between the three program areas until FY 1993 (Kaufmann/Steinbruner 1991, 23). These budget regulations had a twofold impact on future defense budgets. On the downside, the caps which Congress put on future defense budgets went far below the OSD's target of 10 percent spending reduction under the Base Force Plan (Lewis/Roll/Mayer 1992, 33). Already the real reduction in the regular FY 1991 budget amounted to 8 percent from the past year and additional reductions of 3 and 3.5 percent respectively in FY 1992 and FY 1993 were to follow. Furthermore, the introduction of pay-as-you-go rules reduced flexibility and particularly made supplemental appropriations difficult, since an increase in one part of the defense budget had to be met by reduction in another part of the defense budget (Gold 2001, 164). On the upside, however, the budget agreement settled the conflict between liberal and centrist Democrats in favor of the latter and set only moderate ceilings for defense (New York Times 1990a). And the ban on transfers between budget categories foreclosed any further attempts to create a peace dividend by increasing domestic funding at the expense of defense. All savings would directly flow into deficit reduction. Hence, the budget agreement, dashed hopes for a substantial peace dividend and the New York Times (1990b) bitterly complained about the congressional accommodating: "By shrinking from the task of canceling wasteful new weapons, they're canceling the entire peace dividend."

After the distribution of the FY 1992 defense budget caused little controversy, ²⁶⁸ Bush faced renewed calls for further cuts from Congress by fall 1991. ²⁶⁹ The signing of the START agreement in summer, the failed communist coup in the Soviet Union, and a presidential announcement of unilateral reductions in the strategic arsenal provided arguments for additional savings. Bush (1992) reacted in January 1992 by promising

²⁶⁷ If the supplemental is deemed to fund a dire emergency, the pay-as-you-go rules do not apply. The question whether an event constitutes an emergency which justifies a supplemental out of deficit spending caused regular political conflict during the 1990s.

²⁶⁸ With the Budget Enforcement Act in place, the impressive performance of the troops in Iraq, and the Base Force Plan as strategic foundation, the general lines of the FY 1992 defense budget were firmly fixed. The Democrats were not yet willing to either break the budget agreement or transfer the money to deficit reduction (Gelb 1991; Hoffman/Yang 1991). Hence lawmakers largely stuck to the administration's proposed 050 funding with roughly \$10 billion less than in FY 1991 and only fought over the balance between funding between different weapons projects (Halperin/Lomasney 1999, 91; Morgan 1991).

²⁶⁹ E.g. Senate majority leader Mitchell (D-ME) called for changes in the 1990 budget agreement and additional cuts of about \$100 billion over the next five years (Dewar 1992). And Edward Kennedy (D-MA) even proposed savings of \$210 billion over the next seven years.

additional savings of \$50 billion over the next five years beyond the already agreed reductions, which would be achieved especially through cuts in the nuclear arsenal. Since the East-West-rivalry rapidly decreased and arms reduction agreements were in place, this step allowed the President to stick with his reactive approach and still stay ahead of congressional challenges. Again, while societal demands contributed to the need for further reductions, they played virtually no role in deciding where to cut.

The successive FY 1993 budget request asked for \$281 billion including \$12 billion for defense-related activities (Grier 1992). Savings should be achieved by cutting weapon systems, whereas the 25 percent force structure reduction was maintained. In fact, Powell's reluctance to open Pandora's Box of Service shares, roles and missions in the Base Force clearly came at a price: The administration increasingly struggled justify a force posture, which basically resembled a smaller Cold War force. Andy Pasztor (1992) from the Wall Street Journal complained: "President Bush and Defense Secretary Cheney have failed conspicuously to confront the generals and admirals, allowing ancient service rivalries to warp and bloat the (...) military spending plans." During the budget resolution debate in the Senate's Budget Committee, Robert C. Byrd (D-WV), the chairman of the Appropriation Committee, compared the national defense with "a giant woolly mammoth" which was "eating us out of house and home." (SBC 1992, 363)

Especially Aspin continuously criticized the Base Force that would respond to organizational needs of the Armed Forces rather than to real strategic objectives (Korb 2001, 42). He claimed that the capabilities-based force planning was inappropriate to tackle the international changes and proposed his threat-based alternative proposal of a smaller, modernized response force against it (Troxell 1997, 12). Aspin's plans found wide support among the Democrats, but the administration rejected a departure from the Base Force. Powell told lawmakers: "I believe his attempt is fundamentally flawed in a number of ways: its methodology is unsound, its strategy unwise, and the forces and capabilities it proposes unbalanced." (SASC 1992a, 491)

Supporters of defense cuts gained additional arguments, when the Pentagon's Defense Planning Guidance draft for FY 1994 was leaked to the press in March 1992. According to this plan, the first objective of the US defense strategy was "to prevent the remergence of a new rival" and the Pentagon planners under the oversight of Under

Secretary Wolfowitz argued that "we must maintain the mechanisms for deterring potential competitors from even aspiring to a larger regional or global role." (New York Times 1992; Tyler 1992b) Together with another document outlining planning scenarios for future conflicts, which the press had acquired already a month earlier, these statements indicated that the Pentagon was pursuing an overly ambitious strategy "to prevent further reductions in forces or cancellations of new weapon systems from defense contractors." (Tyler 1992a) While the documents were in line with the Base Force Plan and statements of Cheney and Powell, and, in fact, largely reflected public opinion, the Pentagon's plan was strongly criticized by lawmakers, senior officials in the White House and the State Department (in Torres-Reyna/Shapiro 2002; Gellman 1992a; Tyler 1992c).²⁷⁰ They complained that this conception expressed an arrogance of power and would make the US the world's policeman. Especially the Democrats in the House suspected a hidden rational for the hesitant builddown in this strategic positioning. Thus, although the CJCS claimed that further cuts would "break the force", the House cut another \$6 billion from the defense budget (SASC 1992a, 490; Pianin 1992a). Yet the Senate narrowly defeated an attempt to reduce Bush's proposal, with the key vote from Christopher Dodd (D-CT), who was concerned that further cuts would hit the submarine manufacturer Electric Boat, a division of General Dynamics with 22,000 employees in Connecticut and Rhode Island (Birnbaum 1992; Pianin 1992b). Thus, although the final agreement was closer to the House budget, the Pentagon again largely escaped deeper cuts, as the concerns over jobs in an election year outbalanced other arguments.

National defense inconsistencies and the turning tide

Clinton's victory in 1992 and his appointment of Aspin as Defense Secretary implied the end of the Base Force Plan and promised a new course for the transition. But the FY 1994 budget turned out to be essentially a budget driven stand-by budget (O'Keefe 1994, 50).²⁷¹ Critics immediately claimed that the administration had engaged in a

-

²⁷⁰ After the public outcry, the DPG was redrafted and the controversial goal of preventing the emergence of a rival superpower was dropped (Tyler 1992d; Gellman 1992b).

²⁷¹ The outgoing Bush administration had not send a budget proposal to Congress and the time for the new team, still in the middle of personnel transition, to prepare a budget was limited. Hence, the administration's first request resembled an ad-hoc budget largely guided by Clinton's deficit reduction plans. In February, Aspin had ordered the Services to recommend additional cuts of \$8.3 billion almost

premature cutting activism, since the hasty budget followed fiscal rather than strategic considerations (e.g. Kirkpatrick 1993). 272 Indeed, while the budget was almost \$12 billion below Bush projections, it cut across the board and left all difficult qualitative decisions open (Ippolito 1994, 98-99). Aspin promised further steps and justifications after completion of a Bottom-Up Review (BUR), the new administration's tool to comprehensively review the national defense (Aspin 1993, iii). Yet the review, released in September, fell short of most expectations. With the OSD still in transition and the new administration in a bitter conflict over the ban of homosexuals from military service, Aspin had had to rely on military officers to frame the BUR (Grunzinger 1996). The resulting review turned out "more as a series of internal negotiations within the Pentagon than as a top-down presidentially directed mandate." (Ullman 1995, 42)

In accordance with Aspin's earlier proposals, the BUR returned to a threat- and scenario-based planning and thus accounted for the irreversibility of the end of the Cold War (Aspin 1993). Inspired by operation Desert Storm, force requirements were assessed against different war operations and scenarios with potential regional rivals like Iraq or North Korea. At the same time, the BUR was strongly motivated by the administration's pledge to reduce defense spending. Hence, the final report promised additional reductions over the Base Force Plan of 9 percent or \$127 billion until FY 1998. Further changes were rare and the most striking feature of the BUR was its stability with prior planning. Referred to as force enhancements, the BUR pushed the Base Force's turn to improved strategic mobility, increased distance strike power and

٥

equally spread across the branches (Ricks 1993). Two weeks later, Clinton announced his first economic reform package, the Omnibus Budget Reconciliation Act, including \$88 billion in additional defense cuts from Bush's plans over four years (Ippolito 1994, 100-104; Woodward 1994; Lancaster/Gellman 1993). By the end of March, the FY 1994 defense budget was finally released, asking for \$263.4 billion including roughly \$11 billion for other defense-related activities (Gellman 1993b).

Despite the criticism, Congress passed the FY 1994 defense budget without major controversy.

The abolishment of the ban of homosexuals proved to be highly controversial and very damaging for the President. When the President-elect committed himself in November 1992 to work for the integration of homosexuals in the military, military leaders articulated fundamental disagreement (Cushman 1992; HBC 1992, 45; for an overview see Prakash 2009). They warned that repealing the ban would damage the morale, undermine recruiting, force religious Service members to resign and increase the risk of AIDS among the troops. Nonetheless, Clinton asked the Pentagon to prepare a study on how to proceed in lifting the ban (Schmitt 1993a). Especially conservative Republican, such as Senator Coats (R-IN), signalized opposition to far reaching solutions in Congress (Scarborough 2004, 107). Yet, it was Nunn who became the military's leading ally (Von Drehle/Dewar 1993). He first suggested the 'Don't ask, don't tell' policy which strongly resembled the emerging compromise in late June (Lancaster/Devroy 1993). From the President's perspective, 'Don't ask, don't tell' fell short of the initial announcements. Yet, White House adviser George Stephanopoulos admitted: "The brass is not moving on this." (in Lancaster/Devroy 1993; Devroy/Lancaster 1993).

advanced area access capabilities further. Also in line with the Base Force was the further reduction of the relevance of nuclear weapons, although they were not debated on details in the BUR.²⁷⁴

Few further impulses were given. The review upheld the Base Force's building block of maintaining sufficient forces to potentially fight and win two nearly simultaneous major regional conflicts in spite of arguments that this was unrealistic given the reduced funding (O'Hanlon 1995; Aspin 1993, 4).²⁷⁵ Missions below the regional-war-standard were not systematically accounted for and the BUR argued that these tasks were to be met by the same forces than the larger operations. Initially, Aspin endorsed a less demanding win-hold-win strategy, in which forces would account for a credible offensive in one major regional conflict while providing a credible defense in a second conflict. But when Aspin tested the waters and mentioned the win-hold-win option during a speech on the status of the BUR in June, allied governments especially South Korea strongly criticized this idea (Powell 1995, 579). Furthermore, military leaders including the CJCS were highly skeptical with some of them outrightly opposing this less demanding force planning rational, which one senior officer called "the win-holdoops strategy." (in Gellman/Lancaster 1993) Especially the Navy was critical of this option, which would have shifted emphasis on the Air Force, since long-range air power was to become the major means to conduct the hold operation (Gordon 1993b).

Against broad opposition and with little support by the White House, it is hardly surprising that Aspin and his deputy Perry, settled for a review, which satisfied the Services and the White House at the expense of consistency. Although the Services were unhappy with some budget driven reductions in force structure, the BUR – like the Base Force Plan – avoided political conflict by spreading the reductions almost equally among the Services regardless of strategic considerations (Friedman 2009, 79). Hence, the review de facto resulted in a force posture perspective very much like the Base

²⁷⁴ Decision on nuclear weapons followed in the Nuclear Posture Review in 1994 (Boldrick 1995). Virtually all actors within the administration, including the military leaders, agreed that the relevance of nuclear weapons had decreased with the end of the Cold War. Yet, attempts to shift all nuclear deterrent to a small number of nuclear submarines with significantly reduced nuclear weapons and thus break the nuclear triad of submarines, bombers and ICBMs was successfully opposed by the Services and Republican lawmakers. Only tactical nuclear weapons were significantly decreased.

²⁷⁵ The BUR differed in its strategic outlook. It outlined engagement, prevention, and partnership (Aspin 1993, 3) which became central elements of Clinton's National Security Strategy published in early 1995 (Clinton 1995). The National Military Strategy in the same year connected the BUR and the National Security Strategy (JCS 1995).

Force. Consequently, the response to the BUR was critical and many commentators claimed that Aspin had missed a chance for comprehensive and realistic reform (Korb 2001, 42; Krepinevich 1993). Ann Markusen, an outside expert on the defense economy, described Aspin's efforts as "politics as usual, plus a baffling unwillingness to ask the Pentagon to shoulder its part of a shared sacrifice." (Markusen 1993b)

Lawmakers from both parties joined the criticism and expressed growing concerns over the course of defense (Schmitt 1994; Gellman 1993c). Yet the debate took a crucial turn after the BUR: Some Democrats continued to complain that the administration was holding back the peace dividend and argued that the BUR inflated potential threats in order to justify an unnecessarily strong military. Senator Dale Bumpers (D-AR) of the Appropriations Committee said that more savings would have been possible and Representative John Spratt (D-SC) of the HASC criticized that potential allied contributions were not factored in. But a growing number of lawmakers warned that rapidly cutting funds while maintaining the 2-MRC-strategy and numerous deployments would result in a problematic underfunding of the armed forces and cause readiness problems.²⁷⁶ They could refer to a critical Army paper, which the latter had left unclassified in the expectation of its publication. Feeling disadvantaged by the BUR results, the Army warned in the paper that the projected cuts would leave the Service "substantially weakened." (Lancaster 1993b) This warning of decreasing readiness resulting from a mismatch between funding and force planning became a dominant issue for the rest of Clinton's presidency (Larson/Orletsky/Leuschner 2001, 83; Troxell 1997; Morrison 1994, 2129-2130). And in contrast to the previous debate, the small defense budget rather than the large military force was blamed for the growing discrepancy. Aspin himself broke the administration's phalanx for savings by warning that defense would need additional \$50 billion to avoid shortfalls in the FYDP (Lancaster 1993c). This embarrassment of the President was the last straw in a chain of unfortunate actions by the Defense Secretary, who resigned after concluding that he had lost the full support of the President (Campbell/O'Hanlon 2006, 26).²⁷⁷

²⁷⁶ During Clinton's campaign, Nunn had appeared in television ads promising voters that Clinton would not slash the military budget. Now he argued: "My folks in Georgia remember that." (in Von Drehle/Dewar 1993)

²⁷⁷ Aspin's position was already badly tattered after he took most of the blame for the death of 18 US troops in Mogadishu in October 1993 (Pearson 1995; Dumbrell 2009, 67-71).

The demise of Aspin did not ease the pressure on the White House, however, as a distrustful military and a vocal Republican opposition continued to challenge the administration's defense policy. In response to Service pleas, Clinton asked for a slightly raised FY 1995 defense budget of \$264 billion in January 1994. Although Congress in an election year wanted to prove its resolution to reduce the deficit, all attempts by liberal Democrats to cut into the defense funding were defeated by clear majorities and domestic spending took the majority of reductions. Most lawmakers followed SubHAC chairman Murtha's (D-PA) argument: "The military is at the edge of their readiness level and if we cut anything out we will not be able to meet national security threats." (in Pianin 1994) Indeed, the Defense Science Board Task Force on Readiness, a federal committee to advice the Defense Secretary, reported "pockets' of unreadiness" in summer (Meyer 1994, i). Moreover, the GAO calculated that the administration's funding plans for the BUR were \$150 billion short of the real costs and the Pentagon put further pressure on the White House by admitting that there was probably a \$40 billion funding gap (Graham/Harris 1994).

Thus, already in Clinton's second year, the tides turned against a further transition as the current force posture was largely accepted. Societal demands did neither contribute to nor oppose this turn. To be sure, the public considered the 2-MRC standard as excessive and still preferred less defense spending, but they hardly cared about the debate. As international concerns approached their low point, the shape of the armed forces was of little interest. While the Contract with America's section on military policy picked up the readiness concerns, military policy preferences played a very limited role in the Republican electoral victory in fall 1994. Still, the Republican success raised the Services' hopes for additional funding and put the opponents of the qualitative status quo further on the defensive. Shortly after the election, reports emerged that three Army divisions had fallen below peak readiness (Zakheim 1994). Although there is evidence that the Army exaggerated its readiness problems, leading Republicans willingly picked up the issue to underline their claims of military underfunding (Kosiak 1998; Korb 1995; Isenberg 1995; O'Hanlon 1995, 18-20; Graham 1995). The designated chairmen of the defense authorization committees Thurmond (R-SC) and Spence (R-SC) warned of the return to a hollow force and declared that they would work to reverse Clinton's defense cuts (Harris 1994b; Gertz 1994).

To keep the critics at bay, the White House gradually conceded to their requests for more spending than provided in the FYDP (Adams/Williams 2010, 234). ²⁷⁸ In an immediate response to the mounting political pressure, the Clinton administration announced additional defense spending of \$25 billion over the next six years to close the Pentagon's emerging funding gap in December 1994 (Devroy/Graham 1994). ²⁷⁹ But the Republican hawks' were not satisfied and called for further concessions, which were only limited by the priority of deficit reductions. When Congress agreed on a \$243 billion FY 1996 defense appropriation bill, adding \$7 billion and thus almost leveling off real reductions over the previous year, Clinton was determined to veto the bill. But he finally refrained from vetoing the appropriation bill in trade for congressional approval of funding for the Bosnia mission (Banks/Straussman 1999, 137-138). ²⁸⁰ The intergovernmental conflict repeated itself in 1996 and the defense budget again turned out larger than the administration had planned. ²⁸¹

Missed chances

By the end of Clinton's first term, about \$100 billion of the initially \$127 billion savings projected in the BUR were restored and there was still no relaxation on the readiness issue. A HNSC report on readiness warned in April 1997 that the defense drawdown and the extensive deployments "have a significant impact on the readiness of

²⁷⁸ The numerous deployments made additional spending necessary. Thus, Perry requested a \$2.6 billion supplemental for the FY 1995 budget to cover deployment expenses for Rwanda, Haiti, and Kuwait (McCormick 1998, 48).

⁽McCormick 1998, 48).

279 Together with \$7.7 billion savings in modernization and a \$12 billion drop in inflation estimates, the increases should close most of the \$49 billion funding gap.

280 Against the backdrop of the parallel Dayton peace negotiations, Republican leaders had warned that a

²⁸⁰ Against the backdrop of the parallel Dayton peace negotiations, Republican leaders had warned that a presidential veto would cause Congress to deny the estimated \$2 billion for participation in the subsequent peacekeeping operation (Scarborough 1995). Clinton refrained from vetoing the bill and the defense budget became law without the President's signature. In turn, Congress passed the administration's successive supplemental and reprogramming requests to finance the peacekeeping operation largely out of the FY 1996 budget authority. At the same time, Congress attached funds for domestic programs to the IFOR supplemental which Clinton otherwise probably would have vetoed (Banks/Straussman 1999, 139).

²⁸¹ Ignoring warnings of procurement shortfalls from the CJCS, Clinton requested a FY 1997 defense budget of \$254.4 billion including \$10.5 billion for the other defense-related activities (Scarborough 1996). The Republicans in Congress criticized the White House's disconnection from the military wishes and pushed for additional \$13 billion in defense authorization and \$9.5 billion in appropriations. When the administration continued its engagement in Bosnia late 1996, the administration asked for the urgent redirection of \$2 billion within the FY 1997 budget for the overseas effort in February 1997 (Foote 1997a). Congress was displeased with the further costs, lawmakers followed what can be termed an unwritten law in defense budgeting: "When troops are on the ground, the sword drives the purse, not the other way around." (Banks/Straussman 1999, 137; see also SubSAC 1997, 26)

U.S. military forces and are placing at risk the decisive military edge." (Spence 1997) The attempt to keep federal austerity, prepare for 2-MRCs, and meet the requirements of actual deployments and modernization made a coherent planning impossible (Zakheim 1997). The Service Chiefs felt that they had no choice but to let either modernization or readiness slip (Shelton 2010, 322-324). Therefore, many experts hoped that the results of the 1997 Quadrennial Defense Review (QDR) would cut the Gordian knot and realign the relationship between strategy, resource allocation, and international interventions (Cohen 1997; Schrader/Lewis/Brown 1999, 2). Yet the QDR "became a budget-driven process that offered few new strategic ideas but simply codified the strategy that existed at the time." (Metz 2000, 22)

The chances for a far-reaching review were limited from the start. In quantitative terms, while Republicans and Democrats disagreed on the area for savings, they all agreed on the need to foreclose substantial deficit spending. Since Clinton preferred to save in defense rather than domestic programs, solving the strategy-budget imbalance by adjusting the budget was no option. In qualitative terms, the administration wanted to avoid actions which would trigger opposition by Congress or the Services such as the cancelation of expensive weapon programs or abandoning the 2-MRC-standard. Hence, many adjustments represented the lowest common denominator between anticipated congressional expectations, OSD, and the Services. To make things worse, the political actors in the White House and the OSD, in the middle of the transition from Defense Secretary Perry to Cohen failed to provide strong guidance for the review.

Military actors again took the initiative. Concerned about a further downsizing, CJCS Shalikashvili sought to prevent a far-reaching review process early on. One of his aides delivered a message to Air Force Chief Fogleman saying that "[t]he chairman would like to have the QDR turn out to be as close to status quo as we can make this thing work." (in Wilson 2000b, 40; see also Kohn 2001, 12) The Service Chiefs had good reason to follow this guideline: Since the money ceilings seemed firm, the Chiefs feared that an intensive review process might result in a bitter interservice struggle for resources, breaking the fragile balance of budget shares to their disadvantage

²⁸² The QDR goes back to congressional action in 1993. Unsatisfied with the results of the BUR, Congress established with the Budget Authorization Act for FY 1994 an independent Commission on Roles and Missions which should make recommendations on Service roles and missions after the Cold War (Metz 2000, 18-22). The Commission recommended in its final report that the DOD should conduct a major quadrennial review (Perry 1996, Chapter 6; Wilson 2000b, 15). The QDR should take the actual situation as well as the military development until 2005 into consideration.

(Szafranski 1996). An admiral anonymously complained with regard to the review processes: "It used to be a race to the finish line. Now it's more like a demolition derby: to get your program across the finish line, you have to convince others to kill another service's program." (in Szafranski 1996, 54) Especially the conflict between the Army and the Air Force over the dominant role in regional conflicts, smoldering since Desert Storm, threatened to erupt over the review (Kitfield 1998). Hence, the Services expected much trouble and little gains from a comprehensive review (Wilson 2000b, 36-37).

When the incoming Cohen sought to make a late imprint on the QDR, the OSD's abrupt and overeager approach further pushed the Services towards protecting the status quo. Cohen asked for savings, but the Chiefs conceded savings only at the margins and protected their central weapon programs. They considered Cohen's demands not only as a threat to their claims, but also as amateurish quick fix solutions, highly driven by politics rather than strategy. Fogleman described the QDR afterwards as "a blatant case of asking for military advice and letting it be overridden by the political consideration of making a statement: 'I cut something'." (in Wilson 2000b, 42) In the end, the QDR was strongly biased towards continuity and did hardly address the inconsistencies in military policy. Although it included a broader range of threats and operations²⁸³, the basic 2-MRC-focus and the force posture remained virtually unchanged. Procurement numbers of some major weapon systems were reduced or stretched, but none canceled. Instead, base closings and more efficient buying practices were suggested as a relief to the pressured defense budget.

Most outside experts and the media voiced their disappointment with the review (Schmitt, Gary 1998; Vickers/Kosiak 1997; Spinney 1997; for a less critical view see Courter/Bernstein 1997). According to a commentary in the Washington Times, the QDR delivered "merely the same inadequate force structure, questionable strategy, and unbalanced modernization program stuffed into a \$250 billion spending ceiling." (Hillen 1997) The most prominent critique of the QDR came from the final report of the National Defense Panel, an outside group of former Pentagon officials and military experts, which was set up by Congress in 1996 to critique the QDR (National Defense Panel 1997a; 1997b): The panel argued that the 2-MRC-standard was strategically

²⁸³ New threats included weapons proliferation, organized crime, terrorism and uncontrolled migration. In response to these threats counterterrorism and information operations gained more weight. (Larson/Orletsky/Leuschner 2001, 85, 90)

unnecessary and primarily served to justify a "Cold War-lite" force (Korb 2001, 44). It also criticized that the Pentagon failed to fully embrace the technological possibilities and continued to spend on outdated Cold War weaponry rather than to push transformation. In contrast to the QDR's focus on short-term requirements, the National Defense Panel (1997a, i) argued that "the greatest danger lies in an unwillingness or an inability to change our security posture in time to meet the challenges of the next century." Therefore, it called for institutional streamlining, increased interservice cooperation, so-called jointness, and a heavy emphasis on innovation and modernization efforts to realize a RMA. While the panel's report raised the congressional preference for transformation, the JCS and Cohen quickly rejected its recommendations. ²⁸⁴ Hence, the last opportunity to shift the focus either more towards the realization of a RMA or more towards the new low-intensity challenges was not taken.

Defense hawks in Congress shared the disappointment with the lukewarm report. Confronted with the FY 1998 budget request as well as the long-range forecast for DOD spending until 2003 of around \$250 billion in annual real spending, they had hoped for new vitality from Cohen's arrival at the DOD (Larson/Orletsky/Leuschner 2001, 87; Gertz 1997). Now, Spence complained: "Indeed, what we have is a QDR that will be presented as all things to all people. (...) As such, it seems to me that the QDR's most glaring shortcoming is its demand on the one hand that America accept difficult tradeoffs, yet on the other hand the review fails to provide a clearly defined baseline from which to assess the risks and trade-offs associated with an expensive post-cold-war world security strategy in an environment of fiscal constraint." (HNSC 1997, 53) And Lieberman suspected "that this in fact was a strategy-driven report that nonetheless was budget-constrained." (SASC 1997b, 43)²⁸⁵

²⁸⁴ Critics argued that the National Defense Panel unduly took the existence of a RMA for granted and failed to adequately consider the immediate demands for national defense (Kagan 1997).

²⁸⁵ The Defense Secretary did not deny the influence of budget considerations on the review. But he defended his resistance to increased spending, "because the reality is such that Congress is never going to support that absent a major conflict." (HNSC 1997, 55) Indeed, the preferences for stronger defense was still shaky in Congress. Just a day before Cohen's comment, the defense supporters had only very narrowly defeated attempts to shift money from defense into domestic areas during the House debate on the Budget Resolution (143 Cong. Rec., May 20, 1997, H8904-9027). The most powerful attack came from Bill Shuster (R-PA), chairman of the Transportation and Infrastructure Committee, and his bipartisan aides. They supported an amendment for a \$12 billion increase in transportation programs financed by across-the-board reductions in discretionary spending. In the end, the amendment was defeated 216 to 214 with the help of 14 Democratic HASC members.

But a new Balanced Budget Act in summer 1997 made attempts to increase the defense budget through the regular budget process futile. Spence admitted in his floor speech to introduce the FY 1999 Defense Authorization Bill: "Caught between an international geopolitical environment that requires an expansive United States national security strategy and a domestic political environment bounded by declining defense budgets locked in place by the Balanced Budget Act, the Committee is left to figure out how best to manage risk." (144 Cong. Rec., May 19, 1998, H3467).

When federal surpluses came in sight by fall 1998, however, both governmental branches considered additional defense dollars feasible and popular. Senate Majority Leader Lott and SASC chairman Thurmond planned hearings on the readiness issue to make a strong public case for emergency defense funding and blame the administration for its weak defense record. ²⁸⁶ In turn, the White House itself searched for an option to bypass the popular Balanced Budget Act and thus also welcomed the hearings (Wilson 2000b, 94). After successful lobbying by the OSD, Clinton had come to the conclusion that there was little political gain from resisting the rising demands from the Services (Graham 1999). Hence, both branches of government urged the Chiefs to freely admit their readiness problems during SASC's public hearings to create the case for emergency spending (Korb 2001, 36). Already prior to the hearings, the Washington Times cited from a memo of General Bramlett, CINC FORSCOM, warning that "current funding levels place FORSCOM's ability to accomplish its mission at an unacceptable risk." (Scarborough 1998b)

During the hearings, CJCS Shelton told the Senators in contrast to earlier testimonies: "Anecdotal, initially, and now measurable evidence indicates that our readiness is fraying and that the long-term health of the total force is in jeopardy." (SASC 1998, 76) And when asked whether they considered the FY 1999 funding appropriate to meet readiness and modernization demands, all Chiefs and the CJCS answered in the negative. They asked for an annual increase of \$17.5 billion to cover the most urgent shortfalls (SASC 1998, 133-134). Although there is little evidence that the public took further notice from the spectacle on Capitol Hill, Clinton called not only for an immediate supplemental appropriation, but also opened the door for larger budgets by agreeing to add \$112 billion to the defense budget over the next six years (Graham

²⁸⁶ Emergency spending was exempted from the ceilings of the Balanced Budget Act.

1998; Scarborough 1998c). Thus, FY 1999 marked the beginning of the "post-peace dividend years" (Gold 2001, 163).

Summary

Societal demands played a very limited role. Not even the strong demand for a peace dividend left substantial marks as the national economy recovered and the federal deficits were successfully addressed. After the budget had dropped to about 85 percent of the Cold War average defense spending in FY 1998, it returned to approximately 90 percent of the Cold War average in FY 1999 (Korb 2001, 35; Williams 2001, 6). With regard to the course of the transition, there is little evidence that societal demands were of any relevance. The one important exception is the defense economy, which caused Congress repeatedly to take an ambivalent position between calls for further cuts and a preference for stability. Although the governmental branches fought over the size of the defense budget during almost all years, they paid little attention to the overall force posture. Especially the administrations left most of the initiative to the military actors and were unwilling to risk a conflict. Due to the lacking societal and political interest, Powell and his successors were able to dominate the transition and the moderate innovations, i.e. the turn to conventional rapid response forces, must be largely attributed to their efforts. It is hardly surprising that the 1990s resulted in a smaller but hardly changed force.

6.2.1.2. Buildup

Early efforts for military reform

The Bush administration's arrival in 2001 was accompanied by the expectation of a turnaround in military policy. Not only had the pressure for additional resources continued to mount despite the end of the builddown in 1998, which led defense experts to warn of a potential "defense train wreck in the New Millennium." (Gouré/Ranney 1999)²⁸⁷ Bush had also pledged a more aggressive turn to transformation and a rejection

²⁸⁷ Defense experts estimated that defense budget increases of \$10-20 billion in the short run and \$30-50 billion in later years would be necessary to close the gap between existing capabilities and the strategic

of humanitarian interventions during the election campaign. Especially the armed forces expected better times under a Republican President. But they were hardly aware that the incoming administration had drawn critical conclusions from the RMA's failure during the 1990s: "[T]he Bush people believed the generals and admirals had run the building under Clinton, and had run it timidly and badly." (Scarborough 2004, 112; see also Herspring 2010, 79; Talmadge 2006, 15) Since Service parochialism had prevented transformation from within, pressure for change would have to come from outside the branches (Macgregor 2000, 23). Hence, "Rumsfeld had been plotting a hostile takeover" that strained civil-military relations right from the start (Scarborough 2004, 112).

Only two days in office, the Defense Secretary ordered the Chiefs to stop briefing members of Congress on perceived money shortages in order to foreclose any attempts to bypass the OSD (Wilson 2001a). At the same time, the military leaders were sidelined during the initial reviews of various aspects of the DOD, which should determine the new military policy and road to transformation (Talmadge 2006, 15; Wilson 2001b).²⁸⁸ As rumors about cuts in personnel and programs as a consequence of the reviews spread, military leaders soon started to complain that there was a lack of communication, which effectively excluded them from the review. They were bewildered that the new civilian leadership evidently created a transformation effort from scratch rather than building on the Services' earlier proposals and efforts (Talmadge 2006, 16).

Especially Army Chief Eric Shinseki, who had announced a far-reaching transformation of the Army already in fall 1999 to forestall unfavorable assessments in future reviews, was irritated (Adams 2006, 11-12). ²⁸⁹ The Army's plans set a timeline to supplement the current, only slightly upgraded legacy force with a parallel 'Interim Force', a lighter,

ambitions (Kugler 2001, 109). And HASC chairman Spence complained that "[i]t's going to take a decade or more of real growth in defense spending to climb out of this hole." (in Wilson 2000a, 57) ²⁸⁸ Rumsfeld relied instead on outside defense experts, industry leaders and retired military officers, favorably with some RMA background (Lemann 2001). As a clear sign of continuity with RMA concepts, Rumsfeld asked the ONA Director Marshall to direct a study group on strategy, which should provide a comprehensive review on future threats, warfare and military means by March 2001 (Ricks 2001b). The panels suggested institutionalization of transformation to push technological, organizational and doctrinal reform and a new focus of the US forces from Europe to Asia, where China emerged as most likely longterm competitor (Tomes 2009, 167-168; Adams 2006, 98).

²⁸⁹ Political pressure to embrace the RMA had constantly grown and especially the war over Kosovo added urgency to Army transformation by the end of the 1990s (Jackson 2009; Adams 2006, 55-60, 68). The Army had failed to provide suitable forces in time for operation Allied Force and the Air Force gained full credit for the campaign. After the Kosovo War, Deputy Defense Secretary John Hamre criticized the Army in a public interview with Defense News: "If the Army holds onto nostalgic versions of its grand past, it is going to atrophy and die." (in Jackson 2009, 54)

more mobile and capable force. Both threads should then be consolidated in the fully transformed 'Objective Force'.²⁹⁰ The program had been a far-reaching concession to the changing political demands as well as a difficult balancing act within the Army²⁹¹ and Shinseki had little interest in reopening the debate. Just like the Army, the other Services feared for their programs, which they had successfully protected during the builddown of the 1990s.

Therefore, reactions were frosty when Rumsfeld briefed the Service Chiefs on the review in May (Kitfield 2001a; Ricks 2001c). Active military officers were careful of openly challenging the Secretary, but they started to work Congress and the media behind the scenes to keep the OSD in check (Cockburn 2007, 115). Especially Shinseki and Army Secretary White opposed any attempts to cut back ground forces and modernization programs for its legacy force with increasing zeal, warning of strategic silver bullets and arguing that the contributions of the Army were not appreciated. They got societal support from retired Army Chief Sullivan, president of the Association of the US Army (Kitfield 2001a). The Army's resistance to Rumsfeld's review, which they considered unfair given their own transformation efforts, poisoned the relationship between the Defense Secretary and the Army leaders early on (Weinraub/Shanker 2003).

Congress, whose members also felt sidelined by Rumsfeld, soon joined opposition to the OSD's review style (Lemann 2001). Indeed, the Defense Secretary, shocked by "the extent of congressional nitpicking and micromanaging", had not been very eager to cooperate with Congress (Von Drehle 2005; see also Rumsfeld 2011, 296-297). In May, Senate majority leader Lott, SASC chairman Warner, and SAC chairman Stevens warned Rumsfeld that his refusal to consult them would make approval of the defense budget request harder (Dao 2001b). A week later, Lott and other Republicans held up the confirmation of two DOD nominees to protest Rumsfeld's information policy. And when Rumsfeld came to the Hill in order to testify for the first time on the strategic review process, the SASC provided him a chilly welcome (Ricks 2001e). The Senators questioned not only the strategic relevance of a national missile defense, but also

²⁹⁰ Since the Army was blamed for being too heavy and inflexible for an acceptable strategic response time, the Army Chief set the goal of deploying a brigade in four days, a division in five days, and five divisions in 30 days (Feickert 2009b, 1-2; SASC 2000b).

²⁹¹ For many within the Army, transformation ignored operational lessons of the 1990s and might expose the Army's force structure to cuts (Kitfield 2001a).

complained about the little and at times confusing information from the Pentagon (SASC 2001b).

The President, preoccupied with the implementation of his central election pledges of tax cuts and education reform, provided only little support for the Defense Secretary. In fact, national defense, except for NMD, was not on the White House's initial priority list (Moens 2004, 88). Despite complaints concerning readiness and underfunding of the military during the election campaign, the White House announced in February that there would be only a small defense supplemental for FY 2001 and moderate increases for the request in FY 2002. When Rumsfeld asked for additional \$35 billion over Clinton's plan for FY 2002, the OMB rejected an increase of more than \$15 billion. Although the compromise at \$18.4 billion was a significant extension of defense spending, it was far below the Defense Secretary's wishes (Rumsfeld 2011, 332). Rumsfeld's allies Robert Kagan and William Kristol complained in the Weekly Standard that the \$18 billion would be sucked up by maintenance accounts and frustrate transformation: "Here's some unsolicited advice for two old friends, Donald Rumsfeld and Paul Wolfowitz: Resign." (Kagan/Kristol 2001)

The administration sought to calm the furious congressional defense hawks by framing the FY 2002 budget as a placeholder budget, which added only the most urgent money and made no decisive qualitative changes beyond the new emphasis on NMD (Moens 2004, 90-94; Kitfield 2001b, 644). Comprehensive changes would follow after the OSD's strategic review was completed. But with the military leaders' refusal to abandon precious programs, the review made only slow progress and was soon merged with the efforts to provide a QDR by the end of September (Donnelly 2001). In an attempt to find agreement with the Services, Rumsfeld gathered three-star generals and offered them a deal: If the officers identified expendable modernization programs in the defense budget, which had only been defended for political reasons, he would take the blame for cutting them and keep the Services from political fire. Yet, the officers closed their ranks and did not provide any program of fiscal significance for the list. In a further step, the Defense Secretary summoned the Service Secretaries and Chiefs and asked them for reductions. Again, the military leaders refused to give in any programs

²⁹² As defense hawks in Congress started to rally support for additional spending, the White House conceded increases for the FY 2001 supplemental in order to avoid being trumped (Daalder/Lindsay 2003, 114). Yet, the final supplemental of \$5.6 billion mostly for quality of life improvements and NMD fell clearly short of the expectations of the Defense Secretary and hawks within Congress.

(Scarborough 2001b). In late summer 2001, Rumsfeld was losing the fight to reform the DOD and "was under fire from just about every quarter: from the left and the right, the press and Congress, generals and defense contractors." (Donnelly 2001) Al Kamen (2001) of the Washington Post wrote on September 7: "The sweepstakes have already begun on who might succeed Secretary of Defense Donald H. Rumsfeld if and when he steps down."

Comprehensive defense budgets after 9/11

The struggle over defense reform was still pending, when Al-Qaeda terrorists attacked the World Trade Center and the Pentagon on 9/11. The attacks completely altered the political dynamics on military policy, as the public and Congress rallied behind the commander in chief (Brody 2003, 236). Public approval ratings of Bush and Rumsfeld soared almost instantly providing the administration with new leverage for its policy initiatives (Langer 2008; Panagopoulos 2006).²⁹³ Congress closed its ranks and backed the administration by an overwhelming bipartisan consensus (Fortier/Ornstein 2003, 156-158). Within days after the attacks, Capitol Hill authorized the President "to use all necessary and appropriate force against those nations, organizations, or persons he determines planned, authorized, committed, or aided the terrorist attacks that occurred on September 11, 2001, or harbored such organizations or persons." (Senate Joint Resolution 23, PL 107-40, September 13, 2001) And while still not being enthusiastic about the Defense Secretary's style, few congressmen were willing to challenge the administration in war (Scarborough 2004, 127). Indeed, even the disagreements within the administration between State and Defense Department faded for a brief period of time (Hult 2003, 64).

Moreover, the events shifted the administration's focus immediately from its domestic agenda to national defense and the terrorist challenge. In the eyes of many within the administration, the attacks were the consequence of earlier administration's failure to respond more decisively to terrorist challenges. As Cheney argued in 2003: "Weakness, vacillation, and unwillingness of the United States to stand with our friends

²⁹³ While the support among Republican voters was already high prior to the attacks, especially Democrats became much more favorable of the President (Jacobson 2003, 200).

²⁹⁴ Especially strongly conservative circles were quick to identify terrorism as the latest manifestation of the evil against which the US has to stand its ground (e.g. Podhoretz 2007).

– that is provocative." (in Daalder/Lindsay 2003, 119) Therefore, the Bush administration issued a forceful response this time. Only hours after the attacks, Rumsfeld defined the plot as an act of war going beyond the Clinton administration's reading of terrorism as a criminal matter and placing major responsibility for countermeasures in his department. Feith later recalled: "Viewing the 9-11 attacks as a war that required a war strategy was a very big thought and a lot flowed from that." (in Scarborough 2004, 2) Only weeks after the attack, American and British forces started a campaign, largely based on air power, CIA forces and SOF, to defeat the Taliban and Al Qaeda in Afghanistan. Although the war was not without its downsides, most prominently Osama bin Laden's escape, the easy victory strengthened the administration and the civilians in the OSD, who had insisted on an unorthodox, transformational war plan.

There is good reason to argue that the sudden demand for military power saved Rumsfeld from early losing the battle over transformation and potentially his job. The emergence of a new military challenge circumvented a showdown between civilian and military leaders and broke the previous deadlock in the military policy process (Allen/Ricks 2002). The QDR, which Rumsfeld released a few days after the attacks, strongly resembled a new civil-military truce. Only hastily adjusted to the post-9/11 realities, the report rhetorically embraced transformation, but left the force posture almost completely unchanged. A senior military officer involved in preparing the review said: "The report is pabulum at best." (in Fulghum 2001) And O'Hanlon (2002, 105) claimed that the 2001 QDR "contained the fewest programmatic and force-structure initiatives of any of the four major US defence reviews since the Cold War ended (since it contained virtually none)." In successive hearings on the QDR, SASC chairman Levin said: "This QDR seems to me to be full of decisions deferred. (...) Rather than the comprehensive road map to the force of the future envisioned by Congress, this review largely (...) provides a vision." (SASC 2001c, 2)

Three changes are worth mentioning, however. First, the planning document of the Bush administration put a stronger focus on Asia, calling for additional regional bases.

²⁹⁵ Right from the start, the administration's thinking moved beyond the immediate punishment of the attackers. Already on September 12, Afghanistan and Iraq were debated as potential targets for the US military response during a NSC meeting. And on September 20, Bush (2001) prepared the nation for a long war: "Our war on terror begins with Al Qaeda, but it does not end there." (see also Waller 2001) ²⁹⁶ For a brief war account see Gordon (2001). For a critique see Biddle (2002).

Second, it restored homeland defense as DOD's primary mission and downscaled regional conflicts, most importantly abandoning the 2-MRC standard. It was replaced by an approximate 1.5-MRC standard, strongly resembling Aspin's unsuccessful winhold-win scenario.²⁹⁷ With the experiences from the 1990s, most experts welcomed this adjustment as an overdue step. As Williams (2001, 29) argued: "Keeping two MTWs at the top of the list of military missions denies the burden that smaller-scale contingencies have posed for the armed forces during the past decade, ignores the likely course of the next decade, and codifies a troubling discrepancy between declaratory policy and the real job that the US military is being asked to do." Since the changed force planning scenario did not result in changes in the force posture, there is good reason to argue that the new framework was more an adjustment to the DOD's reality with regard to capabilities than a strategic reorientation (Isenberg/Eland 2002, 10). Third, the QDR turned to a mixture of threat- and capabilities-based force planning to bridge the demands for current operations and transformation. Already in June, the Defense Secretary had argued for a strategy "using threat-based planning to address nearer-term threats, while turning increasingly to a capabilities-based approach to make certain that we develop forces prepared for the longer-term threats that are less easily understood." (SASC 2001b, 9)

Decisions with regard to force planning and weapon programs were largely bypassed in the QDR. Indeed, with 9/11 providing a new rationale for budget hikes, the Services' determination to maintain their modernization programs and the OSD's attempt to free money for transformation could be met without painful trade-offs (Talmadge 2006, 16; Isenberg/Eland 2002). The regular defense request for FY 2002, which had stuck in Congress because of the Democrat's resistance to the NMD spending increases, passed almost completely as requested after 9/11. Furthermore, supplemental appropriations for the GWOT became a common feature after the terrorist attacks.²⁹⁸ The successive FY 2003 defense request asked for 396.8 billion including \$18.2 billion for other defense related activities, a real increase of almost 11 percent over the previous year (Kosiak

²⁹⁷ The QDR's overall force sizing method was called the 1-4-2-1 scenario (Adams 2006, 106). The first two numbers translate in defending the homeland, while providing forward deterrence in four regions. The latter two numbers call for sustainable forces for two major conflicts wining in one of them decisively.

²⁹⁸ Shortly after the attack, Congress enacted the first emergency supplemental "for Recovery from and Response to Terrorist Attacks" (P.L. 107-38) including \$14 billion for the DOD. In January and March 2002, two further supplemental appropriations added \$3.4 billion and \$14 billion respectively to the GWOT efforts. Congress provided overall more than \$557 billion for the GWOT including the wars until 2007, of which the vast majority was authorized by supplemental appropriations (Belasco 2009a).

2002). Bush commented on "the largest increase in defense spending in two decades" during his State of the Union address in 2002: "Whatever it costs to defend our country, we will pay." (Bush 2002a) And Bush made clear that the additional funding in the FY 2003 would not only be used for the GWOT, but also for all the other defense priorities of the administration (Allen/Ricks 2002). Hence, the war on terror did not replace earlier priorities. On the contrary, Rumsfeld explained with regard to transformation: "The war gives an impetus to it, a sense of urgency." (Rumsfeld cited in Von Drehle 2005) As Wirls (2008, 103) pointed out: "In effect, Bush was combining a Vietnam War with a Reagan buildup."

In Congress, the defense buildup was sustained by strong bipartisan support (Fortier/Ornstein 2003, 160). While partisan divisions soon reemerged on domestic issues, the popular support for the GWOT made the administration's defense policy almost immune to opposition from Congress. Especially the liberal Democrats were trapped in an awkward situation: The new emphasis on defense drained funding from their priorities in domestic spending (Dinan 2002). But challenging a highly popular war President or questioning war funding in an election year were hardly promising undertakings from a political point of view. Although the New Democrats had taken a more hawkish position by the end of the 1990s, they were on the defensive even without taking action, since the war on terror had shifted the focus from domestic to security issues and thus from Democratic to Republican terrain, which the latter readily exploited during the election campaigns (Beinart 2006, 172-173; Jacobson 2003, 203). As the Democrats tried to make ground by supporting the President on security issues and even articulating more hawkish positions (Boyer 2002), the defense budget legislation for FY 2003, with exceptions of inconsequential debates on NMD and the Army's acquisition program, was rapidly passed by overwhelming majorities (Hulse 2002a; 2002b).²⁹⁹

²⁹⁹ While all budget legislation for domestic programs was behind schedule, the defense budget laws were passed prior to the November elections to avoid negative public reactions (Morgan 2002; Hulse 2002c).

By the time of the elections, the prospect of a war with Iraq had become very concrete.300 Throughout 2002, questions over Saddam Hussein's involvement in terrorist activities and stockpiling of weapons of mass destructions, the effects of sanctions, and prospects of regime change fuelled the discussions within and between the Bush administration, Capitol Hill, the media, allied countries, and international organizations. While the debate was still going on, war plans were discussed within the DOD. Buoyed by the successful Afghanistan operation, Rumsfeld had rejected CENTCOM's initial war planes, basically a 'Desert Storm light', as not transformational and called for a much smaller, transformational force. The OSD sent Macgregor, one of the prominent transformers, to support Franks' war planning and talked of Shock and Awe to achieve early decisive victory (Gordon/Trainor 2007, 37-40: Correll 2003). In largely bilateral planning between Rumsfeld's office and COCOM Franks, the latter repeatedly reduced the number of troops to meet the OSD's demands (Shelton 2010, 426, 482-484).³⁰¹ When the war was finally launched on March 19, the quick and decisive victory seemed to have further strengthened the transformers' position. 302 After less than six weeks of fighting, Rumsfeld told the victorious U.S. troops: "There were a lot of handwringers around, weren't there? A humorist in Washington the other day, sent me a note: 'Never have so many, been so wrong, about so much." (in DOD 2003b)

Yet, the postwar situation in Iraq soon got out of hand and forced the attention from transformation to immediate occupation needs. Indeed, it became apparent that the Pentagon's push for a transformational war had clearly misjudged the postwar

2

³⁰⁰ Although Bush and his advisors had initially decided to focus on Afghanistan rather than Iraq after 9/11, the latter issue remained on the table (Woodward 2002b; Fallows 2004). Bush's axis of evil rhetoric and comments by other officials left little doubt that Afghanistan was not the only potential target in the GWOT. In October, only weeks before the midterm elections, a strong bipartisan congressional majority passed legislation authorizing the use of force against Iraq (VandeHei/Eilperin 2002).

Many military leaders were neither comfortable with starting a second operation nor in agreement with the war planning, which strongly departed from the Weinberger-Powell-Doctrine (Herspring 2010, 82-90; Ricks 2002). Yet, with CJCS Myers and the JCS sidelined and the Defense Secretary controlling the promotions, few military officers within the DOD resisted the Defense Secretary's wishes. Only Army Chief Shinseki, who was close to retirement, publically challenged the OSD's troop estimates. But his testimony, in which he estimated a requirement of "several hundred thousand soldiers" (SASC 2003a, 241) to occupy postwar Iraq, was harshly dismissed as clearly too high by Rumsfeld and Wolfowitz (Loeb 2003c). The Service Chiefs' only strong ally outside the DOD, Secretary of State Powell, who questioned the case for war and warned of the consequences of an invasion, was successfully marginalized by Rumsfeld and Vice President Cheney, who used his privileged access to the President. For accounts and assessments of the war and its aftermath see Cordesman (2008), Gordon/Trainor (2007) and Packer (2005).

requirements and the value of transformational capabilities in it: "When tested, the new American Way of War yielded more glitter than gold." (Bacevich 2008, 130; see also Adams 2006, 179; Kagan 2003; Correll 2003) The number of major attacks on coalition forces and members of the Iraqi governments increased from 200 in June to 750 in September 2003 (Cordesman 2008, 119). As plans to rapidly create self-sustaining governments and pull-out US troops became a distant prospect, the costs for the mission steadily increased. Already by July 2003, most defense specialists warned that the costs of the war's aftermath would significantly exceed the administration's initial estimates (Weisman 2003). And political actors rightly feared that these costs would cause funding shortfalls in other defense programs including transformation.

Already prior to the war, the Bush administration submitted its DOD budget request for FY 2004, which the OSD described as the first budget in full accordance with the transformation vision. The \$380.4 billion request was part of a plan to grow the 050 budget by about \$20 billion annually over the next 5 years and included more than \$24 billion for transformation programs (Loeb 2003a; Kosiak 2003; O'Rourke 2003, 7). But a closer look reveals that the budgets started to turn into another direction than transformation by 2003. Already the overall FY 2003 national defense budget indicated a twofold departure from prior spending patterns (OSD 2008): (1) The current needs for the war efforts started to put pressure on the DOD's internal truce between the OSD and the Services. The accounts with immediate relevance, especially O&M but also procurement and personnel, expanded more rapidly than the R&D account. Hence, war costs started to slowly crowd other efforts out. Since experts doubted that the DOD would be able to sustain transformation and modernization even with growing budgets

³⁰³ Prior to the war, the administration deliberately avoided clear cost estimates as meaningless speculations despite criticism from leading Democrats in the SASC (Loeb 2003c). According to numbers leaked out of DOD and from a comment of OMB director Daniels in the New York Times, the war might cost \$50 to \$60 billion. Therefore, Congress had passed an emergency supplemental of almost \$63 billion to fund the war in April 2003. In November, lawmakers passed an additional emergency supplemental to provide funds for the troops in Iraq. The two wars and a second tax reduction, which the administration pushed through Congress at the same time it launched the war with Iraq caused increasing budget deficits (Schick 2003, 79).

³⁰⁴ Against the backdrop of the supposedly easy and fast victory in Iraq and the deployment of US troops in two countries, the Congress again refrained from challenging the administration's defense budget request. Rather, lawmakers outdid each other in praising the request (Morgan/Pincus 2003). SASC chairman John Warner (R-VA) told the press: "This sends a strong signal throughout the world that we are unified in the war against terrorists." (Hulse 2003) And Curt Weldon (R-PA), member of the HASC, summed the congressional mood: "[T]his bill is about America's patriots. This bill is about America's heroes." (149 Cong. Rec. May 21, 2003, H4404) Only some lawmakers, including later HASC chairman Duncan Hunter (R-CA), warned that the budget would require trade-off between current and future needs (Loeb 2003b).

under these conditions, the need of prioritizations returned to the Pentagon. Kosiak (2003, 1) observed with regard to the FY 2004: "[I]n terms of force structure and most major modernization programs it is remarkably similar to the Clinton Administration's defense plan." Only the significantly larger funding for NMD was a clear departure from the status quo. (2) With the war came a growing emphasis on the Army whose budget grew by more than 66 percent in real terms between FY 2002 and FY 2004. This does not indicate an intentional qualitative turn to a more personnel heavy force, however. The increase of the personnel account increased by 43 percent between FY 2002 and FY 2004 and remained constant thereafter, whereas the O&M account grew by more than 113 percent and continued to grow during the coming years. 305

Determined to keep the war costs limited and bring the budget quickly back on transformation track, the Defense Secretary treated the difficulties as temporary distractions and fought against a turn to a more ground force heavy force as well as the very notion of insurgency (Ucko 2009, 70). But military officers grew increasingly anxious over the situation in Iraq and the civilians' unfounded optimism. One anonymous general said: "It is doubtful we can go on much longer like this. The American people may not stand for it – and they should not." (Ricks 2004) Especially Army officers were angry with the civil leadership, as another general's complaint makes clear: "I think they are going to break the Army" and to make matters worse "I don't think they care." (Ricks 2004) Calls to fire Rumsfeld, Wolfowitz and CJCS Meyers started to appear in numbers. Rumsfeld's job approval ratings started to plump, as the public became increasingly concerned over insufficient troops with deficient protection in Iraq. At least since 2002, the public preferences, especially among Democrats, had called for a departure from the force planning for conventional operations. The situation in Iraq underlined the insufficient preparations in this direction, but the administration sought to keep the changes limited.

With growing public discontent, lawmakers stepped up their attacks on Rumsfeld, which had been largely suppressed by the GWOT. McCain, one of the DOD's strongest critics, called the war planning "inadequate" and demanded more personnel (Herspring 2010, 94-95). The Democrats echoed this critic and attacked the Bush administration for letting down the troops. In fact, the number of registered attacks on coalition forces in

³⁰⁵ FY 2005 is the only exception.

Iraq had reached 1,900 causing a daily average of 26 coalition casualties in April (Cordesman 2008, 119, 273). Furthermore, the Democrats considered the torture scandal at Abu Ghraib, which had become public in the same month, as a sign of the administration's growing inability to control the occupation and the GWOT (SASC 2004b; Hersh 2004). But with elections at the end of the year, no party seriously challenged the administration's defense budget request for FY 2005, which asked for \$423.1 billion including \$20.5 billion for other defense-related activities (Kosiak 2004). As the Iraq War kept defense policy salient, both parties fought to project the image of being more committed to the wellbeing of the troops and that they were the better managers of defense. The ambiguity in congressional behavior became particularly evident, when Bush asked Congress in May to add \$25 billion to the contingency funding provided in the FY 2005 defense appropriations (Hurt 2004b). On the one hand, lawmakers were far from happy and Democrats complained that the Bush administration was obfuscating the true state of the war to avoid a negative impact on the elections. 307 On the other hand, there was bipartisan consensus that troops in war had to be supported with all necessary means. House majority leader DeLay (R-TX) correctly predicted: "This is money for our troops, this is supporting our troops. Nobody is going to have any problem with that." (in Hurt 2004b) The FY 2005 funding bill was overall only slightly less than the administration had requested including the contingency funding (Curl 2004; Washington Post 2004).

The public also refrained from taking decisive steps and did not punish the Commander-in-Chief in the presidential elections in fall 2004. Confronted with the choice between sticking with the incumbent Republican or turning to an inexperienced Democrat, who had a mixed record on defense policy, as leader in the war on terror, the majorities preferred the predictable Bush despite his earlier mistakes over the unpredictable challenger.³⁰⁸ To be sure, the nation was strongly polarized along partisan lines and

³⁰⁶ To be sure, the Republicans in Congress, fearing for their reputation as spending hawks, became increasingly concerned about the deficit and called for governmental restraint in spring 2004 (Hallow/Fagan 2004). Yet, their calls remained largely inconsequential for the defense budget.

³⁰⁷ An amendment by Kennedy (D-MA) directing the administration to report on progress in Iraq, including prospective US troop levels, was only narrowly defeated on the Senate floor (Dewar 2004). The Democrats, who suspected Bush to withhold the true costs of the war, were proven right when the White House requested another \$80 billion emergency supplemental for the DOD in January 2005 (Weisman 2005).

³⁰⁸ Since the Democratic challenger John Kerry had opposed or favored cutting some of the most prominent weapon systems during his time in the Senate, the Republicans accused him of being weak on defense (Hurt 2004a). The Democrats countered by blaming Bush of insufficiently equipping US troops in the field and stretching the forces thin (Morgan 2004; Dinan 2004).

Democrats desperately wanted Bush out of office (Campbell 2005). As opposed to the Republicans, they saw the Iraq War not as part of the GWOT and they disliked the administration's performance there. Democrats preferred a force posture with less emphasis on conventional equipment. But the majority of US citizens still considered the incumbent as the better leader in the GWOT. Among the 15 percent, who considered Iraq the most important electoral issue, Kerry defeated Bush 73 to 26 percent. But among the 19 percent who regarded terrorism as most important, Bush won by an overwhelming 86 to 14 percent (Beinart 2006, 185, 268). Given the electoral confirmation, the changes with regard to military policy after the election remained small. With Rumsfeld reinforcing his determination to transform the DOD early into the new term (Shanker/Schmitt 2005), the ambivalence between the only halfhearted satisfaction of current needs, modernization and transformation continued. 309

Since the Iraq situation did not improve and the military budgets continued to soar without a clear direction, the public disapproval again increased and the lawmakers' subservience in national defense melted during 2005. While many Republicans still tried to back the administration's course, attacks on the administration's Iraq strategy and the Defense Secretary in particular became more numerous. The Democrats vehemently challenged administration's indecisive stance on Iraq, criticizing the lack of explicit strategy and information (Hulse 2005). The Republican leadership was even forced to remove the FY 2006 defense authorization act from the Senate floor in July, to avoid attempts to amend the bill with controversial proposals including an investigation in the military treatment of detainees (Graham 2005b). Since the Democrats refused to drop this amendment, the authorization bill remained in limbo until late fall. When the bill returned to the Senate floor in November, overwhelming majorities passed amendments to ban cruel treatment of enemy prisoners and mandating progress reports on the war (Dinan 2005). The Senate also passed an amendment requiring a schedule for transition of sovereignty in Iraq, which was introduced by the Republican leadership. 310 Indeed, after returning from an Iraq visit in fall, SASC chairman Warner declared that "the secretary of defense (...) was not, in my judgment, showing the

³⁰⁹ In the FY 2006 defense budget, with a DOD request of \$421.1 billion and two supplemental requests of \$50 billion and almost \$76 billion respectively, the Army received again increased its relative share of the overall budget (OSD 2008; Kosiak 2005). But while its O&M account increased by almost 24 percent in real terms, the personnel and R&D accounts increased only by 4.1 percent and 8.8 percent respectively (OSD 2008).

³¹⁰ Lindsey Graham (R-SC), one of 13 Republicans rejecting the amendment, complained that "senators were bowing to nervousness over public-opinion polls rather than setting good policy." (Dinan 2005)

strength and decisiveness that is needed at this time." (in Von Drehle 2005)³¹¹ Washington Times columnist Ullman (2005) commented: "Like Rip Van Winkle, the Senate collectively appeared to have awakened from a long slumber, in this case over the conduct of the war in Iraq."

The acceptance of inconsistency

Against the backdrop of rising pressure, the Bush administration's second QDR due in late 2005 offered a good opportunity to reconsider the course of the transition. With two ongoing major operations, a soaring budget deficit, and a derailed transformation, the review came at a time of great challenges (Graham 2009, 575-576). In contrast to 2001, the numerous problems provided Rumsfeld with good arguments to insist on a major revision of the force posture even over the resistance of the military actors. A continuous funding of both, the OSD's transformation and the Services' modernization programs, seemed impossible to bring in line with the growing GWOT efforts. But the third QDR since the end of the Cold War, finally published in February 2006, did not live up to the expectation. Most authors approved the review's analysis of the threat environment and the implications for force development. Four potential challenges to national security were identified and evaluated with regard to the likelihood of their occurrence and related US vulnerability (Rumsfeld 2006, 19; Fairbanks 2006, 37-38; Flournoy 2006, 71).312 Based on this assessment, capabilities-based force planning should maintain conventional superiority but move from mainly preparing for conventional challenges to a broader set of means, especially to prevent WMD attacks by terrorist organizations. Therefore, the 2006 QDR largely upheld its predecessor's

2

³¹¹ Within the administration, the new Secretary of State Rice and NSA Hadley started to challenge Rumsfeld's monopoly on strategy formulation on Iraq by suggesting an alternative course in 2005 and 2006 (Herspring 2010, 95-96; Woodward 2008). In contrast to the DOD's combat heavy strategy seeking an active destruction of the insurgents and an early withdrawal of US forces, Rice promoted a Clear, Hold, Build strategy heavily based on best practices of prior counterinsurgency operations: Clear areas from insurgent control, hold them securely, and build durable institutions (Ucko 2009, 74).

³¹² (1) Traditional challenges based on conventional military power were decreasingly likely and the challenge to which the US was the least vulnerable, because of its superior conventional capabilities; (2) The challenge of unconventional and irregular attacks were considered more likely, but of moderate risk for the US; (3) Disruptive challenges caused by states acquiring breakthrough capabilities are of low likelihood and unknown in their impact on US security; (4) The increasingly likely catastrophic attacks by weapons of mass destruction or comparable effects on high-value targets were treated as the greatest threat, since they would result in an unacceptable level of damage.

1.5-MRC high end requirement,³¹³ but significantly upgraded the role of irregular operations, including counterinsurgency and stability operations. The Navy and Air Force should maintain its focus on conventional challenges, whereas the ground forces should extend their capabilities to include irregular warfare. By rebranding the GWOT as 'the Long War', the QDR made it clear that the latter kind of operations would occupy the Pentagon for some time.

Yet, observers were puzzled that the QDR included no significant implications for the force planning based on the threat analysis (Korb 2006). To be sure, in accordance with the transformation vision, the review put more weight on SOF, UAVs and long-range strike capabilities. But overall transformation was clearly the loser in the review and O'Hanlon (2006) argued that the most telling aspect of the QDR was its consistency with earlier reviews: "For all the talk of revolution and radical change, for all the specific new initiatives under Mr. Rumsfeld and his predecessors, we have reached a certain degree of consensus and stability in post-Cold War defense policy reviews." Indeed, while the review process began as an ambitious attempt to restructure the military and make good for the missed chance in 2001, it was increasingly boiled down to a "budget-cut drill" (Ratnam 2005; Henry 2005).

Neither Congress nor societal stake holders were involved in the process and there is good reason to argue that the OSD's lack of capacity and interest determined the stability in the end (Ucko 2009, 85). Occupied with the ongoing operations, Rumsfeld was much less involved in the process than in 2001, leaving most writing to the OSD and the Joint Staff. The civilian control of the review process was further disrupted by a change of leadership, as Gordon England took over from Wolfowitz in May 2005. ³¹⁴ Hence, the political actors were in no position to seriously challenge the Services' conservatism and did not try so (Ratnam 2005). Ryan Henry, principal undersecretary for policy, who played a leading role during the review argued: "I think the QDR was as strong as it could be and still have everybody signing up to it." (in Graham 2009, 579) The signs for the armed forces had not fundamentally changed: Their weapon programs

³¹³ To be sure, the 2006 QDR departed from the complicated 1-4-2-1 framework and replaced it by only three missions: Homeland defense, war on terror/irregular warfare, and conventional campaigns. But the requirements within these missions did not significantly differ from the previous concept.

³¹⁴Consultation with lawmakers during the review process was also limited causing the latter to initiate their own review (Flournoy 2006, 78-79).

continued to dominate the budget despite the growing burden on the DOD. ³¹⁵ Although the Army could hope for additional money and especially increased troop levels from a stronger emphasis on irregular warfare, the generals were not willing to give in on their weapon programs. Even more than the Army, the Navy and Air Force feared that a more decisive turn to either transformation or irregular warfare might disrupt their modernization programs given the rising war costs and soaring federal deficits. Continuous ambivalence seemed the best of many bad options.

Comments from all sides were biting: "This is Rumsfeld's ultimate surrender: the concession that, fundamentally, all's well." (Kaplan 2006a) HASC chairman Hunter (R-CA) complained that the QDR was largely budget driven and reached conclusions with regard to force structure and a weapon acquisition, which contradicted its strategic findings (in HASC 2006a, 1-2). Ranking Democrat Ike Skelton (MO) agreed with Hunter: "I am struck by an enormous disconnect between what we seek to do and the means we plan to use to accomplish it." (in HASC 2006a, 62-63) Moreover, although the Services endorsed the QDR's recommendation (Graham 2009, 579), retired senior Army officers vocally articulated their dissatisfaction with the QDR's outcome. From their point of view, the QDR again proved Rumsfeld's ignorance with regard to the ground forces' needs. In the New York Times, retired Maj. General Paul Eaton (2006) called for the resignation of Rumsfeld arguing that he "has shown himself incompetent strategically, operationally and tactically." According to Eaton, the QDR clearly revealed that the Defense Secretary "fails to understand the nature of protracted counterinsurgency warfare in Iraq." In a series of public statements which were soon termed the 'Revolt of the Generals', other retired officers echoed the complaints and recommended Rumsfeld's resignation (Bacon 2006; Kaplan 2006b). Marine Lieut. General Greg Newbold (2006), who had retired in opposition to the Iraq war plan among other things in late 2002, accused the political leaders, especially the OSD, in the

³¹⁵ Critics accused the Pentagon to finance shortfalls in the regular budgets through the supplemental appropriations for the GWOT in order to avoid painful program decisions. Since the distinction between war-related and regular programs is blurry, critics suspected that the Services used supplemental funds to cross-finance regular acquisition programs and personnel costs. By issuing ambivalent directives, the OSD even assisted these activities (Testimony of Steven Kosiak in SBC 2007, 99). Since supplemental appropriations were not subject to the same extensive executive and congressional review process, lawmakers repeatedly complained that this undercut congressional oversight and demanded the inclusion of war costs in the regular budget requests (e.g. SASC 2005, 184-285; SBC 2007, 79-80). Moreover, critics argued that the routine of two parallel budget cycles, the steady, regular PPBES and the quick supplemental funding, had undermined the DOD's planning and budget discipline (Testimony of Gordon Adams in SBC 2007, 109-112).

Time magazine of successive policy failures with regard to Iraq, including distortion of intelligence, disruptive micromanagement, alienation of international allies, and the denial of an insurgency. David Ignatius (2006) reported that according to an active Army officer's guess 75 percent of the Army officers wanted the Defense Secretary to leave. Yet, Bush settled the issue by expressing full confidence in Rumsfeld in the middle of April (Ruttenberg/Mazzetti 2006).

Congress took surprisingly little notice of this political turmoil. Although many experts expected cuts in the regular budget due to rising deficits, the national defense request for FY 2007 asked for \$463 billion including almost \$22 billion for the DOE and other defense related activities, a real growth of 3.6 percent over the previous FY (Kosiak 2006). Reflecting moderate rebalancing efforts as outlined in the QDR, the budget added funding for new initiatives improving irregular warfare capabilities, such as increased SOF and UAVs, and again provided the Army with the biggest increase, although again not for personnel (Tyson 2006). It seems that SOF and UAV were particularly attractive, since they played an important role in the transformation vision and were at the same time valuable assets for the current counterinsurgency operations. Analysts speculated that "[t]he Pentagon probably reasoned that members of Congress would be reluctant to make significant cuts (...) with midterm elections near." (Merle 2006) Indeed, lawmakers saw again little incentive to seriously challenge the administration on defense, as the Republicans again sought to play the national security card during the upcoming election campaign. To be sure, Republican fiscal hawks, concerned about the federal deficit, also made sure that any congressional attempts to add new spending items in the defense budget would result in a fight (Fagan 2006). But the budget was passed with little changes prior to the midterm elections (Hurt/Fagan 2006).

By the fall of 2006, public frustration over the Iraq War finally hit the Republicans, which lost their majorities in both congressional chambers. The success of the Democrats put further pressure on the Bush administration and especially Rumsfeld. Already in August, the Army had refused to submit its POM for FY 2008 to the OSD, arguing that its granted money share would not suffice to meet its obligations (Cockburn 2007, 218). As a confession of his loosening grip on the DOD, Rumsfeld allowed Schoomaker to make the Army's case directly to the OMB (Shanker/Cloud 2006). Within the Pentagon, this step was seen as reflecting not only the reality of

Army's unmet needs, but also the Defense Secretary's unwillingness to risk conflict with the Service and its supporters. Two months later and only days prior to the election, the editorials in the widely read Army Times, Navy Times, and Air Force Times called for the Secretary to go, an unprecedented expression of military discontent (Kaplan 2006c). With the Services close to open disobedience and Iraq as the major cause for electoral defeat, Bush, who had backed Rumsfeld for a long time, had no choice but to accept the Defense Secretary's resignation few days after the election (New York Times 2006).

Rumsfeld's successor Gates was welcomed by lawmakers and military officials with relief. He was considered an "anti-Rumsfeld", more pragmatic, cautious, and approachable than his predecessor (Kaplan 2008). Gates departed not only in style but also in substance from his predecessor's course. To be sure, the new defense secretary continued the military buildup and the DOD budget request for FY 2008 was more the 8 percent larger than in FY 2007 (Kosiak 2007). The Washington Post (2007) predicted: "The reality that the budget reflects is that US defense spending will have to return in the years ahead to its historic level of 5 percent of GDP (...). That's because the American role in heading off threats in an increasingly disorderly world will not change soon, and because the military faces the need to replace aging tanks, planes and ships with 21st-century systems." But Gates put the current counterinsurgency efforts more squarely into the focus of military preparations. Together with the regular budget, the administration requested \$141.7 billion in supplemental funding for the wars which rose to almost \$190 billion during the year. R&D was reduced while especially the procurement and O&M accounts were increased. Moreover, a surge of additional ground forces to Iraq was taking shape by the end of 2006. At the same time, Gates kept the Services' weapons programs untouched for the moment. Hence, a further potential transformation was the major victim of Gates' stronger turn to irregular warfare. 316

³¹⁶ The Navy and Air Force were nonetheless unhappy with the continuous relative fiscal emphasis on the Army and the Marine Corps (Tyson 2007). But with approximately 160,000 US ground forces tied down in counterinsurgency operations in Iraq and Afghanistan and preparations for a surge, there were few options to claim funding from the Army. The Navy and Air Force therefore resorted to making their own case for additional funding (e.g. Deptula 2007). As Lt. Col. Peter Huggins (2007) from the Air University argued in the Washington Times: "Zero-sum arguments (...) overlook the other choice of increasing the defense budget." But with large deficits and Democratic majorities in Congress, their efforts were of limited success. At the same time, the Democrats had their own troubles with the defense budget. During the campaign, they had promised to push for a withdrawal from Iraq, but now they were afraid of getting politically punished for using the budget to force the administration to end the war (Scarborough 2006). Indeed, the budget met many of their demands, including an extension of active duty personnel and

Summary

The transition after 2001 in many ways resembled the buildup during the early 1950s. Even more clearly than after the outbreak of the Korean War, society and Congress rallied behind the President and stopped to actively question the military policy after 9/11. And the inflow of resources again allowed the political actors to evade the showdown with the military actors. Yet in contrast to the Truman administration, in which the major civil-military conflict ran along budgetary lines, the cleavage in the Bush administration along different qualitative preferences was only temporarily bridged. Public approval and the soaring defense funds allowed the administration to engage in a difficult balancing act of pursuing transformation, the less innovative modernization and GWOT at the same time. Hence, after failing to overcome the resistance of the status quo forces in the Services, Congress and society, the administration sought to meet all demands after 9/11. Yet, by 2003 it became apparent that the DOD could not have everything: The Iraq War showed the progress in weapons acquisition but the subsequent occupation revealed the limitations in the organization and doctrine dimensions. While this caused rapidly growing dissatisfaction among Democratic voters, the public confirmed Bush during the election in 2004 and thus missed the most obvious opportunity to actively give the transition another direction. At the same time, the conflict between OSD and Services inevitably returned with the growing fiscal needs of the GWOT. But occupied with the Iraq situation, the political actors failed to create an effective leverage and transformation was the major victim of this battle. Only transformation programs which had an obvious overlap with the current missions, such as UAVs and SOFs, made noteworthy progress. Overall, stability clearly outbalanced innovative steps.

6.2.2. Military organization

6.2.2.1. Builddown

Service interests versus reserve interests

Force level reductions were an inevitable part of the defense downsizing after the Cold War. And as in the budget dimension, the early decisions made during the Base Force preparations proved most consequential for the subsequent course of the transition. Early on, Powell concluded that significant but well defined cuts in conventional forces very unavoidable. Forward deployment could be significantly reduced at the same time, since the demise of the Soviet Union and progress in arms control agreements³¹⁷ would increase warning time. Against this backdrop, the Army was to shrink from 18 to 10-12 divisions resulting in a troop reduction of 31 percent. The Marine Corps were to be reduced by 24 to 37 percent. Powell was uncertain about the Air Force cuts, but the Navy's 551 ships should be decreased to 400 ships with a reduction in active duty personnel of 32 percent. Overall, the uniformed military personnel of 3.3 million including reserve components should be reduced to 2.6 million by 1996. Although the final Base Force Plan slightly departed from Powell's ideas, the CJCS clearly provided the central guidance for the reorganization. When he first presented the final plan in fall 1989 and spring 1990, it was still very close to the CJCS' view: It aimed at 18 Army divisions (including 6 reserve), 13 Navy carrier groups (including 2 reserve) and 26 tactical fighter wings (including 11 reserve) by the end of FY 1995 (Ippolito 1994, 64; Jaffe 1993; Snider 1993b). 318 The shrinking force structure would lead to personnel reductions in the active force of more than 400,000 and reduce the number of troops in foreign countries.

Although the CJCS had evidently very proportional cuts in mind and the final Base Force Plan's 2-MTW standard aimed at still substantial postwar forces.³¹⁹ the first

³¹⁷ The Treaty on Conventional Armed Forces in Europe slowly took shape during 1989.

³¹⁸ The plan was then slightly adjusted to 20 Army divisions (including 8 reserve), 4 Marine divisions (including 1 reserve), 12 Navy carrier groups (including 1 reserve) by 1997 (Larson/Orletsky/Leuschner 2001, xxvii; McCormick 1998, 29).

Despite the proportionality of the Base Force Plan, interservice conflicts quickly revived with the prospect of shrinking resources. Considering that air power would play a major role in forward defense, the Air Force heavily attacked the Navy's aircraft carriers. Air Force officers claimed that the Navy's aircraft carriers are vulnerable to missile attacks and Secretary Rice argued the [j]ust eight B-2s can match the daily ordnance capability of a carrier." (in Thompson 1990) Retired Air Force Secretary Verne Orr further told an audience: "I don't think there is a military force better prepared to fight the last war than the United States Navy." (in Thompson 1990) The Navy countered by arguing that its radars could easily defeat the B-2's stealth technology. A second conflict emerged between the Army and the Marine

reactions of the Services, which had not been involved in the early planning, were skeptical to openly negative. The Army Generals Maxwell R. Thurman, who had executed the successful Panama Operation Just Cause as Southern Command CINC in December 1989, and Edwin H. Burba Jr., Forces Command CINC, expressed skepticism regarding the abolition of a threat-based force planning and argued that the planning was disproportionately driven by budget needs instead of CINC requirements. They argued that without an underlying strategy, force planning was pure speculation. More in line with Cheney, the Service Chiefs argued that Powell's plan was based on a too positive picture of the Soviet transition and voiced resistance to substantial cuts. They had had already a hard time planning along Cheney's earlier guideline of 2 percent annual reductions, responding with "a mixture of resistance, resignation and, in some cases, creativity." (Tyler 1990) Hence, when Powell told a reporter of the Washington Post in May 1990 that 20 to 25 percent reduction in defense expenditures and force size were possible he was strongly criticized by Cheney and the Service Chiefs (Powell 1995, 440, 454; Smith 1990). The Services considered the force structure cuts as too far-reaching and the CJCS' attempts to make the Chiefs comply with the even further cuts in the Base Force was "like fitting a size-ten foot into a size-eight shoe." (Woodward 1991. 231)

But with the growing congressional pressure on the budget and an increasing support for the plan from the OSD, the Services started to see the Base Force as a fence to clear-cutting and their resistance melted. In a first response to the plans, the Army Chief Vuono voiced fears that the Base Force reduction would fracture the force. Between 1987 and 1990, the Army had conducted three force structure reviews on its own which concluded that a 14-division active force including forward deployment was the minimum requirement by 1996.³²⁰ But as the congressional cuts in the FY 1991

Corps with the latter complaining that the Army was increasingly duplicating the Marines' capabilities to save its relevance after the Cold War. While the Army emphasized its rapid response ability through airborne forces, the Marines highlighted the vulnerability of airborne forces and thus indicated the superiority of seaborne troops (Gordon 1990a; 1990c). Concerned about losing ground relative to the Army, Alfred Gray, Commandant of the Marine Corps, vehemently opposed reductions of the Marines to Powell's Base Force levels. In the end, Powell adjusted the force levels for the Marines to 159,000. This remained the only concession and the Marine Corps were the only branch, which escaped its share of the reduction (Friedman 2009, 78-79).

³²⁰ The Antaeus study between 1987 and 1989 focused on force reduction in Europe and concluded that these should be minimal. Quicksilver 1 and 2 succeeded Antaeus and built the basis for the Army's POM development. The goal was to protect force structure in reducing costs of R&D and modernization programs (Lewis/Roll/Mayer 1992, 37-42). Even prior to the Base Force Plan, Army and Air Force leaders had heavily opposed the departure from forward presence (Jaffe 1993). While the National

threatened to even result in 10 divisions, Vuono agreed to settle for the Base Force's 12 divisions. The Navy planning in early 1990 was also above the Base Force estimates and the admirals had a hard time accepting the loss of 2 aircraft carriers, 20 percent cut in attack submarines, 20 percent drop in personnel and a goal of 451 rather than its earlier projection of 488 ships (Friedman 2009, 79; Labs 2006, 5). They voiced doubts about the success of the Russian reforms and argued that the reduction in forces would put large scale missions at risk and reduced permanent forward presence. But like Vuono, CNO Frank Kelso took a more pragmatic stance accepting the Base Force in a sequence of discussions during 1990 against the backdrop of congressional attacks. The Air Force was the least reluctant branch. Resting on quality rather than quantity, only slight adjustments were necessary to bring the flyers' force planning in line with the Base Force Plan.

The plan was fully accepted within the DOD by fall 1990 and the force projections, which Bush sent to Congress in February 1991, were very close to the Base Force Plan of 1.6 million active duty personnel (Jaffe 1993, 449). Yet, driven by societal special interests, lawmakers agreed not on all elements of the plan. They readily backed reductions in overseas forces and bases, which took some pressure from many threatened homeland bases in various constituencies (Engelberg 1990). Hence, the forces based in Europe were almost cut in half between FY 1990 and FY 1993, dropping by 143,000 (Perry 1995). And the forces based in East Asia were reduced by one-fifth, approximately 20,000 troops (Kane 2006). At the same time, the still substantial force levels in active duty forces soon came under pressure, as Congress moved in protection of the reserve forces. The DOD expected the National Guard and the reserve forces to carry at least their fair share of 20 to 25 percent in personnel reductions (SASC 1991, 129; Pasztor 1991). Given the strategic shift from total war to rapid response, the Services considered the post-Cold War relevance of reserve forces as limited since they would require time consuming training before deployment.³²¹

Military Strategy of 1989 adopted an alternative and more flexible concept of forward defense, forward presence was not fully abandoned and remained the Army's starting point for potential adaptations during the expected builddown period.

³²¹ The reservists' performance during Desert Storm was subject to major controversy. The Services only reluctantly requested reserve forces voicing doubts about the reservists' training and fighting abilities (Pasztor 1991; Wood 1991; Applebome 1991). Congress questioned the reluctant use of reservists and put pressure on the DOD to stop the neglect of reserve components. In the end, reservists were deployed in substantial numbers to the Gulf, but few were assigned to combat duty. After the war, reservists voiced frustration over having been treated as second class soldiers and suspected that many officials in the DOD wanted them to fail. Indeed, Cheney concluded that National Guard units could probably not be mobilized

Furthermore, a participation of the reserve components in the builddown would not only maintain the balance between active and reserve elements, but also allow passing some costs of the transition. Yet, Powell (1995, 550) recalled: "When we tried to cut back to sensible levels, however, we had our heads handed to us by the National Guard and Reserve associations and their congressional supporters."

The NGA, other reserve groups and spontaneously organized reservists started to lobby for the survival of reserve units and against the reduced combat role of reserve units in the Base Force. Even before the Base Force Plan emerged, lawmakers made clear that they would not accept disproportional cuts in the National Guard and reserves during the transition. HASC member Patricia Schroeder (D-CO) argued in early 1990: "I think deeper cuts must come in active forces and the reserves ought to be strengthened." (in Engelberg 1990) And in 1991, Congress allowed only for much smaller reductions than Cheney's request to take the first step in reducing the National Guard and reserves by almost 250,000 over five years (Scarborough 1991). The Defense Secretary complained to no avail that "[w]e end up with force structure that we don't have a mission for." (in Schmitt 1991a) Lawmakers continued to protect the reserve forces in 1992, putting additional pressure on the active force levels. After the Vietnam War, the Services had intentionally interlocked the active and reserve forces' means to create public support for the armed forces in wars that required the call up of reserve elements (Shanker 2003a). This heightened importance of the reservists together with their societal relevance strongly backfired now. Gordon Adams, director of the Defense Budget Project, commented on the congressional action: "The reserves are built into the American political system. They're just not an armed force, they're a political force." (in Scarborough 1991)

Given congressional intervention, the reductions in the active duty forces turned out less proportional than initially sought for. Whereas the Army and the Air Force, whose number of B-2 bombers was severely cut by congressional action, were to drop 30 and 24 percent respectively from its 1989 personnel strength, the Navy and Marine Corps should lose only some 14 and 13 percent respectively. Yet the naval forces' relative

as early as hoped and thus implicitly put their relevance for the new missions in doubt. In contrast, lawmakers and members of reserve groups praised the performance of reservists during Desert Storm.

share of the overall active duty personnel increased only very moderately and the armed forces remained very much unchanged.³²²

The continuation of the 2-MRC standard

With Clinton moving to the White House, the Services prepared for a renewed round of force reductions. Not only had the Democratic President announced to cut an additional 200,000 troops from the Base Force, but Aspin suggested a reduced force structure over the Base Force during his last year in Congress and his confirmation hearings (Grunzinger 1996, 6). And the BUR shortly seemed to follow through with the farreaching reductions. Aspin's initially favored win-hold-win force planning option required only 10 active Army divisions, 10 carrier battle groups and 13 active fighter wings (Grunzinger 1996, 8). While this again was hardly a far-reaching departure from earlier organization, especially the Navy organized opposition against the win-hold-win option. The admirals were willing to sharply reduce their fleet from 450 under the Base Force to 340 ships, but vehemently resisted the cut of two carrier groups and the inherent implicit growth of Air Force relevance (Lancaster 1993a; Morrison 1993, 2162). Without backup from the White House and pressured by the Services, congressional defense hawks, the press, and US allies, the BUR left the win-win standard in place (Larson/Orletsky/Leuschner 2001, xxvii; Gellman/Lancaster 1993; Armstrong 1993). Hence, its force structure adjustments remained limited. The naval forces were again the relative winners. Although the Navy faced the largest personnel cuts of 18.5 percent between FY 1994 and FY 1998, it lost only one active carrier group relative to the Base Force resulting in 11 active groups and 346 ships (Labs 2006, 5; Cohen 1999). The Marine Corps was even strengthened by increasing its target active strength to 174,000. The Army lost two active divisions, but was least affect with regard

³²² Early attempts to create additional savings through the consolidation of the unified commands failed for various reasons. With regard to plans to reorganize the commands on a functional basis, a study of the CJCS's office concluded: "A functional UCP [Unified Command Plan] reorganization would have cut deeply into what the Services saw as their traditional prerogatives." (Cole *et al.* 2003, 99) A consolidation of the geographic commands failed for three reasons: First, the DOD feared to create an all-powerful commander, who might destabilize the power balance within the DOD. Second, diplomatic considerations and personal ties in allied countries prevented a reduction of structure. Third, the Services protected the status quo. Senator Nunn (1996, 64) complained in fall 1996: "Seven years after the fall of the Berlin Wall, DOD remains burdened by a Cold War UCP."

to the personnel reductions.³²³ And the Air Force was reduced by two active fighter wings, yet slightly increased its active bomber fleet from 181 in the Base Force to 184 in the BUR.

During the review process, the Joint Staff again touched the reserve force issue, arguing that there was hardly a military need for more than 15 of the current 47 National Guard brigades (Gellman 1993d). But the Clinton administration drew conclusions from Cheney's unsuccessful attempt to cut the reserves head-on (Schmitt 1993d). Since he could not win a showdown with the National Guard, Aspin made a deal with key players, including the National Guard, the NGA and lawmakers, to agree on a cut of almost 100,000 reservists. Wary with regard to the other's relevance, the National Guard accepted a cut of 10 brigades, a 13 percent reduction in personnel, in exchange for the assurance that Army Reserve would be cut by 26 percent. Moreover, the National Guard would concentrate combat and combat-support function, whereas the Army Reserve would be focused on combat service support. Unsurprisingly, the Army Reserve Association strongly opposed the plan. But as an active Army officer argued: "We own the Reserve, so it's a lot easier to screw those guys than the National Guard." (in Gellman 1993d)

Despite the reductions and a more active deployment of reservists in peacekeeping missions during the coming years, the DOD continued to complain about the oversized National Guard. With growing fiscal pressures on the active duty forces, the Pentagon tried to cut eight National Guard combat divisions, which were considered unnecessary, in 1995. Of the divisions' personnel, 60,000 troops should be converted to support units and 50,000 positions eliminated (Doubler 2003, 362-364). Suspecting the Army to see the National Guard as a peer competitor for scarce resources rather than a partner, the NGA and its congressional allies fought back. Edward Philbin, director of the NGA, reminded Perry in late 1995: "Since significant elements of the eight National Guard divisions are located in 25 states, which control 363 electoral votes, the precipitous restructuring could very well affect the 1996 elections." (in Schmitt 1995d) In the end,

³²³ Yet Defense Secretary William Perry directed the Army in May 1995 to cut additional 20,000 troops from its BUR troop level goal in order to free money for modernization projects.

³²⁴ The coming years saw an extensive migration of heavy equipment, especially artillery, from the active duty Army to the National Guard by mutual consent. The Army leaders were determined to maintain as much of its heavy equipment as possible, but the budget cuts made many units unaffordable. Therefore, they arranged with the National Guard to outsource large proportions of its artillery requirements. Hence, the Army good 'lighter', whereas the National Guard got 'heavier'.

the Army partially backed down and accepted the National Guard's plan to convert the equivalent of 4 combat divisions into support units.

In 1997, the DOD prepared for the last military review during the Clinton tenure. Right from the start, Cohen sought no fundamental reorganization, but rather hoped to realign strategy and force structure with the budgets and reverse the money drain from the modernization accounts. In other words, the major attempt was to find a sustainable balance between current and future strategic needs. Yet, even this limited objective was only partly achieved. While Air Force Chief Fogleman hoped for a shift from the large 2-MRC force structure towards a smaller force combined with the push for modernization and RMA thinking, the other Services were skeptical of a future-looking posture, which failed to provide sufficient means for the numerous current deployments and threats (Kohn 2001, 12). Thus, when the Defense Secretary sought to cut two Army divisions, the latter successfully fought back, arguing that further cuts in active duty forces would irresponsibly stretch thin the ground forces (Scarborough 2004, 120). In the end, force structure changes were marginal and reductions in personnel levels until FY 2003 had some significance (Larson/Orletsky/Leuschner 2001, 95). The Air Force carried the largest share of these reduction loosing 26,900 men and one active fighter wing (Trask/Goldberg 1997, 128). The Navy and the Army lost 18,000 and 15,000 personnel respectively. Moreover the Navy fleet goal was further reduced from 346 to a number between 305 to 317 ships, causing heavy resistance among the admirals (Labs 2006, 6; Keeter 2000). They warned that the Navy's force structure was insufficient to meet 2-MRC and increased the risk for sailors. Yet, the Clinton administration was not willing to give up its small success.

Once again the National Guard evaded deep reductions. According to the QDR, the Army National Guard and Army Reserve were to lose 45,000 more troops, with 38,000 coming from the National Guard (Doubler 2003, 362-366; Landay 1997). Yet, the supporters of the Guard resisted, arguing that it would be cheaper to cut more active-duty Army units and maintain the reserve units. Although the most prominent advocate of the National Guard, G.V. Montgomery (D-MS), had retired from Congress in 1996, they were still able to postpone a large share of the cuts after tense negotiations over the size and the allocations of the cuts. Until 2000, the Army Reserve, which had taken the major share of earlier cuts, would lose 3,000 troops and the National Guard 17,000

troops. The implementation of the remaining 25,000 reductions was first postponed for reconsideration in later years and finally dropped.³²⁵

Summary

By the end of Clinton's tenure, Leebaert (2003, 615) concluded with regard to the Services: "[T]hese institutions have remained largely as they were during the Cold War: mostly reactive, highly compartmentalized, and inwardly focused on their own missions." (Leebaert 2003, 615) Indeed, the armed forces strongly dominated the organization dimension within the Bush and Clinton administration. Political actors proved unable and unwilling to seriously challenge the proportionality as well as the organizational stability of the force, backed by the 2-MRC standard. Major changes, such as the reduced reliance on forward deployment or the Army's reduction in heavy equipment, were largely initiated by military actors early on. They were based on a thoughtful reading of international and fiscal realities rather than societal demands. Only the reserve associations, especially the NGA, had an active impact within the organization dimension. With the help of Capitol Hill, they proved even more effective than the Services and were able to protect their turf at the expense of the Services. A comparison with the active duty Army reveals the effectiveness of the Army National Guard's supporters during the transition: While the Army personnel dropped by more than 35 percent between 1990 and 1998, to 484,000, the Army National Guard shrank only by 20.7 percent, to slightly more than 360,000 (OSD 2008; Doubler 2003, 302, 345). Since the status quo powers in the DOD and in society foreclosed any far-reaching changes, stability strongly dominated the dimension. The deadlock in the organization dimension contributed to the general readiness problem and put additional pressure on the acquisition account, undermining the public's preference for technology rather than personnel.

³²⁵ In December 1999, the DOD announced that the 25,000 troop reductions would be deferred, due to increasing concerns over military readiness (Doubler 2003, 367)

6.2.2.2. Buildup

Efforts for force structure transformation

The armed forces became significantly smaller during the 1990s, but remained traditionally organized, as neither the RMA vision nor the demands for irregular operations made and impact on the organization dimension (Sapolsky/Rittenhouse Green/Friedman 2009, 12). The incoming administration sought to challenge this status quo, making the size of the forces an early battleground. In its campaign for lighter, faster and technologically advanced units, the OSD considered the current force structure as outdated and thus as a feasible bill-payer for transformation.

Rumsfeld and the transformers first challenged the traditional force structure during the strategic review process in 2001, but immediately ran into resistance from the Services backed by Congress. While the military actors agreed to the reduced force planning standard of approximately 1.5-MRC, they opposed any possible implications for the personnel and force structure. When rumors emerged that the OSD's review groups sought to terminate the Navy's new large carrier, the heart of the Navy's force structure, a retired naval flyer responded: "Anybody who thinks the small carrier is comparable to a larger carrier has to have their heads in the sand." (in Scarborough 2001a) And John Warner (R-VA), in whose state the current carrier was built, issues a clear warning to the DOD that he would not support a shift to smaller platforms. Meanwhile, the Army officials fought the OSD's attempt to cut two Army divisions (Scarborough 2004, 118-125). Rumsfeld disliked Shinseki's three-tiered reactive transformation approach, which responded to past requirements rather than future challenges. Transformers argued that the armed forces should skip a generation of weapons rather than conservatively maintain large legacy forces to fence against unlikely military challenges. In the Secretary's eyes, the ground forces were still more concerned with troop numbers than transformation technology (Herspring 2010, 79). The Army leaders rebutted the OSD's arguments by highlighting their numerous international commitments, which made it irresponsible to trade current risk for future capabilities. In July, Shinseki, supported by Army Secretary White, testified before the HASC that "given today's mission profile, the Army is too small for the mission load it is carrying, under-resourced for the size that it is." (HASC 2001, 622) The Army's complaints were picked up by 82 members of Congress, who urged Rumsfeld in a letter to refrain from cutting the active Army force

below the current level (Adams 2006, 99; Isenberg/Eland 2002, 6). Having already a conflict with the Democrats over the missile defense program, Rumsfeld refrained engage in a second battle with Capitol Hill (Ricks 2001f). In August, the New York Times reported that "Rumsfeld is moving away from issuing specific orders to the armed services on how large or small their forces should be." (Shanker 2001) The final 2001 QDR did not contain plans to cut the aircraft carriers, Army divisions or any other force structure elements.

The GWOT and manpower shortage

While 9/11 provided the administration with additional leverage and thus might have raised the chances to overcome Service resistance, the GWOT undermined the transformers' argument of a strategic pause and soon moved attention to the present military risks and requirements.³²⁶ Initially, the war efforts were regarded as a successful test of transformation, which stressed the feasibility and efficiency of the transformers' vision. Rumsfeld used the Afghanistan operation as a first showcase for While Franks, Commander of Central Command, initially transformation. recommended a ground force of more than two divisions, the final plan called for only about 1,000 US troops, mostly SOF, in hostile territory supported by local forces and sea- and airborne long-range fire (Scarborough 2004, 29-31). The pattern was repeated in planning for the Iraq War with the OSD pressuring the commanders to significantly reduce ground forces and include SOF (Cordesman 2008; Woodward 2002b). Rumsfeld, who did not bow to any criticism of his war planning, 327 was proved right as the impressive victory in Afghanistan and Iraq showed the superiority of partially transformed US forces. Yet, the reality of the Iraq War's aftermath revealed the limitations of transformation and put a heavy burden on ground forces (Jackson/Long

The Office of Force Transformation is a case in point of the changing dynamics: It was established as institutional backbone of the Pentagon's transformation efforts shortly after 9/11. The office was a personal initiative of the Defense Secretary, who sought to create additional impetus for transformation. Under its director Arthur Cebrowski, the Office of Force Transformation coordinated the implementation of NCW and published or contributed to documents including the important Transformation Planning Guidance of 2003 (DOD 2003a). Yet, with the growing concerns over the war situation and the departure of Cebrowski in 2005, the influence of the office diminished. In 2006, shortly before Rumsfeld's resignation, it was dissolved and its components integrated in different OSD offices (Rogin 2006).

327 Against the backdrop of the ongoing Afghanistan mission, critics questioned whether the US military had sufficient troops and equipment to meet the demands for this second conflict (Tyson 2002). In addition, commentators worried that the war would leave not enough capabilities to respond to an emergency, e.g. on the Korean peninsula (Richter 2003).

2009, 146-147). The permanent occupation duties in a highly unstable environment soon strained the armed forces worse than during the Clinton years.

FY	Troops in	Troops in	Total	Change
	Afghanistan	Iraq		
2002	5,200	0	5,200	-
2003	10,400	67,700	78,100	+1402%
2004	15,200	130,600	145,800	+87%
2005	19,100	143,800	162,900	+12%
2006	20,400	141,100	161,500	-1%
2007	23,700	148,300	172,000	+7%
2008	30,100	157,800	187,900	+9%

Table 6.3: Average monthly troops in Afghanistan and Iraq, FY 2002-2008 (Belasco 2009b, 9)³²⁸

In April 2003, seven to eight Navy aircraft carriers and a high percentage of the Air Force's transportation capabilities were involved in the Iraq and Afghanistan missions. Sixty-seven percent of the Marine Corps' operating forces were forward-deployed mostly in Iraq. And four of the Army's ten divisions and some additional combat units were tied in Iraq and Afghanistan with most of three other divisions based in Germany and Korea. By fall, the CBO (2003) predicted that the Army would be unable to sustain its occupation forces beyond summer 2004 based on actual rotation planning. After Bush had warned against overdeployment of reservists shortly after his inauguration (Myers 2001a), the DOD was forced to call growing numbers of Reserve and National Guard units to service. In January 2003, 150,000 reserve troops from all branches were on active duty (Adams 2006, 139, 197). Less than two years later, a GAO report (2004b) estimated that more than 335,000 reserve component members had been called to active duty and General James Helmly, head of the Army Reserve, warned Army

 328 Troops in neighboring countries and on ships, which supported the missions, are excluded.

Chief Schoomaker that his branch "is rapidly degenerating into a 'broken' force." (in Graham 2005a; see also Scarborough 2004, 162)³²⁹

As the limitations of replacing people with technology as promoted by the transformers and often practiced by the Services themselves became painfully evident, ground force personnel gained a new relevance. Even Schoomaker, an outspoken transformation supporter, testified during his nomination hearings in July 2003: "I do need to have time to formally assess this, but (...) I'm going to tell you that intuitively I think we need more people." (SASC 2003b, 377) In fact, when the new Army Chief took over in summer 2003, 70 percent of the Army's combat strength was at war, preparing for or returning from deployment (Adams 2006, 181). Yet, Rumsfeld and the US commanding general in Iraq Casey resisted any substantial expansion of active-duty forces and additional force deployments to Iraq. While both feared that additional deployments would take healthy reform pressure from the Iraqi authorities and delay the buildup of Iraq's own forces, the OSD was also worried that an increase in troops would distract money from the transformation efforts and undermine its credibility (Adams 2006, 166-167): "[T]he large military presence was a direct, visible challenge – even an insult – to the secretary's theory of a military defined by discrete lethal, quick successes." (Woodward 2008, 63)

In November 2003, the DOD announced that the occupation forces would be reduced to about 100,000 by May 2004. Yet, since the situation in Iraq did not stabilize, the announcements of troop reductions only contributed to the perception of a continuous neglect of the real situation. With increasing pressure from Capitol Hill, Rumsfeld approved a temporary Army increase of 30,000 in January 2004 to meet the immediate needs in Iraq (Graham 2004). With the public backing Bush rather than his challenger, who had proposed an extension of active-duty troops by 40,000 in the fall elections (Sapolsky/Rittenhouse Green/Friedman 2009, 12), Congress and outside experts stepped up their criticism. Columnist Jack Kelly wrote: "On the substantive

.

³²⁹ In fact, the armed forces heavily relied on reserve forces, since they had moved vital capabilities for counterinsurgency operation to the reserves after Vietnam, showing their distaste for irregular conflicts (Shanker 2003a). Thus, almost all of the Army's civil affairs personnel and more than two-thirds of its military police battalions were in the reserves. Moreover, reservists were vital to staff intelligence centers. As many of the reservists reached their two-year maximum call-up limit as arranged in Bush's mobilization order, the military was increasingly forced to rely on Navy and Air Force personnel, reservists with voluntarily extended duty, and private contractors for vital support jobs (Schmitt/Cloud 2005).

Rumsfeld acted under emergency authorization granted by Congress after 9/11.

level, I don't think Rummy 'gets' ground warfare. Still, he persists in trying to fight the war on terror with too few troops. (...) Army officers think Rumsfeld has it in for them." (Kelly 2005; see also Boot 2005) In fact, the insurgency in Iraq had escalated "into a war of attrition that produced ten times as many Coalition casualties as the fight to topple the regime." (Cordesman 2008, 1)

Force structure changes

Until summer 2006, Schoomaker backed Rumsfeld most of the time by arguing against permanent troop level increases. In contrast to previous Army Chiefs, he was more willing to relinquish personnel for the sake of transformation and searched for alternative solutions to the temporary shortage (Jackson 2009, 62). Therefore, the Army leadership tried to generate troops by outsourcing administrative elements in order to increase combat personnel and shifted forces from field artillery, air defense, engineer and armor to more urgent tasks such as military police and special operations forces (Adams 2006, 182-183). Moreover, the Army Chief announced a drastic reorganization of the Army force structure in fall 2003: Very much like Macgregor's suggestions during the 1990s, the division as the major building block was replaced by the brigade. 331 The Army hoped that this restructuring would create twofold improvements: (1) The new force structure would ease the strain on the ground forces, by providing more flexibility and increase the combat power of the active force by at least 30 percent (Feickert 2007, 2). (2) Schoomaker made clear that this reorganization was advancing Army transformation and reflected the Army's new "joint and expeditionary mindset." (in HASC 2004b, 116) Hence, the new structure around infantry, medium and heavy Brigade Combat Teams should prove more deployable than the previous division structure. It organized the forces in a modular fashion, allowing for an easy combination of force elements to meet different operational requirements for regular and irregular warfare. Furthermore, the brigades' components would be connected by digital network technology as tested by the Army's Force XXI project during the 1990s. Thus, the

³³¹ The Army planned to reorganize its ten active divisions consisting of 33 brigades to 43 Combat Brigade Teams by the end of 2006 (HASC 2004, 119). After the Army announced personnel increases in 2007, the force structure was extended to 48 active and 28 National Guard Combat Brigade Teams (Feickert 2007, 3). The Army Reserve and National Guard are also reorganized with a little time lag. While modularization is still going on, growing costs for the reorganization raised concerns that force structure reform and the ambitious transformation programs would overburden the Army budget (Feickert 2007, 8-9).

modularization sought to substitute maneuver components by advanced C⁴ISR capabilities. Support elements, which were previously organized on the division level, became an integrated part of the new brigades.³³² These measures did not relax the personnel shortage in the short run, however.

Already prior to the Army reorganization, the Navy introduced a new force structure also with the intention to improve its expeditionary capabilities (Labs 2006, 1-3). Its 19 strike groups were reorganized in 37 smaller strike groups, including 12 carrier strike groups. While the new carrier groups became less capable for high-sea battle, including only three rather than six surface combatants, the Navy's amphibious component and thus its ability to enforce access became more robust. Amphibious ships, which previously operated autonomously, were integrated in expeditionary strike groups each including three surface combatants and an attack submarine. 333 The reorganization also functioned as a vehicle to extend the own forces. But while the admirals argued that 375 ships rather than the current 310 ships would be necessary to fully implement the reorganization, they soon concluded that it had insufficient resources to realize the extension. And the OSD resisted all calls to increase the Navy's acquisition funding, despite congressional pressure on the Pentagon to increase the number of ships built and thereby secure the naval industrial base (Cortes 2004). On the one hand, Rumsfeld and even some senior admirals argued that the overall capabilities were more important than the number of ships. Since there was no doubt that the much smaller Navy in the new century was more capable than the much larger force of the late Cold War, there was no reason to buy more ships. On the other hand, from a transformational point of view, more ships were welcome, but not the highly expensive multi-purpose legacy systems. Rather, the Office of Force Transformation argued for a much larger fleet based on smaller and cheaper ships. Hence, the transformers hoped that the limited budgets provided an incentive to acquire cheaper ships. Yet, the Navy reacted by reducing its

³³² While losing one of its former three maneuver battalions, each brigade gained a reconnaissance and command unit making it more independent in operations. Organic reconnaissance and command structures should serve as force multipliers and offset the reduced number of combat troops. In order to maintain conventional combat power, support brigades such as aviation, artillery or logistics were created. These could be added to modules, resembling in many aspects former divisions.

³³³ In 2006, CNO Mullen initiated the creation of the Navy Expeditionary Combat Command (NECC) to further strengthen the naval forces' role in the GWOT and extend the Navy capabilities "from blue water to green and brown water environments" (NECC 2010; see also Friedman 2009, 89). The new Navy Command concentrates previously disparate Navy capabilities for "operations in the near-cost, inshore and riparian environments to include irregular warfare and other shaping missions that secure strategic access and global freedom of action." (NECC 2010)

planning numbers to a fleet between 260 and 325 ships rather than turning to cheaper and more numerous ships.

The 2005 QDR did little to adjust the force structure discrepancies. Thus, while the review promised a more extensive reorientation of ground forces towards irregular missions, the Pentagon did not fundamentally alter the armed forces structure. Arguably the most significant change with regard to the personnel was the increase in Special Operations Forces by one-third. Moreover, the 2006 QDR at least indicated support for a fleet increase above the current 290 ships and the Navy formulated a requirement of 313 ships in 2006. But since the Navy did not depart from its expensive modernization programs, most experts agreed that the 313-ship proposal was unrealistic given likely cost overruns. Thus, the CBO argued that the Navy was heading towards a much smaller force unless the acquisition funds were increased or much cheaper ships produced (Labs 2006; O'Rourke 2009a). In 2008, Kaeser/Cordesman (2008, 4) warned: "The Navy's procurement policy is in serious disarray, and is creating situation where the most serious threat to the US Navy is now the US Navy." The QDR's silence with regard to the Army personnel caused considerable irritations within Congress and strong criticism from defense experts: The Pentagon neither planned to expand the regular Army troops nor made the temporary manpower increases permanent. In early 2006, the DOD even shortly considered reducing the authorized strength of the strained Army National Guard by 20,000 (Pear 2006). As Korb testified: "It is like we haven't been through this, you know, the wars in Iraq and Afghanistan." (in HASC 2006a, 51)

While a large debate on the occupation strategy was taking shape within the administration throughout 2006, troop increases were continuously rejected. Only after the mid-term election defeat, Bush publically changed course. He told the press in late December that he was "inclined to believe that we do need to increase our troops" and that he considered a surge in troops for Iraq to decide the pending conflict (Baker 2006a). ³³⁴ Since a surge of 20,000 additional troops into Iraq would only be sustainable

³³⁴ The idea to temporarily increase the troops in Iraq by up to 30,000 troops was controversially debated for some time among the political and administrative actors. While the Democrats called for a timetable for withdrawal and were largely skeptical with regard to a surge, Republicans in Congress, such as John McCain (R-AZ) and Lindsey Graham (R-SC), supported the policy. Within the administration, many political actors were also supporting the temporary troop increase, but the Service Chiefs were concerned that a short-term surge would not positively affect the situation in Iraq (Baker 2006b). During a SASC hearing in November, John Abizaid, the CENTCOM COCOM, clearly opposed a troop level increase for Iraq (SASC 2006, 119). Yet, Bush made clear that he would not leave the decision to the military leaders

with a larger Army, he ordered Gates to develop a plan for troop level increases. During the previous days, the designated chairman of the HASC committee, Ike Skelton (D-MO), had again warned of an urgent need to strengthen the forces and Schoomaker had told Congress that the active-duty Army "will break" under the current war burden (Baker 2006a). The Army Chief sought not only to make the earlier troop increases of 30,000 permanent, but also to add between 20,000 and 40,000 additional soldiers. Gates responded in January 2007, announcing plans to expand the active forces by 92,000 for the next five years, including 65,000 troops for the Army³³⁵ and 27,000 troops for the Marine Corps (Scarborough 2007). The plans were warmly welcomed by both parties in Congress. In late 2008, the Pentagon issued a directive to further raise the capabilities for irregular warfare including further increases in regular personnel and SOF (Tyson 2008).

The rise of Special Operation Forces

During the whole transition, the story of SOF was fundamentally contrary to the regular ground forces. The former experienced a major promotion in the war on terror developing from a marginalized community to a 'fifth Service' after 2001 (Jackson/Long 2009; Brown 2006; Scarborough 2004, 8-28). 336 Rumsfeld considered them the perfect means to deal with dispersed and impenetrable terrorist networks and sought to make SOF the spearhead in fighting global terrorism. In the eyes of the OSD, they were the ideal instrument for this borderless conflict with no official declarations of war and against an enemy blended in civil societies. Bryan D. Brown, deputy commander of SOCOM, told the SASC in 2003 that SOF can "address transnational and asymmetric threats", since they are "operating 'in the seam' between peace and war." (in Pincus/Morgan 2003) They can provide vital intelligence, surgical strikes and serve as culturally sophisticated "forward-deployed warrior-diplomats" to allies.

and announced a temporary increase of 20,000 troops as part of a new Iraq strategy in January(Shanker/Cloud 2007).

³³⁵ A significant share of Army's expansion was achieved by making the temporary force increases of 2004 permanent.

³³⁶ SOF had played only a minor role during the mostly conventional stand-off in the Cold War. The consolidation of Special Forces in a functional command in the late 1980s after the Desert One debacle in 1980 did initially little to change this situation. After the Cold War, legal, political and strategic concerns prevented the Clinton administration from extensively using commando forces. Especially after the failed Mogadishu operation in 1993, the deployment of SOF was considered a risky gamble.

(Brown 2006, 42)³³⁷ Beyond penetrating terrorist networks, transformers considered SOF also as highly suited for network-centric warfare. Technological developments, especially PGMs, GPS, and satellite communications, had greatly enhanced their value for high-intensity conflicts, in which SOF could operate with little footprint on the ground and provide accurate targeting data for long-range fire power (Jackson/Long 2009, 137). Successfully fulfilling this role during the Afghanistan and Iraq Wars, they earned high marks by the Pentagon (Scarborough 2004, 10). CJCS Myers wrote to the SASC: "Operation Iraqi Freedom demonstrated the overall maturation of US Special Operations Forces, especially SOF integration with precision airpower." (SASC 2003b, 329) Congress shared the regard for SOF approving a budget increase of 37 percent for the SOCOM in FY 2004 (Pincus 2003). A significant share of the money should be used to increase the SOF personnel to 49,000 including reserve by the end of 2004. Overall, the funding for special operations tripled between 2001 and 2007 and SOCOM reached a troop strength of 54,000 (Feickert 2009a, 1).

Summary

After the organization dimension was dominated by military actors within the administration during the 1990s, the civilians set out to gain control of the renewed transition even against the resistance of the Services. But although the GWOT raised the administration's political leverage, it also provided a powerful counterweight to the administration's push for a leaner and more technologically advanced force. In the end, the changes in the regular force structures were limited. Only the reorganization of the Navy and the Army, both focusing on a more flexible and deployable force structure, was an innovative turn towards transformation. The most dynamic change occurred with regard to the SOF, although their weight in the overall DOD remained limited. Special operation forces had the great advantage of being an important asset for irregular operations and network-centric warfare alike and were therefore aggressively

³³⁷ Therefore, the Pentagon successively extended SOCOM's role and competencies. Rumsfeld issued a directive in 2002 providing special operations commanders the authority to plan and executive missions with little bureaucratic interference. In January 2003, the Defense Secretary told the press that in-theater SOF would have the authority to independently plan and implement hunt-and-kill missions. In the FY 2005 Authorization Act, Congress granted SOFs the authority to spend money to pay informants and recruit foreign paramilitaries reducing their reliance on the CIA and increasing the DOD's role in clandestine missions (Jehl/Schmitt 2005). Furthermore, SOCOM turned from a supporting to a supported command in 2004: It gained the leading role in the GWOT, planning and executing operations in cooperation with and with support from other regional commands (Davis 2010, 29; Brown 2006, 39).

pushed by political actors. Societal demands did hardly participate in the developments. The one strong demand, the extension of personnel, was for a long time met only with regard to SOF, which hardly affected the deteriorating situation in Iraq. And it is not even apparent that the public played an active role in influencing this outcome. Public preferences exercised a direct influence only very late into the transition by punishing the Republicans for the situation in Iraq in the elections 2006. Although the preparations of a new strategy were on the way for some time, the election was the last ingredient for the administration to change course and allow for the expansion of ground forces. Since the reserve forces were in high demand, the special interest groups had little reason to influence the political process and hardly appeared in debates.

6.2.3. Weapons acquisition

6.2.3.1. Builddown

The failure of early reform attempts

Weapons acquisition soon turned out to be the most contentious field of military policy during the transition of the 1990s. Since many systems had been replaced during the Reagan buildup and the force reductions made less equipment necessary, a so-called 'procurement holiday' seemed feasible (O'Hanlon 1997). At the same time, the transition offered the perfect opportunity to renew the armed forces by dropping unpromising or unnecessary projects and strengthening path breaking innovations.

Especially the supporters of a RMA advocated a radical break with the Cold War past and acquisition of revolutionary capabilities to skip one generation of technology during the upcoming strategic pause. Since this latest military revolution followed the social and economic information revolution, many of the new technologies, such as electronics and communication technologies, were readily available dual-use products. This fostered concerns that opponents would be able to exploit their revolutionary potential prior to or more consequential than the US and thus end the latter's military dominance (e.g. Stavridis 1997; JCS 1996, 10-11). Even if other actors failed to achieve a RMA, an evolutionary approach would offer opponents time to adjust and therefore undermine

_

³³⁸ While its conceptual masterminds from the ONA initially rather aimed at providing analytical depth for current strategic developments, the RMA was reformulated as a call for rapid action after Desert Storm.

the impact of surprise, frustrating the revolutionary effect. An independent survey group, which was established by the Air Force to analyze its performance in Desert Storm, summed up the challenge for the RMA advocates: "The ingredients for a transformation of war may well have become visible in the Gulf War, but if a revolution is to occur someone will have to make it." (Keaney/Cohen 1993, 251)

But while all actors agreed that a strong defense, technological leadership and a capable industrial base should be maintained in order to avoid bottlenecks as during the Korean War, the RMA and even a substantial modernization got stuck in the conglomerate of various special interests for stability. The administration's attempts to separate next-generation and legacy programs were complicated by the Service's attempts to save their projects. And more decisively, Congress, freed of the necessities of the block confrontation, heavily intervened in the administration's acquisition priorities (Stockton 1995, 242). While some disagreements between the administration and Congress were based on different strategic perspectives or party politics, many congressional decisions were guided by lawmakers' desire to protect constituency-based defense industry and labor (Halperin/Lomasney 1999, 85). The economic relevance of weapon systems caused not only a competition between the administration and Congress, but also pitted lawmakers against each other, as "Congressmen wanted cuts in defense spending but not in their districts." (Garber/Williams 1994, 185-186) Especially the constituencies of powerful lawmakers fared well in this struggle for resources.

Already in 1989, the incoming Defense Secretary Cheney recommended some weapon programs for termination in order to absorb defense budget cuts. Among the Pentagon's termination list, the Navy's F-14D and the Marines' V-22 tilt-rotor aircraft stuck out. Aspin and Nunn supported by the Northrop Corporation, which correctly feared that any shifts in the budget would come to the expense of its controversial B-2 bomber program, fought to uphold the administration's request in Congress (Wilson 1989a). But the manufacturers of the threatened programs quickly moved in protection of their

³³⁹ Hartung (1999), analyzing the distribution of prime contracts by state and district between 1986 and 1996, concluded that states with congressmen in the defense committees fared better than the national average in terms of Pentagon contracts. The biggest winner in percentage of defense dollars, Idaho (+58.9 percent), West Virginia (+48.8 percent), South Carolina (+47 percent) and Virginia (+43.9 percent), had significantly more representatives in defense authorization or appropriation committees than the biggest losers, Arkansas (-78.8 percent), New York (-73.1 percent), Kansas (-69.8 percent) and Minnesota (-69.2 percent). It is generally difficult to assess whether congressmen join defense committees because of the importance of defense for their constituencies or whether the significance of defense economy in these areas is the result of their efforts, but there is at least some evidence for the latter relationship.

systems. The Grumman Corporation called for sparing the F-14D from termination: "We're going to make sure that everyone who has a vote in Congress knows our side of the story." (in Stevens 1989) And Boeing and Bell Helicopter joined a lobbying coalition with the Marine Corps and even labor unions and subcontractors in order to save the V-22 Osprey (Berke 1990). The companies' cries for help found rapid response in Congress. Fearing layoffs of up to 5,000 people, lawmakers of New York got in position "for a protracted, six-month battle" to help Grumman (Thomas Downey (D-NY) in Schmitt 1989) At the same time, congressmen from Texas and Pennsylvania, where the V-22 was made, launched a furious campaign to save the Marine Corps' aircraft.

Aspin suffered a serious blow when the HASC narrowly defeated the administration's request and completely turned its priorities around (Stockton 1995, 248-249; Moore 1989a). The committee decided to continue the F-14D and V-22 with the NMD, strategic missiles and the B-2 as bill-payers. While the administration had proposed cuts and delays over the Reagan plans for the latter programs, especially support for a strategic missile defense, Reagan's major defense policy legacy, was a Republican duty. Hence, Republicans inside and outside Congress bitterly opposed the HASC's NMD cuts, which went significantly beyond Bush's request (Wilson 1989b; Almond 1989). 340 Moreover, Northrop and the Air Force quickly staged a public promotion campaign for the previously little known B-2 project, including television commercials and press releases. They also revealed a list of subcontractors in 46 states, indicating that reductions would threaten "tens of thousands" of jobs (Moore 1989b). But the congressional supporters of a renewed reversal of priorities proved unable to change the HASC recommendations on the House floor (135 Cong. Rec., July 26, 1989, H16347-16389; Kenworthy 1989). Not only were the B-2 and the missile defense bedeviled by technological problems and cost overruns, they were also not in full production or only in early development respectively. Hence, fewer jobs were at stake than in the wellestablished conventional weapons productions. As an analyst at Prudential Bache Securities argued: "Congress will take as much money as it can out of the new programs to keep the old programs in production, because they want to keep people in their districts employed." (in Stevenson 1990)

³⁴⁰ Since the NMD program was executed by an agency within the OSD rather than by a Service, the armed forces were not moving in support of the program (Adams/Williams 2010, 239-240).

Nunn (D-GA) called the House decision "not rational." (in Kenworthy 1989) Since he was able to largely protect the administration's request in the Senate, the issue of conventional versus strategic programs went to conference. Lawmakers resorted to logrolling here and thus negated an early reorientation in weapons acquisition: While the House was able to uphold the continuation of the F-14 and V-22, the Senate restored most of the House's cuts in strategic programs (Halperin/Lomasney 1999, 89; Gordon 1989; Almond 1989). During the House debate on the conference report, ranking minority member William L. Dickinson (R-AL) attacked the Democrats for demanding savings and protecting acquisition programs at the same time: "The House not only refused to make the tough decisions, but it refused to pass the buck, and let the executive branch make them." (135 Cong. Rec., November 9, 1989, H28197)

But the status quo rapidly came under pressure, as Cheney presented a new hit list of weapon systems for FY 1991 with the Marine Corps' V-22 again ranked on top (Moore 1990a; Bedard 1989). At the same time, funds for the Brilliant Pebbles³⁴¹ NMD program, the B-2 and the strategic missile programs MX and Midgetman were increased. Yet, already during the deliberation for the defense budget resolutions, the Democrats agreed to set other priorities and focus on the strategic programs to realize additional savings (Rasky 1990). Although the Pentagon, especially SAC, some lawmakers had fought to keep pressure from the strategic programs, congressional majorities still considered reductions in these projects as the strategic least damaging and politically most feasible road to savings. Under mounting congressional pressure, Cheney proposed to cut the B-2 overall procurement number from 132 to 75 and to delay and reduce the production of the Navy's and Air Force's next-generation tactical planes (Moore/Tyler 1990b). Nonetheless, after Congress had reduced the overall spending, a senior aide in the HASC predicted that the conflict over the distribution of the scarce resource in the authorization bill would become a "blood bath." (Moore 1990b) Indeed, the House voted to cancel the B-2 project altogether and shifted the money to continue conventional programs including the V-22 despite an even more furious campaign by the Air Force and Northrop and the threat of a presidential veto. Yet, since the Senate followed the administration's request much closer once again, the

³⁴¹ Brilliant Pebbles was a concept based on a system of small space-based missile interceptors, which appeared technologically more feasible and less expensive than Reagan's earlier missile defense plans.

conference preserved funding for major conventional as well as strategic programs (Dewar 1990b).

After two years of far-reaching blockade in the acquisition process, major changes occurred in 1991. In January, Cheney canceled the development of the A-12 stealth tactical support plane after considerable technical problems and cost overruns were revealed (Gold 1991; Auerbach 1991).³⁴² The largest program termination in DOD history dealt the Navy a heavy blow and caused strong discontent among the Navy flyers. But Cheney was able to uphold his decision, given its relatively small expected impact on defense jobs and the very obvious problems in the program.³⁴³ Moreover, after the START treaty in summer and Bush's announcement of nuclear force reductions in fall, the already eroding congressional support for the B-2 finally tipped against the bomber (Stevenson 1991; Schmitt 1991b). Congress decided in late 1991 to stop the B-2 production after 15 planes, yet provided \$1.8 billion to keep the production line open in case of a later need for production (Scarborough 1991; Grier 1991). The money freed was used to continue upgrading F-14 fighters and producing M-1 tanks, which the administration wanted to end.³⁴⁴

The Air Force staged only halfhearted opposition to the end of the B-2, as it faced challenges to its most important advanced fighter development program, later designated F-22, which was awarded to Lockheed in April 1991. The airplane, developed by the Lockheed team, had powerful allies in Congress from the beginning. Lockheed had moved from California to Georgia only recently, due to cheaper wages and the opportunity to pick up additional political support (Vartabedian 1990). Hence, the F-22 was to be built in Nunn's home state and Gingrich's district. While the former always denied being motivated by parochial interests, Gingrich openly supported the fighter program. Against this backdrop, the F-22 was not seriously considered for termination. But numerous critical voices concerning the strategic relevance and

³⁴² The Navy had initially planned to procure 858 of these planes including 238 for the Marines to replace its aging A-6 planes. In addition, the Air Force wanted to buy 400 A-12s. Under mounting pressure for budget cuts, Cheney had suggested to cut the 238 planes for the Marines and delay the Air Force procurement for 5 years already in early 1990 (Moore/Tyler 1990b).

procurement for 5 years already in early 1990 (Moore/Tyler 1990b).

343 The economic impact turned out not that small, however. 5,000 people at McDonnell Aircraft Corporation and 2,000 people at General Dynamics were laid off as an immediate consequence (Office of Technology Assessment 1992, 16).

³⁴⁴ Although Cheney sought to terminate the production lines of the Army's M-1 tanks and Apache helicopter in 1990, as suggested in the Base Force Plan, both program upgrades were continued with the help of Congress.

economy of the program appeared nonetheless. Even before the full development contract for the replacement of the F-15 was announced, the CBO (1991) warned that the fighter would bust the budget in the long run. And the New York Times (1991) commented: "The Air Force is acting as if it were about to cash in a war dividend." The newspaper further questioned the strategic necessity of a fighter against the backdrop of a declining Red Army. Air Force officials quickly moved to protect the flyers' most prestigious project. Gen. Ralston, director of the fighter acquisition argued: "We can afford it, and it's absolutely crucial to our force structure that we obtain air superiority." (Gellman 1991a; see also Rice 1991) In this context, the termination of the B-2 dispelled some unwelcome questions regarding the Air Force's long-term acquisition budgets.

In 1992, the positive developments in the Soviet Union and the enthusiasm over the armed forces' performance in Desert Storm shortly seemed to turn the tide within the administration towards a more decisive transition and possibly even a RMA. Impressed by the victory in Iraq, Cheney told lawmakers: "This war demonstrated dramatically the new possibilities of what has been called the military-technological revolution in warfare." (SASC 1992b, 20) And in his State of the Union Address, Bush (1992) announced the reduction of strategic forces including the final termination of the B-2 after 20 planes. Although this was 5 planes more than Congress had approved, the administration was confident that Congress would go along, since Californian Democrats and the Air Force had persuaded Aspin and other lawmakers that the additional production would costs only \$2.6 billion more. More importantly, this provided Northrop a soft landing (Schmitt 1993b).

The B-2 was only the first victim, as the administration turned to reduce its strategic forces. The Navy's Seawolf submarine was the next program in focus of the Pentagon's budget cutters. The highly expensive successor of the Los Angeles class attack submarines, initially designed to hunt Soviet submarines, was hard to justify after the Cold War. Therefore, the administration decided in its FY 1993 request to terminate the program after only one submarine and wait for the smaller and cheaper successor of the Seawolf with production beginning in 1998. Yet, lawmakers again obstructed the administration's ambitions. As soon as first reports of the cancelation appeared, lawmakers from Connecticut and Rhode Island, where the Seawolf was being built, rallied to protect the program. As Rosa DeLauro (D-CT) claimed: "The issue is larger

than a single program or company. It's the entire defense industry in Connecticut." (in Gruson 1992) Indeed, Connecticut's Electric Boat, a division of General Dynamics with 22,000 employees in Connecticut and Rhode Island, warned that the cancelation of the Seawolf project might force the company to shut down. Thus, the company engaged in an all-out lobbying effort: "Electronic Boat is not going to lie down and die. We're going to fight." (in Judson 1992) It argued that continuing two already approved \$2 billion Seawolf submarines, which the administration wanted them to rescind, would bridge the time until the new submarine would go in production and thus save the submarine industry (Schmitt 1992b).

The prospects for the campaign were particularly promising in 1992, since lawmakers stepped up their efforts to maintain defense jobs in an election year. Especially the Democrats considered job protection through defense as inevitable, since the budget agreement prevented the transfer of money to domestic accounts, which might help to offset the job losses in the defense industry. In the end, Congress saved funding for one and partial funding for the second already approved Seawolf submarines. In addition, it further funded the last B-2 bombers, new F-16 fighters, and again restored spending for the V-22 and upgrades for M-1 tanks and F-14 planes.³⁴⁵ The F-22 program was continued despite concerns that the tactical plane programs would become unaffordable in the near future (Ricks 1992). 346 Only the NMD was severely cut back in FY 1993. A defense contractor lobbyist commented on the outcome: "We were the fortunate beneficiaries of a quadrennial event known as the presidential election." (in Pearlstein 1992) But Ann Markusen, an outside expert, complained that lawmakers had "demonstrated the country's paralysis over the peace dividend." (Markusen 1992) Indeed, no substantial departure from the Cold War weapons acquisition and certainly no turn towards a RMA was achieved during Bush's tenure.

³⁴⁵ In order to save the F-14 upgrades, General Dynamics had sent a letter to each member of Congress with a map showing the amount of money going to each congressional district and the number of subcontractors in each district (Uchitelle 1992b). As George Hochbrueckner (D-NY), one of the F-14's advocates, argued: "If you want to develop political support, it pays to spread the work around." (in May 1989)

³⁴⁶ The F-22 competed with the Navy's advanced F/A-18 project, the successor of the canceled A-12, called AX, and the Multirole Fighter program, a replacement for the F-16.

Budget pressures and political capitulation

The incoming Clinton administration budget cuts put additional pressure on acquisition accounts, since the DOD was repeatedly forced to redirect modernization funding in order to meet readiness and deployment needs.

FYDP	1995	1996	1997	1998	1999	2000	2001
1995	43.3	48.4	49.8	57.1	60.1		
1996		39.4	43.5	51.4	54.2	62.3	67.3
1997			39.9	45.5	50.5	57.7	60.1
1998				42.6	50.7	57	60.7
1999					48.7	54.1	61.3
2000						53	61.8
2001							60.3
Change		-9	- 10.9	- 14.5	- 11.4	- 9.3	- 7

Table 6.4: Reductions over planned procurement funding in billion USD in Future Years Defense Plans 1995-2001 (GAO 2000, 20)

But as with the force structure, the administration's initial review made only limited adjustments to the acquisition portfolio. Dismissing the Brilliant Pebbles program, the administration severely cut the NMD, reducing it to a mere technology development program (Clinton/Gore 1992, 134). But the Pentagon readily admitted that other BUR decisions were motivated as much by protecting America as by protecting jobs and the industrial base (Schmitt 1993c). Hence, the review concluded Electronic Boat should build the third Seawolf to stay in business and thereafter start building the new submarine class. Newport News, the other submarine producer, should be sustained by aircraft carrier construction instead. In the tactical fighter field, the F-22 and the F/A-18E/F were continued, although at a lower rate and with growing unit costs. Moreover, the BUR consolidated two other early stage tactical airplane projects into the Joint Advanced Strike Technology Program to develop common components for future aircraft. A year later, the program was transferred to become the multi-purpose Joint

Strike Fighter, the third big tactical aircraft program with initial plans to build at least 2,916 planes for the Air Force and the naval forces in the new century (Mutch 1995).

After the reluctant BUR, RMA supporters gained new hope when Perry took over from Aspin. Already in 1991, Perry had emphasized the significance of the interaction of superior technologies, which he later coined the system-of-systems (Perry 1991; 1994). In January 1994, now as Deputy Defense Secretary, he formed a group to coordinate RMA projects within the Department, analyze its potential, and frame future steps to embrace the revolution. As Secretary of Defense, Perry worked with the CJCS Shalikashvili to accelerate RMA thinking within the Pentagon. 347 They brought Admiral Bill Owens to the Joint Staff to promote the RMA concept among the Services. 348 As Vice CJCS between 1994 and 1996, Owens became the central and most articulate proponent of steps to accelerate the RMA by 10 to 15 years (Owens 2002; 2000; 1995). He advocated the system-of-systems concept and promoted RMA as a way to sustain the superior military position without lifting the budget constraints (Owens 2000; Blaker 1997a): While maintaining a smaller version of the Cold War force at decreased budgets would result sooner or later in a breakdown, implementation of RMA concepts would form a cheaper and more lethal force (Macgregor 2000; Blaker 1997b). Owens and other RMA supporters promoted a clear emphasis on R&D to improve C4ISR, precision technologies and system integration, thereby discriminating weapons systems, which did not fit into the system-of-systems framework. Heavy armored ground forces, aircraft carriers, submarines and tactical aircraft should be deemphasized, while small, fast, dispersed and integrated platforms should become more prominent. Yet, with budget constraints strangling modernization and lacking interest by the White House and the Services, the RMA supporters failed to make a large impact on weapons acquisition (Harris 1994a).

Many senior military officers met the RMA concept with cautiousness. While acknowledging the impact of new technology in Desert Storm and future warfare, they considered the war as a confirmation of their state-of-the-art capabilities rather than a

Mandated with promoting jointness, the CJCS and the Joint Staff supported RMA thinking early on (e.g. see the extensive discussions on RMA in Joint Force Quarterly during the 1990s).

³⁴⁸ Prior to his assignment at the JCS, Owens had gained attention by trying to foster inter-service understanding through temporal exchange of officers (Lederman 1999, 94). Perry and Shalikashvili liked the promoter of more jointness and RMA and brought him to the Joint Staff to continue his reform efforts for the whole DOD (Owens 2000, 171-177). Once in place, Owens fought for his goals with strong ONA support. He used the Joint Requirements Oversight Council, a joint body to assist the JCS in analyzing joint requirements, to direct the acquisition process towards RMA.

reason to turn things around. As Krepinevich (1999, 98) complained: "What is missing is a sense of urgency." Furthermore, since the RMA advocates wanted to offset the costs for the RMA by terminating non-revolutionary programs, the Services feared for their major weapon projects (Owens 2002, 211; Maddrell 2003). To make things worse, the RMA threatened to break the carefully arranged budget shares and roles of the branches. Especially the Army opposed ideas to offset troops by technology and reduce the ground forces to target location and postwar stabilization. Army Chief Reimer (1996) called for balanced capabilities, warning that "[t]he United States has relied on technological silver bullets in the past, sometimes with disastrous effects." With no serious military threat in sight, numerous small scale missions at hand, and some expensive high profile modernization programs under pressure, there was little incentive to redirect resources to accelerate a revolution with uncertain costs and outcome (Freeberg 1999). Hence, when Owens first sought to impact the defense posture by affecting the budget process in 1994, the Services protested, claiming that he was disrupting the planning process and unduly expanding the Joint Staff's power (Graham 1994).

Meanwhile, the few changes approved by the Democratic Congress during the Bush years came under renewed political pressure after the Republican's electoral victory in 1994. Soon after the elections, both chambers started to push for additional spending on NMD in the FY 1996 defense budget. The House GOP even cut final funding for the third Seawolf and instead granted money for the continuation of the B-2 bomber as "a symbol defining the direction of their conservative revolution." (Graham 1996a; see also Landay 1995) Yet, in the Senate, John Warner (R-VA) was able to broker a deal, which kept the Seawolf in the budget: Electronic Boat would be allowed to build the Seawolf and the first submarine of the new class, whereas Newport News in Warner's home state would build the second submarine in the new class. Lieberman (D-CT) assured with relief: "If this package goes though, the [Electronic Boat] yard in Groton will be secure and alive for a long time." (in Schmitt 1995b) Although the political majorities had changed, the final bill resembled the logrolling of prior years: It included funding for the third Seawolf and \$493 million to start extending the B-2 fleet by another 20 planes (Morgan 1995). Yet, Perry made it immediately clear: "I'm not supporting, and the president is not supporting, funding that \$30 billion for the next 20 B-2s." (in Graham 1996a) Moreover, while the White House was only able to convince

the Republicans to reduce the additional funding for NMD in the defense appropriation bill, Clinton successfully vetoed the authorization bill which would have required the administration to deploy a missile defense system by 2003 (Purdum 1995). 349

In successive years, the Republicans continued to push for additional defense funding, but as Steven Bosniak, a defense analyst at the Center for Strategic and Budgetary Assessments, argued: "Essentially, they're just adding more of the same. There's no significant new defense posture in these add-ons, except in the area of missile defense." (in Graham 1996b) Despite departing economic philosophies, the Republican majority continued the Democrats' practice of providing support for their constituencies (Sack 1997). For example, Lott pushed additional funding for Arleigh Burke-class destroyers and other ships, which were built by Ingalls Shipbuilding in his hometown Pascagoula. His efforts for the Ingalls Shipyeard put him in competition with Maine's two senators, William Cohen and Olympia Snowe, who successfully fought for congressional funding for additional Arleigh Burke destroyers built at Maine-based Bath Iron Works in FY 1996 and FY 1997 (Foote 1997b; Priest 1995). Gingrich (R-GA) continuously advocated the Lockheed's products including the F-22, the C-5 and C-130J transport planes (Uchitelle 1995).

³⁴⁹ After further, largely unsuccessful Republican attempts to accelerate NMD, North Korea's successful ballistic missile test in 1998 and the final report of the bipartisan committee chaired by Donald Rumsfeld to assess the missile threat increased the pressure on the administration (Rotfeld 2001; Schmitt 1998; Rumsfeld et al. 1998). Although the JCS told lawmakers that they disagreed with the committee's assessment and recommendations, Congress acted in May 1999 (Shelton 2010, 404-406). It passed the National Missile Defense Act, signaling American determination to build a missile defense system as soon as technologically feasible.

³⁵⁰ With the help of Thad Cochran (R-MS), chairman of the Senate Appropriations Committee, Lott

³⁵⁰ With the help of Thad Cochran (R-MS), chairman of the Senate Appropriations Committee, Lott threatened to keep the Navy budget for FY 2000 from passing the Senate if the Navy did not get a down payment of \$500 million to start the construction of a \$1.5 billion LHD-8 helicopter carrier at the Ingalls Shipyard (Weiner 1999). As the Navy, which would have preferred to spend the money on other projects, estimated much less money for the start of the program, Lott's aides pushed the admirals to increase their estimate to at least \$375 million and testify in favor of the program (Morgan/Eilperin 1999).

³⁵¹ Snowe is a good example of the balancing act lawmakers were making: In her first speech as Senator in 1995, she expressed a strong preference for a balanced budget. At the same time, she fought to keep the flow of defense dollars going, arguing that "[w]e all fight for things we think are important." (in Fritsch 1995)

³⁵² Gingrich caused some anger when he tried to get \$480 million funding in the FY 1999 defense budget to buy eight new C-130 cargo planes (Akers 1998). Against the opposition of the Pentagon which had requested money for only one C-130, Congress finally earmarked \$475 million to fund seven planes (Cottle 1998). In fact, FY 1999 marked the 23rd year in which Congress added C-130 planes to the Air Force request. The new planes are often assigned to Air National Guard units, creating what a senior Pentagon official described as "a triangle of the Guard, Lockheed and politicians." (in Pincus 1998)

The failure of RMA

The impact of the RMA during these political struggles remained limited. To be sure, lawmakers held the first hearing explicitly dealing with RMA in May 1995, voicing strong interest in the vision (SASC 1995). And the Navy leadership introduced the Arsenal Ship project in 1996, which had strong support of DOD's Defense Advanced Research Projects Agency (DARPA) and RMA advocates (Friedman 2009, 82). Designed to carry as much as 500 cruise missiles and equipped with electronic processing and communication equipment, the stealth ship promised to provide the kind of long-range fire power, the RMA supporters called for. Yet, the support for RMA was still languid at best. The Arsenal ship ran into early internal opposition especially from the Navy's surface community, which feared an unwelcome competition for its destroyer and aircraft carrier fleet. As Krepinevich argued: "The arsenal ship is the same challenge to aircraft carriers as the first carrier was in the 1920's to battleships." (in Schmitt 1995c) More fundamentally, the Navy and the Air Force were concerned that the arsenal ship may disadvantageously change the status quo with regard to long-range strike missions (Rhodes 1999). Concerned over the future of the shipyards in their constituencies, lawmakers soon joined the opposition. After the death of CNO Borda, the arsenal ship's main advocate within the Navy, the program took an early end. Congress largely eliminated the project's funding in FY 1998 and backed the less revolutionary SC-21 development program for a new generation of surface vessels including a new destroyer and cruiser class instead.

When Cohen succeeded Perry and Vice CJCS Owens retired in 1997, apparently frustrated by the strong Service resistance, the RMA was further degraded.³⁵³ While the DOD rhetorically embraced the RMA concept, it pursued an evolutionary rather than revolutionary way towards its realization (O'Hanlon 2001, 302). Thus, Cohen (1997, iv) acknowledged in his report of the QDR 1997: "The information revolution is creating a Revolution in Military Affairs that will fundamentally change the way US forces fight." But weapons acquisition remained stable, regardless of budget pressures and criticism

³⁵³ The significantly decreased importance of the ONA under the new Defense Secretary, who rarely requested its strategic advice, is a clear indicator for this shift in focus (Maddrell 2003). Cohen even tried to transfer the ONA to the National Defense University (Lemann 2001).

of programs (Gertler 2009, 8).³⁵⁴ Especially the tactical airplanes continued to take fire. Cindy Williams of the CBO summed the major arguments against the extensive fighter programs: "[N]o other country's fighter fleet comes close to that of the United States in either numbers or capability, nor does it seem likely that any country will be able to challenge us, either with their fighter fleets or their air defenses, for the foreseeable future." (in House Subcommittee Military Research and Development/Subcommittee on Military Procurement 1996, 6) Moreover, the CBO, the GAO, and outside experts questioned the affordability of the programs and warned of technical problems and cost overruns (Kitfield 1999b; CBO 1997). ³⁵⁵ But with the federal deficit curtailed, Congress continued to finance these programs with strong economic impact. As a congressional staff member said: "The F/A-18E/F appeals to California, Missouri and, to a lesser extent, Massachusetts. The F-22 appeals to Texas, Georgia and Washington State. And the Joint Strike Fighter appeals to nearly everyone, because no one knows yet who's going to win the contracts." (in Graham 1996c)

The congressionally mandated National Defense Panel, which questioned the tactical airplane acquisition and called for an aggressive transformation, did not change the status quo (Blaker 1997b). Lawmakers voiced diffuse support for the RMA, which would guarantee continuous global military leadership, reduce the risk for soldiers and make the force overall more efficient. But with no serious threat and a focus on domestic needs, Congress saw no reason to pressure the DOD for a more aggressive embracement of RMA thinking. Adams (2006, 50) argued that one of the few lasting effects of the National Defense Panel was "the enshrinement of the term 'transformation', meaning to capitalize on the new RMA technologies (...). From that time onwards, any service initiative hoping to receive serious consideration had to be clearly labeled as part of transformation." Indeed, the Services started to put all programs in the context of the RMA even if their transformational potential was often doubtable. Williams (2001, 3) concluded in 2001: "In short, the 'revolution in

³⁵⁴ In fact, the QDR took decisions, which even reduced RMA central capabilities, such as cutting the procurement of Joint Surveillance and Target Attack Radar System (JSTARS) aircrafts from 19 to 13 (Cohen 1997).

³⁵⁵ A Joint Estimating Team of representatives from the Air Force, DOD, and industry estimated in 1997 that the F-22 development program would exceed Air Force estimates by \$1.86 billion and production costs by as much as \$13 billion. In response, Congress imposed overall cost ceilings of \$18.6 billion for development and \$43.4 billion for production in 1998 (Kitfield 1999a).

³⁵⁶ For example, former Air Force Chief Fogleman confidently claimed in 1997: "There are only two revolutionary weapon systems in the entire DOD budget: the F-22 and the airborne laser." (Kohn 2001, 15) And the fighter's stealth technology and advanced communications indeed resembled demands of

military affairs' may have won the war of rhetoric, but it has lost the war for dollars." And Owens (2002, 211) concluded with regard to the 1990s: "In retrospect, we made less progress than we had hoped."357

Summary

The preferences for the status quo strongly constrained any substantial efforts to innovate in the weapons acquisition during the 1990s. Neither the end of the Cold War and the subsequent strategic pause nor the alternative RMA vision nor the growing incongruence in the defense planning resulted in a departure from prior acquisition patterns. To be fair, some small programs were cut and especially the terminations of the B-2 and Seawolf after extended political conflicts were no small decisions. But they made way for programs which assured an evolutionary course and departed little from the qualitative status quo. Besides the Services, the defense economy exercised a strong direct influence on Congress. Especially their economic weight in a difficult economic situation proved a highly effective means to protect the status quo.

6.2.3.2. Buildup

Transformation and the persistence of modernization projects

After the evolutionary modernization course of the 1990s, Bush wanted "to move beyond marginal improvement to harness new technologies that will support a new strategy." (in Sanger 2001) Already during the nomination hearings, Rumsfeld had suggested two ways to achieve this goal (SASC 2001a, 28): (1) Leapfrog from one generation of technology into a new one; (2) Upgrade existing platforms with electronics which results in decisively improved capabilities. Although the ambitions of the transformers never aimed at transforming more than a proportion of the force, the

RMA advocates. Yet, a short range air superiority fighter contradicted the RMA's emphasis on asymmetry through long-range precision fire. Moreover, RMA supporters argued that the enormous funds for the complex F-22 could be spent more wisely on a range of many small, simple, and interconnected systems along the system-of-systems concept.

The arguably most RMA-relevant progress was achieved with regard to precision guided munitions. Most observers were impressed by the potential of precision guided munitions and the Air Force reasoned that this technology could bolster its promise of strategic bombing. Therefore, the JDAM program made good progress.

continuous substantial acquisition of legacy programs did not fit into their vision of future warfare. The current force was capable of limited network-centric warfare, but the transformers sought to create a future force vastly different from the current force and fully able to implement NCW.

Since Bush initially refused to significantly raise defense budgets except for the priority NMD project, 358 transformation inevitably implied the termination of evolutionary programs. Already in 2000, the Project for the New American Century (PNAC 2000, v) had recommended to cancel "roadblock" programs: The Joint Strike Fighter, the new aircraft carrier class, and the Crusader howitzer system should become bill payers for transformation efforts. Other outside experts additionally questioned the value of the F-22, the last Nimitz-class carrier, the DD-21 destroyer, the Comanche helicopter and the V-22 (Dao 2001a). Most of these systems were highly expensive, highly complex to use and maintain, of dubious strategic value, and often delayed by years. Cebrowski and the transformers called for a stronger emphasis on smaller, faster, less complex, more connected and numerous theater units instead. They favored machines over manpower, unmanned system over manned systems and long-range bombers over short-range fighters.

Against this backdrop, Rumsfeld's initial strategic review had the intention to scrutinize weapon programs and identify the systems to be canceled for lacking relevance in the future force (Kitfield 2001b). But all early attempts to identify bill payers for transformation ran in insurmountable resistance from the military leaders and lawmakers. Especially the latter continued to pursue ambivalent positions. On the one hand, Congress shared the popular support for new technology, which was reinforced by the air campaign over Kosovo in 1999 (Dombrowski/Gholz 2006, 146-148). As SASC Chairman Warner made clear: "The American people are looking to the future for less and less risk to our people and the likelihood that other military operations will avoid casualties. I think that is unrealistic, but nevertheless it is a direction in which our country seems to be thinking. Thus, increased technological advancements will help achieve those goals." (SASC 2000a, 5) Therefore, Congress legislated in 2000 that one-

³⁵⁸ Nuclear weapon development also gained new popularity under Bush. But the administration's plan to develop Robust Nuclear Earth Penetrators, so-called bunker busters, spurred strong criticism. In spring 2004, the final report of a panel of the National Research Council, which was mandated by Congress in the FY 2003 defense authorization act, concluded that the use of these weapons could cause fallout, killing large numbers of civilians (Broad 2005). Thus, Congress denied funding for the program in FY 2004 and after (Pincus 2005).

third of the operational deep-strike aircraft and one-third of the ground combat vehicles must be unmanned by 2010 and 2015 respectively (146 Cong. Rec., October 6, 2000, H21366).

On the other hand, while there was only a diffuse constituency existing for military reform, there was "a clear bloc against change, consisting of members of Congress who worry that bases and weapons plants in their districts could be closed." (Ricks 2001c) An iron triangle resisted attempts to cancel the V-22, one of the OSD's early candidates for termination (Dao 2001c). After a crash of two aircrafts had left 23 Marines dead in 2000, the Osprey was at a temporary stop for safety reasons. Yet, despite this and numerous other problems as well as cost overruns, a coalition of the industry, Marine Corps leaders, and congressmen, led by representative Weldon (R-PA), sustained funding. Furthermore, when the strategic review began, the Army's heavy Crusader artillery system was on top of the transformers' termination list (Myers 2001b; Dao 2001c). The OMB and OSD left little doubt that they considered the \$9-\$11 billion Crusader outdated, which the Army sought together with the Comanche helicopter as vital enhancement for its legacy force (Cockburn 2007, 154; Tiboni 2003; Shanker/Dao 2002a; 2002b). But they proved unable to overcome joint resistance from the Army, Congress and United Defense, the Crusader's producer.

The Army's protection of the Crusader was not purely a turf war. There was also a widespread concern among Army officers that they would lack capabilities, if a threat emerged in the period before transformed forces were fully operational or if the risky transformation completely backfired (Kaplan 2003c). The course of the new Gerald R. Ford class of aircraft carriers to replace the Nimitz class is another case in which military prudence outbalanced revolutionary ambitions (Dombrowski/Ross 2003, 117). Although the new carrier was initiated as a very transformational project, the admirals, concerned over technological risks, increasingly reduced its revolutionary value. Only

³⁵⁹ In 2007, the first V-22 units joined the force. With a cost growth of 186 percent over the initial estimates and numerous accidents, opponents still argued that the Osprey was unreliable and too expensive to purchase in large numbers (GAO 2009, 9). But the Pentagon planned to buy 458 units mostly for the Marine Corps for \$50.5 billion (Merle 2007).

³⁶⁰ Ironically, the Army's previous turn to transformation in order to defend its shares had undercut its advocacy for the legacy system. The attempt to maintain an improved current force while moving towards a future force made trade-offs between the force development stages inevitable (GAO 2001). Even prior to Rumsfeld's cutting attempts, the Army had reduced the procurement numbers for the Crusader from 1,138 to 480.

pressure from OSD caused the Navy to incorporate some emerging technologies in the new carrier, but a transformative impact is unlikely.

The vagueness of the transformation concept thereby helped the Services in their protection of the status quo. As Kagan (2006, 311) argued: "At the end of the day, something is 'transformational' if someone says it is, and not otherwise." Hence, all Services fought for the life-saving transformation tab for their programs. When retired Air Force general McCarthy, who chaired the OSD's review panel for weapon programs, announced that he considered the Navy's DD-21 destroyer program to be not "truly transformational", lawmakers from Mississippi and Maine quickly organized resistance (in Dao 2001c). Ingalls Shipyard and Bath Iron Works, which competed for the development contract, regarded the next-generation destroyer with unit costs of \$750 million as vital for their future. Soon, they found a sympathetic member of the OSD review panel, retired admiral Arthur, who countered: "I certainly consider DD-21 to be transformational." Within days, McCarthy was forced to clarifying that he was not suggesting canceling or delaying the program. Thus, while the administration's FY 2003 request terminated the DD-21, its major elements were continued in the DD-X program, to design a series of smaller, faster, cheaper and more transformational surface vessels. Nonetheless, Dombrowski and Ross (2003, 117) concluded with regard to the Navy's efforts: "For the Navy, it seems that thus far transformation means business as usual - incremental, evolutionary changes (...). There is no evident generationskipping." The same held true for the Air Force and in parts for the Army, which wanted evolution and revolution at the same time.

The Services' strong preferences for stability and risk-aversion left the OSD with only two feasible options to realize transformation: Either to seek a politically risky showdown with the Services and lawmakers or evade tough decisions by significantly increasing defense budgets, allowing for transformation on top of the evolutionary programs. In the end, 9/11 decided the course. The GWOT opened the flood gates for defense spending and allowed for a limited and temporary coexistence of legacy programs and transformation. Hence, the FY 2003 provided increased financing for some of the administration's favored programs, including the NMD program, which gained the second increase after FY 2002 and was successively increased to over \$10

billion in FY 2005 (Adams/Williams 2010, 240-241; Graham 2002). Additionally, the budget included funds for advanced PGMs, communication and surveillance means, and the conversion of four Trident ballistic missile submarines to carry conventional cruise missiles (Vickers 2002). But the traditional programs continued to take the vast share of the acquisition budgets. For example, while \$700 million of the increased R&D account were invested in the development of UAVs, the three tactical fighter programs gained \$4.5 billion (Kosiak 2002, 14). Moreover, Vickers (2002) calculated that short-range tactical fighters gained 20 times the spending of long-range bombers. And the funding for manned systems exceeded the funding for unmanned systems by more than 12 to 1.

The Crusader controversy

There was little doubt that the growing costs of the legacy programs would push transformation aside sooner or later. The problem would be further amplified if public support for the defense buildup could not be sustained over a long time. Hence, Rumsfeld could not afford to give up his attempt to terminate unnecessary programs. In 2002, the OSD started a second attack on the Crusader program. While the FY 2003 budget request still provided money for the Crusader and DOD representatives testified in favor of the program in March, Rumsfeld suddenly canceled the program. The surprised Army begged for reconsideration and Wolfowitz directed Army Secretary White to prepare a study providing new arguments to save the Crusader from termination. Yet, on May 8, only a week into the 30 days period to prepare the study, the Defense Secretary announced the definite cancelation of the program. The furious Army leaders and United Defense reacted by rallying support for the program among lawmakers and the public (Tiboni 2003; Dao 2002b). Retired Army Chief Gordon

³⁶¹ Senator Levin and other Democrats repeatedly challenged the NMD program. But 9/11 put the critics in a defensive position. Thus, Levin quickly withdrew his attempt to cut more than \$1 billion for NMD from the FY 2002 and cleared the way for the pending bill after the attacks. In early 2002, he revealed during the hearings that none of the Chiefs had been informed on the NMD funding for FY 2003. This provided munitions for the critics, who argued that the President's project was neither based on sound military considerations nor wanted by the branches. The Democrats in the SASC successively voted to transfer \$812 million from missile defense to shipbuilding (Dao 2002b). In turn, the House approved more money than the administration had requested for NMD (Scarborough 2002). As in prior cases, the conference negotiated an agreement with the administration, which kept the money for shipbuilding and still reinserted the money for missile defense (Dewar 2002). In 2004, the administration deployed first elements of the system in Alaska and the Missile Defense Agency began limited defensive operations of its ballistic missile defense system.

Sullivan (2002) publically defended the Crusader in a Washington Post article and General Shinseki testified before the Senate that there was a genuine need for advanced organic indirect firepower (SASC 2002, 84). He warned that the cancelation increased the risk for ground troops. The Army even provided talking points in protection of the program for allies at Capitol Hill (Rumsfeld 2011, 652; Graham 2009, 332). Rumsfeld (2002) was forced to defend the cancelation in a New York Times article arguing "that we must forgo a system originally designed for a different strategic context to make room for more promising technologies that can accelerate the transformation of future warfare." The Army shot back by reporting to Congress that replacement of the inconsiderately cut capability would cost \$18-\$24 billion over the next 14 years (Tiboni 2003).

Initially, it looked like the Crusader could indeed be saved, as SASC and little later the HASC voted to keep money for the Crusader in the FY 2003 defense authorization bill (Dao 2002a). Lawmakers were not enthusiastic about the OSD's latest maneuver and Carl Levin, who set up hearings in the SASC, made clear that he neither welcomed "what appears to have been a zig-zag ad hoc decision-making process" nor approved DOD's sidelining of Congress in this matter (SASC 2002, 3-4). Especially Senator James Inhofe (R) from Oklahoma, where the Crusader was to be manufactured, complained that the military leaders were barely informed or consulted prior to this decision and DOD therefore failed to reach a mature decision (SASC 2002, 11-13). But Congress backed down, after the White House warned Congress that an overriding of Rumsfeld's decision would cause the President to veto the bill. Few lawmakers had enough political stakes in the program to risk a showdown with the popular administration. The OSD's victory remained incomplete, however, since Congress redirected parts of the money freed towards development of a successive howitzer system rather than PGM's as intended by Rumsfeld (Rumsfeld 2011, 651; Talmadge 2006, 16; Scarborough 2002). Moreover, the termination came at high political costs. As one Pentagon official argued: "We were basically told by the White House after Crusader, 'OK, you killed one. Don't try it again; it's too painful for us." (in Graham 2009, 333)

Rumsfeld was infuriated by the whole episode and especially the Army's aggressive attempt to save the system, which he considered an act close to insubordination and irreparably damaged his already strained relationships with the Army leadership

(Rumsfeld 2011, 652). Already prior to the high tide of the Crusader conflict, the name of the Army Vice Chief Jack Keane as Shinseki's successor was leaked to the press (Graham 2009, 329; Cockburn 2007, 155). Although the causation leading to this revelation is not fully clear and Rumsfeld denies any participation (Rumsfeld 2011 455), the leak, fourteen months before the end of Shinseki's tenure, strongly weakened the obstructive Army chief in the conflict over transformation and the Crusader. Few months before Shinseki's term ended, White was fired for his "narrow focus on and advocacy for the institutional interests of single service." (Rumsfeld 2011, 652) When the Army Chief finally left, the vice chief and about a dozen two- and three-star generals retired with him, thus showing the tensions between the OSD and the Army (Scarborough 2004, 142). The subsequent appointment of retired General Peter Schoomaker, a strong supporter of transformation and former SOF commander, rather than Keane as Shinseki's successor was seen by many as "a slap at the Army's serving 'conventional' generals." (Isby 2003; see also Kaplan 2003b) The new Army Chief indeed tried to speed up the transformation by cutting the interim step out of Shinseki's three-tiered approach. At the same time, he deemphasized the emphasis on key enabling technologies and put new weight on implementing organizational change. As a Rumsfeld man, Shoomaker had a frosty reception within the Army, but was able to create increasing support for his reform agenda.

In early 2004, the OSD achieved an easier termination success: The Army's second major acquisition program to enhance the legacy force, the Comanche helicopter, shared the Crusader's fate (Merle 2004). Schoomaker announced the termination of the program which had suffered multiple program problems and rising costs and had increasingly become a burden since its start in 1983 (Loeb 2002). While lawmakers from Connecticut reacted angrily, the termination was not seriously challenged. Indeed, the Army leadership wanted this termination, since its budget was heavily strained by the transformation programs and the Middle East deployment. And although the Comanche's producers, Boeing and Sikorsky Aircraft, were disappointed by the decision, the economic damage was limited (Schneider 2004). The Army planned to invest the money freed in additional procurement of Apache helicopters, built by Boeing, and Black Hawk helicopters, manufactured by Sikorsky.

Transformation in an impasse

Neither the two terminations nor the annual budget growth did end the transformers' problems. Indeed, the OSD remained caught between three trends which increasingly strangled transformation efforts:

(1) The persistence and growing costs of the legacy programs threatened to outgrow all other efforts. Already in 2003, defense industry groups and defense hawks inside and outside Capitol Hill warned that the budget increases were not large enough to sustain the current acquisition activity (Loeb 2003a). And while legacy and transformational programs alike struggled with cost overruns, the former continued to clearly outbalance the latter (Ricks/White 2004). Transformation proponents outside and inside the Pentagon complained in particular that still too many resources went into the manned tactical fighter programs rather than into long-range bombers, UAVs and space assets (Merle 2005; Bolkcom 2006). Already the initial strategic review in 2001 considered cutting the F-22 and Joint Strike Fighter, due to lacking strategic relevance and enormous costs (Isenberg/Eland 2002, 6). The GWOT further demonstrated the limitations of short-range airplanes, which are heavily dependent on suitable forward bases. During the hearings for FY 2005, HASC chairman Duncan Hunter (R-CA) told the Air Force Secretary Roche that "it is counterintuitive that, as we have lost basing and we have these big spaces to travel, our modernization program has on the average encompassed acquisition of aircraft with shorter and shorter legs – that is, almost no bombers; in fact, no bombers; lots of fighters." (HASC 2004a, 494) With \$690 million in development cost overruns and still no plane produced 10 years after full development was initiated, the Air Force F-22 took the bulk of the criticism. But Rumsfeld's attempt to cancel the program ran into a huge campaign to save the F-22 (Cordesman/Kaeser 2008, 13-18). 362 With 1,000 suppliers in 42 states, the Raptor had gained considerable economic and political weight and Congress preferred to keep the

³⁶² The Air Force advanced the ground attack capabilities of the fighter to meet the criticism of strategic irrelevance despite a resulting overlap with the JSF's capabilities (Merle 2005). Furthermore, based on suggestions by Lockheed Martin, the Air Force briefly considered the acquisition of a bomber version of the Raptor to meet the calls for long-range bombers (Bolkcom 2004). The initial idea for this plane designated FB-22 came from Lockheed Martin, which conducted an in-house study on the feasibility of a bomber version. Such a solution would allow the Air Force to protect the F-22 project and still meet the demand for long-range capabilities. With additional range and more bomb-carrying capacity, the FB-22 should serve as an interim bomber until a new bomber generation could be fielded around 2037. Critics argued that the range and payload of the hybrid plane would still be significantly below the current bombers. The Air Force did not push the FB-22 beyond the conceptual stage, but the considerations helped nonetheless to calm the fears of a bomber gap.

program untouched. Hence, the OSD was only able to reduce the numbers of planned F-22 procurements to 183, but failed to terminate the program (Wayne 2006). The other major fighter programs, the development of the F-35 Joint Strike Fighter and the procurement of the F/A-18E/F, faced less opposition (Gertler 2009; Cordesman/Kaeser 2008, 19-25). Cost overruns of about one third for each program were moderate in comparison to the F-22. Hence, procurement numbers, especially of the F-35, were reduced, but the programs not fundamentally questioned (GAO 2009, 9). With the dominance of the fighter programs, the need for bombers was marginalized. By 2009, long-range bombers accounted for only 6 percent of the Air Force fleet and only 1 percent of the attack forces were able "to penetrate heavily defended, deep inland targets." (Ehrhard 2009, 15)

(2) The growing difficulties in the GWOT created a strong incentive to refocus on the current needs and put the strategic vision of transformation in doubt. Weeks before the Iraq invasion, John Spratt (D-SC) summed up the coming dilemma: "[Y]ou see right now, in today's world that you have got to have a legacy force that can fight. You can't take a transformed force over there yet." (HBC 2003, 62) Thus, although the war efforts were financed through supplemental accounts and had little direct impact on the acquisition funding, the Service leaders as well as Congress became more reluctant to take a risk with regard to military acquisition. Moreover, the counterinsurgency raised fundamental questions about whether the transformers' vision suited the most likely future battlefield (Talmadge 2006, 16-17). For example, there were doubts that the light and mobile Stryker vehicle, one of the Army's two remaining major acquisition projects, was suitable for deployment in irregular operations. The Army had ordered 2,131 comparatively cheap and light off-the-shelf Stryker vehicles over six years in 2000, to become the nucleus of its interim force (Adams 2006, 128; Shanker 2003b). Yet, when Shinseki unveiled the first US manufactured Stryker in April 2002, tests showed that it neither provided protection against heavy machine-gun fire nor met the weight requirements for C-130 airlifts. After rumors of a cancelation of the Stryker program circulated within the DOD in summer 2002, a Pentagon paper in fall suggested cutting the number of Stryker brigades in half. A hard fought compromise in November

³⁶³ The first F/A-22s were declared operational in 2005. In 2009, the GAO (2009, 9) calculated an overall 195 percent cost growth from the initial program estimates.

³⁶⁴ The Navy decided in 2003 to reduce its procurement from 1,089 to 680 F-35s, reducing the overall procurement numbers to 2500. Additional planes are expected to be purchased by several US allies.

reestablished the original 6 brigades, but did not end the Stryker's problems. GAO reports (2003a; 2004a) in successive years warned that the deployment of Stryker brigades within 4 days as initially proposed by Army Chief Shinseki was highly unrealistic and many considered the Stryker as completely unsuitable for Iraq, as it remained vulnerable to heavy machine gun fire and rocket-propelled grenades. SASC chairman Warner (R-VA) complained that the Stryker turned out to be "a somewhat better-than-average armored truck and less deployable than some of the tracked vehicles it was to replace." (in Adams 2006, 195-196)

(3) Transformation struggled with its own ambitions, as virtually all major transformation programs ran into severe technological problems and cost overruns. The Future Combat System, the second remaining major Army program, went clearly too far in pushing for transformational capabilities (Feickert 2009b). Although the FCS had strong political backing by Rumsfeld, soaring costs and questions of technological feasibility put the program under considerable pressure (Weiner 2005). After prototype development was launched in 2000, the Army hoped to start with engineering and manufacturing development in 2006 and having the first unit ready for combat in 2010 (Tiboni 2004; Adams 2006, 74-75). Right from the start, the GAO (2001; 2003b, 2) warned that the Army was overly optimistic with regard to the technologies, development schedules and cost estimates. In fact, the estimated costs of \$91.4 billion in 2003 increased to more than \$200 billion by 2006 and the FCS dominated the Army's entire acquisition budget for the coming years (Kaeser/Cordesman 2009, 2). In 2004, after the GAO issued another critical report on the FCS, the Army announced that it would equip soldiers with four FCS components by 2008 and three more by 2012, but the first full system would not be ready before 2014 (Tiboni 2004). A major downside was an estimated additional cost of 25 percent due to the delay. But the program involved more than 550 contractors and subcontractors in 41 states by the time and was continued despite the cost overruns and technological problems (Klein 2007). Davis (2010, 27) concluded in hindsight: "That such a flawed concept was approved for

³⁶⁵ When US forces invaded Iraq, no Stryker brigade was ready to participate due to development delays and numerous technical difficulties (O'Reilly 2003). The first Stryker brigade, finally deployed to Iraq in later summer, highlighted the difficult trade-off between mobility and armor. The Stryker faced survivability problems without additional passive protection systems, which in turn pushed its weight above the C-130 lifting capacities and reduced its overall flexibility (Adams 2006, 175). Nonetheless, the Stryker proved less vulnerable than the light Humvee and was faster and more silent than the heavier M2 Bradley.

development is still seen by many inside the defense community as a failure of civilian leadership – essentially a fiasco."³⁶⁶

The Navy fared hardly better (Kaeser/Cordesman 2008). Its major development program resulting from the DD(X) project, the DDG-1000 Zumwalt class destroyer, took a difficult course. Although the program's transformational value was dubious in parts, the Navy hoped to develop a radical different type of stealthy destroyer to enhance expeditionary capabilities by creating additional fire support. Yet, the ambitious project came under early fire by Congress and military experts who criticized a bad cost-benefit ratio (Gugliotta 2004; Labs 2003, xiv-xv). Indeed, the unit costs doubled between 2001 and 2006, while the planned procurement numbers dropped from 32 to 7. ³⁶⁷ In 2008, the GAO (2008, 69) reported that critical technologies for the DDG-1000 were not available or would reach maturity only after their installation on the ship. As additional analyses warned that the new destroyer was vulnerable to a range of missiles, Navy decided to cancel the Zumwalt-class program after only two ships and to resume procurement of the older but much cheaper Arleigh-Burke-class destroyer (Smith/Nakashima 2009). ³⁶⁸

The admirals' most innovative new weapon platform, the littoral combat ship, did not only expand the Navy's capabilities by its focus on the littoral, it also reflected the transformational call for less sophisticated and relatively cheap modular dual-use platforms (Montgomery 2006). Given the support of the civil and military leadership³⁷⁰ and the program's dual-use nature, the littoral combat ship program made

³⁶⁶ Defense Secretary Gates put additional pressure on the Army to cut components of the FCS in 2009. The Army responded by announcing a program overhaul. It canceled the light armored ground vehicle planned to replace the heavy tanks and troop transporters (Hedgpeth 2009).

planned to replace the heavy tanks and troop transporters (Hedgpeth 2009). ³⁶⁷ The CBO argued that the Navy's cost projections were still too optimistic and estimated average unit costs of \$3.8 billion, a billion more than the Navy plan (Labs 2006, 18-19).

³⁶⁸ The DOD finally agreed to build a third destroyer under pressure from a group of lawmakers, who threatened to cut all funding for surface ships if the decision was not reversed.

³⁶⁹ In contrast to the Navy's other multi-purpose ships, the LCS is a focused-mission ship, which can be equipped with different modular packages to perform one mission at a time.

The intellectual foundations for littoral ships were already laid in the late 1980s and 1990s by Cebrowski and other progressive naval thinkers (Long/Johnson 2007). They argued that vessels operating in littoral areas faced higher risks, such as mines, small boats with anti-ship missiles. Therefore, the loss of one of the large multi-purpose ships would not only cause disproportional economic costs but also a heavy tactical damage. Hughes and Cebrowski promoted a so-called Streetfighter force based on a class of small, cheap, fast, and networked class of largely unmanned ships, which would interact on a modular basis (Long/Johnson 2007). Hence, the overall combat power would suffer little from the destruction of one ship. Friedman (2009, 87) argued that the OSD and Cebrowski had probably forced the project on the Navy, which was concerned that the LCS would distract resources from its favorite systems (Morgan 2003). Yet, the Navy leaders soon saw the low-budget LCSs as the only option to increase the size of the fleet against the backdrop of growing budget pressures, the GWOT, and demands for transformation

initially good progress. When prototype construction began in 2004, the Navy hoped for a rapid development and procurement process and planned to buy 55 LCSs, accounting for about 18 percent of the Navy's force structure (O'Rourke 2010, 3; Cloud 2005). Yet, as the costs for the first two ships almost tripled between 2004 and 2007, the Navy canceled the four successive ships scheduled for FY 2006 and FY 2007 (O'Rourke 2010, 36). Moreover, since the LCS was sought as much for its contribution to the Navy size as for its transformational impact, the Navy was not ambitious to stay within the initial parameters. Thus, critics argued that the Littoral Combat Ships moved increasingly towards other conventional Navy vessels. The final product is significantly larger and more expensive than hoped for and planned to replace frigates and mine hunters, which the Navy will retire by 2015.

Only the development of unmanned systems is a decisive innovation and clear success for the transformation. Indeed, drones had a major advantage over other transformation programs: Their value for the GWOT was clearly evident. Hence, UAVs gained immediate relevance and enormous popularity as means for reconnaissance and surveillance but also air strikes (Grant 2005, 47; Brzezinski 2003).³⁷¹ After initial skepticism, the success of the Air Force's drones Predator and Global Hawk over Afghanistan inspired the other branches to develop their own drones for the so-called "dull, dirty and dangerous" missions (OSD 2005b, 1). Senator Warner (R-VA) observed with some surprise: "For a long time, the only thing most generals could agree on was that they didn't want any unmanned vehicles. Now everyone wants as many as they can get." (in Duhigg 2007) Numerous systems of different sizes, specifications and operational environments entered development and operations. Besides some ground and water drones, especially UAV acquisition was booming. The funding for UAV's increased from \$360 million in 2001 to \$2.3 billion in 2005 and the armed forces

(Work 2003, 47). Thus, while the CNOs Clark and Mullen would have preferred additional multi-purpose ships, they acted as vocal advocates of the only fiscally and politically feasible ship.

During the 1990s, the development of UAVs had made only slow progress. Although the naval forces and the Army successfully used Pioneer drones for reconnaissance and surveillance missions in Desert Storm and RMA supporters strongly endorsed this kind of platforms, the Services showed little interest to accelerate UAV development (for the history of UAVs in the DOD see Ehrhard 2000). To be sure, the Predator UAV, developed by DARPA, was tested as an experimental program over Bosnia in 1994-1995 (O'Hanlon 2003). Initially operated by Army and CIA personnel, which sought to develop organic reconnaissance means, Air Force chief Fogelman personally intervened to make the Predator an Air Force system (Weiner 2009, 113). After a year-long battle with the Army, the Air Force succeeded and Predator development was transferred to the flyers. But this conflict over the Predator did not indicate the breakthrough of UAVs within the DOD. In contrast, the potential of UAVs was still hardly understood by the Services, which devoted comparatively little attention to the program (Wheatley 2006, 53-55).

operated over 1,200 small UAVs and over 200 tactical and theater UAVs by 2005 (HASC 2006b, 4).³⁷² The Services' efforts resulted in as many as 19 different operational UAV systems and 17 UAV development programs. Political and military actors soon started to call for a central coordination of the UAV acquisition and deployment to avoid duplication, waste and accidents (Scarborough 2005; Grant 2005). Curt Weldon (R-PA) warned during hearings on the UAV programs that there was no way to "justify 35 to 40 different UAV programs" to the taxpayer (in HASC 2006b, 2).

Efforts to achieve greater efficiency were complicated by interservice competition resembling earlier struggles over supposedly seminal technologies, however (Duhigg 2007). Attempts by Air Force Chief Jumper to end the "tribal jealousies" by making the Air Force the executive agent for UAVs failed (in Dudney 2005, 2). Instead, the Pentagon decided to establish a Joint Center for Excellence under the command of an Army general and issued a UAV roadmap to provide additional guidance for the Services (OSD 2005b). While this constituted a significant progress, it did not end the Service competition for UAVs (Grant 2007).³⁷³ At the same time, the UAV development did not escape the competition with other major acquisition programs. Hence, the 'crown jewel' of UAV development, the joint Unmanned Combat Air System to develop a family of unmanned tactical fighter, bombers and spy planes, was named for termination in the QDR 2006 (Rumsfeld 2006, 46; Scarborough 2005). The money freed was redirected in a long-range strategic bomber to be fielded in 2018. Thus, one potential transformation program was cannibalized for another. In budgetary terms, drone development remained a relative small effort. And the Pentagon made clear early on that it would not be able to reach the congressionally mandated goal of one-third unmanned aircraft anytime soon (Klein 2002, 109).

Overall transformation remained limited. Byron K. Callan, a military industry analyst, commented against the backdrop of the FY 2004 request: "The most interesting thing about this administration and Pentagon is that there has been a lot of talk, but action only at the margin." (in Wayne 2002) And despite increased efforts in UAV, PGM, and

³⁷² Major systems were the Air Force's Predator and Global Hawk, the naval forces' Pioneer, and the Army's Hunter and Shadow (Dudney 2005, 2).

³⁷³ Especially the Army and the Air Force continued to battle over the responsibility for medium- and high-altitude UAVs. The Air Force questioned the Army's acquisition of upgraded Predator drones, called Warrior, and called for a consolidation under Air Force control. Yet, the Army was distrustful of the Air Force's assurance that it would provide the surveillance for all branches and pushed for organic UAVs.

C⁴ISR technologies, Kosiak (2006, 6) argued that the administration's transformation efforts, "appear to fall short in a number of important respects." A renewed chance to change the acquisition course was missed during the 2006 QDR (Ratnam 2005; Kitfield 2005). The Washington Post commented on the outcome of the QDR: "The signature effort of Rumsfeld's historic tenure – his 'transformation' of the world's most powerful military – melted away under the cover of the imposing Quadrennial Defense Review." (Von Drehle 2006) While the Army had made steps towards transformation and got stuck in technological problems and the requirements of the GWOT, the Air Force had resisted far-reaching steps from the start. And looking at the overall balance of Navy's transformation efforts, HASC ranking Republican Hunter (R-CA) told the naval leaders in late 2007: "You have had the opportunity to embrace transformation and you have chosen not to." (in HASC 2007, 3)

Summary

By the end of Bush's presidency, the DOD's acquisition process was in a precarious situation. Besides the general doubts whether the new systems were of much use in future conflicts, most major systems struggled with technological difficulties and faced significant cost overruns (Hunter in HASC 2007, 3). The planned weapon acquisition investments had doubled from \$750 billion to almost \$1.5 trillion between 2001 and 2007. Flournoy and Brimley (2008, 68) argued in 2008 that the Air Force budget is "on the verge of being broken", due to its modernization program. Overburdened by constant deployments and soaring expenses in all accounts, the Air Force's readiness dropped by 17 percent between 2001 and 2007 and the flyers warned of a situation "worse than the hollow force." (Scully 2007) The Navy's acquisition policy was also "in serious disarray" as there was little hope that the admirals' would be able to finance their programs in the long run (Kaeser/Cordesman 2008, 2) For the Army, it remained uncertain whether it could sustain the FCS' funding and whether the resulting means would prove valuable on the battlefield. Kaeser and Cordesman (2008, 27) concluded: "In retrospect, one wonders if trying to rush forward to use technology to try to solve all military problems on the basis of requirements tailored more to the legacy of the Cold War than an era of irregular warfare did not do the entire process of US force planning more harm than good."

While the GWOT and the exaggerated ambitions of the transformers clearly influenced this ambivalent outcome, direct societal influence again contributed by providing legacy programs with a high level of persistency. The OSD proved rarely able to overcome the Services' stability bias backed by the defense economy and its supporters in Congress. Hence, even in a war situation, the change of major programs that have reached a certain economic relevance and is therefore based on a large number of societal stake holders implies considerable political costs. While this secures the defense industrial base and provides for gradual modernization, it strongly reduces the leverage for strategic adjustments and makes innovation unlikely.

6.2.4. Military doctrine & Service mission statement 6.2.4.1. Builddown

Recurring interservice conflicts and jointness

By the end of the Cold War, the military forces looked back at 40 years of doctrine & mission statement formulation with increasingly sophisticated, more or less plausible answers to the Soviet threat. Fighting the Warsaw Pact and its agents had defined Service preparations and to a large extent justified their existence. Against this backdrop, the changing international environment and the successive transition brought issues that had been mostly settled for a long time back to the fore and forced the Services to fundamentally rethink their purpose.

The explosive issue of roles and missions, which had hardly been touched since the 1950s, returned to the agenda. Already the Goldwater-Nichols-Act had provided the CJCS with more authority to promote joint thinking and develop joint doctrine in order to improve cross Service cooperation, reduce duplications and create a more efficient military force. Yet hardly any progress with regard to improved jointness had been achieved by the end of the Cold War. Although the successful operations in Panama and Iraq were praised as examples of improved jointness, the Service leaders preferred to emphasize their superior contribution rather than joint efforts. Against the backdrop of the upcoming transition, no branch was willing to concede advantages to the other Services. In summer 1992, Nunn forcefully raised the roles and missions issue by starting an attack on what he considered numerous duplications and lacking jointness

within the military (Lancaster 1992). The Georgia Senator criticized unclear responsibilities and called on Powell to address these questions in his next roles and missions report. He questioned whether it was truly efficient that each Service had its own air force rather than consolidating the resources in one branch. The political pressure for more jointness continued to mount, as Clinton picked up Nunn's complaint during the election campaign (Gordon 1992): "We have four separate air forces – one each for the Marines, Army, Navy and Air Force. (...) Both the Army and Marines have light infantry divisions. (...) We can reduce redundancies, save billions of dollars, and get better teamwork." (in Gellman1993)

CJCS Powell, who worked within the DOD to improve joint thinking, ³⁷⁴ picked up the political actors' calls, but it soon turned out that the issue had not lost its explosiveness. When CJCS Powell circulated the modestly ambitious first draft for his triennial Report on Assignment of Roles and Missions in December 1992, it caused heated internal debates with the military leaders, which opposed Powell's reform suggestions as too far-reaching. As in previous builddowns, the branches were eager to protect their shares and the CJCS was forced to drop numerous suggestions to find an acceptable compromise (Gordon 1993a; New York Times 1993). The recommendations to consolidate all space operations under the Air Force, to transfer the Air Force Special Operations helicopters to the Army, and to consolidate the C-130 transport fleet under Air Force and Marine Corps command were dropped. Moreover, rather than giving the Navy the responsibility to provide all air support for the Marines, the final report made close air support a primary function of all four Services.

Nunn commented on the report: "I think there are two Colin Powell reports. Phase one report really was what I think he believed and phase two was what he compromised in order to get it through the chiefs." (in Chiarelli 1993, 77) While the report fell clearly short of the expectations, the Clinton administration, already deep in the battle over the ban of homosexuals, refrained from further pushing into the armed forces most sacred field (Gellman 1993a). But Congress was not willing to give up and directed the establishment of an independent Commission on Roles and Missions (CORM) in its FY 1994 Defense Authorization Act. The commission was instructed to "review (...) the

³⁷⁴ Powell instituted Joint Force Quarterly magazine to support joint thinking and sought a joint doctrine going beyond AirLand Battle in 1993 (Adams 2006, 32; Lederman 1999, 103). Furthermore, the Atlantic Command was assigned the role of supervising joint training and cooperation in 1993 and renamed to Joint Forces Command in 1999.

appropriateness (...) of the current allocations of roles, missions, and functions among the Armed Forces; evaluate and report on alternative allocations; and make recommendations for change." (CORM 1995, ES-1) In its final report CORM refrained from suggesting formal changes to the Key West assignments, but emphasized the importance of jointness for military operations. Thus, the report recommended "that the Chairman of the JCS propose a unified vision for joint operations to the Secretary of Defense (...); integrate support to CINCs (...); improve joint doctrine development." (CORM 1995, ES-3)

With the CORM recommendations, jointness became a political imperative and DOD picked up the call. After fierce Service parochialism had previously prevented farreaching joint doctrine, Shalikashvili, in cooperation with the Joint Chiefs and CINCs, developed the Joint Vision 2010 document, published in 1996 (JCS 1996; Link 1996). Joint Vision was formulated as the "conceptual template (...) to achieve new levels of effectiveness in joint warfighting." (JCS 1996, 1) Relying strongly on early RMA thinking, it outlined four operational concepts to turn information superiority in military effects: (1) 'Dominant maneuver' sought to control battlespace and time through synchronized joint capabilities; (2) 'Precision engagement' called for a most efficient connection between target identification, information processing, effect generation and evaluation; (3) 'Full-dimensional protection' was concerned with proactively denying future opponents' opportunities for action by harnessing the enhanced awareness and control of the battlespace; (4) 'Focused logistics' finally sought to provide fast, responsive, flexible, and precise logistics for all kind of operations. The joint application of these four concepts with adequate forces would provide full spectrum dominance for the US forces.

Joint Vision 2010 and its quite similar successor Joint Vision 2020³⁷⁵ in 2000 were widely considered milestones in the conceptual formulation of jointness and RMA thinking beyond technology (Shelton 2010, 269). But supporters of joint thinking had much reason to complain: "Parochialism, not cooperation, remains the watchword despite the common deference to jointness." (Macgregor 2000, 18, see also Owens 2000, 152-164) Indeed, while the Services publically praised the joint vision and

³⁷⁵ Apart from the schedule, Joint Vision 2020 largely confirmed Joint Vision 2010. While strategic analysis in Joint Vision 2020 put more weight on the risk of asymmetric responses to the US forces' full spectrum dominance, it implicitly continued to assume regular conflicts.

refrained from publications, which would have made an impression of parochialism, the Services neither agreed on the nature of further joint doctrine nor retreated from parochial claims in order to support effective jointness (Lovelace/Young 1996, 98).³⁷⁶ Putting the joint vision in a Service perspective, each branch was quick in "portraying itself as the dominant force and first among equals." (Adams 2006, 43) And each Service produced its own vision document on the basis of the joint vision's conceptual template, which emphasized its indispensable contribution to national defense (DOA 1996; DOAF 1996). Macgregor (2000, 20) complained that "Joint Vision 2010 and Joint Vision 2020 are simply bumper stickers for single-service programs and do not prevent competing service requirements from dominating joint integration efforts."

The Navy's turn to an expeditionary mission

At the same time, the struggle for joint doctrine spurred the formulation of Service doctrines. Since joint doctrine should flow from Service doctrine, each branch was eager to provide a clear and convincing picture of its contribution to be taken into account during joint doctrine formulation (Fogleman 1996, 40). On a more general level, the Services were well aware that a clear vision of the future mission and a convincing rationale for the own capabilities would be necessary to secure shares of the decreasing budget and protect programs from termination. With the likelihood of total war decreasing, all Services pushed into the mission of Desert Storm-like regional conflicts, which emerged as the high-end operations in the new threat environment. Given the disappearance of the geographical focus of war planning and the emergence of an undisputed American command of the commons, sea, air and space, the Services were particularly eager to highlight their contributions to operations penetrating hostile territory everywhere on very short notice. Therefore, they elaborated ways to exploit the command of the commons to rapidly overcome anti-access and area denial strategies

-

³⁷⁶ The process of joint doctrine formulation contributed to its lacking cohesive force: The Joint Staff delegated the drafting of doctrine to a lead Service, which could shape the development process in its interests. Regardless of the actual amount of parochialism within the final product, the other Services were highly suspicious and felt unobligated by these 'joint' products. Even the Joint Staff was included in the tribal thinking. Thus, an article in the Air Force's Airpower Journal stated: "Given that the four services provide the officers who make up the joint staff, it should not be a surprise that joint doctrine is no better than Navy, Army, and Marine Corps doctrine when it comes to recognizing how air power can dominate the conduct of war." (Bingham 1991) Since no branch was willing to compromise on its claims and suspected the other Services to work for their own advantages, an effective allocation of responsibilities was virtually impossible.

and succeed in these contested zones. The concepts outlined in Joint Vision thereby provided all Services with guidance towards a more RMA inspired thinking towards the end of the decade. But while the branches developed sophisticated conventional answers to the expeditionary challenge, the competing doctrine formulations failed to adapt to the numerous unconventional, low-intensity operations, which characterized most of its activity in the first post-Cold War decade.

Not unlike in the post-World War II situation, early reorientation was imperative for the Navy. Its Maritime Strategy of the 1980s, which planned for a sea and air war with Soviet forces and strategic attacks, rapidly lost relevance by 1990 (Friedman 2009, 78-79). Goldwater-Nichols had granted more autonomy to the CINCs in selecting their forces and therefore introduced a new element of competition in the DOD. The Navy painfully experienced this shift during Desert Storm, when General Schwarzkopf predominantly relied on the Air Force instead of naval aviation for ground attacks (Owens 2000, 165; Wolfe 1995, 40). The Navy responded to its apparent relevance problem by defining a new niche for itself. Beginning with its white paper '...From the Sea' in 1992, the Navy turned from maritime to littoral operations and the Marines Corps from land-based to sea-based power projection (Hattendorf 2005; Tritten 1995a). To have a strong stance in the role and missions debates, the naval forces picked an extensive definition of the littoral region. It included "areas adjacent to the oceans and seas that are within direct control of and vulnerable to the striking power of sea-based forces." (DON 1994b, preface) With the focus on the littoral, capabilities for global forward presence, inland power projection, and operations in coastal area-denial environments moved to the center. At the same time, it implied a revitalization of the naval forces' operational partnership. As Work (2003, 32) said: "[T]he Navy had to once again think of the Marines as part of the battle fleet's main battery, and about reallocating assets to support them. (...) [T]he Marines had to rediscover the art of large, sea-based operations not reliant on land-based ports and airfields."

Implementation of this far-reaching refocusing within the DON was far from easy. Tritten (1995a, 113), academic advisor to the Navy's Doctrine Division, warned: "Shifting from open-ocean operations to joint littoral warfare will be as traumatic as moving from battleships to carriers." Therefore, '...From the Sea' announced the establishment of a Naval Doctrine Command to support the changes by formulating doctrine for the Navy and the Marine Corps. The new command soon produced the

naval forces' first ever written capstone doctrine Naval Warfare, which transferred the strategic vision of '...From the Sea' in doctrine (DON 1994a; Barr 1994, 6).³⁷⁷ Naval Warfare was a balancing act of careful reorientation towards a brown water Navy and assertion of the naval forces' history, traditions and enduring identity. Although the Navy leaders made sure that the new focus did neither imply an abandonment of prior missions nor a significant departure from the existing force posture, suspicions within the organization were strong and especially Navy traditionalists disliked the departure from the distance-strike Navy (Hoffman 2008, 6). Therefore, the Naval Warfare doctrine sought a reconcilable language and renewed command of the sea and the related focus on high sea battle as the Navy's major concerns.

Moreover, the Navy published 'Forward ...From the Sea', which succeeded the 1992 White Paper in 1994 (DON 1994b). The new White Paper did not depart from the importance of the new expeditionary role, but created more of a balance by reinforcing the crucial role of forward presence missions. While allied forward bases were readily available during the Cold War, the availability of secure land bases became a crucial issue in the new approach of global power projection. The Navy pointed out its major advantage over the other Services in this new situation, since its vessels could serve as swimming bases, permanently present in approximation to critical regions without needing foreign permission. This forward presence would provide stability in deterring aggression and rapid response options if a conflict emerged.

The Army between high-intensity and low-intensity operations

The Army found itself in an ambivalent situation by the beginning of the transition (Jackson 2009). On the one hand, its focus on a Soviet attack on Europe became obsolete. More than the other Services, the Army had concentrated its efforts on this

³⁷⁷ The U.S. Marine Corps (1996) issued the concept paper Operational Maneuver from the Sea discussing the implications of '...From the Sea' for the Marines. The paper clearly placed the Marine Corps in the context of littoral warfare: "The centerpiece of out preparations for the future is an approach to expeditionary, littoral and amphibious warfare." (U.S. Marine Corps 1996,5) In a move to embrace the RMA, Operational Maneuver from the Sea departed from the traditional task of securing bridge heads for troops and supply. Instead, it called for the Marines to bypass the beach or at least significantly reduce the buildup phases and rapidly move against centers of gravity.

³⁷⁸ 'Forward ...from the Sea' also spelled out the Navy's contribution across the spectrum of conflicts after the Cold War in more detail, but contributed little additional aspects. Friedman (2009, 81) argued that "Clinton's Secretary of Navy, John Dalton wanted a strategy document not written under a Republican, however similar to the last strategy."

single scenario formalized in the AirLand Battle doctrine, which had guided its revitalization after Vietnam (for a critic see Bolger 1989). The dissolution of the Soviet Union and the growing importance of MOOTW put this earlier focus in doubt. On the other hand, from the Army point of view, AirLand Battle doctrine was successfully executed in Grenada 1983, in Panama 1989, and most prominently in Iraq 1991. 379 Hence, military victory seemed to confirm the AirLand Battle doctrine's concepts beyond the Cold War scenario (Scales 1993, 12-15, 24-27). In fact, Desert Storm marked for many officers the final relief from its self-doubts since Vietnam and was thus a watershed for the Army. The incentive to maintain this successful and important doctrine was strong. Hence, Army Chief Sullivan's attempts to foster substantial Army reform through doctrinal innovation did not produce the hoped for results. To be sure, the 1993 FM 100-5 met the changed political focus by extending the scope of operations to all kinds of contingencies including MOOTW. But despite the adjustments and the rhetoric commitment that ground forces should be able to conduct all kinds of missions there is little doubt that MOOTW remained an appendage to forward presence and technology-heavy conventional war in the tradition of AirLand Battle. In contrast to the Navy's conception of forward presence, the Army argued that only land force deployment could provide credible deterrence for aggressors and thus regional stability (Rhodes 1999).

Desert Storm rather than Restore Hope or any other low-intensity operation became the model for further force preparation. The plan to turn boxers into decathletes was highly ambitious to begin with and other factors further encouraged a continuous conventional focus: (1) There existed strong concerns within the Army of corrupting the basic Army purpose and stance in the resource battles by overemphasizing MOOTW (Schook 1997). These operations did neither fulfill the conditions outlined in the Weinberger-Powell-Doctrine nor match the operational guidelines in the AirLand Battle Doctrine and were therefore unattractive for the ground forces. Moreover, low-intensity, low-tech operations were hardly suited to hold one's own in the budget battles. Hence, a stronger commitment to MOOTW could have threatened the Army's position vis-à-vis the other Services in claiming the major role in regional conflicts.

³⁷⁹ There is considerable doubt, however, that the Army's performance in Grenada and Panama indeed resembled AirLand Battle doctrine (Kretchik 2001, 206, 213).

(2) The collapse of the mission in Somalia had two conflicting effects on Army thinking. On the one hand, it proved the increased importance of MOOTW and the need for a more distinct treatment of them in doctrine (e.g. Duffield 1999, 44-45). The 1993 FM 100-5 seemed too unspecific and inflexible for the missions of the 1990s, which blurred the distinction between war and operations other than war (Kretchik 2001). Therefore, preparations for a new doctrine started in 1995 under the new Army Chief Reimer. But internal quarrels and changing supervisors prevented the publication of a new manual for the rest of the decade. On the other hand and more importantly, the political pressure on the Army to prepare for MOOTW decreased. After the Somalia disaster, the Democrats' enthusiasm for assertive multilateralism significantly cooled down and the government became much more cautious of ground troop deployment for MOOTW (Dobbins 2007, 147-149). Like the Weinberger-Powell-Doctrine, Clinton's Presidential Decision Directives 25 in early 1994 tied US peacekeeping contributions to numerous demanding conditions including public and congressional support (White House 1994; MacFarlane 2002, 61-62; Ucko 2009, 49). With these severe political restrictions, which limited MOOTW to only the lowest risk military involvements, the pressure for the Army to treat these missions as requiring specific preparations vanished: It was always more prudent to prepare for the high-end of the conflict spectrum. Hence, the Army wrote about and conducted MOOTW, but focused most of its efforts on the preparation of conventional war. 380

At the same time, the Army sought to become more of an expeditionary force. It had learned from the Iraq War that strategic responsiveness on a truly global scale could only be achieved by improved mobility. Therefore, already the 1993 FM 100-5 admitted the dependence on transport capabilities and highlighted Service interdependence stronger than prior doctrine. By the second half of the decade, new technologies and the RMA promises were tested in order to create a more agile and

³⁸⁰ The Marine Corps spent more efforts on low-intensity operations. With support from Commandant of the Marine Corps Krulak, the Marines initiated the program Urban Warrior, experimenting combat operations, peacekeeping, and humanitarian relief in an urban environment. Krulak (1999, 79) argued that "the threat in the early years of the next century will not be the 'son of Desert Storm' – it will be the 'stepchild of Chechnya'." Nonetheless, the Marines' focus remained on conventional operations from the sea.

³⁸¹ Especially the slow deployment of forces to Saudi Arabia prior to Desert Storm revealed a limited mobility. During the initial six month of preparation and before heavy equipment arrived in significant numbers, US forces were highly vulnerable to potential Iraqi attacks. As long as war planning focused on the East-West-frontier, the limited mobility could be offset by forward presence of heavy forces in Europe and Korea. But the new regional focus demanded the ability to project capabilities in every region with little prior warning.

leaner response force. Army Chief Reimer initiated the Army After Next (AAN) program, linking the short-term adaption of new technologies tested in the Force XXI project to a long-term vision of Army warfare between 2020 and 2025. The program sought to develop insights for future operational concepts and force requirements by studies and war games. AAN again highlighted the strategic mobility as a major weakness in the force posture. In 1997, Major General Robert Scales, who led the AAN program, concluded: "If the Army is to remain relevant to the security needs of the nation we must begin now to accelerate the speed with which we can project legitimate, powerful and balanced forces to threatened regions overseas." (Scales 2001, xxii) Hence, he recommended the reorganization of the ground forces in leaner and thus more easily deployable units. By exploiting the promises of RMA technology, these brigade-size forces would still be highly sustainable and lethal in theater. As an anchor against the slide towards becoming a MOOTW force, this AAN vision, which centrally contributed to Shinseki's objective force vision in 1999, clearly focused on conventional operation requirements (Jackson 2009, 49-50).

The Air Force's claim for the rapid response mission

The Army's claim for major regional conflicts put it in conflict with the Air Force. In the eyes of most senior Air Force officers, Desert Storm had not only confirmed the Basic Aerospace Doctrine of 1984, but also demonstrated the significance, even dominance, of air power in future warfare (Bingham 1991). Arguably in response to the Army's AirLand Battle Doctrine, the Air Force had published the White Paper 'Global Reach – Global Power' claiming an independent role of air power after the Cold War already in 1990 (Faulkenberry 1996). The underlying strategic vision in 'Global Reach – Global Power' strongly differed from the other Services' assumptions of stability through forward deployment or presence. As the conditions for forces in or close to the theater were in many places unfavorable, the Air Force argued, the US should shape the environment through long-distance involvement based on superior aerial technology rather than through surface forces (Rhodes 1999).

But the aviation branch was well aware that many considered the Army's AirLand Battle Doctrine, emphasizing a supportive rather than an independent role for air power, as instructive for Desert Storm (Kretchik 2001, 218). Therefore, the Air force leaders

reacted angrily when General Schwarzkopf argued after Desert Storm that air power played a major role in the early stages but less so in the later stages of the operation in which the ground forces were more important (Grant 2003, 31). A few weeks later, Air Force Chief McPeak confidently declared: "My private conviction is that this is the first time in history that a field army has been defeated by airpower." (in Dudney 1991) Leaders of the ground forces understood McPeak's words as a clear message: "The joint atmosphere displayed in Southwest Asia has faded; the gloves are off." (Keiser 1991, 30) Army Chief Reimer responded that "this idea that airpower will win the war is historically suspect." He instead referred to AirLand Doctrine thinking: "You need to quickly synchronize your forces, get your force on the ground, and take advantage of what each service brings to the fight, and then go after the enemy and wrap things up as quick as you can." (in Kitfield 1998)

In 1992, the Air Force reacted to the changing international situation and the experience in Desert Storm with the release of a new Basic Aerospace Doctrine (DOAF 1992). In the eyes of the Air Force generals, inconsistent doctrinal development and an artificial dichotomy between strategic airpower, equaling nuclear deterrence, and tactical airpower, equaling close air support, had obstructed the full potential of air power in conventional warfare (Fogleman 1996, 41). The new doctrine should close this gap and clearly establish the flyers' relevance for the post-Cold War missions. Responding to criticism to earlier doctrines, AFM 1-1 was much more analytical in character included an extensive part of historical and systematic justifications. It also incorporated considerations on the relevance of space for the first time in Air Force doctrine. The manual stressed the superiority of aviation for the outcome of conventional wars and the implicit unwillingness to subordinate to surface forces. Especially due to effective use of stealth and precision guided munitions, air power could play a much more decisive role in future warfare.

The so-called halt phase strategy/doctrine during the Clinton administration offered further chance for the flyers' to increase its relevance (Grossman 2001; Kitfield 1998). The halt phase strategy emphasized the role of airpower in the early stages of a conflict, in which the lacking mobility of ground forces was most problematic. Instead of waiting for sufficient ground forces to arrive in the theater, air power could be used on to deny opponents early strategic gains. The halt phase had played a first important role in Aspin's unsuccessful win-hold-win force planning standard, in which air power should

buy the time in the second MRC until sufficient ground forces were available. But even in a 2-MRC standard, the halt phase strategy was attractive, since there was considerable doubt that the US had the logistical capabilities to deploy troops and equipment for two parallel conflicts. Furthermore, the Air Force argued that the strategy generally promised a quick way to end enemy aggression with little risk for the own forces. The aviators were confident that they could largely destroy an enemy force and thus independently decide a war during its early stages. Again, the Army met these promises with considerable skepticism (Tilford 1998). The struggle between the two branches grew so tense by the middle of the 1990s that Army Chief Reimer and Air Force Chief Fogleman felt obliged to publish a joint article titled "Joint Warfare and the Army-Air Force Team" (Reimer/Fogleman 1996). The article asserted that the two branches were "natural partners" and promised further cooperation. But in its first sentence the authors made clear: "Cooperation does not imply that we have identical views on every issue, nor that we should be combined." (Reimer/Fogleman 1996, 10)

Summary

Evidently, the Service doctrine formulation was strongly driven by the desire to find the most beneficial autonomous position in a changing international environment and decreasing budgets. To this end, all Service developed quite innovative answers, including an increasing reliance on RMA concepts. The dominance and even autonomy of the Services in the doctrine dimension is clearly evident not only from the failure to improve jointness and exploit potential synergies but also from the strong focus on conventional warfare. Indeed, political actors intervened only punctually and with dubious impact in the Services efforts. Thus, political pressure contributed to a more sophisticated joint framework, but the Services commitment to jointness remained limited. More obvious is the impact of Clinton's raised casualty-sensitivity after the Somalia operation, although it reduced rather than increased political influence. Societal influence was not evident at all. Even the impact of a general influence biased in favor of conventional casualty-sensitive warfare is speculative.

6.2.4.2. Buildup

Transformation and jointness

The Bush administration's push for transformation did not confine itself to the military organization and weapons acquisition. Transformers also sought to make an impact on the doctrine dimension, which put the Services in an ambivalent position. On the one hand, transformation of the Services' individual doctrines could build on the foundations of the 1990s and faced little resistances. Already by the late 1990s, RMA concepts had found increasing way into the doctrinal thinking of all branches. The Air Force's Air Force 2025 project, the Army's Force XXI and Army After Next projects, the Navy's NCW and Streetfighter concepts, and the overarching framework in Joint Vision 2010 and 2020 picked up various aspects of RMA. Since transformation promoted a "hyperconventional image for the U.S. armed forces" based on technologies and concepts to quickly find and destroy targets (Ucko 2009, 59), transformation implied little departure from prior doctrinal trajectory.

On the other hand, however, the OSD's renewed push for jointness and interoperability was met by Service mistrust. In its most radical form, the transformers envisioned the complete abandonment of Service participation in operational missions. The latter would only provide joint task force building blocks in their respective primary function and leave the conduct of operations to fully joint commandos (Macgregor 2002). But even lesser issues, which touched the balance between the Services, resulted in conflict. When the Joint Staff circulated a draft for a new joint operations doctrine in February 2001, the Army and Air Force clashed. The draft's careful formulation that a "possible halt phase is necessary when decisive combat operations are required to terminate aggression and achieve US objectives" caused Army resistance (in Grossman 2001, 35). While the 1997 QDR had referred to the halt phase doctrine and some CINCs had started to include halt phases in their war plans, the Army had not given up its opposition. An airpower supporter sarcastically commented on the Army position: "What they can't win in real life, they try to win in doctrine." (in Grossman 2001, 36) In turn, the Air Force, which feared that the joint publication without reference to a halt phase would underrate the air force contribution, was unwilling to agree on any document without a halt phase formulation. The final Joint Publication 3-0 in fall contained only a very watered-down reference to the halt phase: "Rapid application of joint combat power may be required to delay, impede, or halt the adversary's initial aggression and to deny the initial objectives." (JCS 2001, III-20)

The continuous distrust between the Services had consequences during the early operations of the GWOT, when the quality of coordination of the branches was mediocre (Grant 2003). Especially Operation Anaconda in Afghanistan in March 2002 was widely seen as an example of bad cooperation. Chiarelli (2007, 15) even wrote that "the performance of our military in the numerous interventions since the (...) [Goldwater-Nichols-Act] was passed appears, if we assess it honestly, to have been 'disjointed'." Only the need to cooperate more effectively to counter the insurgency in Iraq seems to have improved operational jointness (Fischer 2006). Yet, problems in joint operations persisted. In 2008, a HASC created Panel on Roles and Missions (2008, 21-22) identified two central deficits in the doctrine dimension: "The first is the efficient preparation for and management of joint operations, and second, the operations and activities that are critical, but which the Military Departments do not consider to be core missions."

The ground forces' turn to counterinsurgency doctrine

The latter issue aimed at the ground forces and particularly the Army's efforts to adapt to the irregular battlefield. Indeed, the Army passed through a difficult process of doctrinal adjustment during the GWOT. It entered the new century with an unchanged claim to conduct conventional warfare missions. Its capstone doctrine 'FM 1: The Army' opened with a telling quotation of T.R. Fehrenbach: "[Y]ou may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clear of life – but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud." (DOA 2001a, 1) However, after the GWOT had started with transformational, but inherently conventional wars, the US ground forces soon found themselves in an insurgency environment, which they were not ready to deal with (Krepinevich 2008). While the Army's most recent FM 3-0 in summer 2001 had paid some attention to the experiences of the 1990s and put more weight on stability and support operations, its focus remained on war fighting and regular combat tasks. In fact, the Bush administration's disregard for state-building and commitment to transformation

reinforced this focus on high intensity operations. Ironically, the Iraq War initially pushed the transformation efforts even further, because the rapid toppling of the Iraqi regime was considered a verification of transformation (Kagan 2006, 288). Concentration of forces, holding of ground, and low technology engagements run counter to this vision.

Hence, in 2003, the generals knew little about the emerging form of irregular warfare and how to succeed in it. While all branches had prepared for conventional war, the ground forces paid the highest prize for this one-sidedness and faced the most urgent need to adapt. The emerging doctrinal innovation is a clear example of innovation within an organization under pressure. With the administration pushing for transformation and unwilling to publically concede fundamental difficulties in Iraq, neither the public nor Congress provided effective pressure for innovation. Instead, the ground forces, facing a deteriorating situation with rising numbers of casualties, soon started to develop responses on the ground (Nagl 2007). After realizing the magnitude of their deficits in the field of counterinsurgency, the Army and Marine Corps hastily issued Field Manual (Interim) 3-07.22 in October 2004 (DOA 2004). The manual emphasized the need for an integration of military and civilian operations and the vital role of civil population's support. But this first counterinsurgency doctrine since 1986 was only intended to provide a short-term bridge until a full replacement would be formulated.

But as the civil leadership regarded the insurgency as a temporary problem, more comprehensive thinking on COIN doctrine only slowly gained foothold. The situation changed in late 2005, when it became increasingly clear that the insurgency would not disappear anytime soon without new measures (Ucko 2009, 73-75; Krepinevich 2005). About the same time, the OSD issued Directive 3000.05 making stability operations one of DOD's core military missions. Against this backdrop, reports from counterinsurgency practitioners and theorists, including H.R. McMaster, John Nagl, Peter Chiarelli (2007), and Patrick Michaelis, gained increasing momentum within the DOD. Lt. General David Petraeus, who had acquired experiences in COIN during his tenure in Iraq, became a particular important figure within the emerging counterinsurgency community. Petraeus initiated a complete rewriting of ground forces counterinsurgency doctrine in close cooperation with Marine Corps Lt. General James Mattis. After a year of drafting and broad deliberation among the growing COIN

community, FM 3-24, Counterinsurgency, was released in December 2006 (DOA/DON 2006).

The doctrine, which was well received by military experts and field officers, strongly departed from the principles of conventional warfighting. In fact, it marked an attack not only on the Iraq strategy but more generally on the 'old' Army, still preparing and fighting along the traditional American Way of War based on the Weinberger-Powell doctrine (Ucko 2009, 112; Ollivant 2008, 358). FM 3-24 acknowledged the complexity of COIN operations including numerous paradoxes, which commanders face in their efforts to gain legitimacy, the main objective in counterinsurgency operations. For example, the manual argued for closer contact and trust-building measures with the populace, framed in the paradox that "sometimes, the more you protect your force, the less secure you may be." (DOA/DON 2006, 1-27) Population security, economic development, and good governance are named as vital conditions to deprive insurgents of public support and defeat them. Against this backdrop, the doctrine emphasizes that success requires good intelligence, constant learning and adaption. Military power provides only a supporting but limited and at times counterproductive means. At the same time, the manual argued that most counterinsurgency operations required numerous troops ready to perform combat and non-combat tasks for a long period of time.

Publication of FM 3-24 coincided with the electoral defeat of the Republicans in Congress, Rumsfeld's departure and Bush's successive turn to a new Iraq strategy. And with the promotion of Petraeus to the Commander of Multinational Force Iraq, COIN doctrine gained an early chance to prove its value (Ucko 2009, 114). As the situation in Iraq indeed slowly improved under Petraeus' command, the counterinsurgency advocates within the DOD were strengthened and Defense Secretary increasingly embraced their ideas (Kaplan 2008). In fall 2007, Gates (2007) told the Association of the US Army: "We can expect that asymmetric warfare will remain the mainstay of the contemporary battlefield for some time. (...) One of the challenges facing the Army will be how to incorporate the latest in technology without losing sight of the human and cultural dimensions of the irregular battlefield." Accordingly, the 2008 revision of FM 3-0 replaced the separation of high-intensity operations and low-intensity operations with a continuous spectrum of overlapping operational requirements (DOA 2008). The manual emphasized the need for stability and reconstruction considerations throughout

all military operations. It argued that full-spectrum operations required the capacity to simultaneously conduct offensive, defensive, stability, and civil-support operations.

But there remain doubts whether the balance between preparations for regular and irregular operations has shifted for long, as critics warned that the sudden counterinsurgency hype might displace the ground forces conventional warfighting capabilities. Indeed, a number of senior military leaders, including Petraeus' predecessor in Iraq and later Army Chief George Casey, former Army Chief Schoomaker, and CJCS Michael Mullen warned in late 2007 that an excessive preparation for irregular warfare may leave the US unprepared for conventional challenges (Munoz 2007). Moreover, a parallel shift in focus in the organization and weapons acquisition dimensions remained limited. In the same line, Ucko (2009, 173) concluded after reviewing the impact of COIN doctrine on training, force structure and acquisition projects: "So far the COIN community has struggled to displace traditional preoccupations and entrenched interests; to a large extent old think has prevailed."

The Air Force between COIN and conventional rapid response

While the ground forces' doctrine formulation heavily turned towards irregular warfare, the other branches departed only modestly from their conventional focus. In fact, the flyers and sailors had only a minor supporting role in irregular warfare, which heavily rests on 'boots on the ground' and a light footprint. FM 3-24 stated with regard to the capabilities particularly relevant for COIN operations: "All are found in the Army; most are found in the Marine Corps. To a limited degree, they are also found in the Air Force and Navy." (DOA/DON 2006, 2-5) Therefore, the Navy and the Air Force largely continued to focus on their preparations for conventional war, but nonetheless sought to highlight their contribution to the increasingly important COIN operations.

Air Force Chief Jumper (2001) strongly promoted the flyers' Global Strike Task Force built around the stealthy F-22 and B-2, which would provide the capabilities to strike targets over a long-distance and with little preparation time. ³⁸² In close succession of the

³⁸² The Air Force organized its planning in the new century around seven concepts of operations: (1) Global Strike Task Force; (2) Global Response Task Force; (3) Global Mobility Task Force; (4) Nuclear Response Task Force; (5) Expeditionary Air and Space Force; (6) Homeland Security Task Force; (7)

earlier doctrinal thinking and the requirements formulated during the 1990s, the Global Strike Task Force would be the flyers' "contribution to the nation's kick-down-the-door force." (Jumper 2001, 29) The Air Force's Basic Doctrine in 2003 reinforced similar themes. From the flyers' point of view, the numerous conflicts since the end of the Cold War, including the transformational wars in Afghanistan and Iraq, had proved its strategic significance and its basic doctrine confidently stated: "[T]he more recent history of air and space power application (...) has proven that air and space power can be a dominant and frequently the decisive element of combat in modern warfare." (DOAF 2003, 16)³⁸³ In this situation, the sudden prominence of COIN operations was unwelcome from the Air Force's point of view (Haendschke 2008). While Air Force advocates argued that "[a]irpower can do far more than destroy a particular target", the importance of air power was largely reduced to tactical levels in these operations (Read 2005).

But the flyers were unwilling to leave all credit for COIN to the ground forces and sought to highlight their contribution. In an implicit response to the ground forces' doctrine, General Peck contended that COIN "doesn't always have to be about having lots of 'boots on the ground'." (in Harrison 2007) And the publication of an Air Force doctrine on irregular warfare in 2007 made clear that air power had a role in COIN operations (DOAF 2007). It contended that the Air Force must be prepared to provide capabilities to simultaneously conduct traditional and irregular operations. Especially advanced technologies provided the Air Force with a claim in COIN operations. Thus, air power advocates emphasized the impact of PGMs, which enabled the flyers' to strike targets with little collateral damage (Haendschke 2008; Dunlap 2008). They also highlighted the "game changing" impact of drones, providing persistent ISR capabilities, which are crucial for COIN operations (Dunlap 2008, 57). At the same time, the focus of the preparations remained on conventional tasks in accordance with the 2006 QDR's separation of tasks, most prominently the potential rise of China to a peer competitor (e.g. Halloran 2007; Rumsfeld 2006, 29-32; Grant 2006).

Space / C²ISR Task Force. Each concept of operation resembles one task the flyers might be asked to perform and identifies the necessary capabilities to accomplish the mission.

383 The Air Force's assessment is not undisputed. E.g. Correll (2003) argues that the Air Force played a

decisive role in defeating the Iraqi Army but failed to finally shut down or defeat the regime during Operation Iraqi Freedom (see also Peters 2003).

The same holds for the Navy, which continued to emphasize its expeditionary capabilities. The administration's push for transformation and a more proactive intervention policy in the GWOT made the naval forces' focus on forward presence, seabased power projection and expeditionary capabilities more relevant than ever. In its mission statement, Naval Power 21 in 2002, the naval forces promised four returns on investment: Command of the seas; US sovereign power overseas; assured access; and enabling transformation of the joint force (Work 2003, 29; DON 2002) Especially the promise to assure seabased access worldwide for military operations went clearly beyond prior commitments to power projection and was a formidable challenge, which guided naval forces' preparations. The Marines Corps adopted the Expeditionary Maneuver Warfare capstone concept, focusing on rapid power projection worldwide against critical points in the littoral and beyond (DON 2001). It was designed to match the Navy's Sea Basing, one of three major concepts outlined in its conceptual vision Sea Power 21 (Clark 2002).³⁸⁴ Sea Basing should provide afloat command and control structures and supply logistics to support missions ashore reducing the importance of overseas bases for all Services.

Thus, the Navy basically confirmed its vision of the 1990s by adding further specification. The ambitious expeditionary focus provided the Marines and the Navy with strong arguments to back its claims in the conflict over acquisition funding and with regard to their shares in the GWOT (Peck 2003). As Admiral Clark (2002) argued: "As enemy access to weapons of mass destruction grows, and the availability of overseas bases declines, it is compelling both militarily and politically to reduce the vulnerability of U.S. forces through expanded use of secure, mobile, networked sea bases." Thus, Naval Power 21 and the related transformation path for connected, faster and more flexible expeditionary capabilities might be seen "as a bid to assert Departmental preeminence in this new joint expeditionary era." (Work 2003, 48) Yet, the irregular warfare changed the situation and softened the doctrinal interaction between the naval forces: While the Marine Corps got heavily involved in land-based

³⁸⁴ Sea Power 21 outlined Sea Basing together with Sea Strike, the ability to project fire power from the sea, and Sea Shield, forward defense for the homeland and US forces, connected by the integrated ForceNet framework.

COIN operations and COIN doctrine formulation, the Navy's purpose remained more focused on conventional tasks.

In 2006, CNO Mullen initiated a process to develop a comprehensive strategic perspective on naval power in the current world in cooperation with the Marine Corps and the Coast Guard. The new strategic concept, published in 2007, reinforced the close cooperation of the naval forces (Work/Tol 2008). Moreover, it highlighted again the concept of forward presence providing the ability to improve diplomatic and military relations and conduct proactive operations to maintain global stability (DON 2007). But it said little on the naval forces contribution to the ongoing operations in the GWOT and failed to identify the most pressing threats and operational challenges for the naval forces. Since it lacked clear priorities with regard to threats and force structure decisions, defense experts criticized the strategy for being "all things to all people." (Pendley 2008, 61; see also Till 2008) Others argued that the new strategy was only an attempt to provide a belated justification for increasing the current 278-ship fleet to 313 ships during the next 30 years against the backdrop of growing budget pressures and a shortage of responsibilities for the Navy in the current environment (Erwin 2007). During HASC hearings on the Cooperative Strategy for 21st Century Seapower, Gene Taylor (D-MS) told the admirals: "It is a nice, pretty slick brochure, but at the end of the day it really didn't do very much for our country." (in HASC 2007, 32) Thus, the Navy's future trajectory remained open, including contributions to the GWOT as well as preparations in response to the Chinese buildup of anti-access capabilities (O'Rourke 2009b).

Summary

As during the 1990s, the Services' doctrine formulation was largely driven by their desire to secure shares in the changing environment. In this context, the political actors' push for transformation was only successful in areas in which the adaption costs for the Services were small. The most important influence on doctrinal formulation was the situation in Iraq, which threatened to result in organizational failure. The ground forces turn to COIN doctrine is a clear response to the inability to succeed along conventional lines. The political actors' preferences for transformation posed a negative influence on this development and innovation became only possible after the administration's

resistance to a strategic change melted. Society, highly polarized on Iraq, contributed to the administration's changing course by 2006 and thus indirectly influenced the innovation.

6.3. Summary

In line with the theoretical expectations, the influence of special interest groups after the Cold War strongly exceeded their relevance after World War II.

During the 1990s, they acted as powerful defenders of the status quo, whereas the very weak public demands turned out insignificant. Especially the weapons acquisition and to a lesser degree the organization dimension were shaped by direct influences of special interests. To be sure, societal demands were not the only factors leading to stability: Constrained by uncertainty, disinterest and inconsistencies, the political actors were rarely able to overcome the Services' resistance to far-reaching change. Cohen (2000, 41) therefore concludes: "The Defense Department in 2000 closely resembles its predecessor of a decade ago (...). American strategy still relies on a Cold War-derived understanding of military power and fails to focus on the challenges of the new century (...). Meanwhile American technology – impressive as it is – also still follows Cold War paths." (Cohen 2000, 41)

Special interests only contributed to the limited changes in the budget dimension in minor ways, while military actors played the largest role in preventing qualitative change.³⁸⁵ To be sure, societal and political pressures realized a peace dividend, although its appropriateness remained subject to debate.³⁸⁶ But society and the political

³⁸⁵ For the overall budget, Karol (2009, 153) concludes that "congressional voting on defense issues is *not* explainable by local economic interests." (emphasis in the original) Indeed, partisan positions dominated parochial economic considerations in many decisions (for a discussion see Fordham 2008).But the case study shows that there are occasions where the protection of the defense industry affected the voting outcome.

³⁸⁶ The realization of a peace dividend is undeniable (Scarborough 1998a), but whether the reduction were appropriate in response to the changing international situation is a matter of perspective (Gold 2000; Moore 1995, 30) Some analysts argue that further cuts would have been possible (e.g. Korb 2001; Gholz/Press/Sapolsky 1997). According to this perspective, the 2-MRC planning was excessive and the US forces have failed to adapt to the post-Cold War world. Others saw the adjustments under Bush and Clinton as largely appropriate without denying some mistakes in their execution (e.g. O'Hanlon 2002; Ravenal 2000; Cohen 1995). While the high-end planning scenario indeed seemed unlikely, it was not impossible and therefore planning had to account for it. A third group complained that the cuts left the US irresponsibly weak (Kagan/Fautua 1997; Tonelson 1993). The force structure reductions resulted in a force, which was unable to meet international contingencies. Evidently, assessments were not free of

actors failed to provide a clear direction for the transition. In fact, the push for budget cuts and simultaneous indifference and inconsistency with regard to the course of the transition resulted in several inconsistencies: The budget did not suffice to meet the objective of 2-MRCs which was largely set and defended by military actors. This funding gap together with numerous small operations soon put pressure on the forces' readiness and the modernization accounts. Neither the administration nor Congress was able to realign national defense, since the status quo powers dominated the proponents of change in virtually all areas. In the end, only a renewed expansion of the defense budget proved politically feasible. O'Hanlon's (2002, 1) assessment of the transition is certainly right: "The US has chosen to retain a substantial global military capability." Neither the numerous low-intensity operations of the 1990s nor the RMA vision kept up with the vested interests in society and the administration.

G.W. Bush came to the White House with the ambition to cut the Gordian knot of the 1990s without significantly raising the budgets or weakening the armed forces. But despite a strong push for civil authority within the DOD, the new administration soon learned that the status quo powers in society, Congress and the DOD itself were strong indeed. Only the GWOT saved the OSD from an early showdown with an uncertain outcome. At the same time, rather than strengthening the influence of common preferences, the war on terror marginalized society and Congress in the budget and organization dimension as both rallied behind the administration. Even as the war got soon out of hand, the polarized public did not agree on decisive action earlier than 2006, when the situation in Iraq strongly contributed to the electoral defeat of the Republicans. The electoral defeat contributed to the administration's changing course, which resulted not only in an expansion of personnel but also freed the way for an implementation of the ground forces' COIN doctrine. Prior to 2006, only special interests in the dimension of weapons acquisition exercised direct influence by obstructing a departure from the status quo. This resistance to change together with the administration's ambition to transform the forces and the growing needs of the GWOT resulted in a renewed crisis of the military policy by the end of Bush's buildup.

While the costs of weapon systems drained the life out of the Services, a far-reaching transformation has never taken off (Tomes 2009, 168; for a less critical assessment see O'Hanlon 2007). At the same time, the adjustment to irregular warfare is far from complete and it is not sure whether it will succeed at all. Indeed, the most powerful military power on the planet has maneuvered itself into a very difficult situation and defense experts even warned of a "defense meltdown" (Wheeler 2008).

A far-reaching inability to innovate becomes evident in the transition after 9/11. After an aggressive start, transformation ran into insurmountable resistance from the Services, lawmakers and special interest groups. At the same time, counterinsurgency had a very slow start and thus also failed to make an impact in time.

Relevant questions	1990-1998	2001-2007
WHO IS DOMINATING THE POLITICAL PROCESS IN THE DIMENSION OF		
military budget?	Military actors/Political actors	Political actors (administration)
military organization?	Military actors	Political actors (administration)
weapons acquisition?	Military actors	Military actors / Political actors
military doctrine & Service mission statement?	Military actors	Military actors
WHAT IS THE INFLUENCE OF SOCIETAL DEMANDS ON MILITARY INNOVATION IN THE DIMENSION OF		
military budget?	Indirect influence (stability in weapons acquisition)	No influence
military organization?	Direct influence (stability in reserve)	No influence / direct influence (expansion of personnel after 2006)
weapons acquisition?	Direct influence (stability)	Direct influence (stability)
military doctrine & Service mission statement?	No influence / (general influence)	No influence / indirect influence (COIN doctrine after 2006)

7. CONCLUSION

The preceding analysis started out with the questions whether (1) there are patterns of innovation in US military policy during periods of military transition and (2) what influence societal demands had in causing these patterns. A theory based on a liberal bottom-up framework was developed and systematically tested with the means of structured, focused comparison in order to answer these questions. In conclusion, it is now possible to sum up the findings, answer the initial questions, discuss strengths and weaknesses of the chosen approach and reflect on the implications for the research field and further research.

7.1. Findings

7.1.1. Patterns of military innovation during periods of transition

The first question can be answered affirmative: Yes, there are patterns of military innovation during the investigated periods of military transition. But these patterns are less clear-cut than students of military innovation may hope for. The sample includes neither periods of full stability nor periods of innovation in which all dimensions of military policy experience a substantial change. Moreover, depending on the dimension of military policy and the indicator used, the findings vary considerably. Only the synopses of the indicators in the budget, organization and weapons acquisition dimensions reveal two clear patterns across the cases: (1) The post-Cold War periods were more prone to stability than the post-World War II periods. This is most clear-cut in the budget and weapons acquisition dimension. (2) Among the proximate cases, the buildup periods proved to be relatively more prone to innovation than the builddown periods.

Huntington (1961, 284-341) argues that three broad innovations characterized the first ten years after World War II: The central turn to strategic deterrence based on air atomic power, the commitment to European defense and the decision to build a continental defense. While Huntington sees almost all of the vital steps leading to these innovations in the buildup period, the case studies show that already the transition during the late 1940s set the course for the turn to air atomic power. Indeed, there was a clear will to place the military forces on a new foundation early after the war, although the general

direction of the change remained in limbo. This is most apparent in the dynamic but volatile budget dimension with annually changing priorities. Despite the lack of a comprehensive course, innovations in the weapons acquisition and organization dimension were vital preconditions for the successive turn strategic deterrence. The push for jet powered airplanes and missiles as well as the rejection of UMT and the buildup of a strong reserve characterized the late 1940s.

During the subsequent buildup, the US fully realized what had emerged only vaguely in previous years. Although the findings are not as clear-cut as expected, the transition of the early 1950s turned out to be the most innovative period of the four cases under investigation. The Truman administration's decision to focus on thermonuclear weapons and its shift from occupation to permanent forward deployment were vital steps towards strategic deterrence and European defense. At the same time, an unintended prioritization of air power was taking place between 1951 and 1953. This provided the foundation for Eisenhower's explicit turn to strategic deterrence based on air atomic power. With the New Look's commitment to massive retaliation, continental defense and European defense by the end of the Korean War, the post-World War II military establishment reached a first point of culmination.

In contrast, stability was the prevalent feature of the two transitions after the Cold War. To be sure, several broad innovative efforts were undertaken: The shift from forward deployment to global rapid response was arguably the most important qualitative change after the Cold War. Other innovation paths include the turn from strategic to conventional means, from mechanized mass forces to digitalized network forces, and from high-intensity to low-intensity operations. But the realization of all these changes was slow and remained piecemeal. Especially during the first post-Cold War decade, the status quo clearly outbalanced innovations. The Service distributions in the budget and organization dimension and the patterns of weapons acquisition show virtually no relevant qualitative changes. The persistence of the force posture was so strong that the quantitative reductions and the qualitative stability quickly resulted in inconsistencies bedeviling the national defense for most of the 1990s. Although some decreases in the strategic assets and forward deployments were realized, the turn to conventional rapid response capabilities made only slow progress. Only the budget distribution of categories and the force structure patterns were moderately affected. While these changes should not be underrated, the steps remained cautious and the national defense

had only partly adjusted to the new world situation by the end of the century. Neither the RMA nor low-intensity operations left a significant footprint regarding the force posture of the 1990s. With regard to military reform, Korb (2007) called the 1990s "the lost decade."

In 2001, transformation emerged as a powerful template, which helped to realize slightly more innovation. But the requirements for low-intensity means since 2002 and the persistency of legacy programs have obstructed a consistent transition. ³⁸⁷ Only those parts of the transformation, which also had an immediate utility for the GWOT and did not displace legacy programs, proceeded. Thus, the C3, Intel & Space and SOF budget programs disproportionally grew. In the organization dimension, especially the reorganization of the Army's and Navy's force structure towards smaller units with more emphasis on rapid response sticks out as innovation. Moreover, the termination of the Army's Crusader and the Comanche programs as well as the moderately increased funding for drones and C⁴ISR capabilities indicate a moderate departure from the weapons acquisition patterns since the late 1980s. Yet, traditional programs with dubious strategic relevance continued dominating the weapons acquisition dimension and the Services were still strongly organized and equipped for conventional warfare. By 2008, the efforts to keep legacy programs, transform the forces, and fight the GWOT at the same time threatened to overburden national defense.

The dimension of military doctrine & mission statements systematically departs from these patterns: Innovation in this dimension is more common during builddowns and there is no difference between the post-World War II and post-Cold War cases. Thus, all Services sought to define a new role for themselves in the new environment emerging after the wars. While the armed forces considered the next war would be another total war resembling World War II, the innovative activity is less pronounced after 1945. Only the Navy had a strong incentive to innovate, since the Soviet Union in contrast to the World War II adversaries was almost exclusively a land power. After the Cold War, the US emerged as sole superpower without a peer competitor in sight. This fundamentally different environment fostered strong Service activity in the doctrine & mission statement dimension.

³⁸⁷ The Service distribution of the budget and personnel did only change in response to the war requirements and indicate no genuine innovation.

While adjustments were made during the builddown periods, the buildups were more prone to stability. On the one hand, this may seen comprehensible, since new mission statements had been formulated during the previous builddown periods to be prepared for possible contingencies. In this light, the wars can be seen as tests of the current doctrine rather than an incentive to reformulate it. On the other hand, given that neither the Korean War nor the GWOT resembled scenarios central to prior Service preparations, the lacking doctrinal innovation is rather surprising and an indicator for inertia in this dimension. Only the Army innovated more or less strongly during mobilization periods. Since ground forces bore the major brunt of the wars, they had arguably the strongest incentive to adjust during and after the wars. Especially the Army's strong innovation after 9/11 clearly stemmed from the growing fear of organizational breakdown during the Iraq operation.

7.1.2. Societal influence on patterns of military innovation

All findings with regard to the dependent variable are generally in line with the proposed theory: As the number of groups with stakes tied to the course of military policy increased during the Cold War, the post-Cold War cases were more prone to stability. Moreover, according to the theory, societal influence is only relevant for those dimensions of military policy in which societal actors are aware of the issues and have an interest in. This can explain the systematic departure of the doctrine dimension. But the in-depth case study analysis shows that societal influence is more complex than assumed. Especially the equal weighting of common and special interests turned out inaccurate.

Bearing the limitations of available data in mind, the case studies confirm earlier findings in the line with the research on public opinion and military policy: Public opinion continuously articulated preferences, which were consistent within and across dimensions of military policy and rationally responded to international and domestic incentives within the bounds of available information (Wlezien 1995; Hartley/Russett 1992; Page/Shapiro 1992). After World War II, the public committed itself to an air atomic power option earlier than most political actors and more consistent than Truman's early approach. Indeed, despite moral reservations, air atomic power seemed to be a highly cost efficient way to protect the nation especially before the US

monopoly was broken. In contrast, the 1990s held few international threats and were marked by a far-reaching public indifference. The public wanted less defense spending, but did not care too much about the force posture. This changed with the election in 2000, during which Bush's campaign issue of military transformation was met by public support. The public preferences got more specific after 9/11, when majorities voiced preferences for counterterrorism and counterinsurgency capabilities over conventional means. Again, given the nature of the new threat, these preferences were highly rational. Hence, the assumption that individuals with common economic preferences prefer military innovation, if a) new means, which promise more efficiency, are available or b) if the emergence of new challenges and threats reduces the efficiency of prior preparations, is backed by the empirical evidence.

But early students of public opinion were nonetheless right in warning of overrating the public political influence in military affairs (Lippmann 1925). With limited resources and most of the time concerned with other issues more relevant for one's own wellbeing, the public hardly acted upon its preferences in military policy. There are only three situations in which the public clearly exercised an active and direct influence: The demobilization after World War II and elections in 1952 and 2006 respectively, in which the incumbent party was punished for unsatisfactory military preparations. In all cases the public intervention resulted in significant changes in the military policy partially contributing to the observed pattern of relatively stronger changes during buildup periods. In all other situations, the public represents merely a passive influence.

This does not imply that the public was insignificant for political decisions beyond these two incidents. Given the public's latent potential to exercise decisive influence through elections, political actors considered the public preferences in some cases even when the latter did not actively pursue their implementation. They anticipated the public position or addressed the public in order to acquire legitimacy for political decisions. State actors even took positions, which they considered to meet the public's ideational mindset, when the public opinion was indifferent or unspecific. E.g. the Truman administration stretched out the buildup during the early 1950s out of fear of a future public backlash and Bush felt bound to realize transformation, even though other issues proved more

³⁸⁸ To be sure, the state of the respective war overlaid the issue of military preparations in both cases. But since the former is the ultimate test for the later, it is hard to separate the two and indeed both elections resulted in a changing course in the war strategy as well as in military policy.

important during the 2000 election. In addition, Congress addressed the public during the revolt of the admirals and felt obliged to further drones to meet the assumed public casualty aversion after 2000. However, the public influence based on few active interventions and a constant potential influence based on the latent chance of active intervention has two important weaknesses.

First, the political incentives to pick up the preferences for innovation were limited, since the threat of timely punishment for defection was small. The threshold for the public to turn active was very high and public interventions belatedly followed after the failure of military preparations in war rather than after the decisions for military preparations. Indeed, individuals turned out very patient and accepted military policy running counter to their own preferences even in times of significant national security concerns. Contrary to the theoretical expectations, the emergence of a very real threat was not enough for the public to care more about the implementation of its military policy preferences.³⁸⁹ Rather, the administration's freedom of action even increased as the public and Congress rallied behind the commander-in-chief during times of danger. This is an additional aspect contributing to the stronger innovativeness during buildup periods: The rally-around-the-flag-effect temporarily boosted the administration's leverage to implement policy initiatives. Only when the latter turned out incapable of avoiding a very costly situation, the public got active. The indifference in situations with low threat perception and the rally-effect in situations with high threat perception confined active public influence to very few situations. This reduces not only the value of the public as an agent of foresighted innovation. It also implies that political actors have little reason to expect prompt punishment for taking unpopular decisions or for ignoring common preferences. As assumed, political actors were indeed reluctant to pick up weak or inconsistent societal demands which offered no clear returns.

Yet, the case studies show that innovation in contrast to stability needs active supporters to be successful. Therefore, many innovative initiatives never gained traction or were preempted by military actors' activities early on. All innovative initiatives during the national defense reviews after the Cold War suffered from this problem. The hurdles for an influence of common preferences for innovation were additionally raised by the

³⁸⁹ The relationship between a low threat perception and weak interest in military policy is evident in both builddowns, however. Especially during the 1990s, there is a clear correlation between low threat perception and indifference with regard to military preparations.

divided military policy competences. The support of one branch of government was of no use, if policy initiatives found no backing in the other branch. The UMT legislation during the post-World War II years, the early turn to airpower or the transformation efforts under Rumsfeld are examples in which largely innovation failed despite the support of one branch. Only active public intervention and to a lesser extent rally-effects were strong enough to create a temporary unity of political actors. Hence, while the public's active interventions had a strong impact, but the latent support for innovation was often not sufficient to achieve change.

Second, the passive form of influence was easily trumped by more active and specific influences. In other words, the public was not interested in operating the wheel, even though it hit the emergency brake when national defense dangerously got off track. This allowed other groups more concerned with the course of military policy to take the driver's seat most of the time. The case studies show that special interest groups exercised an asymmetrically strong influence on military preparations. In cases of inconsistencies between common and parochial preferences, the latter always succeeded. As assumed, actors with special interests preferred military innovation only if it translated into benefits specific to the actor. Yet, with the exception of the nuclear scientists during the decision to develop thermonuclear weapons, all relevant special interest groups benefited from different aspects of the status quo and thus resisted substantial change. Especially the existence of a large defense economy turned out as a powerful stability factor. The unchecked consolidation of the defense industry after the Cold War and the continuous demand for highly complex systems, which require high specialization, pushed their weight even further.

In particular after the Cold War, special interest groups played a crucial role in defending the status quo often in accordance with the military forces but sometimes also in opposition to Service preferences. As has been demonstrated for other fields of policy before (Tsebelis 2002), this analysis shows that the American separation of powers made it rather easy to obstruct innovation in the military policy, since it was usually sufficient to successfully influence one branch of government in order to foreclose or distort change. In spite of their only regional weight, special interest groups proved highly successful in influencing members of Congress. Some military programs were

³⁹⁰ The strong partisan polarization had surprisingly little influence on these mechanisms. With regard to defense spending, Karol (2009, 162) argues that "defense policy is distinctive in its grouplessness."

spread across the country and thus had relevance for a large number of lawmakers. Other programs touched only the constituencies of few congressmen, but were nonetheless protected by logrolling coalitions. Therefore, the congressional protection of the defense economy and National Guard strongly constrained innovation after the Cold War.

In sum, the case studies show that the assumptions concerning the interplay of common and specific preferences proved wrong. While the interplay of common and special demands created indeed distinct societal demands for periods of transition, the strength of societal demands for military innovation in a dimension of military policy hardly depended on the strength of the common preferences or their consistency with parochial preferences. Rather, the existence of parochial preferences in a dimension of military policy strongly dominated the societal influence. Hence, not the public preferences for efficiency but the existence of relevant special interest groups was the defining factor in explaining the societal influence on military innovation. With few special interests related to military policy after World War II, the state actors were only constrained by the latent public preferences, which did not inevitably lead to innovation but had a supportive influence. With a growing number of societal actors benefitting from military policy, the persistency of the field increased significantly and the public influence was reduced to the fields without special interests and the occasional activation of the emergency brake. Therefore, the second question can be answered as follows: With a growing societal relevance of military policy, the relationship between societal demands and military innovation shifted from latent influence for loosely confined political support for innovation to active influence for strongly confined political support for stability. Only when military preparations resulted in decisive costs, common preferences for innovation exercised strong influence.

7.1.3. Sources of innovation beyond societal demands

As argued above, strong societal pushes for innovation are rare. In most cases, common preferences are not strong enough by themselves to create a sufficiently relevant political incentive for political actors to pick up the preferences even against Service resistances. Moreover, common preferences are increasingly outdone by actors pursuing vested interests. Considering the many obstacles to innovation, the obvious question is why many innovations were realized after all. Based on the case studies three answers can be singled out:

- (1) Some innovations created win-win situations or at least no costs for the stake holders. E.g. the decision for European defense promised additional resources for the Services, political gains for the administration, no costs for the majority in Congress, and no relevant costs for societal actors. And the push for UAVs promised additional relevance and a useful means in the GWOT for the Services, transformation for the administration, and reduced risk of casualties without compromising the defense industry for Congress.
- (2) Rally-around-the-flag effects or strong public approval can increase the President's leverage to implement innovation even against resistance within the government. After the strong public response to the derailed military efforts in Korea in the 1952 elections and with a Republican majority in Congress, Eisenhower was able to implement the New Look more or less unchanged over the vocal resistance of the Army. Yet, the failure to implement far-reaching transformation despite strong public approval after 9/11 shows that the President's leverage is not unlimited. Especially in dimensions of military policy, which were further detached from the public awareness, status quo actors prevailed at least in parts.
- (3) Innovation proved most successful when it was initiated by the Services themselves. While branches often proved to be powerful obstacles to change, they had two major incentives to launch or support innovations: First, the fear of becoming obsolete or being punished for inflexibility in the future drove innovation and change. Hence, the findings clearly support the argument by Sapolsky and Coté that military innovation is spurred by Service competition for scarce resources (Sapolsky 2000, 38). This is most evident in the doctrine & mission statement dimension, in which no direct societal demands existed and the Services faced the least political constraints. Aware of the

strategic and the political environment, each Service adjusted largely autonomously to the changing conditions in order to maintain its strategic relevance and as a means to hold its own in the political conflicts over resources and programs.³⁹¹ Interservice conflicts also drove the push for missiles and strategic bombers after World War II and the interest in UAVs after 9/11. Second, the fear of organizational failure fostered innovation. The Army's doctrine innovation after the difficulties in Iraq is the most outstanding example of this mechanism. Together with the public interventions in the face of military failure and the raised leverage of the President in times of security crisis, this fear of failure is the third factor explaining the relatively stronger innovativeness during buildup periods.

Societal demands have a conditional influence on innovation attempts initiated by the Services, since they positively or negatively affect the innovation program's political support. Thus, some innovations, e.g. the supercarrier, failed due to lacking political support, which was justified by reference to societal preferences. The UMT proposal or the arsenal ship also failed at least in parts due to inconsistent or dismissive societal demands. In other cases, e.g. the ground forces' COIN doctrine, societal demands made innovation possible by breaking political resistance within the administration.

7.2. Theoretical reflections

The analysis' major theoretical contribution to the field of military policy is its successful exposure of the interaction of domestic factors for the explanation of military policy. Rather than testing the relevance of a singular factor relative to other explanations, the chosen theory goes a step further and highlights the conditions under which different factors play a more or less important role in affecting an outcome. Hence, the strength of this theory is its incorporation rather than the discrimination of factors.

The broad liberal foundation proved particularly suited for incorporating different theoretical threads into a systematic and consistent theory. On a horizontal axis, the

³⁹¹ Since public preferences are more influential on the defense spending than on the quality of defense, the public's preferences for more or less spending can be seen as an indirect influence on military innovation. Especially shrinking budgets stimulate Service competition. Yet, the studies show that the quantitative change is neither necessary nor sufficient to realize innovation.

liberal framework allowed incorporating the competing assumptions of the follow-on imperative and the democratic peace theory with regard to societal participation in a meaningful way. This clearly extended the understanding of the causal relevance of various factors for the relationship between societal preference formations and military policy. On a vertical axis, the framework allowed conceptualizing the crucial nexus between societal demands and military innovation, lacking in the Governmental Politics approach as well as various government-centered theories on military innovation. While these latter approaches provide powerful tools to explain the civil-military relations and the political process, the theory at hand contributes the underlying causality by shedding light on the competing domestic influences affecting the state actors' preferences. At the same time, the integration of assumptions from the Governmental Politics approach proved to be a valuable extension of Moravcsik's very parsimonious society-state-relationship, especially in dimensions and during periods with little or only weak societal interest articulations.

Indeed, the specification of the transmission belt was central in avoiding false conclusions with regard to the causal weight of societal influence. The analysis shows that there were situations in which societal demands and policy outcome matched, but were not related by causality. E.g. the congressional turn to air power by 1948 matched the public preferences but was strongly caused by the Finletter Report rather than the public demand. The further specification of the liberal transmission belt by the assumption of a double principal-agent-relationship and the acknowledgement of state actor preferences beyond representation helped to avoid false conclusions here. The opening of the state further helped to identify the changeover from policy dimensions more dominated by domestic factors and a broad political process to dimensions more dominated by international factors and little political process. While the evidence refutes claims for either a purely external or a fully internal domination of military policy, the analysis shows that the composition of the influences varies across dimensions of military policy. E.g. preferences in the budget dimension were often driven by domestic considerations, although the assessment of a more or less strong security threat remained relevant. In contrast, the military actors' preferences in the doctrine dimension were strongly informed by changes in the international environment, but did not fail to account for domestic factors.

While the proposed theory clearly contributes to a more advanced understanding of military innovation, certain limitations must be acknowledged. The most apparent weakness is its unidirectional bottom-up perspective which strongly constrains the researchers' scope for the identification of potential societal influences. In policy fields with more relevance for the public and a higher density of special interest groups, this simplification seems justified. In fact, the case studies show that even in military policy the most relevant and effective forms of influence were active forms. But especially in the absence of strong interest groups, important nuances are lost within a unidirectional perspective. The public's passive influence based on its latent sanctions potential can hardly be taken into full account without leaving the theoretical framework. Thus, the case studies show that it is not uncommon for state actors to try to actively create public support top down in order to further their political goals. The bottom-up perspective is blind for mechanisms like these in which society is responding rather than acting. In the field of military policy, which is characterized by a high level of uncertainty and monopolization of information, the potential for top-down manipulation of societal demands by providing or withholding information seems particularly strong.

The principal-agent-theory in contrast to the liberal framework clearly sees the agent's information advantage (Laffont 2003; Laffont/Martimort 2002). While the information advantage does not necessarily imply an active use by the agent, manipulation of the principal is clearly taken into sight. While agency slack due to non-compliance or unspecific preferences is in line with the liberal framework, the potential of active manipulation of societal preferences is excluded by the unidirectional bottom-up framework.³⁹²

A second weakness is the relatively vague analytical role of ideas in the theory. Since the liberal framework itself is unclear with regard to the interplay of interests and ideas, the latter factor gained little causal weight in the theory at hand. Ideas were conceptualized as roadmaps constraining the scope of feasible preferences. Yet, the case studies cast some doubts on this limited treatment of ideas. In some cases, the Service persistence even at the risk of costs can hardly be explained from a purely material point of view. It seems more appropriate to give non-material factors equal causal weight to material factors. The desire to protect what Halperin (1971, 76) calls the 'military

³⁹² For a theoretical discussion of the problem of manipulation in the liberal paradigm see Hils 2007.

essence' or Builder (1989) describes as Service personalities is as important as the autonomy or resources. An account of ideas and interests on an equal analytical level is far from trivial, however, since one has to systematically clear their interaction and relevance for the actors' preferences in different settings.

7.3. Implications for further research

The study provides a critical contribution to the theoretical debate on democracy and security. It confirms the cost-sensitivity of the public, which is of central causal weight in the democratic peace literature. Yet, the analysis also shows that this is rarely sufficient to affect military preparations. In order for these common preferences to gain influence, individuals need the information and the incentive to take according political action. In most cases, however, either other issues dominate the individuals' agenda or the public refrains from challenging the commander-in-chief. This is no theoretical problem in itself, since political actors can still act in anticipation of public interventions, a situation which indeed occurs (see also Schörnig 2008, 16-20). But when special interest groups are taken into account, the argument that public costsensitivity drives military policy is hard to defend. Since the active demands by special interest groups constitute a strong and timely incentive for political actors to act responsive, the latent common preferences lose relevance. The influence of special interests functions as a powerful intervening variable, which displaces the preferences for efficiency. Hence, with growing societal stakes in military policy, the argument of societal cost-sensitivity loses causal weight. Kurth's (1973) follow-on imperative provides a better account for the functioning of the society-state-nexus in these situations.

In addition, even without special interest groups, the reach of societal influence is clearly limited. With growing requirements for expert knowledge, the societal relevance decreases in line with the political influence, whereas the influence of the military forces grows proportionally. One has to be careful not to confuse the causal relevance of different factors in these situations. Innovations promising greater efficiency are not necessarily a response to societal demands, since increased military efficiency is also a strong argument in the interservice conflicts (see also Evangelista/Reppy 2008, 169-173). E.g. the permanent claim of the Air Force that it can achieve strategic goals with

less efforts and risks than the other branches is rarely tied to societal demands. Hence, the study casts twofold doubts on the applicability of assumptions from the democratic peace literature for the explanation of military preparations.

Beyond the debate on democracy and security, the study provides a new direction to the research on military innovation and change. After considering international influences and especially the institutions and processes within the government (Grissom 2006), the analysis shows that there is considerable value in systematically taking societal demands into account. Thus, this analysis adds a further domestic aspect besides Evangelista's (1988) emphasis on the economic structure. While many studies on military innovations start out with the implicit understanding that military actors do not function as perfect agents (e.g. Rosen 1991), the quality of the political actors' agency is hardly questioned. This analysis preliminary fills this gap showing that political actors are neither free to pursue their individual interests nor perfect agents of society.

Yet, further research is necessary to confirm these findings. Especially synchronic comparisons and the influence of further intervening variables seem to be promising next steps. Qualitative comparisons like the one at hand always face the problem that Lijphart (1971, 685) simply called "many variables, small number of cases." Hence, one has to be careful with regard to the degree to which the results of case study analysis can be generalized (King/Keohane/Verba 1994). Of the eight cases identified as periods of transition after World War II, only four cases were analyzed in depth. Given the small population, this is a strong sample. But it was chosen with the intention to reduce the number of confounding variables and thus it cannot be taken for granted that these excluded factors have an influence on the relationship between societal demands and military innovation. Since the public intervened only in cases of military failure, there is especially good reason to expect transitions after military defeat to differ from the observed pattern.

Moreover, one has to be careful in drawing conclusions beyond the US case. Hence, it remains unclear what the finding of a decreasing likelihood of military innovation over time implies for the US innovativeness relative to other political systems. It seems indeed unlikely that the US democracy is less innovative than other democracies or non-democracies. It is largely accepted that the economic and political organization of democracies favors them over non-democracies with regard to their ability to produce

technological progress.³⁹³ Moreover, the case studies show that other characteristics of democracies beyond the public representation, especially professional Services, which accept the civil authority and compete for resources, are of vital importance for innovation. In addition, although active public participation is mostly confined to situations of military failure, it nonetheless provides an ultimate corrective that lacks in authoritarian regimes. But only symmetrical comparisons can help to shed light on the relative relevance of these factors for the military innovativeness of political systems.

7.4. Conclusion

This study helps to explain why the United States had and arguably still have trouble to find a consistent response to the new strategic and technological challenges after the Cold War. Referring to Huntington's (1961) description of the military policy as Janusfaced, it seems that with a growing relevance of the look into the state, the look into the international system loses relevance. Due to a growing societal economic relevance of military policy, the political costs to move outside the box have significantly increased. Iraq is not the only example, in which opponents of the US have exploited this predictability of the US armed forces by creative counterstrategies and tactics.

In this context, democracy and societal representation turns out to be mixed blessing. The opportunity of societal participation by it itself does not guarantee a symmetrical representation and an efficient national defense. Since not all actors are equally interested and have equal resources to participate in the field of military preparations, policy outcomes are often suboptimal for the silent majority. The great advantage of democracy is, however, that it never fully forecloses the chance of participation and policy correction. Elections offer the opportunity to leave a costly path and evade dead ends. Hence, democracy holds the ultimate ability to cut the Gordian knot of its own making.

-

³⁹³ Evangelista (1988) highlights the advantage of the pluralist capitalist system with open competition, which is closely tied to democratic systems. Although the major argument of innovation through competition loses weight with the growing monopolization of the defense market, the economic prosperity still favors democracies, especially the US, over other systems. In 2008, the US spent \$80 billion for R&D, whereas China, the currently most likely competitor, spent \$6.6 billion (IISS 2010, 22, 392). Even if most of this money is spent for evolutionary improvements, the military technical leadership of the US is undisputed and is likely to remain that way for the foreseeable future.

8. BIBLIOGRAPHY

- Congressional Documents
- HASC 1948: Hearing on H.R. 6274 and H.R. 6401, to provide for the Common Defense by increasing the Strength of the Armed Forces of the United States, and for other purposes, 80th Cong. 2nd Sess.
- HASC 1949a: Investigation of the B-36 Bomber Program, 81st Cong., 1st Sess.
- HASC 1949b: The National Defense Program Unification and Strategy, 81st Cong., 1st Sess.
- HASC 1990: National Defense Authorization Act for Fiscal Year 1991 H.R. 4739 and Oversight of Previously Authorized Programs, 101st Cong., 2nd Sess.
- HASC 2001: National Defense Authorization Act for Fiscal Year 2002 and Oversight of Previously Authorized Programs, 107th Cong., 1st Sess.
- HASC 2004a: National Defense Authorization Act for Fiscal Year 2005 H.R. 4200 and Oversight of Previously Authorized Programs, 108th Cong. 2nd Sess.
- HASC 2004b: Army Transformation, 108th Cong., 2nd Sess.
- HASC 2006a: Department of Defense Quadrennial Defense Review, 109th Cong., 2nd Sess.
- HASC 2006b: Budget Request on DOD Unmanned Aerial Vehicles and Joint Unmanned Combat Air System Investment Programs, Tactical Air and Land Forces Subcommittee, 109th Cong., 1st Sess.
- HASC 2007: A Cooperative Strategy for 21st Century Seapower, 110th Cong., 1st Sess.
- HBC 1992: Fiscal Year 1993 Defense Budget, 102^{nd} Cong., 2^{nd} Sess.
- HBC 2003: Department of Defense Budget Priorities for Fiscal Year 2004, 108th Cong., 1st Sess.
- HMAC 1945a: Universal Military Training, Hearings before the Committee on Military Affairs, H.R. 515, 79th Cong., 1st Sess.
- HMAC 1945b: The Demobilization of the Army of the United States and Voluntary Recruiting for the United States Army, 79th Cong., 1st Sess.
- HMAC 1945c: Atomic Energy, 79th Cong., 1st Sess.
- HMAC 1946: Extension of the Selective Training and Service Act, 79th Cong., 2nd Sess.
- HNAC 1945: Hearing on House Concurrent Resolution 80, Composition of the Postwar Navy, 79th Cong., 1st Sess.
- HNSC 1997: The Quadrennial Defense Review, 105th Cong., 1st Sess.
- HNSC 1998: National Defense Authorization Act for Fiscal Year 1999 H.R. 3616 and Oversight of Previously Authorized Programs: Authorization and Oversight, 105th Cong., 2nd Sess.
- HOUSE OF REPRESENTATIVES 1948: Selective Service Act of 1948, Conference Report, 80th Cong., 2nd Sess., H.Rep. 2438.
- HOUSE OF REPRESENTATIVES 1994: Republican Contract with America, http://www.house.gov/house/Contract/CONTRACT.html; 15.01.2010.

- HOUSE SELECT COMMITTEE ON POSTWAR MILITARY POLICY 1945a: Postwar Military Policy Final Report, 79th Cong., 1st Sess., H.Rept. 1356.
- House Select Committee on Postwar Military Policy 1945b: Universal Military Training, Part 1, 79^{th} Cong., 1^{st} Sess.
- HOUSE SUBCOMMITTEE ON MILITARY RESEARCH AND DEVELOPMENT/SUBCOMMITTEE ON MILITARY PROCUREMENT 1996: Tactical Aircraft Programs, 104th Cong., 2nd Sess.
- SASC 1947: National Defense Establishment (Unification of the Armed Services), 80th Cong., 1st Sess.
- SASC 1978: Department of Defense Authorization for Appropriations for Fiscal Year 1979: Part 8 Research and Development, 95th Cong., 2nd Sess.
- SASC 1990: Crisis in the Persian Gulf Region: U.S. Policy Options and Implications, 101^{st} Cong., 2^{nd} Sess.
- SASC 1991: Department of Defense Authorization for Appropriations for Fiscal Years 1992 and 1993, Part 1, 102^{nd} Cong., 1^{st} Sess.
- SASC 1992a: Threat Assessment, Military Strategy, and Defense Planning, 102nd Cong., 2nd Sess.
- SASC 1992b: Department of Defense Authorization for Appropriations for Fiscal Year 1993 and the Future Years Defense Program, Part 1, 102nd Cong., 2nd Sess.
- SASC 1995: Department of Defense Authorization for Appropriations for Fiscal Year 1996 and the Future Years Defense Program, Part 5: Acquisition and Technology, 104th Cong., 1st Sess.
- SASC 1997a: Nominations Before The Senate Armed Services Committee, 105th Cong., 1st Sess.
- SASC 1997b: Quadrennial Defense Review, 105th Cong., 1st Sess.
- SASC 1998: U.S. Armed Forces Preparedness, 105th Cong., 2nd Sess.
- SASC 2000a: Department of Defense Authorization for Appropriations for Fiscal Year 2001 and the Future Years Defense Program, Part 1, 106th Cong. 2nd Sess.
- SASC 2000b: Department of Defense Authorization for Appropriations for Fiscal Year 2001 and the Future Years Defense Program, Part 4: Airland, 106th Cong. 2nd Sess.
- SASC 2001a: Nominations before the Senate Armed Services Committee, 107th Cong. 1st Sess.
- SASC 2001b: Defense Strategy Review, 107th Cong., 1st Sess.
- SASC 2001c: Department of Defense's Quadrennial Defense Review, 107th Cong., 1st Sess.
- SASC 2002: The Crusader Artillery System, 107th Cong., 2nd Sess.
- SASC 2003a: Department of Defense Authorization for Appropriations for Fiscal Year 2004, Part 1, 108th Cong., 1st Sess.
- SASC 2003b: Nominations before the Senate Armed Services Committee, 108th Cong. 1st Sess.
- SASC 2004a: The Global Posture Review of United States Military Forces Stationed Overseas, 108th Cong., 2nd Sess.

- SASC 2004b: Review of Department of Defense Detention and Interrogation Operations, 108th Cong., 2nd Sess.
- SASC 2005: Department of Defense Authorization for Appropriations for Fiscal Year 2006, 109th Cong., 1st Sess.
- SASC 2006: Iraq, Afghanistan, and the Global War on Terrorism, 109th Cong., 2nd Sess.
- SBC 1992: Concurrent Resolution on the Budget for Fiscal Year 1993, 102nd Cong., 2nd Sess.
- SBC 2007: Concurrent Resolution on the Budget For Fiscal Year 2008, Volume II, 11th Cong., 1st Sess.
- SENATE SELECT COMMITTEE ON SMALL BUSINESS 1951: Concentration of Defense Contracts, 82^{nd} Cong., 1^{st} Sess.
- SENATE SELECT COMMITTEE ON SMALL BUSINESS 1954: Military Procurement Program, 1954, 83rd Cong., 2nd Sess.
- SENATE SPECIAL COMMITTEE ON ATOMIC ENERGY 1946: Atomic Energy Act of 1946, 79th Cong., 2nd Sess.
- SMAC 1945: Department of Armed Forces, Department of Military Security, 79th Cong., 1st Sess.
- SMAC 1946a: Demobilization of the Armed Forces, 79th Cong., 2nd Sess.
- SMAC 1946b: Selective-Service Extension, 79th Cong., 2nd Sess., S.Rept. 1167.
- SMAC 1946c: Selective Service Extension, 79th Cong., 2nd Sess.
- SUBHAC 1946: Military Establishment Appropriation Bill for 1947, 79th Cong., 2nd Sess.
- SUBHAC 1947a: Military Establishment Appropriation Bill for 1948, 80th Cong., 1st Sess.
- SUBHAC 1947b: Navy Department Appropriation Bill for 1948, 80th Cong., 1st Sess.
- SUBHAC 1948a: Military Functions, National Military Establishment Appropriation Bill for 1949, Part 3: Department of the Army, 80th Cong., 2nd Sess.
- SUBHAC 1948b: Military Functions, National Military Establishment Appropriation Bill for 1949, Part 2: Department of the Air Force, 80th Cong., 2nd Sess.
- SUBHAC 1949: National Military Establishment Appropriation Bill for 1950, Part 1: Office of Secretary of Defense, National Security Council, Munitions Board, Research and Development Board, National Security Resources Board, General Provisions, Department of Air Force, 81st Cong., 1st Sess.
- SUBHAC 1954: Department of the Army Appropriations for 1955, 83rd Cong., 2nd Sess.
- SUBSAC 1947: Navy Department Appropriation Bill for 1948, H.R. 3493, 80th Cong., 1nd Sess.
- SUBSAC 1948: Supplemental National Defense Appropriation Bill 1948, H.R. 6226, $80^{\rm th}$ Cong., $2^{\rm nd}$ Sess.
- SUBSAC 1950: Department of Defense Appropriations for 1951, 81st Cong., 2nd Sess.
- SUBSAC 1952: Department of Defense Appropriations for 1953, 82^{nd} Cong., 2^{nd} Sess.
- SUBSAC 1997: Department of Defense Appropriations for Fiscal Year 1998, 105th Cong., 1st Sess.

Other literature

- ABEL, ELIE 1952: Tank Output Lags 6 Months; 2 New Types 'Unacceptable', in: New York Times, 07.01.1952.
- ABEL, ELIE 1954: Army to Fashion 2 Atom-War Units, in: New York Times, 11.07.1954.
- ABOLFATHI, FARID 1980: Threat, Public Opinion, and Military Spending in the United States, 1930-1990, in: McGowan, Pat/Kegley, Charles W. (Eds.): Threats, Weapons, and Foreign Policy, International Yearbook of Foreign Policy Studies 5, Beverly Hills, 83-133.
- ABRAMS, ELLIOTT ET AL. 1997: Statement of Principles, Project for the New American Century, June 3, 1997, http://www.newamericancentury.org/statementofprinciples.htm; 10.04.2010.
- ABRAMSON, RUDY 1992: Spanning the Century: The Life of W. Averell Harriman, 1891-1986, New York.
- ABT, CLARK C. 1965: National Opinion and Military Security: Research Problems, in: Journal of Conflict Resolution 9: 3, 334-344.
- ACHESON, DEAN 1969: Present at the Creation: My Years in the State Department, New York.
- ADAMS, GORDON/CAIN, STEPHEN A. 1990: Yet, We Still Need Defense Cuts, in: Washington Post, 09.09.1990.
- ADAMS, GORDON/WILLIAMS, CINDY 2010: Buying National Security: How America Plans and Pays for Its Global Role and Safety at Home, New York.
- ADAMS, THOMAS K. 2006: The Army After Next: The First Postindustrial Army, Westport.
- ADELMAN, KENNETH L./AUGUSTINE, NORMAN R. 1990: The Defense Revolution: Strategy for the Brave New World, San Francisco.
- AIR FORCE HISTORICAL RESEARCH AGENCY 2010: USAF Wing Force Structure, http://www.afhra.af.mil/timelines/index.asp; 01.07.2010.
- AIR POLICY COMMISSION 1948: Survival in the Air Age: A Report by the President's Air Policy Commission, Washington.
- AKERS, MARY ANN 1998: Gingrich juggles spending to serve political interests, in: Washington Times, 20.07.1998
- ALACH, ZHIVAN J. 2008: Slowing Military Change, Strategic Studies Institute, Carlisle.
- ALBRECHT, ULRICH 1990: The Role of Military R&D in Arms Build-Ups, in: Gleditsch, Nils Petter/Njølstad, Olav (Eds.): Arms Races. Technological and Political Dynamics, London, 87-104.
- ALDRICH, JOHN H./SULLIVAN, JOHN L./BORGIDA, EUGENE 1989: Foreign Affairs and Issue Voting: Do Presidential Candidates "Waltz Before A Blind Audience?", in: American Political Science Review 83: 1, 123-141.
- ALIC, JOHN A. 2007: Trillions for Military Technology: How the Pentagon Innovates and Why It Costs So Much, New York.
- ALLARD, DEAN C. 1984: An Era of Transition, 1945-1953, in: Hagan, Kenneth J. (Ed.): In Peace and War: Interpretations of American Naval History, 1775-1984, Westport, 290-303.

- ALLEN, MIKE/RICKS, THOMAS E. 2002: Bush Seeks Major Defense Boost; \$379 Billion Request Could Revive Military Reform Effort, in: Washington Post, 24.01.2002.
- ALLISON, GRAHAM 1969: Conceptual Models and the Cuban Missile Crisis, in: American Political Science Review 63: 3, 689-718.
- ALLISON, GRAHAM 1971: Essence of Decision. Explaining the Cuban Missile Crisis, Boston.
- ALLISON, GRAHAM 2008: The Cuban Missile Crisis, in: Smith, Steve/Hadfield, Amelia/Dunne, Tim (Eds.): Foreign Policy: Theories, Actors, Cases, New York, 207-228.
- ALLISON, GRAHAM/HALPERIN, MORTON H. 1972: Bureaucratic Politics: A Paradigm and Some Policy Implications, in: World Politics 24: Supplement, 40-79.
- ALLISON, GRAHAM/ZELIKOW, PHILIP 1999: Essence of Decision: Explaining the Cuban Missile Crisis, 2nd Edition, New York.
- ALMOND, PETER 1989: \$305 billion defense bill slashes SDI, in: Washington Times, 03.11.1989.
- ALMOND, WALTER 1956: Public Opinion and National Security Policy, in: Public Opinion Quarterly 20: 2, 371-378.
- ALSOP, JOSEPH/ALSOP, STEWART 1946: Matter of Fact: Our Only Defense, in: Washington Post, 27.01.1946.
- ALSOP, JOSEPH/ALSOP, STEWART 1949: Matter of Fact: Our Fake Defense, in: Washington Post, 21.10.1949.
- ALSOP, JOSEPH/ALSOP, STEWART 1950: Matter of Fact: Firm Leadership Our Only Hope, in: Washington Post, 03.12.1950.
- ALSOP, JOSEPH/ALSOP, STEWART 1952a: Matter of Fact: Johnson's Ghost, in: Washington Post, 04.01.1952.
- ALSOP, JOSEPH/ALSOP, STEWART 1952b: Matter of Fact: Budget Cut Promise Questioned, in: Washington Post, 23.10.1952.
- ALSOP, JOSEPH/ALSOP, STEWART 1953: Matter of Fact: Atomic Age Defense or Balanced Budget?, in: Washington Post, 02.09.1953.
- ALSOP, JOSEPH/ALSOP, STEWART 1954: Matter of Fact: New Look: Theory, in: Washington Post, 26.02.1954.
- ALTMANN, JÜRGEN/REPPY, JUDITH 2008: Non-lethal weapons: democratic necessity of business as usual?, inEvangelista, Matthew/Müller, Harald/Schörnig, Niklas (Eds.): Democracy and Security: Preferences, norms and policy-making, London, 36-52.
- AMERICANS FOR DEMOCRATIC ACTION 2008: Policy Resolution No. 423: Decrease U.S. Military Spending, http://www.adaction.org/pages/issues/all-policy-resolutions/foreign-amp-military/423-decrease-u.s.-military-spending.php; 10.01.2011.
- ANDRADE, JOHN M. 1979: U.S. Military Aircraft Designations and Serials since 1909, Leicester.
- APPLE, R.W. 1991: Battle Cry In Congress, in: New York Times 01.10.1991.
- APPLEBOME, PETER 1991: Guardsmen Return From War They Didn't Fight, in: New York Times, 17.03.1991.

- APPLEBY, PAUL 1957: The Role of the Budget Division, in: Public Administration Review 17: 3, 156-158.
- APPLEGATE, MAJOR R.A.D./MOORE, J.R. 1990: The Nature of Military Culture, in: Defense Analysis 6: 3, 302-305.
- ARMACOST, MICHAEL H. 1969: The Politics of Weapons Innovation: The Thor-Jupiter Controversy, New York.
- ARMSTRONG, SCOTT 1993: Clinton's Military Blueprint Follows in Path Set by Bush, in: Christian Science Monitor 03.09.1993.
- ARMY ALMANAC 1959: A Book of Facts Concerning the United States Army, Harrisburg.
- ARNOLD, DOUGLAS R. 1979: Congess and the Bureaucracy: A Theory of Influence, New Haven.
- Arquilla, John/Ronfeldt, David 1997: In Athena's Camp: Preparing for Conflict in the Information Age, Santa Monica.
- ART, ROBERT J. 1973: Bureaucratic Politics and American Foreign Policy: A Critique, in: Policy Sciences 4: 4, 467-490.
- ART, ROBERT J. 1985: Congress and the Defense Budget: Enhancing Policy Oversight, in: Political Science Quarterly 100: 2, 227-248.
- ASHFORD, NIGEL 1995: The Right After Reagan: Crack-Up or Comeback?, in: Grant, Alan (Ed.): Contemporary American Politics, Aldershot, 117-143.
- ASHFORD, NIGEL 1998: The Republican Policy Agenda and the Conservative Movement, in: McSweeney, Dean/Owens, John E. (Eds.): The Republican Takeover of Congress, Houndmills, 96-116.
- ASPIN, LES 1993: Report on the Bottom-Up Review, Washington.
- ATKINSON, RICK 1990: U.S. to Rely on Air Strikes if War Erupts, in: Washington Post, 16.09.1990.
- AUERBACH, STUART 1991: A-12's End Points to Tough Future for defense Firms, in: The Washington Post, 09.01.1991.
- AUGUSTINE, NORMAN R. 1986: Augustine's Laws, New York.
- AVANT, DEBORAH D. 1994: Political Institutions and Military Change. Lessons from Peripheral Wars, Ithaca.
- AVANT, DEBORAH D. 1996: Are the Reluctant Warriors out of Control?, in: Security Studies 6: 2, 51-90.
- AVANT, DEBORAH D. 2005: The Market for Force: The Consequences of Privatizing Security, New York.
- AVANT, DEBORAH D. 2007: Political Institutions and Military Effectiveness: Contemporary United States and United Kingdom, in: Brooks, Rise A./Stanley, Elisabeth (Eds.): Creating Military Power: The Sources of Military Effectivness, Stanford, 80-105.
- AVANT, DEBORAH D./LEBOVIC, JAMES H. 2002: U.S. Military Responses to Post-Cold War Missions, in: Farrell, Theo/Terriff, Terry (Eds.): the Sources of Military Change: Culture, Politics, Technology, London, 139-160.
- AYERS, EBEN A. 1991: Diary, in: Ferrell, Robert H. (Ed.): Truman in the White House: The Diary of Eben A. Ayers, Columbia.

- BACEVICH, ANDREW 2008: The Limits of Power: The End of American Exceptionalism, New York.
- BACEVICH, ANDREW J. 1986: The Pentomic Era: The US Army Between Korea and Vietnam, Washington.
- BACEVICH, ANDREW J. 2002: Generals versus the President: Eisenhower and the Army, 1953-1955, in: Franke, Volker C. (Ed.): Security in a Changing World: Case Studies in U.S. National Security Management, Westport, 83-99.
- BACON, PERRY 2006: The Revolt of the Generals, in: Time, 16.04.2006.
- BAIR, EDWARD T. 1994: Defense Acquisition Reform: Behind the Rhetoric of Reform Landmark Commissions Lessons Learned –, Washington.
- BAKER, PETER 2006a: U.S. Not Winning War in Iraq, Bush Says for 1st Time; President Plans to Expand Army, Marine Corps To Cope With Strain of Multiple Deployments, in: Washington Post, 20.12.2006.
- BAKER, PETER 2006b: President Confronts Dissent on Troop Levels; Bush Indicates Military Won't Dictate Numbers; Top General to Retire, in: Washington Post, 21.12.2006.
- BAKER, PETER/HARRIS, JOHN F. 1996: Clinton Picks Albright for State Dept.; National Security Team Includes GOP's Cohen at Defense, Lake, Berger, in: Washington Post, 06.12.1996.
- BALDWIN, HANSON W. 1946: Rocket Program Splits Services; Army Air Forces Seeking Control, in: New York Times, 12.05.1946.
- BALDWIN, HANSON W. 1947: World Role for U.S.: Survival of Western Civilization Is Held to Depend on Our Actions, in: New York Times, 02.03.1947.
- BALDWIN, HANSON W. 1948a: Congress Favoring Big Increase in Air Power, in: New York Times, 07.03.1948.
- BALDWIN, HANSON W. 1948b: Defense Plan Debate Reveals Sharp Conflict: Administration's View Seems likely to Prevail over House Proposal, in: New York Times, 25.04.1948.
- BALDWIN, HANSON W. 1949a: When the Big Guns Speak, in: Markel, Lester (Ed.): Public Opinion and Foreign Policy, New York, 97-120.
- BALDWIN, HANSON W. 1949b: Air Force Objective, in: New York Times, 27.06.1949.
- BALDWIN, HANSON W. 1951a: Arms Decision Presses, in: New York Times, 25.09.1951.
- BALDWIN, HANSON W. 1951b: 'There Is No Military Miracle in Sight', in: New York Times, 14.10.1951.
- BALDWIN, HANSON W. 1953: Joint Chiefs Criticized, in: New York Times, 23.04.1953.
- BALDWIN, HANSON W. 1954a: 'New Look' to Where? Confusion Causes Some Public Concern Policy Aims 'to Hedge Strategic Bets, in: New York Times, 24.02.1954.
- BALDWIN, HANSON W. 1954b: Awesome Era of Fantastic Missiles, in: New York Times, 29.08.1954.
- BALLARD, JACK S. 1983: The Shock of Peace: Military and Economic Demobilization after World War II, Washington.
- BANKS, WILLIAM C./STRAUSSMAN, JEFFREY D. 1999: Defense Contingency Budgeting in the Post-Cold-War World, in: Public Administration Review 59: 2, 135-146.

- BARBER, JAMES DAVID 2009: The Presidential Character: Predicting Performance in the White House, 4th Edition, New York.
- BARNET, RICHARD J. 1972: The Roots of War: The Men and Institutions Behind U.S. Foreign Policy, New York.
- BARR, RICHARD G. 1994: U.S. Military Doctrine: Culture, Contrasts, and Agendas, Newport.
- BARTELS, LARRY M. 1991: Constituency Opinion and Congressional Policy Making: The Reagan Defense Build Up, in: American Political Science Review 85: 2, 457-474.
- BARTELS, LARRY M. 1994: The American Public's Defense Spending Preferences in the Post-Cold War Era, in: Public Opinion Quarterly 58: 4, 479-508.
- BEACH, CLARKE 1951: Army Building a 5th 'Air Force', in: Washington Post, 15.07.1951.
- BEDARD, PAUL 1989: Pentagon prepares arms 'hit list' for Hill, in: Washington Times, 16.10.1989.
- BEINART, PETER 2006: The Good Fight: Why Liberals and Only Liberals Can Win the War on Terror and Make American Great Again, New York.
- BELASCO, AMY 2009a: The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11, CRS Report for Congress RL33110, Washington.
- BELASCO, AMY 2009b: Troop Levels in the Afghan and Iraq Wars, FY2001-FY2012: Cost and Other Potential Issues, CRS Report for Congress R40682, Washington.
- BELKNAP, GEORGE/CAMPBELL, ANGUS 1951: Political Party Identification and Attitudes Toward Foreign Policy, in: Public Opinion Quarterly 15: 4, 601-623.
- BENDOR, JONATHAN/HAMMOND, THOMAS H. 1992: Rethinking Allion's Models, in: American Political Science Review 86: 2, 301-322.
- BENNETT, ANDREW 2004: Case Study Methods: Design, Use, and Comparative Advantages, in: Sprinz, Detlef F./Wolinsky-Nahmias, Yael (Eds.): Models, Numbers, and Cases. Methods for Studying International Relations, Ann Arbor, 19-55.
- BERKE, RICHARD L. 1990: Lobbying Steps Up on Military Buying as Budget Shrinks, in: New York Times, 09.04.1990.
- BERKE, RICHARD L. 2000: Republicans Put Their Differences Aside for One Night, in: New York Times, 10.01.2000.
- BERNSTEIN, BARTON J. 1971: Election of 1952, in: Schlesinger, Arthur M. (Ed.): The Coming to Power: Critical Presidential Elections in American History, New York, 385-436.
- BIDDLE, STEPHEN 2002: Afghanistan and the Future of Warfare: Implications for Army and Defense Policy, Strategic Studies Institute, Carlisle.
- BINGHAM, PRICE T. 1991: Air Power in Desert Storm and the Need for Doctrinal Change, in: Airpower Journal 5: 4.
- BIRNBAUM, JEFFREY H. 1992: Senate Panel Adopts Bush's Military Budget, in: Wall Street Journal, 03.04.1992.
- BLACK, FREDERICK H. 1987: The Military and Today's Congress, in: Parameters 17 (December), 37-48.
- BLAKER, JAMES 1997a: Understanding the Revolution in Military Affairs: A Guide to America's 21st Century Defense, Progressive Policy Institute Defense Working Paper No. 3, Washington.

- BLAKER, JAMES 1997b: The American RMA Force: An Alternative to the QDR, in: Strategic Review 25: 3, 21-30.
- BLAKER, JAMES 2006: Arthur K. Cebrowski. A Retrospective, in: Naval War College Review 59: 2, 129-145.
- BLAKER, JAMES 2007: Transforming Military Force: The Legacy of Arthur Cebrowski and Network Centric Warfare, Westport.
- BLECHMAN ET AL. 1993: Key West Revisited: Roles and Missions of the US Armed Forces in the Twenty-first Century, Henry L. Stimson Center Report No. 8, Washington.
- BLECHMAN, BARRY M. 1990: The Politics of National Security: Congress and U.S. Defense Policy, New York.
- BOETTCHER, THOMAS D. 1992: First Call: The Making of the Modern U.S. Military, 1945-1953, Boston.
- BOLDRICK, MICHAEL R. 1995: The Nuclear Posture Review: Liabilities and Risk, in: Parameters 25 (Winter), 80-91.
- BOLGER, DANIEL P. 1989: Two Armies, in: Parameters 19 (September), 24-34.
- BOLKCOM, CHRISTOPHER 2004: Air Force FB-22 Bomber Concept, CRS Report for Congress, RS21848, Washington.
- BOLKCOM, CHRISTOPHER 2006: Air Force Transformation, CRS Report for Congress RS20859, Washington.
- BOOT, MAX 2003: The New American Way of War, in: Foreign Affairs 82: 4, 41-58.
- BOOT, MAX 2005: The Struggle to Transform the Military, in: Foreign Affairs 84: 2, 103-118.
- BORGHARD, ERICA D. 2010: Military Organization and Military Innovations; Or, How the Armed Services Can Be The Vanguard of the Revolution (in Military Affairs), Paper for the Mini-APSA, Columbia University, April 30, 2010.
- BOYER, DAVE 2000: Powell, Schwarzkopf back Bush on military; Generals see defense fall under Clinton-Gore, in: Washington Times, 08.09.2000.
- BOYER, DAVE 2002: Even foes support Bush on security; Democrats see polls on policies, in: Washington Times, 18.06.2002.
- BOYLE, PETER G. 2005: Eisenhower, Harlow.
- BRADIN, JAMES W. 1994: From Hot Air to Hellfire: The History of Army Attack Aviation, Novato.
- BRAGG, JAMES W. 1961: Development of the Corporal: The Embryo of the Army Missile Program, Redstone Arsenal.
- BRAUN, WERNHER VON 1963: The Redstone, Jupiter, and Juno, in: Technology and Culture 4: 4, 452-465.
- BRIGGS, PHILIP 1994: Making American Foreign Policy: President-Congress Relations from the Second World War to the Post-Cold War Era, 2nd Edition, Lanham.
- BRIGHT, CHARLES D. (ED.) 1992: Historical Dictionary of the U.S. Air Force, New York.
- Brinkerhoff, John R. 1993: Force Structure, in: Dupuy, Trevor (Ed.): International Military and Defense Encyclopedia, Volume 2, C-F, Washington, 978.

- BRINKLEY, DOUGLAS 1997: Democratic Enlargement: The Clinton Doctrine, in: Foreign Policy 106 (Spring), 110-127.
- BRITO, DAGOBERT L./INTRILIGATOR, MICHAEL D. 1995: Arms Races and Proliferation, in: Hartley, Keith/Sandler, Todd (Eds.): Handbook of Defense Economics, Volume I, Amsterdam, 109-164.
- BROAD, WILLIAM J. 2005: Panel Finds Flaws in Plan For Weapon, in: New York Times, 28.04.2005.
- BROCK, CLIFTON 1962: Americans for Democratic Action: Its Role in National Politics, Westport.
- BRODY, RICHARD A. 2003: President Bush and the Public, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 228-244.
- BROOKS, HARVEY 1975: The Military Innovation System and the Qualitative Arms Race, in: Daedalus 104: 3, 75-97.
- Brown, Bryan D. 2006: U.S. Special Operations Command: Meeting the Challenges of the 21st Century, in: Joint Force Quarterly 40, 38-43.
- Brown, Richard Maxwell 1991: No Duty to Retreat. Violence and Values in American History and Society, New York.
- BROZ, J. LAWRENCE/BREWSTER HAWES, MICHAEL 2006: US domestic politics and International Monetary Fund policy, in: Hawkins, Darren G./Lake, David A./Nielson, Daniel L./Tierney, Michael J. (Eds.): Delegation and Agency in International Organizations, Cambridge, 77-106.
- BRUNE, LESTER H. 1989: Guns and Butter: The Pre-Korean War Dispute over Budget Allocations: Nourse's Conservative Keynesianism Loses Favor against Keyserling's Economic Expansion Plan, in: American Journal of Economics and Sociology 48: 3, 357-371.
- BRZEZINSKI, MATTHEW 2003: The Unmanned Army, in: New York Times, 20.04.2003.
- BUCHAN, GLENN C. 2000: Force Projection: One-and-a-Half Cheers for the RMA, in: Gongora, Thierry/Riekhoff, Harald von (Eds.): Toward a Revolution in Military Affairs? Defense and Security at the Dawn of the Twenty-First Century, Westport, 139-157.
- BUILDER, CARL H. 1989: The Masks of War. American Military Styles in Strategy and Analysis, Baltimore.
- BUILDER, CARL H. 1994: The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force, New Brunswick.
- BURBACH, DAVID T./RITTENHOUSE GREEN, BRENDAN/FRIEDMAN, BENJAMIN 2009: The technology of the revolution in military affairs, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 14-42.
- BURK, JAMES 1999a: Military Culture, in: Kurtz, Lester (Ed.): Encyclopedia of Violence, Peace, and Conflict, San Diego, 447-462.
- BURK, JAMES 1999b: Public Support for Peacekeeping in Lebanon and Somalia: Assessing the Casualties Hypothesis, in: Political Science Quarterly 114: 1, 53-78.

- Burk, James 2001: The Military's Presence in American Society, 1950-2000, in: Feaver, Peter D./Kohn, Richard H. (Eds.): Soldiers and Civilians: The Civil-Military Cap and American National Security, Cambridge, 247-274.
- BURKE, JOHN P. 2005: The Contemporary Presidency: Condoleezza Rice as NSC advisor: a case study of the honest broker role, in: Presidential Studies Quarterly 35: 3, 554-576.
- BURKE, MICHAEL D. 2002: FM 3-0: Doctrine for a Transforming Force, Military Review 82: 2, 91-97.
- BUSH, GEORGE H.W. 1988: Nomination Acceptance Address, August 18, 1988, http://www.presidentialrhetoric.com/historicspeeches/bush/nominationacceptance.html; 10.11.2010.
- BUSH, GEORGE H.W. 1990: United States Defenses: Reshaping our Forces, Speech at the Aspen Institute, 02.08.1990, in: Vital Speeches of the Day 56: 22, 676-679.
- BUSH, GEORGE H.W. 1991: National Security Strategy of the United States, Washington.
- BUSH, GEORGE H.W. 1992: State of the Union Address before a Joint Session of the Congress, Washington.
- BUSH, GEORGE H.W./SCOWCROFT, BRENT 1998: A World Transformed, New York.
- BUSH, GEORGE W. 1999: A Period Of Consequences, Speech at the Citadel, 23.09.1999, http://www.citadel.edu/pao/addresses/pres_bush.html; 18.01.2010.
- BUSH, GEORGE W. 2001: Address to a joint session of Congress, September 20, 2001, http://archives.cnn.com/2001/US/09/20/gen.bush.transcript/; 20.05.2010.
- BUSH, GEORGE W. 2002a: State of the Union Address to the Joint Session of Congress, Washington.
- BUSH, GEORGE W. 2002b: Speech at West Point, in: New York Times, 01.06.2002.
- BUSH, GEORGE W. 2002c: The National Security Strategy of the United States, Washington.
- BUSH, VANNEVAR 1945: Science The Endless Frontier, Washington, http://www.nsf.gov/od/lpa/nsf50/vbush1945.htm; 21.10.2009.
- BUTFOY, ANDREW 2006: The Rise and Fall of Missile Diplomacy? President Clinton and the Revolution in Military Affairs in Retrospect, in: Australian Journal of Politics and History 52: 1, 98-114.
- BUZAN, BARRY 1987: An Introduction to Strategic Studies: Military Technology and International Relations, London.
- CAGLE, MARY T. 1964: History of the Basic (M31) Honest John Rocket System (U) 1950-1964, Redstone Arsenal.
- CAMPBELL, JAMES E. 2005: Why Bush Won the Presidential Election of 2004: Incumbency, Ideology, Terrorism, and Turnout, in: Political Science Quarterly 120: 2, 219-241.
- CAMPBELL, JOHN C. 1947: The United States in World Affairs 1945-1947, New York.
- CAMPBELL, KENNETH J. 1998: Once Burned, Twice Cautious: Explaining the Weinberger-Powell Doctrine, in: Armed Forces and Society 24: 3, 357-374.
- CAMPBELL, KURT M./O'HANLON, MICHAEL E. 2006: Hard Power: The New Politics of National Security, New York.

- CARALEY, DEMETRIOS 1966: The Politics of Military Unification. A Study of Conflict and the Policy Process, New York.
- CARLSNAES, WALTER 2002: Foreign Policy, in: Carlsnaes, Walter/Risse, Thomas/Simmons Beth A. (Eds.): Handbook of International Relations, London, 331-349.
- CARROLL, JOSEPH 2007: Perceptions of "Too Much" Military Spending at 15-Year High: More Americans also say the military is not strong enough, in: Gallup Poll Briefing, 02.03.2007.
- CBO 1991: Testimony before the Subcommittee on Conventional Forces and Alliance Defense, Committee on Armed Forces United States Senate, April 22, 1991, Washington.
- CBO 1993: Assessing Future Trends in the Defense Burdens of Western Nations, Washington.
- CBO 1997: A Look at Tomorrow's Tactical Air Forces, A CBO Study, Washington.
- CBO 2003: An Analysis of the U.S. Military's Ability to Sustain an Occupation of Iraq, Washington.
- CCFR (CHICAGO COUNCIL ON FOREIGN RELATIONS) 2002: Worldviews 2002: U.S. General Population Topline Report, Chicago.
- CCGA (CHICAGO COUNCIL ON GLOBAL AFFAIRS) 2008: Global Views2008: U.S. Public Topline Report, Chicago.
- CEBROWSKI, ARTHUR K./GARSTKA, JOHN J. 1998: Network-Centric Warfare: Its Origin and Future, Proceedings 124: 1.
- CHABRAJA, NICHOLAS 1999: Speech before the Economic Club of Washington, October 14, 1999, http://www.economicclub.org/archives/fulltext/arch-chabraja.htm; 16.11.2009.
- CHADWICK, STEPHEN HOWARD 2007: Defense Acquisition: Overview, Issues, and Options for Congress, CRS Report for Congress RL34026, Washington.
- CHAN, STEVE 1997: In Search of Democratic Peace: Problems and Promise, in: Mershon International Studies Review 41: 1, 59-91.
- CHAPMAN, BERT 2009: Military Doctrine: A Reference Handbook, Santa Barbara.
- CHIARELLI, PETER W. 1993: Beyond Goldwater-Nichols, in: Joint Force Quarterly 2, 71-81.
- CHIARELLI, PETER W. 2007: Learning Form Our Modern Wars: The Imperatives of Preparing for a Dangerous Future, in: Military Review 87: 5, 2-15.
- CHILDS, MARQUIS 1949: Johnson As A Candidate, in: Washington Post, 16.12.1949.
- CHILDS, MARQUIS 1952: Threat to Defense..., in: Washington Post, 01.05.1952.
- CHILDS, MARQUIS 1953a: Defense Economies... Threat to Military Efficiency Cited, in: Washington Post, 04.04.1953.
- CHILDS, MARQUIS 1953b: Taft Still At Odds With Defense Chief, in: Washington Post, 05.05.1953.
- CHRISTIAN SCIENCE MONITOR 1949: B-36 'Mystery Document' Writer Bared, in: Christian Science Monitor, 24.08.1949.
- CHRISTIAN SCIENCE MONITOR 1953: House Supports President In Cuts for Defense Budget, in: Christian Science Monitor, 03.07.1953.

- CIMBALA, STEPHEN J. 1995: US Military Strategy and the Cold War Endgame, Portland.
- CLARK, VERN 2002: Sea Power 21: Projecting Decisive Joint Capabilities, in: Proceedings 128: 10.
- CLAYTON, JAMES L. (ED.) 1970: The Economic Impact of the Cold War, New York.
- CLINTON, WILLIAM J. 1992: A Strategy for Foreign Policy, Speech delivered to the Foreign Policy Association, New York, April 1, 1992, in: Vital Speeches of the Day 58: 14, 421-425.
- CLINTON, WILLIAM J. 1993: State of the Union Address, February 17, 1993, Washington.
- CLINTON, WILLIAM J. 1995: A National Security Strategy of Engagement and Enlargement, Washington.
- CLINTON, WILLIAM J. 1999: A National Security Strategy for a New Century, Washington 1999.
- CLINTON, WILLIAM J./GORE, ALBERT A. 1992: Putting People First: How We Can All Change America, New York.
- CLOUD, DAVID S. 2005: Bush Expected to Name Marine General to Head Joint Chiefs, in: New York Times, 21.04.2005.
- COCKBURN, ANDREW 2007: Rumsfeld: His Rise, Fall, and Catastrophic Legacy, New York.
- COHEN, BERNARD C. 1966: The Military Policy Public, in: Public Opinion Quarterly 30: 2, 200-211.
- COHEN, ELIOT A. 1995: Making Do with Less, Or Coping with Upton's Ghost, Strategic Studies Institute, Carlisle.
- COHEN, ELIOT A. 2000: Defending America in the Twenty-first Century, in: Foreign Affairs 79: 6, 40-56.
- COHEN, WILLIAM S. 1997: Report of the Quadrennial Defense Review, Washington.
- COHEN, WILLIAM S. 1998: Annual Report to the President and the Congress, Washington.
- COHEN, WILLIAM S. 1999: Annual Report to the President and the Congress, Washington.
- COLE, ALICE/GOLDBERG, ALFRED/TUCKER, SAMUEL A./WINNACKER, RUDOLPH A. (EDS.) 1979: The Department of Defense: Documents on Establishment and Organization 1944-1978, Washington.
- COLE, RONALD H./POOLE, WALTER S./SCHNABEL, JAMES F./WATSON, ROBERT J./WEBB, WILLARD J. 2003: The History of the Unified Command Plan 1946-1999, Joint Chiefs of Staff, Washington.
- COLLINS, JOSEPH J. 2005: The Complex Context of American Military Culture: A Practitioner's View, in: Bolt, Paul J./Coletta, Damon V./Shackelford, Collins (Eds.): American Defense Policy, 8th Edition, Baltimore, 296-301.
- CONDIT, DORIS M. 1988: History of the Office of the Secretary of Defense. Volume II. The Test of War 1950-1953, Washington.
- CONKLIN, WILLIAM 1949: House's B-36 Inquiry Ends With Clearing of Officials, in: New York Times, 26.08.1949.
- COPP, DEWITT S. 1980: A Few Great Captains: The Men and Events That Shaped the Development of U.S. Air Power, New York.

- CORDESMAN, ANTHONY H. 2003: The Iraq War: Strategy, Tactics, and Military Lessons, Westport.
- CORDESMAN, ANTHONY H. 2008: Iraq's Insurgency and the Road to Civil Conflict, Volume 1, Westport.
- CORDESMAN, ANTHONY/KAESER, HANS U. 2008: America's Self-Destroying Airpower: Becoming Your Own Peer Threat, Center for Strategic and International Studies, Washington
- CORM 1995: Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces, Washington.
- CORNELL, CECILIA STILES 1987: James V. Forrestal and American National Security Policy, 1940-1949, Nashville.
- CORRELATES OF WAR PROJECT 2005: National Military Capabilities Data Set (v3.02), http://www.correlatesofwar.org/; 10.04.2010.
- CORRELL, JOHN T. 2003: What Happened to Shock and Awe?, in: Air Force Magazine 86: 11, 52-57.
- CORRELL, JOHN T. 2008: A New Look at Roles and Missions, in: Air Force Magazine, 91: 11, 50-53.
- CORTES, LORENZO 2004: Experts See Smaller Budget Share For The Navy And A Smaller Fleet, in: Defense Daily, 08.10.2004.
- COTÉ, OWEN R. 1995: The Politics of Innovative Military Doctrine: The U.S. Navy and Fleet Ballistic Missiles, Dissertation, Massachusetts Institute of Technology.
- COTTLE, MICHELLE 1998: High on the Hog, in: New York Times, 22.11.1998.
- COURTER, JIM/BERNSTEIN, ALVIN H. 1997: The QDR Process An Alternative View, in: Joint Force Quarterly 16, 20-26.
- CRAIG, MICHAEL D. 2004: Adapting Service Doctrine to a New World Order, in: Magyar, Karl P. (Ed.): United States Post-Cold War Defense Interests: A Review of the First Decade, Houndmills, 220-234.
- CRANWELL, JOHN P. 1946: Sear Power and the Atomic Bomb, in: Proceedings 72: 10, 1267-1275.
- CRAVEN, WESLEY/CATE, JAMES LEA 1983: The Army Air Forces in World War II, Volume Seven, Services Around the World, Washington.
- CROSSLAND, RICHARD B./CURRIE, JAMES T. 1984: Twice the Citizen: A History of the United States Army Reserve, 1908-1983, Washington.
- CURL, JOSEPH 2004: Bush signs defense bill, touts support of troops, in: Washington Times, 06.08.2004.
- CUSHMAN, JOHN 1992: The Transition: Gay Rights; Top Military Officers Object To Lifting Homosexual Ban, in: New York Times, 14.11.1992.
- DAALDER, IVO H./LINDSAY, JAMES M. 2003: Bush's Foreign Policy Revolution, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 100-137.
- DANCY, ALBERT G. 1977: Department of Defense Research and Development Management, in: Public Administration Review 37: 4, 347-356.

- DANIEL, DONALD C. 2004: NATO Technology: from Gap to Divergence?, Defense Horizons 42, National Defense University, Washington.
- DAO, JAMES 2001a: A New Destroyer May Force Choice on The Bush Team, in: New York Times, 08.01.2001.
- DAO, JAMES 2001b: In Protest, Republican Senators Hold Up Defense Confirmations, in: New York Times, 20.05.2001.
- DAO, JAMES 2001c: Dogfight for Dollars On Capitol Hill, in: New York Times, 02.09.2001.
- DAO, JAMES 2002a: Congress Is Warned Not to Save a Weapons System, in: New York Times, 10.05.2002.
- DAO, JAMES 2002b: Army Liaison Who Lobbied Congress for Weapon Resigns, in: New York Times, 11.05.2002.
- DAUBER, CORI 2001: Implications of the Weinberger Doctrine for American military intervention in a post-desert storm age, in: Contemporary Security Policy 22: 3, 66-90.
- DAVIS, PAUL K. 2010: Military Transformation? Which Transformation, and what lies ahead?, in: Cimbala, Stephen (Ed.): The George W. Bush Defense Program: Policy, Strategy and War, Washington.
- DAVIS, VINCENT 1966: Postwar Defense Policy and the U.S. Navy, 1943-1946, Chapel Hill.
- DAWSON, RAYMOND H. 1962: Congressional Innovation and Intervention in Defense Policy: Legislative Authorization of Weapons Systems, in: American Political Science Review 56: 1, 42-57.
- DEERING, CHRISTOPHER J. 1993: Decision Making in the Armed Services Committees, in: Ripley, Randall B./Lindsay, James M. (Eds.): Congress Resurgent: Foreign and Defense Policy on Capitol Hill, 155-182.
- DEMOCRATIC LEADERSHIP COUNCIL 1991: The New American Choice Resolution, Cleveland, http://www.dlc.org/documents/cleveland_proclamation.pdf; 10.11.2010.
- DEMOCRATIC LEADERSHIP COUNCIL 2000: The Hyde Park Declaration: A Statement of Principles and a Policy Agenda for the 21st Century, http://www.dlc.org/ndol_ci.cfm?kaid=86&subid=194&contentid=1926; 11.11.2010.
- DEMOCRATIC LEADERSHIP COUNCIL 2001: A Third Way on Missile Defense, in: New Dem Daily, 07.05.2001.
- DEPTULA, DAVID A. 2007: Meeting Air Force's Needs, Today and Tomorrow, in: New York Times, 10.02.2007.
- DER DERIAN, JAMES 2001: Virtuous War. Mapping the Military-Industrial-Media-Entertainment Network, Boulder.
- DEVROY, ANN 1990: Defending Military Budget, Bush Calls For Cautious Response to Soviet Shifts, in: Washington Post, 08.02.1990.
- DEVROY, ANN 1994: Clinton Nominates Aspin's Deputy as Pentagon Chief, in: Washington Post, 25.01.1994.
- DEVROY, ANN/GRAHAM, BRADLEY 1994: Clinton Seeks to Boost Defense by \$25 Billion, in: Washington Post, 02.12.1994.
- DEVROY, ANN/LANCASTER, JOHN 1993: Clinton Accepts Plan on Gays; 'Refinements' Sought in Aspin Proposal for Military, in: Washington Post, 16.07.1993.

DEWAR, HELEN 1990a: GOP Senators Propose Doubling Bush's Defense Cuts, in: Washington Post, 06.04.1990.

DEWAR, HELEN 1990b: Pentagon Keeps All Major Programs, in: Washington Post, 18.10.1990.

DEWAR, HELEN 1992: Bush, Mitchell Take Aim at Slashing the Defense Budget, in: Washington Post, 17.01.1992.

DEWAR, HELEN 2002: Missile Defense Funding Increased; Senate Gives Bush Option to Use Money for Counterterrorism, in: Washington Post, 27.06.2002.

DEWAR, HELEN 2004: Senate Passes \$447 Billion Defense Bill; GOP Blocks Democrats' Effort to Hold Administration More Accountable on Iraq, in: Washington Post, 24.06.2004.

DINAN, STEPHEN 2002: Bush budget chief cautions Hill on more appropriations; Daniels says defense has priority over domestic spending, in: Washington Times, 28.03.2002.

DINAN, STEPHEN 2004: Kerry pledges to add soldiers; Missile defense would be cut, in: Washington Times, 04.06.2004.

DINAN, STEPHEN 2005: Senate rejects pullout timeline; GOP backs balling for changes in Iraq policy, in: Washington Times, 16.11.2005.

DOA 1949: Field Service Regulations: Operations, Field Manual 100-5, Washington.

DOA 1954: Field Service Regulations: Operations, Field Manuel 100-5, Washington.

DOA 1956: American Military History 1607-1953, ROTCM 145-20, Washington.

DOA 1986: FM 100-5 Operations, Washington.

DOA 1993: FM 100-5 Operations, Washington.

DOA 1994: FM 100-23: Peace Operations, Washington.

DOA 1996: Army Vision 2010, Washington.

DOA 2001a: FM 1: The Army, Washington.

DOA 2001b: FM 3-0: Operations, Washington.

DOA 2003: United States Army Transformation Roadmap, Washington.

DOA 2004: FMI 3-07.22: Counterinsurgency Operations, Washington.

DOA 2008: FM 3-0: Operations, Washington.

DOA/DOAF 1990: FM 100-20/AFP 3-20: Military Operations in Low Intensity Conflict, Washington.

DOA/DON 2006: FM 3-24: Counterinsurgency, Washington.

DOAF 1990: The Air Force and U.S. National Security: Global Reach – Global Power, Washington.

DOAF 1992: Basic Aerospace Doctrine Of The United States Air Force. Volume I, Washington.

DOAF 1996: Global Engagement: A Vision for the 21st Century Air Force, Washington.

DOAF 1997: Air Force Basic Doctrine: Doctrine Document 1, Washington.

DOAF 2003: Air Force Basic Doctrine: Doctrine Document 1, Washington.

- DOAF 2007: Air Force Doctrine Document 2-3: Irregular Warfare, Washington.
- DOBBINS, JAMES 2007: Operations Other Than War: Alternatives to the Traditional Uses of Military Power, in: Halperin, Morton H./Laurenti, Peter R./Boyer, Spencer P. (Eds.): Power and Superpower: Global Leadership and Exceptionalism in the 21st Century, New York, 145-160.
- DOCKRILL, SAKI 1996: Eisenhower's New-Look National Security Policy, 1953-61, Houndmills.
- DOD 2001: Department of Defense Dictionary of Military and Associated Terms, Washington.
- DOD 2003a: Transformation Planning Guidance, Washington.
- DOD 2003b: Rumsfeld Thanks CENTCOM Forward for Its Service, American Forces Press Service, 28.04.2003, Doha.
- DOD 2009: Military Power of the People's Republic of China 2009: A Report to Congress, Washington.
- DOENECKE, JUSTUS D. 1979: Not to the Swift: The Old Isolationists in the Cold War Era, London.
- DOMBROWSKI, PETER J./GHOLZ, EUGENE 2006: Buying Military Transformation: Technological Innovation and the Defense Industry, New York.
- DOMBROWSKI, PETER J./ROSS, ANDREW L. 2003: Transforming the Navy: Punching a Feather Bed?, in: Naval War College Review 56: 3, 107-131.
- DON 1994a: Naval Doctrine Publication 1: Naval Warfare, Washington.
- DON 1994b: Forward ... From the Sea, Washington.
- DON 2001: Expeditionary Maneuver Warfare, Washington.
- DON 2002: Naval Power 21 ... A Naval Vision, Washington.
- DON 2007: A Cooperative Strategy for 21st Century Seapower, Washington.
- DON/U.S. MARINE CORPS/U.S. COAST GUARD 2007: A Cooperative Strategy for 21st Century Seapower, Washington.
- DONLEY, MICHAEL B. 1994: Building a New Defense Consensus, in: Joint Forces Quarterly 6, 18-27.
- DONNELLY, JOHN M. 2001: Rumsfeld makes war, in: Chicago Tribute, 22.10.2001.
- DONOVAN, ROBERT J. 1977: Conflict and Crisis: The Presidency of Harry S Truman, 1945-1948, New York.
- DONOVAN, ROBERT J. 1982: Tumultuous Years. The Presidency of Harry S Truman 1949-1953, New York.
- DOOLITTLE, JAMES H. 1949: Speech to the Georgetown University Alumni Association, 30 April 1949, in: Heinl, Robert D. (Ed.) 1966: Dictionary of Military and Naval Quotations, Annapolis, 6.
- DOUBLER, MICHAEL D. 2003: Civilian in Peace, Soldier in War: The Army National Guard, 1636-2000, Lawrence.
- DOUGHTY, ROBERT A. 1979: The Evolution of US Army Tactical Doctrine, 1946-76, Leavenworth Papers No. 1, Fort Leavenworth.

- DOYLE, MICHAEL W. 1986: Liberalism and World Politics, in: American Political Science Review 80: 4, 1151-1169.
- DREW, CHRISTOPHER 2009a: Drones are Weapons of Choice in Fighting Qaeda, in: The New York Times, 16.03.2009.
- DREW, CHRISTOPHER 2009b: Contractors Agree on Deal to Build Stealth Destroyer, in: New York Times, 09.04.2009.
- DREW, DENNIS M. 1995: Inventing a Doctrine Process, in: Airpower Journal 9: 4.
- DRUYUN, DARLENE 2001: Defense Reform 2001: A Blueprint for Action, Final Report, Washington.
- DUDNEY, ROBERT 2005: Where Do UAVs Go From Here?, in: Air Force Magazine 88: 7, 2.
- DUDNEY, ROBERT S. 1991: Washington Watch: McPeak on the War, in: Air Force Magazine 74: 5.
- DUECK, COLIN 2010: Hard Line: The Republican Party and U.S. Foreign Policy since World War II, Princeton.
- DUFFIELD, MARK F. 1999: Into the Beehive The Somali Habr Gidr Clan as an Adaptive Enemy, School of Advanced Military Studies, Fort Leavenworth.
- DUHIGG, CHARLES 2007: The Pilotless Plane That Only Looks Like Child's Play, in: New York Times, 15.04.2007.
- DULLES, JOHN F. 1954: Statement on Foreign Policy of Eisenhower Administration, in: New York Times, 13.01.1954.
- DUMBRELL, JOHN 2009: Clinton's Foreign Policy: Between the Bushes, 1992-2000, New York
- DUNIVIN, KAREN O. 1994: Military Culture: Change and Continuity, in: Armed Forces and Society 20: 4, 531-547.
- DUNLAP, CHARLES J. 2008: Making Revolutionary Change: Airpower in COIN Today, in: Parameters 38: 2, 52-66.
- DUNN, BRIAN J. 2002: Equipping the Objective Force, in: Military Review 82: 3, 28-33.
- EATON, PAUL D. 2006: A Top-Down Review for the Pentagon, in: New York Times, 19.03.2006.
- ECHEVARRIA, ANTULIO J. II 2004: Toward an American Way of War, Strategic Studies Institute, Carlisle.
- ECKEL, GEORGE 1948: U.S. Air Supremacy Advocated by Taft, in: New York Times, 15.02.1948.
- EDSALL, THOMAS BYRNE 2004: The Old and New Democratic Parties, in: Berkowitz, Peter (Ed.): Varieties of Progressivism in America, Stanford, 31-55.
- EDWARDS, LEE 1999: The Conservative Revolution: The Movement That Remade America, New York.
- EHRHARD, THOMAS P. 2000: Unmanned Aerial Vehicles in the United States Armed Services: A Comparative Study of Weapon System Innovation, Dissertation, Johns Hopkins University.
- EHRHARD, THOMAS P. 2009: An Air Force Strategy for the Long Haul, CSBA, Washington.

- EICHENBERG, RICHARD C./STOLL, RICHARD 2003: Representing Defense: Democratic Control of the Defense Budget in the United States and Western Europe, in: Journal of Conflict Resolution 47: 4, 399-422.
- ELMAN, COLIN 1996: Horses for Courses: Why Not Neorealist Theories of Foreign Policy?, in: Security Studies 6: 1, 7-53.
- ELSE, DANIEL H. 2008: Bias in Weapon Development, Dissertation, George Washington University.
- ELSTER, JON 1989: Nuts and Bolts for the Social Sciences, Cambridge.
- ENGELBERG, STEPHEN 1990: Cuts in Military Threaten Big Bases, in: New York Times, 26.01.1990.
- ERSKINE, HAZEL G. 1963: The Polls: Atomic Weapons and Nuclear Energy, in: Public Opinion Quarterly 27: 2, 155-190.
- ERWIN, SANDRA I. 2007: Facing Uncertainty, Navy Contemplates 'Alternative Futures', in: National Defense Magazine, 10.10.2007.
- EVANGELISTA, MATTHEW 1986: Case Studies and Theories of the Arms Race, in: Bulletin of Peace Proposals 17: 2, 197-206.
- EVANGELISTA, MATTHEW 1988: Innovation and the Arms Race: How the United States and the Soviet Union Develop New Military Technologies, Ithaca.
- EVANGELISTA, MATTHEW/MÜLLER, HARALD/SCHÖRNIG, NIKLAS (EDS.) 2008: Democracy and Security: Preferences, norms and policy-making, London.
- EVANGELISTA, MATTHEW/REPPY, JUDITH 2008: Much ado about democracy: Some skeptical observations on democracies and war, in: Evangelista, Matthew/Müller, Harald/Schörnig, Niklas (Eds.) 2008: Democracy and Security: Preferences, norms and policy-making, London, 167-186.
- FAGAN, AMY 2006: House GOP at war on spending; Conservatives demand cuts, in: Washington Times 20.05.2006.
- FAIRBANKS, WALTER P. 2006: Implementing the Transformation Vision, in: Joint Force Quarterly 42, 36-42.
- FALLOWS, JAMES 2004: Blind Into Baghdad, in: The Atlantic Monthly 293: 1.
- FARRELL, THEO 1996: Figuring Out Fighting Organizations: the New Organizational Analysis In Strategic Studies, in: Journal of Strategic Studies 19: 1, 122-135.
- FAS (FEDERATION OF AMERICAN SCIENTISTS) 2010: United States Munitions and Weapon Systems http://www.fas.org/programs/ssp/man/uswpns/index.html; 10.03.2010.
- FAULKENBERRY, BARBARA J. 1996: Global Reach Global Power: Air Force Strategic Vision, Past and Future, Maxwell.
- FAUTUA, DAVID 2006: An Army for the 'American Century': The origins of the Cold War U.S. Army, 1949-1959, Dissertation, University of North Carolina at Chapel Hill.
- FEAVER, PETER D. 1992: Guarding the Guardians: Civilian Control of Nuclear Weapons in the United States, Ithaca.
- FEAVER, PETER D./GELPI, CHRISTOPHER 2004: Choosing your Battles. American Civil-Military Relations and the Use of Force, Princeton.

- FEICKERT, ANDREW 2007: U.S. Army's Modular Redesign: Issues for Congress, CRS Report for Congress RL32476, Washington.
- FEICKERT, ANDREW 2009a: U.S. Special Opertions Forces (SOF): Backfround and Issues for Congress, RS21048, Washington.
- FEICKERT, ANDREW 2009b: The Army's Future Combat System (FCS): Background and Issues for Congress, CRS Report for Congress RL32888, Washington.
- FELTES, LORENTZ A. 1976: Planning, Programming, and Budgeting: A Search for a Management Philosopher's Stone, in: Air University Review, January-February, http://www.airpower.maxwell.af.mil/airchronicles/aureview/1976/jan-feb/feltes.html; 10.12.2009.
- FENNO, RICHARD F. 1973: Congressmen in Committees, Boston.
- FERRELL, ROBERT H. 2003: Harry S. Truman, Washington.
- FISCHER, SCOTT 2006: Army and Air Force Subcultures Effects on Joint Operations, Carlisle.
- FISHER, ROBERT E. 1995: The U.S. Navy's Search for a Strategy, 1945-1947, in: Naval War College Review 48: 3, 73-86.
- FITZSIMONDS, JAMES R./VAN TOL, JAN M. 1994: Revolutions in Military Affairs, Joint Force Quarterly 4, 24-31.
- FLAMM, KENNETH 2000: U.S. Defense Industry in the Post-Cold War: Economic Pressures and Security Dilemmas, in: Reppy, Judith (Ed.): The Place of the Defense Industry in National Systems of Innovation, Cornell University Peace Studies Program Occasional Paper 25, Ithaca, 47-70.
- FLOURNOY, MICHÈLE A. 2006: Did the Pentagon Get the Quadrennial Defense Review Right?, in: The Washington Quarterly 29: 2, 67-84.
- FLOURNOY, MICHÈLE A./BRIMLEY, SHAWN 2008: The Defense Inheritance: Challenges and Choices for the Next Pentagon Team, in: The Washington Quarterly 31: 4, 59-76.
- FLOURNOY, MICHÈLE A./TANGREDI, SAM J. 2001: Defense Strategy Alternatives: Choosing Where to Place Emphasis and Where to Accept Risk, in: Flournoy, Michèle A. (Ed.): QDR 2001: Strategy-Driven Choices for America's Security, Washington, 137-166.
- FOGLEMAN, RONALD R. 1996: Aerospace Doctrine: More than Just a Theory, in: Airpower Journal 10: 2, 40-47.
- FOOTE, SHEILA 1997a: Stevens: Controls Needed on DoD Operations Spending, in: Defense Daily 194: 39.
- FOOTE, SHEILA 1997b: Snowe's Defense Interests Include Peacekeeping, Ships, in: Defense Daily 194: 23.
- FORDHAM, BENJAMIN O. 2007: The Evolution of Republican and Democratic Positions on Cold War Military Spending: a Historical Puzzle, in: Social Science History 31: 4, 603-636.
- FORDHAM, BENJAMIN O. 2008: Economic Interests and Congressional Voting on Security Issues, in: Journal of Conflict Resolution 52: 5, 623-640.
- FORREST, JOHN G. 1951: The Financial Week: Stock Prices Rally in Heavy Trading Confusion on Military Production Continues, in: New York Times, 09.12.1951.

- FORTIER, JOHN C./ORNSTEIN, NORMAN J. 2003: President Bush: Legislative Strategist, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 138-172.
- Fox, J. Ronald 1988: The Defense Management Challenge: Weapons Acquisition, Boston.
- Franklin, Mark N./Wlezien, Christopher 1997: The Responsive Public: Issue Salience, Policy Change, and Preferences for European Unification, in: Journal of Theoretical Politics 9: 3, 347-363.
- Franks, Frederick M. 1997: Full-Dimensional Operations: A Doctrine for an Era of Change, in: Military Review 77: 1, 178-182.
- FREEBERG, SYDNEY J. 1999: The Military Scrapes for Spares, in: National Journal, 11.12.1999.
- FREEDMAN, LAWRENCE 1976: Logic, Politics and Foreign Policy Processes: A Critique of the Bureaucratic Politics Model, in: International Affair, 52: 3, 434-449.
- FREUND, CORINNA/RITTBERGER, VOLKER 2001: Utilitarian-liberal foreign policy theory, in: Rittberger, Volker (Ed.): German foreign policy since unification: Theories and case studies, Manchester, 68-104.
- FRIEDMAN, BENJAMIN H. 2009: The Navy after the Cold War, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 71-99.
- FRITSCH, JANE 1995: In Budget Battle, a Different Balancing Act, in: New York Times, 20.05.1995.
- FULGHUM, DAVID A. 2001: QDR Became 'Pabulum' As Decisions Slid, in: Aviation Week and Space Technology 155: 15, 70-71.
- FUTRELL, ROBERT F. 1989: Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907-1960, Volume I, Maxwell.
- GADDIS, JOHN L. 1980: NSC 68 and the Problem of Ends and Means, in: International Security 4:4, 164-170.
- GADDIS, JOHN L. 2005: Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War, New York.
- GALDI, THEODOR W. 1995: Revolution in Military Affairs? Competing Concepts, Organizational Responses, Outstanding Issues, CRS-Report 95-1170 F, Washington.
- GALLOWAY, EILENE 1957: History of United States Military Policy on Reserve Forces 1775-1957, Library of Congress, Washington.
- GALLUP, GEORGE H. 1949: Air Force Has Heaviest Backing, in: Washington Post, 20.02.1949.
- GALLUP, GEORGE H. 1953: Only 17% of Voters Believe Defense Cuts Threaten Safety, in: Washington Post, 24.07.1953.
- GALLUP, GEORGE H. 1972a: The Gallup Poll: Public Opinion 1935-1971, Volume One 1935-1948, New York.
- GALLUP, GEORGE H. 1972b: The Gallup Poll: Public Opinion 1935-1971, Volume Two 1949-1958, New York.

- GALSTON, WILLIAM A. 2004: Incomplete Victory: The Rise of the New Democrats, in: Berkowitz, Peter (Ed.): Varieties of Progressivism in America, Stanford, 59-85.
- GAO 1993: Force Structure: Issues Involving the Base Force, Report to Congressional Requesters, NSIAD-93-65, Washington.
- GAO 1998: Budget Function Classifications: Origins, Trends, and Implications for Current Uses, Report to the Chairman, Committee on the Budget, House of Representatives, AIMD-98-67, Washington.
- GAO 2000: Future Years Defense Program: Risks in Operation and Maintenance and Procurement Programs, GAO-01-33, Washington.
- GAO 2001: Defense Acquisition: Army Transformation Faces Weapon Systems Challenges, GAO-01-311, Washington.
- GAO 2003a: Military Transformation: Realistic Deployment Timelines Needed for Army Stryker Brigades, GAO-03-801, Washington.
- GAO 2003b: Issues Facing the Army's Future Combat Systems Program, GAO-03-1010R, Washington.
- GAO 2004a: Military Transformation: Fielding of Army's Stryker Vehicles Is Well Under Way, but Expectations for Their Transportability by C-130 Aircraft Need to Be Clarified, GAO-04-925, Washington.
- GAO 2004b: Military Personnel: DOD Needs to Address Long-term Reserve Force Availability and Related Mobilization and Demobilization Issues, GAO-04-1031, Washington.
- GAO 2008: Defense Acquisitions: Assessments of Selected Weapon Programs, GAO-08-467SP, Washington.
- GAO 2009: Defense Acquisitions: Assessments of Selected Weapon Programs, GAO-09-326SP, Washington.
- GARBER, STEVE/WILLIAMS, PHIL 1994: Defense Policy, in: Hill, Dilys M./Williams, Phil (Eds.): The Bush Presidency: Triumphs and Adversities, Houndmills, 184-213.
- GARFINKEL, MICHELLE R. 1994: Domestic Politics and International Conflict, in: American Economic Review 84: 5, 1294-1309.
- GATES, ROBERT 2009: A Balanced Strategy: Reprogramming the Pentagon for a New Age, in: Foreign Affairs 88: 1, 28-40.
- GATES, ROBERT M. 2007: Remarks before the Association of the United States Army, October 10, 2007, Washington.
- GAVIN, JAMES M. 1958: War and Peace in the Space Age, New York.
- GEDDES, BARBARA 2003: Paradigms and Sand Castles: Theory Building and Research Design in Comparative Politics, Ann Arbor.
- GEIS, ANNA/WAGNER, WOLFGANG 2006: Literaturberichte: Vom "demokratischen Frieden" zur demokratiezentrierten Friedens- und Gewaltforschung, in: Politische Vierteljahresschrift 47: 2, 276-288.
- GELB, LESLIE H. 1991: Mr. Bush's Conversion, in: New York Times, 29.09.1991.
- GELLMAN, BARTON 1991a: Study Says Air Force Can't Afford New Fighter, in: Washington Post, 23.04.1991.

- GELLMAN, BARTON 1991b: Strategy for '90s: Reduce Size and Preserve Strength, in: Washington Post, 09.12.1991.
- GELLMAN, BARTON 1992a: Keeping the U.S. First; Pentagon Would Preclude a Rival Superpower, in: Washington Post, 11.03.1992.
- GELLMAN, BARTON 1992b: Pentagon Abandons Goal of Thwarting U.S. Rivals; 6-Year Plan Softens Earlier Tone on Allies, in: Washington Post, 24.05.1992.
- GELLMAN, BARTON 1993a: Services Moving to Protect Turf; Powell to Rebuff Call to Streamline, in: Washington Post, 28.01.1993.
- GELLMAN, BARTON 1993b: Clinton's 1994 Defense Budget, Out Today, Meets Goals for Cuts, in: Washington Post, 27.03.1993.
- GELLMAN, BARTON 1993c: Defense Budget Passes Despite Warnings of Reduced Readiness, in: Washington Post, 18.11.1993.
- GELLMAN, BARTON 1993d: Pentagon Plan Would Cut Reserve, in: Washington Post, 11.12.1993.
- GELLMAN, BARTON/LANCASTER, JOHN 1993: U.S. May Drop 2-War Capability; Aspin Envisions Smaller, High-Tech Military to 'Win-Hold-Win', in: Washington Post, 17.06.1993.
- GELPI, CHRISTOPHER/FEAVER, PETER D./REIFLER, JASON 2005: Success Matters. Casualty Sensitivity and the War in Iraq, in: International Security 30: 3, 7-46.
- GELPI, CHRISTOPHER/FEAVER, PETER D./REIFLER, JASON 2009: Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts, Princeton.
- GEORGE, ALEXANDER L./BENNETT, ANDREW 2005: Case Studies and Theory Development in the Social Sciences, Cambridge.
- GERGEN, DAVID 1989: Bush's Very Own Ford Foundation; The Cheney-Scowcroft-Baker Team Learned the Same Lessons in the '70s, in: Washington Post, 02.04.1989.
- GERHARDT, JAMES M. 1971: The Draft and Public Policy: Issues in Military Manpower Procurement 1945-1970, Columbus.
- GERRING, JOHN 2007: Case Study Research: Principles and Practices, New York.
- GERTLER, JEREMIAH 2009: f-35 Joint Strike Fighter (JSF) Program: Background and Issues for Congress, CRS Report for Congress RL30563, Washington.
- GERTZ, BILL 1994: Incoming chairmen pledge to beef up defense budgets, in: Washington Times, 11.11.1994.
- GERTZ, BILL 1997: Pentagon budget includes missile defense, in: Washington Times, 07.02.1997.
- GERTZ, BILL/SCARBOROUGH, ROWAN 2004: Inside the Ring: Passed Over, in: Washington Times, 19.11.2004.
- GHOLZ, EUGENE/PRESS, DARYL G./SAPOLSKY, HARVEY M. 1997: Come Home, America: The Strategy of Restraint in the Face of Temptation, in: International Security 21: 4, 5-48.
- GHOLZ, EUGENE/SAPOLSKY, HARVEY M. 1999: Restructuring the U.S. Defense Industry, in: International Security 24: 3, 5-51.
- GIBSON, CRISTANN LEA 1983: Patterns of Demobilization: The US and USSR after World War Two, Dissertation, University of Denver.

- GIGERENZER, GERD/SELTEN, REINHARD (EDS.) 2001: Bounded Rationality: The Adaptive Toolbox, Cambridge.
- GILLON, STEVEN M. 2008: The Pact: Bill Clinton, Newt Gingrich, and the Rivalry That Defined a Generation, Oxford.
- GLASER, CHARLES L./KAUFMANN, CHAIM 1998: What is the Offense-Defense Balance and Can We Measure it?, in: International Security 22: 4, 44-82.
- GLOBAL SECURITY 2010: US Weapon systems, http://www.globalsecurity.org/military/systems/index.html; 10.03.2010.
- GOERTZ, GARY 2006: Social Science Concepts: A User's Guide, Princeton.
- GOERTZEL, TED 1987: Public Opinion Concerning Military Spending in the United States: 1937-1985, in: Journal of Political and Military Sociology 15: 1, 61-72.
- GOLD, DAVID 1993: Military Spending and Investment in the United States, in: Brauer, Jurgen/Chatterji, Manas (Eds.) 1993: Economic Issues of Disarmament: Contribution from Peace Economics and Peace Science, New York, 288-303.
- GOLD, DAVID 2000: Could We Have Done Better? A Retrospective on the 1990s Peace Dividend in the United States, in: Markusen, Ann (Ed.): America's Peace Dividend, Council on Foreign Relations, Columbia International Affairs Online, http://www.ciaonet.org/book/markusen/index.html; 15.03.2010.
- GOLD, DAVID 2001: Defense Spending and the US Economy, in: Survival 43: 3, 163-176.
- GOLD, PHILIP 1991: Navy air fleet flies close to bankruptcy; No jets of future on deck, in: Washington Times, 06.10.1991.
- GOLDREICH, SAMUEL 1996: Mother of all contracts; 3 defense firms vie for \$219 billion deal, in: Washington Times, 16.11.1996.
- GOLDSTEIN, JUDITH/KEOHANE, ROBERT O. 1993: Ideas and Foreign Policy: An Analytical Framework, in: Goldstein, Judith/Keohane, Robert O. (Eds.): Ideas and Foreign Policy: Beliefs, Institutions, and Political Change, New York, 3-30.
- GOLDSTEIN, MARTIN E. 2002: Arms Control and Military Preparedness in the Bush Administration, in: Bose, Meena/Perotti, Rosanna (Eds.): From Cold War to New World Order: The Foreign Policy of George H.W. Bush, Westport, 313-334.
- GONGORA, THIERRY/RIEKHOFF, HARALD VON (Eds.) 2000: Toward a Revolution in Military Affairs? Defense and Security at the Dawn of the Twenty-First Century, Westport.
- GORDON, BERNARD K. 1961: The Military Budget: Congressional Phase, in: Journal of Politics 23: 4, 689-710.
- GORDON, MICHAEL R. 1988: Man in the News: Brent Scowcroft; Sentinel of Security, in: New York Times, 24.11.1988.
- GORDON, MICHAEL R. 1989: House Backs \$305 Billion Military Bill, in: New York Times, 10.11.1989.
- GORDON, MICHAEL R. 1990a: Split Between Army and Marines Surfaces in Debate on 3d World, in: New York Times, 15.03.1990.
- GORDON, MICHAEL R. 1990b: Nunn Opens a Double Attack In Military Spending Debate, in: New York Times, 23.03.1990.

- GORDON, MICHAEL R. 1990c: Army and Air Force Fix Sights On the Changing Face of War, in: New York Times, 21.05.1990.
- GORDON, MICHAEL R. 1990d: Pentagon Drafts Strategy for Post-Cold War World, in: New York Times, 02.08.1990.
- GORDON, MICHAEL R. 1992: Report by Powell Challenges Calls to Revise Military, in: New York Times, 31.12.1992.
- GORDON, MICHAEL R. 1993a: Joint Chiefs Curtail Plans For Reducing Duplication, in: New York Times, 29.01.1993.
- GORDON, MICHAEL R. 1993b: A New Military Strategy, New York Times, 30.05.1993.
- GORDON, MICHAEL R. 2000: The 2000 Campaign: The Military; Bush Would Stop U.S. Peacekeeping in Balkan Fights, in: New York Times, 21.10.2000.
- GORDON, MICHAEL R. 2001: A Nation Challenged: Military Strategy; Gains and Limits in New Low-Risk War, in: New York Times, 29.12.2001.
- GORDON, MICHAL R./TRAINOR, BERNARD E. 2007: Cobra II: The Inside Story of the Invasion and Occupation of Iraq, New York.
- GOULD, LEWIS L. 2003: Grand Old Party: A History of the Republicans, New York.
- GOURÉ, DANIEL/RANNEY, JEFFREY M. 1999: Averting the Defense Train Wreck in the New Millennium, Washington.
- GPO 1945: The United States Strategic Bombing Survey, Summary Report (European War), Washington.
- GRAHAM, BRADLEY 1994: Military Leaders Join Forces to Plan for Future, in: Washington Post, 22.08.1994.
- GRAHAM, BRADLEY 1995: Army Clarifies Historical Context of Readiness Alarm; Statistics Reveal Same Three Divisions Received Low Ratings During the Mid-1980s, in: Washington Post, 13.01.1995.
- GRAHAM, BRADLEY 1996a: White House May Beef Up Order for B-2 Bombers, in: Washington Post, 04.02.1996.
- GRAHAM, BRADLEY 1996b: Panels Challenge Clinton on Defense, in: Washington Post, 03.05.1996.
- GRAHAM, BRADLEY 1996c: Pentagon Faces Huge Bill for Jet Fighters; Strategic Needs, Budget Are Obstacles, in: Washington Post, 22.08.1996.
- GRAHAM, BRADLEY 1998: Revised Defense Budget Invited; Clinton Pledges Immediate Relief to Preserve Military Readiness, in: Washington Post, 23.09.1998.
- GRAHAM, BRADLEY 1999: Weeks of Give-and-Take Led to Defense Spending Boost, in: Washington Post, 14.01.1999.
- GRAHAM, BRADLEY 2002: Secrecy on Missile Defense Grows; Pentagon Shelves Timetables, Cost Estimates; Critics Say Oversight Imperiled, in: Washington Post, 12.06.2002.
- GRAHAM, BRADLEY 2004: 30,000 More Soldiers Approved by Rumsfeld, in: Washington Post, 29.01.2004.
- GRAHAM, BRADLEY 2005a: General Says Army Reserve Is Becoming a 'Broken' Force, in: Washington Post, 06.01.2005.

- GRAHAM, BRADLEY 2005b: A Senate Push for 2006 Defense Bill, in: Washington Post, 15.10.2005.
- GRAHAM, BRADLEY 2009: By His Own Rules: The Ambitions, Successes, and Ultimate Failures of Donald Rumsfeld, New York.
- GRAHAM, BRADLY/HARRIS, JOHN F. 1994: Can the Pentagon Afford Its Future?, in: Washington Post, 08.08.1994.
- GRAHAM, THOMAS W. 1988: The Pattern and Importance of Public Knowledge in the Nuclear Age, in: Journal of Conflict Resolution 32: 2, 319-334.
- GRANT, REBECCA 2003: Hand in Glove, in: Air Force Magazine 86: 7, 30-35.
- GRANT, REBECCA 2005: The Clash of the UAV Tribes, in: Air Force Magazine 88: 9, 46-50.
- GRANT, REBECCA 2006: The Chinese Calculus, in: Air Force Magazine 89: 2, 34-40.
- GRANT, REBECCA 2007: The Drone War, in: Air Force Magazine 90: 7, 36-40.
- GRAY, COLIN S. 1999: Modern Strategy, Oxford.
- GRAY, COLIN S. 2005: The American Way of War. Critique and Implications, in: Mc Ivor, Anthony D. (Ed.): Rethinking the Principles of War, Annapolis, 13-40.
- GREENE, JOHN R. 2000: The Presidency of George Bush, Lawrence.
- GREENSTEIN, FRED I 2003: The Leadership Style of George W. Bush, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 1-16.
- GREENWOOD, JOHN T. 1978: The Emergence of the Postwar Strategic Air Force, 1945-1953, in: Hurley, Alfred F./Ehrhart, Robert C. (Eds.): Air Power and Warfare: The Proceedings of the 8th Military History Symposium United States Air Force Academy, Washington, 215-244.
- GRIER, PETER 1990: Defense Backers Discover 'Gulf Dividend' in Crisis, in: Christian Science Monitor, 22.10.1990.
- GRIER, PETER 1991: Congress Wraps Up Military Budget, in: Christian Science Monitor, 22.11.1991.
- GRIER, PETER 1992: US Military Charts Cutbacks in Forces, in: Christian Science Monitor, 31.01.1992.
- GRIER, PETER 1993: US Military Cuts Threaten State, Regional Economies, in: Christian Science Monitor, 12.03.1993.
- GRIER, PETER 1994: Defense Official Pledges Active Role in US Military-Industry Shakeout, in: Christian Science Monitor, 07.04.1994.
- GRIFFITH, LOREN 2005: Where We Went Wrong: How the Public Lost Faith in Democrats' Ability to Protect Our National Security, and How to Stage a Comeback, Truman Paper, Truman National Security Project.
- GRIMMETT, RICHARD F. 2008: Instances of Use of United States Armed Forces Abroad, 1798-2007, CRS Report for Congress RL32170, Washington.
- GRISSOM, ADAM 2006: The Future of Military Innovation Studies, in: Journal of Strategic Studies 29: 5, 905-934.
- GROSSMAN, ELAINE M. 2001: The Halt Phase Hits a Bump, in: Air Force Magazine 84: 4, 34-36.

- GRUNZINGER, MARK 1996: Beyond the Bottom-Up Review, in: Institute for National Security Studies, National Defense University (Ed.): Essay on Strategy XIV, Washington.
- GRUSON, LINDSEY 1992: Legislators Try to Save Seawolf Program, in: New York Times, 25.01.1992.
- GUGLIOTTA, GUY 2004: Radical Warship Shaping Up; Navy's DD(X) May Launch Generation of Greater Efficiency, in: Washington Post, 08.02.2004.
- HAAS, RICHARD N. 1995: Paradigm Lost, in: Foreign Affairs 74: 1, 43-58.
- HABERKORN, JEN 2006: War boosts General Dynamics' sales; Refit of military to last for years, in: Washington Times, 13.07.2006
- HAENDSCHKE, ERNIE 2008: Adding Less-Lethal Arrows to the Quiver for Counterinsurgency Air Operations, in: Air and Space Power Journal 22: 2.
- HALLORAN, RICHARD 2007: China Stands Up, in: Airforce Magazine 90: 8, 24-30.
- HALLOW, RALPH Z./FAGAN, AMY 2004: GOP lawmakers plan cuts in Bush budget; Eye defense, homeland security, in: Washington Times, 04.20.2004.
- HALPERIN, MORTON H. 1971: Why Bureaucrats Play Games, in: Foreign Policy 2, 70-90.
- HALPERIN, MORTON H./LOMASNEY, KRISTEN 1999: Playing the Add-on Game in Congress: The Increasing Importance of Constituent Interests and Budget Constraints in Determining Defense Policy, in: Sigal, Leon V. (Ed.): The Changing Dynamics of U.S. Defense Spending, Westport, 85-106.
- HAMMOND, PAUL Y. 1962: NSC-68: Prologue to Rearmament, in: Schilling, Warner R./Hammond, Paul Y./Snyder, Glenn H. (Eds.): Strategy, Politics, and Defense Budgets, New York, 267-378.
- HAMMOND, PAUL Y. 1963: Super Carriers and B-36 Bombers: Appropriations, Strategy and Politics, in: Stein, Harold (Ed.): American Civil-Military Decisions. A Book of Case Studies, Birmingham, 465-567.
- HAMMOND, PAUL Y. 1994: Central Organization in the Transition from Bush to Clinton, in: Hermann, Charles F. (Ed.): American Defense Annual 1994, 9th Edition, New York, 163-181.
- HANSON, VICTOR D. 2003: Military Technology and American Culture, in: The New Atlantis, Spring 2003.
- HARDEN, BLAINE/BRODER, JOHN M. 1999: Clinton's Aims: Win the War, Keep the U.S. Voters Content, in: New York Times, 22.05.1999.
- HARGREAVES HEAP, SHAUN/HOLLIS, MARTIN/LYONS, BRUCE/SUGDEN, ROBERT/WEALE, ALBERT 1992: The Theory of Choice: A Critical Guide, Oxford.
- HARRIS, JOHN F. 1994a: Pentagon Puts Present Ahead of Future, in: Washington Post, 24.08.1994.
- HARRIS, JOHN F. 1994b: Thurmond Seeks Freeze For Defense; GOP Asked to Block Budget Cut for 1996, in: Washington Post, 21.12.1994.
- HARRISON, CHRISTINE 2007: Doctrine Center 'jump starts' irregular warfare doctrine, in: Air Force News, 01.03.2007.
- HARRISON, SELIG S. 2000: The Missiles of North Korea: How Real a Threat?, in: World Policy Journal 17: 3,

- HARTLEY, THOMAS/RUSSETT, BRUCE 1992: Public Opinion and the Common Defense: Who Governs Military Spending in the United States?, in: American Political Science Review 86: 4, 905-915.
- HARTUNG, WILLIAM D. 1999: The Shrinking Military Pork Barrel: The Changing Distribution of Pentagon Spending, 1986-1996, in: Sigal, Leon V. (Ed.): The Changing Dynamics of U.S. Defense Spending, Westport, 29-84.
- HARTUNG, WILLIAM D. 2001: Eisenhower's Warning. The Military-Industrial Complex Forty Years Later, in: World Policy Journal 18: 1, 39-44.
- HATTENDORF, JOHN B. (ED.) 2005: U.S. Naval Strategy in the 1990s: Selected Documents, Naval War College Newport Papers 27.
- HATTENDORF, JOHN B. 2000: Naval History and Maritime Strategy: Collected Essays, Malabar.
- HAWORTH, W. BLAIR 1999: The Bradley and How It Got That Way: Technology, Institutions, and the Problem of Mechanized Infantry in the United States Army, Westport.
- HAYNES, RICHARD F. 1973: The Awesome Power: Harry S. Truman as Commander in Chief, Baton Rouge.
- HEAD, RICHARD G. 1973: Doctrinal Innovation and the A-7 Attack Aircraft Decisions, in: in: Head, Richard/Rokke, Erwin (Eds.): American Defense Policy, 3rd Edition, Baltimore, 431-445.
- HECLO, HUGH 1978: Issue Networks and the Executive Establishment, in: King, Anthony (Ed.): The New American Political System, Washington, 87-124.
- HEDGPETH, DANA 2009: Army to Restructure Weapons Program, Expand It to All Combat Brigades, in: Washington Post, 19.05.2009.
- HENIFF, BILL/MURRAY, JUSTIN 2010: Congressional Budget Resolutions: Historical Information, CRS Report for Congress RL30297, Washington.
- HENRY, RYAN 2005: Defense Transformation and the 2005 Quadrennial Defense Review, in: Parameters 35: 4, 5-15.
- HERKEN, GREGG 1988: The Winning Weapon: The Atomic Bomb in the Cold War, 1945-1950, Princeton.
- HERSH, SEYMOUR M. 2004: Torture at Abu Ghraib, in: New Yorker, 10.05.2004.
- HERSPRING, DALE R. 2005: The Pentagon and the Presidency: Civil-Military Relations from FDR to George W. Bush, Lawrence.
- HERSPRING, DALE R. 2010: Rumsfeld as Secretary of Defense, in: Cimbala, Stephen J. (Ed.): The George W. Bush Defense Program: Policy, Strategy and War, Washington, 77-99.
- HEWES, JAMES E. 1975: From Root to McNamara: Army Organization and Administration, 1900-1963, Washington.
- HILL, DILYS M./WILLIAMS, PHIL 1994: Introduction: The Bush Administration An Overview, in: Hill, Dilys M./Williams, Phil (Eds.): The Bush Presidency: Triumphs and Adversities, Houndmills, 1-16.
- HILLEN, JOHN 1997: Kicking the can down the road, in: Washington Times, 29.05.1997.
- HILS, JOCHEN 2007: Manipuliertes Volk? Mediendemokratie und die militärische Interventionspolitik der USA am Beispiel der Kosovokriege, Baden-Baden.

- HILSMAN, ROGER 1958: Congressional-Executive Relations and the Foreign Policy Consensus, in: American Political Science Review 52: 3, 725-744.
- HILSMAN, ROGER 1987: The Politics of Policy Making in Defense and Foreign Affairs. Conceptual Models and Bureaucratic Politics, Englewood Cliffs.
- HINCKLEY, RONALD H. 1992: People, Polls, and Policymakers: American Public Opinion and National Security, New York.
- HINTON, HAROLD B. 1952: Lovett Warns Arms Fund Cut Would Imperil Safety of U.S., in: New York Times, 05.02.1952.
- HINTON, HAROLD B. 1953a: Yorty Tells House Wilson Must Quit Over Air Fund Cut, in: New York Times, 23.05.1953.
- HINTON, HAROLD B. 1953b: Vandenberg Calls Slash in Air Funds Peril To U.S. Safety, in: New York Times, 04.06.1953.
- HINTON, HAROLD B. 1953c: Senate Approves 34.5 Billion Fund for Armed Forces, in: New York Times, 24.07.1953.
- HITCH, CHARLES J. 1967: Decision-Making for Defense, Berkeley.
- HODGSON, GODFREY 1976: America in Our Time: From World War II to Nixon What Happened and Why, Princeton.
- HOFFMAN, DAVID/YANG, JOHN E. 1991: U.S., Soviets Reach Pact Reducing Nuclear Arms, in: Washington Post, 18.07.1991.
- HOFFMAN, FRANK 2008: From Preponderance to Partnership: American Maritime Power in the 21st Century, Center for a New American Security, Washington.
- HOGAN, MICHAEL J. 1998: A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954, Cambridge.
- HOLLAND, LAUREN 1993: Explaining Weapons Procurement: Matching Operational Performance and National Security Needs, in: Armed Forces & Society 19: 3, 353-376.
- HOLLAND, LAUREN 1997: Weapons under Fire, New York.
- HOLLAND, LAUREN 1999: The U.S. Decision to Launch Operation Desert Storm: A Bureaucratic Politics Analysis, in: Armed Forces & Society 25: 2, 219-242.
- HOLSTI, OLE R. 1992: Public Opinion and Foreign Policy: Challenges to the Almond-Lippmann Consensus, in: International Studies Quarterly 36: 4, 439-466.
- HOLSTI, OLE R./ROSENAU, JAMES N. 1996: Liberals, Populists, Libertarians, and Conservatives: The Link between Domestic and International Affairs, in: International Political Science Review 17: 1, 29-54.
- HOLTZMAN, ABRAHAM 1970: Legislative Liaison: Executive leadership in Congress, Chicago.
- HORNE, LOUTHER S. 1947: Eisenhower Hits an Atomic 'Apathy', in: New York Times, 18.01.1947.
- HUDSON, VALERIE M. 2007: Foreign Policy Analysis: Classic and Contemporary Theory, Lanham.
- HUGGINS, PETER W. 2007: Boost Military Spending; America at a Crossroads, in: Washington Times, 25.01.2007.

- HULSE, CARL 2002a: Budget Increases for Pentagon Pass Easily, in: New York Times, 27.06.2002.
- HULSE, CARL 2002b: Senate Easily Passes \$355 Billion Bill for Military Spending, in: New York Times, 02.08.2002.
- HULSE, CARL 2002c: By Wide Margin, House Passes 2 Military Spending Measures, in: New York Times, 11.10.2002.
- HULSE, CARL 2003: Both Houses Back More Military Spending, in: New York Times, 23.05.2003.
- HULSE, CARL 2005: Senator will ask Rumsfeld to testify to Panel on Iraq, in: New York Times, 29.08.2005.
- HULT, KAREN M. 2003: The Bush White House in Comparative Perspective, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 51-77.
- HUNDLEY, RICHARD O. 1999: Past Revolutions, Future Transformations. What can the history of revolutions in military affairs tell us about transforming the U.S. military?, Santa Monica.
- HUNTINGTON, SAMUEL P. 1954a: Radicalism and Conservatism in National Defense Policy, in: Journal of International Affairs 8: 2, 206-222.
- HUNTINGTON, SAMUEL P. 1954b: National Policy and the Transoceanic Navy, in: Proceedings 80: 5, 483-493.
- HUNTINGTON, SAMUEL P. 1961: The Common Defense. Strategic Programs in National Politics, New York.
- HUNTINGTON, SAMUEL P. 1969: The Defense Establishment: Vested Interests and the Public Interest, in: Carey, Omer L. (Ed.): The Military-Industrial Complex and United States Foreign Policy, Pullman, 1-14.
- HURD, CHARLES 1947: Say U.S. Air Might is Disintegrating, in: New York Times, 15.10.1947.
- HURD, CHARLES 1948a: Half Defense Fund Asked for Air Unit, in: New York Times, 13.01.1948.
- HURD, CHARLES 1948b: Expansion at once asked in Air Force by Policy Board, in: New York Times, 14.01.1948.
- HURD, CHARLES 1949: House Study Urged of B-36 Contracts, in: New York Times, 26.05.1949.
- HURT, CHARLES 2004a: Kerry opposed key weapons; Voted to cut spending, in: Washington Times, 24.02.2004.
- HURT, CHARLES 2004b: President seeks extra funds for terror war, in: Washington Times, 06.05.2004.
- HURT, CHARLES/FAGAN, AMY 2006: Senate approves fence for border; Congress OKs funds for war, detainee trials, in: Washington Times, 30.09.2006
- HUZAR, ELIAS 1950: The Purse and the Sword: Control of the Army by Congress through Military Appropriations 1933-1950, Westport.
- IGNATIUS, DAVID 2006: Replace Rumsfeld, in: Washington Post, 14.04.2006.

- IISS (INTERNATIONAL INSTITUTE FOR STRATEGIC STUDIES) 2010: The Military Balance 2010, London.
- IKENBERRY, G. JOHN/MORAVCSIK, ANDREW 2004: Liberal Theory and the Politics of Security in Northeast Asia, Paper prepared for the Ford Foundation Project on Non-Traditional Security, Seoul, 30.01.2004.
- IKENBERY, G. JOHN 2003: Strategic Reactions to American Preeminence: Great Power Politics in the Age of Unipolarity, National Intelligence Council Conference Report, http://www.dni.gov/nic/confreports_stratreact.html; 10.12.2007.
- INTRILIGATOR, MICHAEL D. 1996: The Peace Dividend: Myth or Reality?, in: Gleditsch, Nils P./Byerkholt, Olav/Cappelen, Ådne/Smith, Ron P./Dunne, J. Paul (Eds.): The Peace Dividend, Amsterdam, 1-13.
- IPPOLITO, DENNIS S. 1994: Blunting the Sword: Budget Policy and the Future of Defense, Washington.
- ISBY, DAVID C. 2003: Rumsfeld and the Army; Transformation and confrontation, in: Washington Times, 16.06.2003.
- ISENBERG, DAVID 1995: The Misleading Military "Readiness Crisis", Cato Foreign Policy Briefing No. 25, Washington.
- ISENBERG, DAVID/ELAND, IVAN 2002: Empty Promises: Why the Bush Administration's Half-Hearted Attempts at Defense Reform Have Failed, Cato Institute Policy Analysis No. 442, Washington.
- JACKSON, COLIN 2009: From conservatism to revolutionary intoxication: The US Army and the second interwar period, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 43-70.
- JACKSON, COLIN/LONG, AUSTIN 2009: The fifth service: The rise of Special Operations Command, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 136-154.
- JACOBSON, GARY C. 2003: The Bush Presidency and the American Electorate, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 197-227
- JAFFE, LORNA S. 1993: The Development of the Base Force 1989-1992, Washington.
- JCS 1992: National Military Strategy of the United States, Washington.
- JCS 1995: National Military Strategy of the United States of America. A Strategy of Flexible and Selective Engagement, Washington.
- JCS 1996: Joint Vision 2010, Washington.
- JCS 2001: Joint Publication 3-0: Doctrine for Joint Operations, Washington.
- JCS 2006: Joint Publication 3-0: Joint Operations, Washington.
- JEHL, DOUGLAS/SCHMITT, ERIC 2005: Law Gives Spending Power to Special Operations Forces, in: New York Times, 01.02.2005.
- JOHNSON, MILTON H. 1997: The Impact of Doctrine on Air Force Roles and Missions, Air University, Maxwell.

- JOINT DOD/GAO WORKING GROUP 1984: The Department of Defense's Planning, Programming and Budgeting System, GAO/OACG-84-5, Washington.
- JONES, CHARLES O. 1999: Clinton and Congress, 1993-1996: Risk, Restoration, and Reelection, Norman.
- JONES, JOHNNY R. 1997: Development of Air Force Basic Doctrine 1947-1992, Air University, Maxwell.
- JONES, LAWRENCE R./BIXLER, GLENN C. 1992: Mission Financing to Realign National Defense, Greenwich.
- JONES, LAWRENCE R./MCCAFFERY, JERRY L. 2008: Budgeting, Financial Management, and Acquisition Reform in the U.S. Department of Defense, Charlotte.
- JONES, WILBUR D. 1999: Arming the Eagle. A History of U.S. Weapons Acquisition since 1775, Fort Belvoir.
- JUDSON, GEORGE 1992: For the People of Groton, Peace Pays No Dividend, in: New York Times, 30.01.1992.
- JUMPER, JOHN P. 2001: Global Strike Task Force: A Transforming Concept, Forged by Experience, in: Aerospace Power Journal 15: 1, 24-33.
- JUPILLE, JOSEPH/CAPORASO, JAMES A./CHECKEL, JEFFREY T. 2003: Integrating Institutions: Rationalism, Constructivism, and the Study of the European Union, in: Comparative Political Studies 36: 1/2, 7-40.
- KAESER, HANS ULRICH/CORDESMAN, ANTHONY 2008: Abandon Ships: The Costly Illusion of Unaffordable Transformation, Center for Strategic and International Studies, Washington.
- KAESER, HANS ULRICH/CORDESMAN, ANTHONY 2009: The Future Combat System: What Can the Army Afford?, Center for Strateic and International Studies, Washington.
- KAGAN, FREDERICK W. 1997: Wishful Thinking on War, in: The Weekly Standard, 15.12.1997.
- KAGAN, FREDERICK W. 2003: War and Aftermath, in: Policy Review 120, 3-27.
- KAGAN, FREDERICK W. 2006: Finding the Target: The Transformation of American Military Policy, New York.
- KAGAN, FREDERICK W./FAUTUA, DAVID 1997: Could We Fight a War If We Had To, in: Commentary 103: 5, 25-29.
- KAGAN, ROBERT/KRISTOL, WILLIAM 2001: No Defense, in: The Weekly Standard, 23.07.2001
- KALDOR, MARY 1981: Rüstungsbarock. Das Arsenal der Zerstörung und das Ende der militärischen Techno-Logik, Berlin.
- KAMEN, AL 2001: Donny, We Hardly Knew Ye, in: Washington Post, 07.09.2001.
- KANE, TIM 2006: Global U.S. Troop Deployment, 1950-2005, CDA-Report 06-02, Heritage Foundation.
- KAPLAN, FRED 1983: The Wizards of Armageddon, New York.
- KAPLAN, FRED 2003a: Rumsfeld's Man: Why generals will fight the new secretary of the Army, in: Slate, 06.05.2003.

- KAPLAN, FRED 2003b: Rumsfeld's New Man: The latest move to radically remake the Army, in Slate, 10.06.2003.
- KAPLAN, FRED 2003c: Rummy's New War: The secretary of defense invades the Army, in: Slate, 14.05.2003.
- KAPLAN, FRED 2005: The Pentagon's Outdated Budget Priorities: Why the military would rather fund stealth fighter than soldiers, in: Slate, 22.12.2005.
- KAPLAN, FRED 2006a: Rumsfeld Surrenders: The QDR dashes his dreams of military transformation, in: Slate, 03.02.2006.
- KAPLAN, FRED 2006b: The Revolt Against Rumsfeld: The officer corps is getting restless, in: Slate, 12.04.2006.
- KAPLAN, FRED 2006c: Army Times: Rummy Must Go: Decoding an astonishing editorial, in: Slate, 06.11.2006.
- KAPLAN, FRED 2007: House Democrats Back Down, in: Slate, 10.05.2007.
- KAPLAN, FRED 2008: The Professional, in: New York Times, 10.02.2008.
- KAPLAN, LAWRENCE F. 2000: Trading Places: How the Democrats became hawks, in: The New Republic, 23.10.2000.
- KAPLAN, LAWRENCE S. 1984: The United States and NATO: The Formative Years, Lexington.
- KAPLAN, LAWRENCE S. 1988: NATO and the United States: The Enduring Alliance, Boston.
- KAROL, DAVID 2009: Party Position Change in American Politics: Coalition Management, New York.
- KATZENSTEIN, PETER J. 1978: Introduction: Domestic and International Forces and Strategies of Foreign Economic Policy, in: Katzenstein, Peter J. (Ed.): Between Power and Plenty: Foreign Economic Policies of Advanced Industrial States, Madison, 3-22.
- KAUFMANN, WILLIAM W./STEINBRUNER, JOHN D. 1991: Decisions for Defense: Prospects for a New Order, Washington.
- KEANEY, THOMAS A./COHEN, ELIOT A. 1993: Golf War Air Power Survey Summary Report, Washington.
- KEETER, HUNTER 2000: 30-Year Ship Plan Reflects Stress on Current Fleet, in: Defense Daily, 20.03.2000.
- KEISER, GORDON W. 1991: Defense Organization: Reflections on the Military Budget, in: Marine Corps Gazette, 75: 9, 30-32
- KEITH, CAROLINE H. 1991: "For Hell and A Brown Mule": The Biography of Senator Millard E. Tydings, Lanham.
- KELLY, JACK 2005: Rumsfeld's Time has come: The Brilliant Defense Secretary should realize he is no longer effective, in: Pittsburgh Post-Gazette, 02.10.2005.
- KENNEDY, FLOYD D. 1984: The Creation of the Cold War Navy, 1953-1962, in: Hagan, Kenneth J. (Ed.): In Peace and War: Interpretations of American Naval History, 1775-1984, Westport, 304-326.
- KENWORTHY, TOM 1989: House Defense Bill Rejects Bush's Goals, in: Washington Post, 28.07.1989.

- KENWORTHY, TOM/BRODER, DAVID S. 1990: Democrats Urge Caution on Guld; Hearing Reflects Hill's Restiveness, in: Washington Post, 28.11.1990.
- KESSLER, GLENN 2007: The Confidante: Condoleezza Rice and the Creation of the Bush Legacy, New York.
- KEVLES, DANIEL J. 1975: Scientists, the Military, and the Control of Postwar Defense Research: The Case of the Research Board for National Security, 1944-46, in: Technology and Culture 16: 1, 20-47.
- KEVLES, DANIEL J. 1990: Cold War and Hot Physics: Science, Security, and the American State, 1945-56, in: Historical Studies in the Physical and Biological Sciences 20: 2, 239-264.
- KHALILZAD, ZALMAY/WOLFOWITZ, PAUL 1997: We Must Lead the Way In Deposing Saddam, in: Washington Post, 09.11.1997.
- KHONG, YUEN FOONG 2008: Neoconservatim and the domestic sources of American foreign policy: the role of ideas in Operation Iraqi Freedom, in: Smith, Steve/Hadfield, Amelia/Dunne, Tim (Eds.): Foreign Policy: theories, actors, cases, New York, 251-267.
- KIER, ELIZABETH 1997: Imagining War. French and British Military Doctrine between the Wars, Princeton.
- KING, GARY/KEOHANE, ROBERT O./VERBA, SIDNEY 1994: Designing Social Inquiry: Scientific Inference in Qualitative Research, Princeton.
- KING, JAMES D./RIDDLESPERGER, JAMES W. 2002: The Rejection of a Cabinet Nomination: The Senate and John Tower, in: Bose, Meena/Perotti, Rosanna (Eds.): From Cold War to New World Order: The Foreign Policy of George H.W. Bush, Westport, 369-390.
- KINTNER, WILLIAM R. 1958: Forging a New Sword. A Study of the Department of Defense, New York.
- KIRKPATRICK, JEANE 1993: An 'Alice in Wonderland' Defense Budget, in: Washington Post, 05.04.1993.
- KIRKPATRICK, JEANE 2004: Neoconservatism as a Response to the Counter-Culture, in: Stelzer, Irwin (Ed.): Neoconservatism, London, 233-240.
- KITFIELD, JAMES 1998: To Halt an Enemy, in: Air Force Magazine 81: 1.
- KITFIELD, JAMES 1999a: Expensive bird of prey, in: National Journal, 20.02.1999.
- KITFIELD, JAMES 1999b: DOD Fighter Program Tries To Navigate Turbulent Skies, in: National Journal. 13.05.1999.
- KITFIELD, JAMES 2001a: Army shell-shocked in face of Rumsfeld reforms, in: National Journal, 11.06.2001.
- KITFIELD, JAMES 2001b: A Small Study Carries a Heavy Burden, in: National Journal, 03.03.2001.
- KITFIELD, JAMES 2005: Defense Cuts Compel 'Transformation', in: National Journal 37: 5, 300-301.
- KITFIELD, JAMES 2006: Rumsfeld's Rummage, in: National Journal, 38: 50-52, 30-36.
- KLEIN, ALEC 2007: The Army's \$200 Billion Makeover; March to Modernize Proves Ambitious and Controversial, in: Washington Post, 07.12.2007.

- KLEIN, BURTON H. 1968: Policy Issues Involved in the Conduct of Military Development Programs, in: Mansfield, Edwin (Ed.): Defense, Science, and Public Policy, New York, 96-113.
- KLEIN, JOHN J. 2002: Unmanned Combat Aerial Vehicles and Transformation, in: Joint Force Quarterly 33, 109-113.
- KNAACK, MARCELLE SIZE 1978: Encyclopedia of US Air Force Aircraft and Missile Systems Volume 1, Washington.
- KNAACK, MARCELLE SIZE 1988: Encyclopedia of U.S. Air Force Aircraft and Missile Systems, Volume II: Post-World War II Bombers 1945-1973, Washington.
- KNIGHT, CHARLES 2000: Comments on Lawrence J.Korb's "U.S. National Defense Policy in the Post-Cold War World, in: Markusen, Ann (Ed.): America's Peace Dividend, Council on Foreign Relations, Columbia International Affairs Online, http://www.ciaonet.org/book/markusen/index.html; 15.03.2010.
- KNOPF, JEFFREY 1998: How Rational Is "The Rational Public"? Evidence from U.S. Public Opinion on Military Spending, in: Journal of Conflict Resolution 42: 5, 544-571.
- KOHN, RICHARD H. 1994: Out of Control: The Crisis in Civil-Military Relations, in: The National Interest 35, 3-18.
- KOHN, RICHARD H. 2001: The Early Retirement of Gen Ronald R. Fogleman, Chief of Staff, United States Air Force, in: Aerospace Power Journal 15: 1, 6-23.
- KOLODZIEJ, EDWARD A. 1966: The Uncommon Defense and Congress, 1945-1963, Columbus.
- KOOPMAN, DOUGLAS L. 1996: Hostile Takeover: The House Republican Party, 1980-1995, Lanham.
- KORB, LAWRENCE J. 1977: The Budget Process in the Department of Defense, 1947-77: The Strengths and Weaknesses of Three Systems, in: Public Administration Review 37: 4, 334-346.
- KORB, LAWRENCE J. 1993: Growth and Decline of Accounts through the Defense Investment Cycle, in: Defense Analysis 9: 1, 89-96.
- KORB, LAWRENCE J. 1995: The Readiness Gap. What Gap?, in: New York Times, 26.02.1995.
- KORB, LAWRENCE J. 2000: U.S. National Defense Policy in the Post-Cold War World, in: Markusen, Ann (Ed.): America's Peace Dividend, Council on Foreign Relations, Columbia International Affairs Online, http://www.ciaonet.org/book/markusen/index.html; 15.03.2010.
- KORB, LAWRENCE J. 2001: U.S. Defense Spending After the Cold War: Fact and Fiction, in: Williams, Cindy (Ed.): Holding the Line: U.S. Defense Alternatives for the Early 21st Century, Cambridge, 35-54.
- KORB, LAWRENCE J. 2006: DOD's QDR and the 2007 Defense Budget: Headed in the Wrong Direction, Center for Defense Information, http://www.cdi.org/program/document.cfm?DocumentID=3310&from_page=../index.cf m; 10.07.2010.
- KORB, LAWRENCE J. 2007: The Lost Decade, in: Wheeler, Winslow T./Korb, Lawrence J.: Military Reform: A Reference Handbook, Westport, 61-71.

- KOSIAK, STEVEN M. 1998: Military Readiness: Good News, Bad News And Questions For The Future, CSBA Backgrounder, Washington.
- KOSIAK, STEVEN M. 2002: Analysis of the FY 2003 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2003: Analysis of the FY 2004 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2004: Analysis of the FY 2005 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2005: Analysis of the FY 2006 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2006: Analysis of the FY 2007 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2007: Analysis of the FY 2008 Defense Budget Request, Washington.
- KOSIAK, STEVEN M. 2008: Classified Funding in the FY 2009 Defense Budget Request, CSBA Update, 17.06.2008, Washington.
- Krasner, Stephen D. 1972: Are Bureaucracies Important? (Or Allison Wonderland), in: Foreign Policy 7, 159-179.
- KRELL, GERT 1981a: Capitalism and Armaments: Business Cycles and Defense Spending in the United States 1945-1979, in: Journal of Peace Research 18: 3, 221-240.
- KRELL, GERT 1981b: Zur Diskussion über die Rüstungsdynamik und amerikanische Rüstung, in: Krell, Gert (Eds.): Die Rüstung der USA. Gesellschaftliche Interessen und politische Entscheidungen, Baden-Baden, 11-20.
- KREPINEVICH, ANDREW F. 1992: The Military-Technical Revolution: A Preliminary Assessment, Reprint 2002, Center for Strategic and Budgetary Assessments, Washington.
- KREPINEVICH, ANDREW F. 1993: Assessing the Bottom-Up Review, in: Joint Force Quarterly 3, 22-24.
- KREPINEVICH, ANDREW F. 1994: Cavalry to Computer. The Pattern of Military Revolutions, in: The National Interest 37, 30-42.
- Krepinevich, Andrew F. 1999: Why No Transformation?, in: Joint Force Quarterly 20, 97-101.
- KREPINEVICH, ANDREW F. 2005: How to Win in Iraq, in: Foreign Affairs 84: 5, 87-104.
- Krepinevich, Andrew F. 2008: An Army at the Crossroads, CSBA, Washington.
- KRETCHIK, WALTER E. 2001: Peering through the Mist: Doctrine as a Guide For U.S. Army Operations, 1775-2000, Dissertation, University of Kansas.
- KRIESBERG, LOUIS/MURRAY, HARRY/KLEIN, ROSS A. 1982: Elites and Increased Public Support for U.S. Military Spending, in: Journal of Political and Military Sociology 10: 2, 275-297.
- KRIESBERG, MARTIN 1949: Dark Areas of Ignorance, in: Markel, Lester (Ed.): Public Opinion and Foreign Policy, New York, 49-64.
- KRISTOL, IRVING 2003: The Neoconservative Persuasion, in: The Weekly Standard, 25.08.2003.
- KRISTOL, WILLIAM/KAGAN, ROBERT 1996: Toward a Neo-Reaganite Foreign Policy, in: Foreign Affairs 75: 4, 18-32.
- KRISTOL, WILLIAM/KAGAN, ROBERT 2004: National Interest and Global Responsibility, in: Stelzer, Irwin (Ed.): Neoconservatism, London, 55-74.

- KROCK, ARTHUR 1951: Congress Claims Voice in Troop Commitments, in: New York Times, 07.01.1951.
- KRULAK, CHARLES 1999: Operational Maneuver from the Sea, in: Joint Force Quarterly 21, 78-86.
- KUEHL, DANIEL T./MILLER, CHARLES E. 1994: Roles, Missions, and Functions: Terms of Debate, in: Joint Force Quarterly 5, 103-105.
- KUGLER, RICHARD L. 2001: The Defense Budget: Meeting Growing Requirements with Constrained Resources, in: Flournoy, Michèle A. (Ed.): QDR 2001: Strategy-Driven Choices for America's Security, Washington, 107-136.
- KULL, STEVEN/RAMSAY, CLAY 2000: Elite Misperceptions of U.S. Public Opinion and Foreign Policy, in: Nacos, Brigitte L./Shapiro, Robert Y./Isernia, Pierangelo (Eds.): Decisionmaking in a Glass House: Mass Media, Public Opinion, and American and European Foreign Policy in the 21st Century, Lanham, 95-110.
- KUNZ, VOLKER 2004: Rational Choice, Frankfurt/M.
- KURTH, JAMES R. 1971: A Widening Gyre: The Logic of American Weapons Procurement, in: Public Policy 19: 3, 373-404.
- KURTH, JAMES R. 1973: Aerospace Production Lines and American Defense Spending, in: Rosen, Steven (Eds.): Testing the Theory of the Military-Industrial Complex, Lexington, 135-156.
- KURTH, JAMES R. 1993: The Follow-on Imperative in American Weapons Procurement, 1960-1990, in: Brauer, Jurgen/Chatterji, Manas (Eds.): Economic Issues of Disarmament. Contributions from Peace Economics and Peace Science, New York, 304-321.
- KYDD, ANDREW H. 2008: Methodological Individualism and Rational Choice, in: Reus-Smit, Christian/Snidal, Duncan (Eds.): The Oxford Handbook of International Relations, Oxford, 425-443.
- LABS, ERIC J. 2003: Transforming the Navy's Surface Combatant Force, A CBO Study, Washington.
- LABS, ERIC J. 2006: Options for the Navy's Future Fleet, A CBO Study, Washington.
- LACQUEMENT, RICHARD ARLYNN 2000: Preaching after the Devil's Death: Shaping American Military Capabilities in the Post-Cold War Era, Princeton University.
- LAFFONT, JEAN-JACQUES (ED.) 2003: The Principal Agent Model: The Economic Theory of Incentives, Cheltenham.
- LAFFONT, JEAN-JACQUES/MARTIMORT, DAVID 2002: The Theory of Incentives: The Principal-Agent Model, Princeton.
- LAKE, ANTHONY 1993: From Containment to Enlargement, Speech delivered at Johns Hopkins University, Washington, September 21, 1993, in: Vital Speeches of the Day 60: 1, 13-19.
- LAKE, DAVID 1992: Powerful Pacifists: Democratic States and War, in: American Political Science Review 86: 1, 24-37.
- LAMBETH, BENJAMIN S. 2005: American Carrier Air Power at the Dawn of a New Century, Santa Monica.

- LANCASTER, JOHN 1991: Cheney Says Hill Hampers Troop Cuts, in: Washington Post, 26.10.1991.
- LANCASTER, JOHN 1992: Hill Takes Aim on Duplication in Military Services, in: Washington Post, 08.08.1992.
- LANCASTER, JOHN 1993a: Navy Plans Cutback of 117 Ships, in: Washington Post, 08.05.1993.
- LANCASTER, JOHN 1993b: Army Challenges Clinton Defense Cuts as Security Threat, in: Washington Post, 13.11.1993.
- LANCASTER, JOHN 1993c: Aspin Says 5-Year Strategy Requires \$50 Billion More, in: Washington Post, 11.12.1993.
- LANCASTER, JOHN/DEVROY, ANN 1993: Clinton's Gay Ban Policy Crystallizes; Compromise Likely to Place Pentagon's Concerns Above Activists', in: Washington Post, 24.06.1993.
- LANCASTER, JOHN/GELLMAN, BARTON 1993: \$88 Billion in Defense Cuts Planned, in: Washington Post, 18.02.1993.
- LANDAY, JONATHAN S. 1995: Political Futures, Jobs Hand On Defense Budget Choices, in: Christian Science Monitor, 12.09.1995.
- LANDAY, JONATHAN S. 1997: Reservists Buck Military Plan to Downsize Their Ranks, in: Christian Science Monitor, 02.06.1997.
- Langer, Gary 2008: ABC News/Washington Post Poll: Bush's Final Year: A New Low in Approval Starts Bush's Final Year, http://abcnews.go.com/images/PollingUnit/1057a2BushFinalYear.pdf; 05.08.2009.
- LARSON, ERIC V./ORLETSKY, DAVID T./LEUSCHNER, KRISTIN 2001: Defense Planning in a Decade of Change. Lessons from the Base Force, Bottom-Up Review, and Quadrennial Defense Review. Santa Monica.
- LAZAROWITZ, ARLENE 1999: Finletter, Thomas Knight, in: Garraty, John A./Carnes, Mark C. (Eds.): American National Biography, Volume 7, New York, 926-927.
- LEAL, DAVID L. 2005: American Public Opinion toward the Military: Differences by Race, Gender, and Class?, in: Armed Forces and Society 32: 1, 123-138.
- LEDERMAN, GORDON N. 1999: Reorganizing the Joint Chiefs of Staff: The Goldwater-Nichols Act of 1986, Westport.
- LEEBAERT, DEREK 2003: The Fifty-Year Wound. How America's Cold War Victory Shapes Our World, Boston.
- LEFFLER, MELVYN P. 1992: A Preponderance of Power: National Security, the Truman Administration, and the Cold War, Standford.
- LEIGHTON, RICHARD M. 2001: History of the Office of the Secretary of Defense. Volume III. Strategy, Money, and the New Look 1953-1956, Washington.
- LELOUP, LANCE T. 1993: The Fiscal Straitjacket: Budgetary Constraints on Congressional Foreign and Defense Policy-Making, in: Ripley, Randall B./Lindsay, James M. (Eds.): Congress Resurgent: Foreign and Defense Policy on Capitol Hill, Ann Arbor, 37-66.
- LEMANN, NICHOLAS 2001: Dreaming About War, in: The New Yorker, 16.07.2001.

- LERCHE, CHARLES O. 1964: The Uncertain South: Its Changing Patterns of Politics in Foreign Policy, Chicago.
- LESLIE, STUART W. 1993: The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford, New York.
- LEVIERO, ANTHONY 1955: Army Is Top Military Force of U.S., It States in Manual, in: New York Times, 04.01.1955.
- LEVINE, EDWARD P. 1973: Methodological Problems in Research on the Military-Industrial Complex, in: Rosen, Steven (Ed.): Testing the Theory of the Military-Industrial Complex, Lexington, 291-307.
- LEWIS, LESLIE/ROLL, ROBERT/MAYER, JOHN D. 1992: Assessing the Structure and Mix of Future Active and Reserve Forces: Assessment of Policies and Practices for Implementing the Total Force Policy, Santa Monica.
- LIJPHART, AREND 1971: Comparative Politics and the Comparative Method, in: American Political Science Review 65: 3, 682-693.
- LINDSAY, JAMES M. 1994: Congress and the Politics of U.S. Foreign Policy, Baltimore.
- LINK, CHARLES 1996: 21st Century Armed Forces Joint Vision 2010, in: Joint Force Quarterly 13.
- LINN, BRIAN MCALLISTER 2007: The Echo of Battle: The Army's Way of War, Cambridge.
- LIOTTA, P.H. 2002: Chaos as Strategy, in: Parameters 32 (Summer), 47-56.
- LIPPMANN, WALTER 1925: The Phantom Public, New York.
- LIPPMANN, WALTER 1961: Public Opinion, 2nd Edition, New York.
- Lo, Clarence Y. H. 1982: Theories of the State and Business Opposition to Increased Military Spending, in: Social Problems 29: 4, 424-438.
- LOCKETT, EDWARD B. 1951: 'There is no other way but strength', in: New York Times, 23.09.1951.
- LOEB, VERNON 2002: Fate of Army Chopper on the Block, in: Washington Post, 31.08.2002.
- LOEB, VERNON 2003a: Pentagon Plan Seeks Annual Budget Boost Of \$20 Billion, in: Washington Post, 31.01.2003.
- LOEB, VERNON 2003b: As Military Spending Boom, Budget Debate Looms, in: Washington Post, 16.02.2003.
- LOEB, VERNON 2003c: Cost of War Remains Unanswered Question, in: Washington Post, 01.03.2003.
- Long, Austin 2009: The Marine Corps: Sticking to its guns, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 119-135.
- LONG, DUNCAN/JOHNSON, STUART 2007: The Littoral Combat Ship: From Concept to Program, Case Studies in Defense Transformation, Number 7, Washington.
- LOVELACE, DOUGLAS/YOUNG, THOMAS-DURELL 1996: Joint Doctrine Development: Overcoming a Legacy, in: Joint Force Quarterly 14.
- LOWNDES, JOSEPH E. 2008: From the New Deal to the New Right: Race and the Southern Origins of Modern Conservatism, New Haven.

- LUTTWAK, EDWARD N. 1985: The Pentagon and the Art of War: The Question of Military Reform, New York.
- LUTTWAK, EDWARD N. 1996: A Post-Heroic Military Policy, in: Foreign Affairs 75: 4, 33-44.
- LYNN, JOHN A. 2001: Reflections on the History and Theory of Military Innovation and Diffusion, in: Elman, Colin/Elman, Miriam Fendius (Eds.): Bridges and Boundaries: Historians, Political Scientists, and the Study of International Relations, Cambridge, 359-382.
- LYNN, JOHN A. 2003: Battle. A History of Combat and Culture, Boulder.
- LYNN-JONES, SEAN M. 1995: Offense-Defense Theory and its Critics, in: Security Studies 4: 4, 660-691.
- MACFARLANE, NEIL S. 2002: Intervention in Contemporary World Politics, International Institute for Strategic Studies Adelphi Papers 42: 350.
- MACGREGOR, DOUGLAS A. 1997: Breaking the Phalanx: A New Design for Landpower in the 21st Century, Westport.
- MACGREGOR, DOUGLAS A. 2000: The Joint Force: A Decade, No Progress, in: Joint Force Quarterly 27, 18-23.
- MACGREGOR, DOUGLAS A. 2002: Transforming Jointly, in: Binnendijk, Hans (Ed.): Transforming America's Military, Washington, http://www.au.af.mil/au/awc/awcgate/ndu/tam/01_toc.htm; 10.05.2010.
- MACGREGOR, DOUGLAS A. 2003: Transformation Under Fire: Revolutionizing How America Fights, Westport.
- MADDOX, ROBERT JAMES 1988: From War to Cold War: The Education of Harry S. Truman, Boulder.
- MADDRELL, DEBRA O. 2003: Quiet Transformation: The Role of the Office of Net Assessment, National War College, Washington.
- MAHON, JOHN K. 1983: History of the Militia and the National Guard, New York.
- MAOZ, ZEEV 1998: Realist and cultural critiques of the democratic peace: A theoretical and empirical re-assessment, in: International Interactions 24: 1, 3-89.
- MARKOFF, JOHN 1994: New Defense Secretary Puts High-Tech Expertise to Use, in: New York Times, 05.02.1994.
- MARKUSEN, ANN 1992: Department of the Peace Dividend, in: New York Times, 18.05.1992.
- MARKUSEN, ANN 1993a: Structural Barriers to Converting the US Economy, in: Brauer, Jürgen/Chatterji, Manas (Eds.): Economic Issues of Disarmament: Contributions from Peace Economics and Peace Science, New York, 111-136.
- MARKUSEN, ANN 1993b: Bring Back the Old Les Aspin, in: New York Times, 18.09.1993.
- MARKUSEN, ANN/CAMPBELL, SCOTT/HALL, PETER/DEITRICK, SABINA 1991: The Rise of the Gunbelt: The Military Remapping of Industrial America, New York.
- MARSHALL, A.W./MECKLING, W.H. 1959: Predictability of the Costs, Time, and Success of Development, Santa Monica.
- MARSHALL, DONALD S. 1993: Doctrine, in: Dupuy, Trevor (Ed.): International Military and Defense Encyclopedia, Volume 2, C-F, Washington, 773-775.

- MASTANDUNO, MICHAEL 1997: Preserving the Unipolar Moment: Realist Theories and U.S. Grand Strategy after the Cold War, in: International Security 21: 4, 49-88.
- MATTHEWS, GEOFFREY 1982: Robert A. Taft, The Constitution and American Foreign Policy, 1939-53, in: Journal of Contemporary History 17: 3, 507-522.
- MAY, CLIFFORD D. 1989: L.I. Starts A Dogfight In Congress To Save F-14, in: New York Times, 09.05.1989.
- MAY, ERNEST R. 1990: Cold War and Defense, in: Neilson, Keith/Haycock, Ronald (Eds.): The Cold War and Defense, New York, 7-73.
- MAYER, KENNETH R. 1992: Elections, Business Cycles, and the Timing of Defense Contract Awards in the United States, in: Mintz, Alex (Ed.): The Political Economy of Military Spending in the United States, London, 15-32.
- McCormick, David 1998: The Downsized Warrior. America's Army in Transition, New York.
- MCFARLAND, KEITH D. 1987: The 1949 Revolt of the Admirals, in: Matthews, Lloyd J./Brown, Dale E./Luttwak, Edward N. (Eds.): The Parameters of War: Military History from the Journal of the U.S. Army War College, Washington, 149-163.
- MCFARLAND, LINDA 2001: Cold War Strategist: Stuart Symington and the Search for National Security, Westport.
- MCGUIRE, MARTIN 1977: A quantitative study of the strategic arms race in the missile age, in: Review of Economics and Statistics 59: 3, 328-339.
- MCINTYRE, DAVID H. 1999: Taming the Electric Chameleon: War, Offense-Defense-Theory, and the Revolution in Military Affairs, Rochester.
- MCKAY, DAVID 2009: American Politics and Society, 7th Ed., Chichester.
- MCNAUGHER, THOMAS L. 1987: Weapons Procurement: The Futility of Reform, in: International Security 12: 2, 63-104.
- McNaugher, Thomas L. 1989: New Weapons Old Politics: America's Military Procurement Muddle, Washington.
- MEARSHEIMER, JOHN J. 2003: The Tragedy of Great Power Politics, New York.
- MEDICK, MONIKA 1973: Das Konzept des "Military-Industrial Complex" und das Problem einer Theorie demokratischer Kontrolle, in: Politische Vierteljahresschrift 14: 4, 499-526.
- MERLE, RENAE 2004: Army Scraps \$39 Billion Helicopter, in: Washington Post, 24.02.2004.
- MERLE, RENAE 2005: Military Jet Faces A Fight to Fit In: Changing Defense Needs Likely to Limit F/A-22 Raptor Production, in: Washington Post, 19.04.2005.
- MERLE, RENAE 2006: Pentagon budget 'a Great Surprise', in: Washington Post, 10.02.2006.
- MERLE, RENAE 2007: A Combat Mission Two Decades in the Making, in: Washington Post, 14.04.2007.
- METZ, STEVEN 2000: American Strategy: Issues and Alternatives for the Quadrennial Defense Review, Strategic Studies Institute, Carlisle.
- METZ, STEVEN 2005: Small Wars: From Low Intensity Conflict to Irregular Challenges, in: Mc Ivor, Anthony D. (Ed.): Rethinking the Principles of War, Annapolis, 279-298.

- MEYER, EDWARD C. 1994: Defense Science Board Task Force on Readiness: Final Report, Washington.
- MIDGLEY, JOHN 1986: Deadly Illusions. Army Policy for the Nuclear Battlefield, Boulder.
- MILLER, WARREN E./STOKES, DONALD E. 1963: Constituency Influence in Congress, in: American Political Science Review 57: 1, 45-56.
- MILLETT, ALLAN R. 1991: Semper Fidelis: The History of the United States Marine Corps, Revised and Expanded Edition, New York.
- MILLETT, ALLAN R./MASLOWSKI, PETER 1984: For the Common Defense. A Military History of the United States of America, New York.
- MILLIS, WALTER 1958: Arms and the State. Civil-Military Elements in National Policy, New York.
- MINTZ, ALEX/HUANG, CHI 1991: Guns versus Butter: The Indirect Link, in: American Journal of Political Science 35: 3, 738-757.
- MISCAMBLE, WILSON D. 1992: George F. Kennan and the Making of American Foreign Policy, 1947-1950, Princeton.
- MITCHELL, PAUL T. 1999: Ideas, Interests, and Strategy: Bureaucratic Politics and the United States Navy, in: Armes Forces & Society 25: 2, 243-265.
- MODELSKI, GEORGE 1980: The Theory of Long Cycles and U.S. Strategic Policy, in: Harkavy, Robert/Kolodziej, Edward A. (Eds.): American Security Policy and Policy-Making: The Dilemmas of Using and Controlling Military Force, Lexington, 3-19.
- MOENS, ALEXANDER 2004: The Foreign Policy of George W. Bush: Values, Strategy, and Loyalty, Aldershot.
- MONTGOMERY, DAVE 2006: Shallow Water, Deeper Strength; Navy's First Littoral Combat Ship is Designed for Unconventional Threats, in: Washington Post, 01.10.2006.
- MOORE, DAVID W. 2006: Public Divided on Defense Spending: Plurality satisfied, rest lean toward saying "too much", in: Gallup Poll Briefing, 02.03.2006.
- MOORE, MIKE 1995: So where's the peace dividend?, in: Bulletin of the Atomic Scientists 51: 5, 30-31.
- MOORE, MOLLY 1989a: Cheney, Aspin Rebuffed on 2 Projects, in: Washington Post, 29.06.1989.
- MOORE, MOLLY 1989b: B-2: From Classified Project to TV Star, in: Washington Post, 23.07.1989.
- MOORE, MOLLY 1990a: Troops, Arms Cut Modestly; Strategic Spending Up, in: Washington Post, 30.01.1990
- MOORE, MOLLY 1990b: Tensions Grow Between Hill, Pentagon Over Reshaping Forces, in: Washington Post, 16.06.1990.
- MOORE, MOLLY/TYLER, PATRICK E. 1990a: Secretary Cheney; Still the Skeptic; Grim View Complicates Task of 'Building Down' Defense, in Washington Post, 21.03.1990.
- MOORE, MOLLY/TYLER, PATRICK E. 1990b: Cheney Suggests \$34 billion in Aircraft Program Cuts, in: Washington Post, 27.04.1990.
- MORAVCSIK, ANDREW 1993: Introduction: Integrating International and Domestic Theories of International Bargaining, in: Evans, Peter B./Jacobson, Harold K./Putnam, Robert D.

- (Eds.): Double-Edged Diplomacy: International Bargaining and Domestic Politics, Berkley, 3-42.
- MORAVCSIK, ANDREW 1997: Taking Preferences Seriously: A Liberal Theory of International Politics, in: International Organization 51: 4, 513-533.
- MORAVCSIK, ANDREW 2003: Liberal International Relations Theory. A Scientific Assessment, in: Elman, Colin/Elman, Miriam Fendius (Eds.): Progress in International Relations Theory: Appraising the Field, Cambridge, 159-204.
- MORAVCSIK, ANDREW 2008: The New Liberalism, in: Reus-Smit, Christian/Snidal, Duncan (Eds.): The Oxford Handbook of International Relations, Oxford, 234-254.
- MORGAN, DAN 1990: Democrats Debate Priorities While Trying to Cut Defense, in: Washington Post 04.03.1990.
- MORGAN, DAN 1991: Pentagon Request Is First Step Toward Downsized, Post-Cold War Military, in: Washington Post, 05.02.1991.
- MORGAN, DAN 1995: Conferees Set Budget For Defense, in: Washington Post, 23.09.1995.
- MORGAN, DAN 2002: Hill Conferees Agree On 2003 Defense Bill; Measure Would Allocate \$355 Billion, in: Washington Post, 10.10.2002.
- MORGAN, DAN 2003: Proposed Ship Speeds Into Gathering Storm, in: Washington Post, 06.07.2003.
- MORGAN, DAN 2004: House Passes \$447 Billion Defense Bill; Legislation Would Add 39,000 Troops, in: Washington Post, 21.05.2004.
- MORGAN, DAN/EILPERIN, JULIET 1999: Mississippi Awash In Federal Largess; Lawmakers Keep the Dollary Flowing, in: Washington Post, 9.11.1999.
- MORGAN, DAN/PINCUS, WALTER 2003: High Cost of Defense Plan Gets Little Discussion; Lawmakers of Both Parties Praise \$400 Billion Package, Focus on Non-Financial Issues, in: Washington Post, 26.05.2003.
- MORGAN, PATRICK 2000: The Impact of the Revolution in Military Affairs, in: The Journal of Strategic Studies 23: 1, 132-162.
- MORRIS, JOHN D. 1952: Truman Fund Plea Finds Capitol Cool, in: New York Times, 20.04.1952.
- MORRISON, DAVID C. 1993: How Many Carriers Are Enough?, in: National Journal 25: 36, 2162.
- MORRISON, DAVID C. 1994: Bottoming Out?, in: National Journal 26: 38, 2126-2130.
- MORRISON, DAVID C. 1995: Defense Deadlock, in: National Journal 27: 5, 276-280.
- MOSHER, DAVID 2001: The Hunt for Small Potatoes: Savings in Nuclear Deterrence Forces, in: Williams, Cindy (Ed.): Holding the Line: U.S. Defense Alternatives for the Early 21st Century, Cambridge, 119-140.
- MOWBRAY, JAMES A. 1995: Air Force Doctrine Problems: 1926-Present, in: Airpower Journal 9: 4, 1-17.
- MUELLER, JOHN E. 1971: Trends in Popular Support for the Wars in Korea and Vietnam, in: American Political Science Review 65: 2, 358-375.

- MÜLLER, ERWIN 1985: Rüstungspolitik und Rüstungsdynamik: Fall USA. Zur Analyse der Rüstungsmotive einer Weltmacht und zur Theorie moderner Rüstungsdynamik, Baden-Baden.
- MÜLLER, ERWIN 1991: Rüstungstechnologische Innovationen: Überzeitliche Prinzipien und Strukturkonstanten von Waffenentwicklung, Rüstungsmodernisierung und Rüstungsdynamik, in: Müller, Erwin/Neuneck, Götz (Eds.): Rüstungsmodernisierung und Rüstungskontrolle. Neue Technologien, Rüstungsdynamik und Stabilität, Baden-Baden, 15-43.
- MÜLLER, HARALD/SCHÖRNIG, NIKLAS 2001: "Revolution in Military Affairs". Abgesang kooperativer Sicherheitspolitik der Demokratien?, HSFK-Report 8/2001, Frankfurt/M.
- MÜLLER, HARALD/SCHÖRNIG, NIKLAS 2006: Rüstungsdynamik und Rüstungskontrolle. Eine exemplarische Einführung in die Internationalen Beziehungen, Baden-Baden.
- MUNOZ, CARLO 2007: JFCOM Chief Says Training Too Focused on COIN, Irregular Warfare, in: Inside the Air Force, 19.10.2007.
- MURRAY, WILLIAMSON 1997: Thinking About Revolutions in Military Affairs, in: Joint Force Quarterly 16, 69-76.
- MURRAY, WILLIAMSON/KNOX, MACGREGOR 2001: Thinking about revolution in warfare, in: Knox, MacGregor/Murray, Williamson (Eds.): The dynamics of military revolution, 1300-2050, Cambridge, 1-14.
- MUTCH, DAVID 1995: Pentagon Seeks Next Jet Fighter, in: Christian Science Monitor, 03.08.1995.
- MYERS, STEVEN LEE 2001a: Bush Warns Against 'Overdeployment', in: New York Times, 15.02.2001.
- MYERS, STEVEN LEE 2001b: Pentagon Panel Urges Scuttling Howitzer System, in: New York Times, 23.04.2001.
- NAGL, JOHN A. 2007: The Evolution and Importance of Army/Marine Corps Field Manual 3-24, Counterinsurgency, in: US Army/ US Marine Corps: The U.S. Army/Marine Corps Counterinsurgency Field Manuel, Chicago, xiii-xx.
- NARIZNY, KEVIN 2003a: Both Guns and Butter, or Neither: Class Interests in the Political Economy of Rearmament, in: American Political Science Review 97: 2, 203-220.
- NARIZNY, KEVIN 2003b: Taking Preferences Even More Seriously: Recasting Moravcsik's 'Liberal Theory of International Politics', Paper presented at the annual meeting of the International Studies Association 48th Convention, Chicago.
- NATIONAL DEFENSE PANEL 1997a: Transforming Defense: National Security in the 21st Century. Report of the National Defense Panel, Arlington.
- NATIONAL DEFENSE PANEL 1997b: National Security in the 21st Century: The Challenge of Transformation, in: Joint Force Quarterly 16, 15-19.
- NECC 2010: Navy Expeditionary Combat Command Fact Sheet: NECC Mission, http://www.public.navy.mil/usff/necc/Documents/00019_NECC_FactSheet%20-%20Jan%2010.pdf; 05.05.2010.
- NELSON, ANNA KASTEN 1981: National Security I: Inventing the Process (1945-1960), in: Heclo, Hugh/Salamon, Lester M. (Eds.): The Illusion of Presidential Government, Boulder, 229-262.

- NEUFELD, JACOB 1990: The Development of Ballistic Missiles in the United States Air Force 1945-1960, Washington.
- NEW YORK TIMES 1945a: We Can Lose the Peace, in: New York Times, 25.09.1945.
- NEW YORK TIMES 1945b: World's Top Navy Voted By the House, in: New York Times, 31.10.1945.
- NEW YORK TIMES 1948a: Navy Denies Plan to Usurp Bombing, in: New York Times, 06.02.1948.
- NEW YORK TIMES 1948b: Truman Planning on Basis of Peace, in: New York Times, 31.03.1948.
- NEW YORK TIMES 1950: Universal Service Urged at Pentagon, in: New York Times, 14.12.1950.
- NEW YORK TIMES 1951a: Text of Committee's Statement, in: New York Times, 08.01.1951.
- NEW YORK TIMES 1951b: Parents Hit Move for a Draft at 18, in: New York Times, 14.01.1951.
- NEW YORK TIMES 1951c: Taft Says Truman Spurs Aggression, in: New York Times 13.04.1951.
- NEW YORK TIMES 1951d: U.S. Chamber Sees A Spending Danger, in: New York Times, 30.04.1951.
- NEW YORK TIMES 1952: 46 Billion Cleared for Armed Forces, in: New York Times, 11.07.1952.
- NEW YORK TIMES 1953a: Eisenhower Trims '54 Defense Budget by \$5,244,000,000, in: New York Times, 08.05.1953.
- NEW YORK TIMES 1953b: New Defense Plan Stirs Opposition, in: New York Times, 14.06.1953.
- NEW YORK TIMES 1953c: Vinson Excelled in Federal Posts, in: New York Times, 09.09.1953.
- NEW YORK TIMES 1953d: Radford Stresses Supremacy in Air, in: New York Times, 15.12.1953.
- NEW YORK TIMES 1954: Democrats Criticize New Defense Plan, in: New York Times, 23.01.1954.
- NEW YORK TIMES 1990a: Where the Budget Agreement Would Be Felt the Most, in: New York Times, 01.10.1990.
- NEW YORK TIMES 1990b: The Peace Dividend, Unredeemed, in: New York Times, 17.11.1990.
- NEW YORK TIMES 1991: This Fighter Will Bust the Budget, in: New York Times, 29.04.1991.
- NEW YORK TIMES 1992: Excerpts From Pentagon's Plan: 'Prevent the Re-Emergence of a New Rival', in: New York Times, 08.03.1992.
- NEW YORK TIMES 1993: The Price of Protecting Pentagon Turf, in: New York Times, 22.02.1993.
- NEW YORK TIMES 2006: Rumsfeld' Departure, in: New York Times, 09.11.2006.
- NEWBOLD, GREG 2006: Why Iraq Was a Mistake, in: Time, 09.04.2006.

- NIEMI, RICHARD G./MUELLER, JOHN/SMITH, TOM W. 1989: Trends in Public Opinion: A Compendium of Survey Data, New York.
- NIMITZ, CHESTER W. 1948: Who Commands Sea Commands Trade, http://www.history.navy.mil/library/special/employ_naval_forces.htm; 15.07.2010.
- NISKANEN, WILLIAM A. 1971: Bureaucracy and Representative Government, Chicago.
- NITZE, PAUL 1980: The Development of NSC 68, in: International Security 4:4, 170-176.
- NJØLSTAD, OLAV 1990: Learning from History? Case Studies and the Limits to Theory-Building, in: Gleditsch, Nils Petter/Njølstad, Olav (Eds.): Arms Races. Technological and Political Dynamics, London, 220-246.
- NORMAN, LLOYD 1949: Disunity on Defense Held Peril to U.S., in: Chicago Daily Tribune, 01.05.1949.
- NORRIS, JOHN G. 1948: Air Power Sentiment Rises on Hill, in: Washington Post, 08.04.1948.
- NORRIS, JOHN G. 1949: Air Power Advocates Ready To Fight for 70-Group Force, in: Washington Post, 11.01.1949.
- NORRIS, JOHN G. 1950a: Air Force to Retain Present Manpower; Cut in Army Stands; Navy to Shrink More, in: Washington Post, 04.01.1950
- NORRIS, JOHN G. 1950b: Truman Backs Johnson Policy, Upholds Defense Funds Cut, in: Washington Post, 03.03.1950.
- NORRIS, JOHN G. 1950c: White House For Vast Tank Building Plan, in: Washington Post, 30.08.1950.
- NORRIS, JOHN G. 1950d: Army to Run Big Combat Helicopters, in: Washington Post, 21.10.1950.
- NORRIS, JOHN G. 1951: Army Wins Victory in Fight To Control Tactical Aviation, in: Washington Post, 05.11.1951.
- NORRIS, JOHN G. 1952: Arms Budget Trimmed for a Long Haul, in: Washington Post, 03.02.1952.
- NORRIS, JOHN G. 1953a: Air Force Reduction Hit, Praised on Hill, in: Washington Post, 09.05.1953.
- NORRIS, JOHN G. 1953b: Vandenberg Says AF Cutback Threatens A-Bombing Power, in: Washington Post, 06.06.1953.
- NORRIS, JOHN G. 1953c: Cut of 10% Ordered in U.S. Forces, in: Washington Post, 09.12.1953.
- NORRIS, JOHN G. 1954: Army Unveils New Artillery A-Rocket, in: Washington Post, 14.07.1954.
- NSC 1950: NSC 68. A report to the National Security Council by the Executive Secretary on United States Objectives and Programs of National Security, in: Naval War College Review (1975) 27: 6, 51-108.
- NUNN, SAM 1996: Future Trends in Defense Organization, in: Joint Force Quarterly 13.
- O'HANLON, MICHAEL E. 1995: Defense Planning for the Late 1990s: Beyond the Desert Storm Framework, Washington.

- O'HANLON, MICHAEL E. 1997: The Pentagon's Quadrennial Defense Review, Brookings Policy Brief 16, Washington.
- O'HANLON, MICHAEL E. 1998: Beware the "RMA'nia!", Paper presented at the National Defense University, September 1998, http://www.brookings.edu/papers/1998/0909defense_ohanlon.aspx; 15.04.2008.
- O'HANLON, MICHAEL E. 2001: Modernizing and Transforming U.S. Forces: Alternative Paths to the Force of Tomorrow, in: Flournoy, Michèle A. (Ed.): QDR 2001: Strategy-Driven Choices for America's Security, Washington, 293-318.
- O'HANLON, MICHAEL E. 2002: Defense Policy Choices for the Bush Administration, 2nd Ed., Washington.
- O'HANLON, MICHAEL E. 2003: Clinton's Strong Defense Legacy, in: Foreign Affairs 82: 6, 126-134.
- O'HANLON, MICHAEL E. 2006: Quadrennial Defense Review Resonance, in: Washington Times, 17.02.2006.
- O'HANLON, MICHAEL E. 2007: Transformation Reality Check, in: Armed Forces Journal, March.
- O'KEEFE, SEAN 1994: Planning without a Plan: A Review of the Clinton Defense Budget, in: Hermann, Charles F. (Ed.): American Defense Annual 1994, 9th Edition, New York, 45-63.
- O'NEIL, WILLIAM D. 2002: The Naval Services: Network-Centric Warfare, in: Binnendijk, Hans (Ed.): Transforming America's Military, Washington, 129-158.
- O'REILLY, VICTOR 2003: Stryker Brigades Versus the Reality of War, http://www.globalsecurity.org/military/library/congress/2003_rpt/stryker_reality_of_war.pdf; 10.05.2010.
- O'ROURKE, RONALD 2003: Iraq War: Defense Program Implications for Congress, CRS Report for Congress RL31946, Washington.
- O'ROURKE, RONALD 2009a: Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress, CRS Report for Congress RL32665, Washington.
- O'ROURKE, RONALD 2009b: China Naval Modernization: Implications for U.S. Navy Capabilities Background and Issues for Congress, RL33153, Washington.
- O'ROURKE, RONALD 2010: Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress, CRS Report for Congress RL33741, Washington.
- OBERDORFER, DON 1988: A Bush Foreign Policy; Style, Priorities Said to Differ From Reagan's, in: Washington Post, 26.10.1988.
- OFFICE OF FORCE TRANSFORMATION 2005: The Implementation of Network-Centric Warfare, Washington.
- OFFICE OF TECHNOLOGY ASSESSMENT 1992: After the Cold War: Living with Lower Defense Spending, Washington.
- OLLIVANT, DOUGLAS A. 2008: Review of the new US Army/Marine Corps Counterinsurgency Field Manuel, in: Perspectives on Politics 6: 2, 357-360.
- OMB 2008: Historical Tables: Budget of the United States Government, Fiscal Year 2009, Washington.

- OMB 2010: Historical Tables: Budget of the United States Government, Fiscal Year 2011, Washington.
- OSD 1995: National Defense Budget Estimates for FY 1996, Office of the Under Secretary of Defense (Comptroller), Washington.
- OSD 2005a: National Defense Budget Estimates for FY 2006, Office of the Under Secretary of Defense (Comptroller), Washington.
- OSD 2005b: Unmanned Aircraft Systems Roadmap 2005-2030, Washington.
- OSD 2008: National Defense Budget Estimates for FY 2009, Washington.
- OWENS, WILLIAM A. 1995: The American Revolution in Military Affairs, in: Joint Force Quarterly 10, 37-38.
- OWENS, WILLIAM A. 2000: Lifting the Fog of War, Baltimore.
- OWENS, WILLIAM A. 2002: Creating a U.S. Military Revolution, in: Farrell, Theo/Terriff, Terry (Eds.): The Sources of Military Change. Culture, Politics, Technology, London, 205-219.
- PACKER, GEORGE 2005: The Assassins' Gate: America in Iraq, New York.
- PAGE, BENJAMIN I./BOUTON, MARSHALL M. 2006: The Foreign Policy Disconnect: What Americans Want from Our Leaders but Don't Get, Chicago.
- PAGE, BENJAMIN I./SHAPIRO, ROBERT Y. 1992: The Rational Public: Fifty Years of Trends in Americans' Policy Preferences, Chicago.
- PALMER, MICHAEL A. 1988: Origins of the Maritime Strategy: The Development of American Naval Strategy 1945-1955, Washington.
- PANAGOPOULOS, COSTAS 2006: The Polls: Public Opinion and Secretary of Defense Donald Rumsfeld, in: Presidential Studies Quarterly 36: 1, 117-126.
- PANEL ON ROLES AND MISSIONS 2008: Initial Perspectives, House Armed Services Committee, Washington.
- PARKER, GEOFFREY 1996: The Military Revolution. Military innovation and the rise of the West, 1500-1800, Cambridge.
- PARRISH, NOEL FRANCIS 1968: Behind the Sheltering Bomb: Military Indecision form Alamogordo to Korea, Dissertation, Rice University.
- PARROTT, LINDESAY 1950: Foe is Regrouping, in: New York Times, 06.07.1950.
- PASZTOR, ANDY 1991: Pentagon Drafting Plans to Restrict Army Reserve Use, in: Wall Street Journal, 07.01.1991.
- PASZTOR, ANDY 1992: The Pentagon's Turf Wars, in: Wall Street Journal, 17.09.1992.
- PEAR, ROBERT 2006: Bush Policies Are Weakening National Guard, Governors Say, in: New York Times, 27.02.2006.
- PEARLSTEIN, STEVEN 1992: Putting Off Tough Choices on Weapons, in: Washington Post, 07.10.1992.
- PEARSON, RICHARD 1995: Former Defense Secretary Les Aspin Dies at 56, in: Washington Post, 22.05.1995.
- PECK, MERTON/SCHERER, F.M. 1962: The Weapons Acquisition Process: An Economic Analysis, Boston.

- PECK, MERTON/SCHERER, F.M. 1968: Weapons Acquisition and Public Policy, in: Mansfield, Edwin (Ed.): Defense, Science, and Public Policy, New York, 132-144.
- PECK, MICHAEL 2003: Marines Sketch 'Expeditionary Maneuver Warfare' Scenarios, in: National Defense Magazine, October 2003.
- PENDLEY, WILLIAM T. 2008: The New Maritime Strategy: A Lost Opportunity, in: Naval War College Review 61: 2, 60-68.
- PERLEZ, JANE 2001: Bush Team's Counsel Is Divided on Foreign Policy, in: New York Times, 27.03.2001.
- PEROFF, KATHLEEN/PODOLAK-WARREN, MARGARET 1979: Does Spending on Defence Cut Spending on Health? A Time-Series Analysis of the U.S. Economy 1929-74, in: British Journal of Political Science 9: 1, 21-39.
- PERRY, WILLIAM J. 1991: Desert Storm and Deterrence, in: Foreign Affairs 70: 4, 66-82.
- PERRY, WILLIAM J. 1994: Military Action: When to Use It and How to Ensure Its Effectiveness, in: Nolan, Janne E. (Ed.): Global Engagement: Cooperation and Security in the 21st Century, Washington, 235-241.
- PERRY, WILLIAM J. 1995: Annual Report to the President and the Congress, Washington.
- PERRY, WILLIAM J. 1996: Annual Report to the President and the Congress, Washington.
- PETERS, RALPH 2003: Shock, Awe and Overconfidence, in: Washington Post, 25.03.2003.
- PETROVA, MARGARITA H. 2008: Curbing the use of indiscriminate weapons: NGO advocacy in militant democracies, in: Evangelista, Matthew/Müller, Harald/Schörnig, Niklas (Eds.): Democracy and Security: Preferences, norms and policy-making, London, 72-101.
- PFALTZGRAFF, ROBERT L./SHULTZ, RICHARD H. (Eds.) 1997: War in the Information Age. New Challenges for U.S. Security Policy, Washington
- PIANIN, ERIC 1992a: House Democratic Leaders Press for Budget Change, in: Washington Post, 06.03.1992.
- PIANIN, ERIC 1992b: Senate Rejects Bid to Cut Military Budget Below Bush Proposal, in: Washington Post, 10.04.1992.
- PIANIN, ERIC 1994: House Defeats Attempt To Cut Defense Budget, in: Washington Post, 11.03.1994.
- PINCUS, WALTER 1998: Cargo Plane With Strings Attached; Congress Funds and Stations C-130s Unwanted by Pentagon, in: Washington Post, 23.07.1998.
- PINCUS, WALTER 2003: Congress Supports Doubling Special Operations Funding; But Senate Panel Concerned About Oversight of Mini-Sub Project, in: Washington Post, 05.06.2003.
- PINCUS, WALTER 2005: Setbacks on Hill for Bunker Buster, in: Washington Post, 14.05.2005.
- PINCUS, WALTER/MORGAN, DAN 2003: Congress Supports Doubling Special Operations Funding; But Senate Panel Concerned About Oversight of Mini-Sub Project, in: Washington Post 05.06.2003.
- PIPA (PROGRAM ON INTERNATIONAL POLICY ATTITUDES) 1996: Americans on Defense Spending A Study of US Public Attitudes: Report of Findings, Washington.

- PIPA (PROGRAM ON INTERNATIONAL POLICY ATTITUDES) 2002: Americans on Defense Spending and the War on Terrorism: A PIPA/Knowledge Networks Poll, Washington.
- PIPA (PROGRAM ON INTERNATIONAL POLICY ATTITUDES) 2003: Americans on Terrorism: Two Years after 9/11, Washington
- PIPA/KN (PROGRAM ON INTERNATIONAL POLICY ATTITUDES/KNOWLEDGE NETWORKS) 2005: The Federal Budget: The Public's Priorities, Washington.
- PNAC 2000: Rebuilding America's Defenses: Strategy, Forces and Resources For a New Century, Washington.
- PODHORETZ, NORMAN 2007: World War IV: The Long Struggle against Islamofascism, New York.
- POGUE, FORREST C. 1987: George C. Marshall: Statesman. 1945-1959, New York.
- POLMAR, NORMAN 2001: The Naval Institute Guide to the Ships and Aircraft of the U.S. Fleet, 17th Ed., Annapolis.
- POLMAR, NORMAN/MOORE, K.J. 2004: Cold War Submarines: The Design and Constructionn of U.S. and Soviet Submarines, Dulles.
- POSEN, BARRY R. 1984: The Sources of Military Doctrine. France, Britain, and Germany between the World Wars, Ithaca.
- POSEN, BARRY R. 2003: Command of the Commons: The Military Foundation of U.S. Hegemony, in: International Security 28: 1, 5-46.
- POTVIN, LISA (ED.) 2009: Practical Financial Management: A Handbook for the Defense Department Financial Manager, 8th Edition, Monterey.
- POWELL, COLIN L. 1995: My American Journey, New York.
- PRAKASH, OM 2009: The Efficacy of "Don't Ask, Don't Tell", in: Joint Force Quarterly 55, 88-94.
- PRIEST, DANA 1995: Extra Pentagon Funds Benefit Senators' States; Panel Members Find Ways to Aid Businesses Back Home, in: Washington Post, 31.07.1995.
- PRIEST, DANA/DEWAR, HELEN 1996: Republican Cohen Equally at Home with Policy and Poesy; Moderate Senator Built Reputation for Independence, in: Washington Post, 06.12.1996.
- PURDUM, TODD S. 1995: Clinton Vetoes Military Bill, in: New York Times, 29.12.1995.
- RAE, NICOL C. 1995: Clinton and the Democratic Party: The 1992 Election and Beyond, in: Grant, Alan (Ed.): Contemporary American Politics, Aldershot, 145-165.
- RASKY, SUSAN F. 1990: Democrats Shift on Military Cutbacks, in: New York Times, 15.03.1990.
- RATHBUN, BRIAN C. 2007: Uncertain about Uncertainty: Understanding the Multiple Meanings of a Crucial Concept in International Relations Theory, in: International Studies Quarterly 51, 533-557.
- RATNAM, GOPAL 2005: Big Programs Survive QDR: U.S. Services Eye Personnel Cuts To Save Weapons, in: Defense News, 12.12.2005.
- RAVENAL, EARL C. 2000: The "Peace Dividend" and the Derivation of U.S. Defense Policy: A Rejoinder to Lawrence J. Korb, "U.S. National Defense Policy in the Post-Cold War World", in: Markusen, Ann (Ed.): America's Peace Dividend, Council on Foreign

- Relations, Columbia International Affairs Online, http://www.ciaonet.org/book/markusen/index.html; 15.03.2010.
- RAY, JAMES LEE 1997: The Democratic Path to Peace, in: Journal of Democracy 8: 2, 49-64.
- READ, ROBYN 2005: Effects-Based Airpower for Small Wars, in: Air and Space Power Journal 19: 1.
- REARDEN, STEVEN L. 1984: History of the Office of the Secretary of Defense. The Formative Years 1947-1950, Washington.
- REICHHARD, GARY W. 1978: Divisions and Dissent: Democrats and Foreign Policy, 1952-1956, in: Political Science Quarterly 93: 1, 51-72.
- REIMER, DENNIS J. 1996: Dominant Maneuver and Precision Engagement, in: Joint Force Quarterly 14.
- REIMER, DENNIS J./FOGLEMAN, RONALD R. 1996: Joint Warfare and the Army-Air Force Team, in: Joint Force Quarterly 11, 9-15.
- REINHARDT, G. C. 1964: Nuclear Weapons and Limited Warfare. A Sketchbook History, Santa Monica.
- REITER, DAN/STAM, ALLAN C. 2002: Democracies at War, Princeton.
- REPASS, DAVID E. 1971: Issue Salience and Party Choice, in: American Political Science Review 65: 2, 389-400.
- REPPY, JUDITH 1980: Military Research and Development: Institutions, Output, and Arms Control, in: Harkavy, Robert/Kolodziej, Edward A. (Eds.): American Security Policy and Policy-Making: The Dilemmas of Using and Controlling Military Force, Lexington, 165-180
- RESTON, JAMES 1952: Eisenhower Asks 'Security' for U.S. and 'Solvency,' too, in: New York Times, 26.09.1952.
- RHODES, EDWARD 1994: Do Bureaucratic Politics Matter? Some Disconfirming Findings form the Case of the U.S. Navy, in: World Politics 47: 1, 1-41.
- RHODES, EDWARD 1999: '...From the Sea' and Back Again, in: Naval War College Review 52: 2, 13-55.
- RICE, CONDOLEEZZA 2000: Promoting the National Interest, in: Foreign Affairs 79: 1, 45-62.
- RICE, DONALD B. 1991: The F-22's Crucial Mission in the 21st Century, in: New York Times, 21.05.1991.
- RICHMAN, ALVIN 1993: The Polls-Poll Trends: American Support for International Involvement, in: Public Opinion Quarterly 57: 2, 264-276.
- RICHMAN, ALVIN 1996: The Polls-Trends: American Support for International Involvement: General and Specific Components of Post-Cold War Changes, in: Public Opinion Quarterly 60: 2, 305-321.
- RICHTER, PAUL 2003: Two-War Strategy Faces Test: Battling North Korea amid Iraq conflict could mean longer fighting and more casualties, in: Los Angeles Times, 13.02.2003.
- RICKS, THOMAS E. 1992: Conferees Clear A Defense Bill Of \$274.3 Billion, in: Wall Street Journal, 02.10.1992.
- RICKS, THOMAS E. 1993: Military Offers Array of Weapons Cuts In Response to Order to Reduce Budgets, in: Wall Street Journal, 10.02.1993.

- RICKS, THOMAS E. 2001a: Rumsfeld, Bush Agendas Overlap Little, in: Washington Post, 11.01.2001.
- RICKS, THOMAS E. 2001b: Pentagon Study May Bring Big Shake-Up. Unconventional Defense Thinker Conducting Review, in: Washington Post, 09.02. 2001.
- RICKS, THOMAS E. 2001c: Rumsfeld on High Wire of Defense Reform. Military Brass, Conservative Lawmakers Are Among Secretive Review's Unexpected Critics, in: Washington Post, 20.03.2001.
- RICKS, THOMAS E. 2001d: Rumsfeld Outlines Defense Overhaul. Reorganization May Alter, Kill Weapons Systems, in: Washington Post, 23.03.2001.
- RICKS, THOMAS E. 2001e: Senate Panel Cool to Defense Plans; Rumsfeld Says 'Tade-Offs' Likely In Implementing New Priorities, in: Washington Post, 22.06.2001.
- RICKS, THOMAS E. 2001f: Review Fractures Pentagon, in: Washington Post, 14.07.2001.
- RICKS, THOMAS E. 2002: Some Top Military Brass Favor Status Quo in Iraq; Containment Seen Less Risky Than Attack, in: Washington Post, 28.07.2002.
- RICKS, THOMAS E. 2003: Air Force's Roche Picked to Head Army; Surprise Decision Is Viewed as Continuation of Rumsfeld's Attempt to Revamp Service, in: Washington Post, 02.05.2003.
- RICKS, THOMAS E. 2004: Dissension Grows In Senior Ranks On War Strategy; U.S. May Be Winning Battles in Iraq But Losing the War, Some Officers Say, in: Washington Post, 09.05.2004.
- RICKS, THOMAS E./WHITE, JOSH 2004: Scope of Change in Military is Ambiguous, in: Washington Post, 01.08.2004.
- RIDGWAY, MATTHEW B. 1956: My Battles in War and Peace, in: The Saturday Evening Post 228: 30, 17-19, 46-48.
- RIELLY, JOHN E. (ED.) 1991: American Public Opinion and U.S. Foreign Policy 1991, Chicago Council on Foreign Relations, Chicago.
- RIELLY, JOHN E. (ED.) 1999: American Public Opinion and U.S. Foreign Policy 1999, Chicago Council on Foreign Relations, Chicago.
- RIPSMAN, NORRIN M. 2009: Neoclassical realism and domestic interest groups, in: Lobell, Steven E./Ripsman, Norrin M./Taliaferro, Jeffrey W. (Eds.): Neoclassical Realism, the State, and Foreign Policy, Cambridge, 170-193.
- RISSE-KAPPEN, THOMAS 1986: Applying Arms Race Theory to NATO's Nuclear Weapons Deployments: A Reply to Matthey Evangelista, in: Bulletin of Peace Proposals 17: 2, 207-213.
- ROBERTS, MICHAEL 1995: The Military Revolution 1560-1660, in: Rogers, Clifford J. (Ed.): The Military Revolution Debate. Readings on the Military Transformation of Early Modern Europe, Boulder, 13-35.
- ROGIN, JOSH 2006: DOD decides to close Office of Force Transformation, in: Federal Computer Week, 04.11.2006.
- ROMAN, PETER J. 1995: Eisenhower and the Missile Gap, Ithaca.
- ROMJUE, JOHN L. 1996: American Army Doctrine for the Post-Cold War, Fort Monroe.

- ROOSEVELT, FRANKLIN DELANO 1940: The Great Arsenal of Democracy, Speech delivered on radio, 29.12. 1940.
- ROSATI, JEREL A. 1981: Developing a Systematic Decision-Making Framework: Bureaucratic Politics in Perspective, in: World Politics 33: 2, 234-252.
- ROSATI, JEREL A. 2000: The Power of Human Cognition in the Study of World Politics, in: International Studies Review 2: 3, 45-75.
- ROSATI, JEREL A. 2001: Ignoring the Essence of Decisionmaking, in: International Studies Review 3: 1, 178-181.
- ROSE, GIDEON 1998: Neoclassical Realism and Theories of Foreign Policy, in: World Politics 51: 1, 144-172.
- ROSE, JOHN P./EVANS, ROBERT M./ESCHELMAN, MARK J./GERBER, JACK/WEBBER, JO-ANN C. 1997: Force XXI: U.S. Army Requirements, Priorities, and Challenges in the Information Age, in: Pfaltzgraff, Robert L./Shultz, Richard H. (Eds.): War in the Information Age. New Challenges for U.S. Security Policy, Washington, 225-239.
- ROSEN, STEPHEN PETER 1991: Winning the Next War: Innovation and the Modern Military, Ithaca.
- ROSEN, STEVEN (ED.) 1973: Testing the Theory of the Military-Industrial Complex, Lexington.
- ROSENBERG, DAVID A. 1978: American Postwar Air Doctrine And Organization: The Navy Experience, in: Hurley, Alfred F./Ehrhart, Robert C. (Eds.): Air Power and Warfare: The Proceedings of the 8th Military History Symposium United States Air Force Academy, Washington, 245-278.
- ROSENBERG, DAVID A. 1979: American Atomic Strategy and the Hydrogen Bomb Decision, in: Journal of American History 66: 1, 62-87.
- ROSENTHAL, ANDREW 1989: Cheney, a Conservative, Is Also a Compromiser, in: New York Times, 12.03.1989.
- ROSS, DAVIS R. B. 1969: Preparing for Ulysses. Politics and Veterans During World War II, New York.
- ROSS, STEVEN T. 1988: American War Plans 1945-1950, New York.
- ROTFELD, ADAM DANIEL 2001: Missile Defense and the ABM Treaty: A Status Report, SIPRI Fact Sheet, Solna.
- ROY, LUDOVIC 2008: Die Außenpolitik von Präsident William Jefferson Clinton, Berlin.
- RUBEL, ROBERT C. 2008: The New Maritime Strategy: The Rest of the Story, in: Naval War College Review 61: 2, 69-78.
- RUMSFELD, DONALD H. 2002: 21st Century Transformation of U.S. Armed Forces, Speech delivered at the National Defense University, Fort McNair, Washington, 31.01.2002.
- RUMSFELD, DONALD H. 2006: Quadrennial Defense Review Report, Washington.
- RUMSFELD, DONALD H. 2011: Known and Unknown: A Memoir, New York.
- RUMSFELD, DONALD H. ET AL. 1998: Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat To the United States, July 15, 1998, Washington.
- RUSSETT, BRUCE M. 1974: The Revolt of the Masses: Public Opinion on Military Expenditures, in: Lovell, John P./Kronenberg, Philip S. (Eds.): New Civil-Military

- Relations: The Agonies of Adjustment to Post-Vietnam Realities, New Brunswick, 57-88.
- RUSSETT, BRUCE M. 1975: The Americans' Retreat from World Power, in: Political Science Quarterly 90: 1, 1-21.
- RUSSETT, BRUCE M. 1982: Defense Expenditure and National Well-being, in: The American Political Science Review 76: 4, 767-777.
- RUST, MICHAEL 1993: In General, an important decision, in: Insight on the News 9: 32, 14-18.
- RUTTENBERG, JIM/MAZZETTI, MARK 2006: Rumsfeld gets robust defense from the president, in: New York Times, 15.04.2006.
- SACK, KEVIN 1997: For the South, G.O.P. Secures Defense Bounty, in: New York Times, 18.11.1997.
- SAGAN, SCOTT D. 1996: Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb, in: International Security 21: 3, 54-86.
- SAMMON, BILL 2003: Bush declares 'victory' in Iraq, in: Washingto Times, 02.05.2003.
- SANDERS, JERRY W. 1983: Peddlers of Crisis: The Committee on the Present Danger and the Politics of Containment, Boston.
- SANGER, DAVID E. 2001: Bush Details Plan to Focus Military on New Weaponry, in: New York Times, 14.02.2001.
- SAPOLSKY, HARVEY M. 1972: The Polaris System Development: Bureaucratic and Programmatic Success in Government, Cambridge.
- SAPOLSKY, HARVEY M. 1979: Academic Science and the Military: The Years since the Second World War, in: Reingold, Nathan (Ed.): The Sciences in the American Context: New Perspectives, Washington, 379-399.
- SAPOLSKY, HARVEY M. 2000: On the Theory of Military Innovation, in: Breakthroughs 9: 1, 35-39.
- SAPOLSKY, HARVEY M./RITTENHOUSE GREEN, BRENDAN/FRIEDMAN, BENJAMIN H. 2009: The missing transformation, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 1-13.
- SAUNDERS, STEPHEN 2001: Jane's Fighting Ships 2001-2002, 104th Ed., Alexandria.
- SAUNDERS, STEPHEN 2007: Jane's Fighting Ships 2007-2008, 110th Ed., Alexandria.
- SCALES, ROBERT H. 1993: Certain Victory: The U.S. Army in the Gulf War, Washington.
- SCALES, ROBERT H. 2001: Future Warfare Anthology, Revised Ed., Carlisle.
- SCARBOROUGH, ROWAN 1991: Hill gets way on defense; \$292 billion Pentagon bill cuts Bush's pet programs, in: Washington Times, 23.11.1991.
- SCARBOROUGH, ROWAN 1993: TOP GUN: After much wrangling, the Navy selected its nest fighter-bomber. But controversy and behind-the-scenes bickering aren't over yet, in: Washington Times, 24.11.1993.
- SCARBOROUGH, ROWAN 1995: Congress unlikely to block troops, in: Washington Times, 28.11.1995.

- SCARBOROUGH, ROWAN 1996: For the bang, brass want bigger bucks, in: Washington Times, 28.03.1996.
- SCARBOROUGH, ROWAN 1998a: 'Peace dividend' apparently paying off; Pentagon budget down dramatically, in: Washington Times, 09.03.1998.
- SCARBOROUGH, ROWAN 1998b: General warns of declining Army; Doubt the ability to fight two wars, in: Washington Times, 10.09.1998.
- SCARBOROUGH, ROWAN 1998c: Clinton considers using leftovers to boost military funding, in: Washington Times, 21.12.1998.
- SCARBOROUGH, ROWAN 2001a: Military blueprint to set big changes, in: Washington Times, 02.04.2001.
- SCARBOROUGH, ROWAN 2001b: Troops-cut plan faces wide opposition; Civilian service secretaries join officers to argue against reduction in forces, in: Washington Times 13.08.2001.
- SCARBOROUGH, ROWAN 2002: Senate shifts Crusader funding, in: Washington Times, 20.06.2002.
- SCARBOROUGH, ROWAN 2004: Rumsfeld's War: The Untold Story of America's Anti-Terrorist Commander, Washington.
- SCARBOROUGH, ROWAN 2005: Unmanned Warfare, in: Washington Times, 08.05.2005.
- SCARBOROUGH, ROWAN 2006: Consensus on Iraq eludes Democrats, in: Washington Times, 15.11.2006.
- SCARBOROUGH, ROWAN 2007: Gates requests 92,000 increase in active forces, in: Washington Times, 12.01.2007.
- SCHARPF, FRITZ W. 2000: Interaktionsformen. Akteurszentrierter Institutionalismus in der Politikforschung, Wiesbaden.
- SCHELLING, THOMAS C. 1966: Arms and Influence, New Haven.
- SCHICK, ALLEN 2003: Bush's Budget Problem, in: Greenstein, Fred I. (Ed.): The George W. Bush Presidency: An Early Assessment, Baltimore, 78-99.
- SCHICK, ALLEN 2007: The Federal Budget: Politics, Policy, Process, 3rd Edition, Washington.
- SCHILLING, WARNER R. 1961: The H-Bomb Decision: How to Decide without Actually Choosing, in: Political Science Quarterly 76: 1, 24-46.
- SCHILLING, WARNER R. 1962: The Politics of National Defense: Fiscal 1950, in: Schilling, Warner R./Hammond, Paul Y./Snyder, Glenn H.: Strategy, Politics, and Defense Budgets, New York, 1-266.
- SCHLIGHT, JOHN 1996: Elwood R. Quesada: Tac Air Comes of Age, in: Frisbee, John: Makers of the United States Air Force, Washington, 177-204.
- SCHMITT, ERIC 1989: U.S. Decision To Curb F-14 Sends a Jolt To Economy, in: New York Times, 30.04.1989.
- SCHMITT, ERIC 1991a: Focus of Clash on Military Budget Is How to Reduce Reserve Forces, in: New York Times, 26.05.1991.
- SCHMITT, ERIC 1991b: A Sharp Senate Debate Over Pact Seen, in: New York Times, 19.07.1991.

- SCHMITT, ERIC 1992a: Pentagon Seeking 140,000 Reduction in Reserve Forces, in: New York Times, 27.03.1992.
- SCHMITT, ERIC 1992b: Congress Getting Cold Feet About Cutting Weapons Programs, in: New York Times, 10.04.1992.
- SCHMITT, ERIC 1993a: Settling in: The Armed Services; Joint Chiefs Fighting Clinton Plan to Allow Homosexuals in Military, in: New York Times, 23.01.1993.
- SCHMITT, ERIC 1993b: Military Likely To Escape Cuts in 1993 Budget, in: New York Times, 27.04.1992.
- SCHMITT, ERIC 1993c: A Job-Oriented Defense: Protecting the Work Place, in: New York Times, 02.09.1993.
- SCHMITT, ERIC 1993d: Pentagon Sees A Greater Role For Reservists, in: New York Times, 03.09.1993.
- SCHMITT, ERIC 1994: Cost-Minded Lawmakers Are Challenging a 2-War Doctrine, in: New York Times, 10.03.1994.
- SCHMITT, ERIC 1995a: Republicans Finding Dissension in Ranks on Military Issues, in: New York Times, 29.01.1995.
- SCHMITT, ERIC 1995b: Deal by Senators Rescues Submarine Industry in Groton, in: New York Times, 30.06.1995.
- SCHMITT, ERIC 1995c: Aircraft Carrier May Give Way to Missile Ship, in: New York Times, 03.09.1995.
- SCHMITT, ERIC 1995d: Guardsmen fight Cuts by Pentagon, in: New York Times, 26.12.1995.
- SCHMITT, ERIC 1996: Man in the News: Chester Trent Lott; A Polished and Pragmatic Ideologue, in: New York Times, 13.06.1996.
- SCHMITT, ERIC 1998: Panel Says U.S. Faces Risk Of a Surprise Missile Attack, in: New York Times, 16.06.1998.
- SCHMITT, ERIC 2003: A Nation at War; Military Aircraft; In the Skies over Iraq, Silent Observers Become Futuristic Weapons, in: New York Times, 18.04.2003.
- SCHMITT, ERIC/CLOUD, DAVID 2005: Part-Times Forces On Active Duty Decline Steeply, in: New York Times, 11.07.2005.
- SCHMITT, GARY J. 1998: American Primacy and the Defense Spending Crisis, in: Joint Forces Quarterly 18, 52-56.
- SCHNABEL, JAMES F. 1996: The Joint Chiefs of Staff and National Policy 1945-1947, History of the Joint Chiefs of Staff, Volume I, Washington.
- SCHNEIDER, GREG 2004: Comanche's Cancellation Brings Layoffs, in: Washington Post, 26.03.2004.
- SCHOOK, STEVEN P. 1997: Paying the Price for Versatility, in: Military Review 77: 5, 19-26.
- SCHÖRNIG, NIKLAS 2007: Theoretisch gut gerüstet? Die amerikanische Rüstungsindustriepolitik der 1990er Jahre aus der IB-Perspektive, Baden-Baden.
- SCHÖRNIG, NIKLAS 2008: Casualty aversion in democratic security provision: procurement and the defense industrial base, in: Evangelista, Matthew/Müller, Harald/Schörnig, Niklas (Eds.): Democracy and Security: Preferences, norms and policy-making, London, 14-35.

- SCHRADER, JOHN Y./LEWIS, LESLIE/BROWN, ROGER A. 1999: Quadrennial Defense Review (QDR) Analysis: A Retrospective Look at Joint Staff Participation, Santa Monica.
- SCROGGS, STEPHEN K. 2000: Army Relations with Congress: Thick Armor, Dull Sword, Slow Horse, Westport.
- SCULLY, MAGAN 2007: Worse Than the Hollow Force, in: Air Force Magazine 90: 7, 50-53.
- SELECTIVE SERVICE SYSTEM 2007: Induction Statistics, http://www.sss.gov/induct.htm; 10.04.2010.
- SENGHAAS, DIETER 1972a: Rüstung und Militarismus, Frankfurt/M.
- SENGHAAS, DIETER 1972b: Aufrüstung durch Rüstungskontrolle. Über den symbolischen Gebrauch von Politik, Stuttgart.
- SENGHAAS, DIETER 1974: Gewalt Konflikt Frieden. Essays zur Friedensforschung, Hamburg.
- SHALIKASHVILI, JOHN M. 1997: National Military Strategy: Shape, Respond, Prepare Now A Military Strategy for a New Era, Washington.
- SHANKER, THOM 2001: Defense Chief May Leave Size of Field Forces Up to Services, in: New York Times, 17.08.2001.
- SHANKER, THOM 2003a: U.S. Considers Limits on Role of the Reserves, in: New York Times, 26.01.2003.
- SHANKER, THOM 2003b: New Armored Vehicle on Path to Approval, in: New York Times, 22.05.2003.
- SHANKER, THOM/CLOUD, DAVID S. 2006: Rumsfeld Shift Lets Army Seek Larger Budget, in: New York Times, 08.10.2006.
- SHANKER, THOM/CLOUD, DAVID S. 2007: Bush's Plan for Iraq Runs Into Opposition in Congress, in: New York Times, 12.01.2007.
- SHANKER, THOM/DAO, JAMES 2002a: Defense Secretary Wants Cuts in Weapons Systems to Pay for New Technologies, in: New York Times, 16.04.2002.
- SHANKER, THOM/DAO, JAMES 2002b: Army Digs In Its Heels and Saves Howitzer Plan, for Now, in: New York Times, 02.05.2002.
- SHANKER, THOM/SCHMITT, ERIC 2002: Joint Chiefs Chairman Is a General but Also a Diplomat, in: New York Times, 06.05.2002.
- SHANKER, THOM/SCHMITT, ERIC 2005: Rumsfeld Seeks Leaner Army, and a Full Term, in: New York Times, 11.05.2005.
- SHAPIRO, ROBERT Y./PAGE, BENJAMIN I. 1988: Foreign Policy and the Rational Public, in: Journal of Conflict Resolution, 32: 2, 211-247.
- SHARP, BERT MARVIN 1976: "Bring the Boys Home": Demobilization of the United States Armed Forces after World War II, Dissertation, Michigan State University.
- SHARPE, RICHARD (ED.) 1991: Jane's Fighting Ships 1991-92, Alexandria.
- SHEEHAN, KEVIN PATRICK 1988: Preparing for an Imaginary War? Examining Peacetime Functions and Changes of Army Doctrine, Dissertation, Harvard University.
- SHELTON, HUGH 2010: Without Hesitation: The Odyssey of an American Warrior, New York.

- SIMON, CHRISTOPHER A./LOVRICH, NICHOLAS P. 2010: Citizen Support for Military Expenditures: A Longitudinal Analysis of U.S. Public Opinion, 1999 2002, in: Armed Forces and Society 36: 3, 454-480.
- SIMON, HERBERT 1956: Rational Choice and the Structure of the Environment, reprinted in: Egidi, Massimo/Marris, Robin (Eds.) 1992: Economics, Bounded Rationality and the Cognitive Revolution, Aldershot, 39-54.
- SINGER, PETER W. 2003: Corporate Warriors: The Rise of the Privatized Military Industry, Ithaca.
- SINGH, ROBERT 2006: The Bush Doctrine, in: Buckley, Mary/Singh, Robert (Eds.): The Bush Doctrine and the War on Terrorism: Global Responses, Global Consequences, London, 12-31.
- SIPRI 2001: SIPRI Yearbook 2001, New York.
- SIPRI 2006: SIPRI Yearbook 2006, New York.
- SKINNER, J.H. 1993: Organization, Military, in: Dupuy, Trevor (Ed.): International Military and Defense Encyclopedia, Volume 4, M-O, Washington, 2061-2069.
- SLATER, JEROME/NARDIN, TERRY 1973: The Concept of a Military Industrial Complex, in: Rosen, Steven (Eds.): Testing the Theory of the Military-Industrial Complex, Lexington, 27-60.
- SMITH, JEFFREY R. 1990: Powell Says Defense Needs Massive Review, in: Washington Post, 07.05.1990.
- SMITH, JEFFREY R./NAKASHIMA, ELLEN 2009: Pentagon's Unwanted Projects in Earmarks, in: Washington Post, 08.03.2009.
- SMITH, RONALD P. 1977: Military Expenditure and Capitalism, in: Cambridge Journal of Economics 1: 1, 61-76.
- SMITH, STEVE 1984: Policy Preferences and Bureaucratic Position: the Case of the American Hostage Rescue Mission, in: International Affairs 61: 1, 9-25.
- SMITH, STEVE 1989: Perspectives on the Foreign Policy System: Bureaucratic Politics Approaches, in: Clarke, Michael/White, Brian (Eds.): Understanding Foreign Policy: The Foreign Policy Systems Approach, Aldershot, 109-134.
- SMITH, TOM 1985: The Polls: America's Most Important Problems Part I: National and International, in: Public Opinion Quarterly 49: 2, 264-274.
- SNIDER, DON M. 1993a: A Comparative Study of Executive National Security Decision-Making During Periods of Fundamental Changes: The Beginning and End of the Cold War, Dissertation, University of Maryland.
- SNIDER, DON M. 1993b: Strategy, Forces and Budgets: Dominant Influences in Executive Decision Making, Post Cold War, 1989-91, Strategic Studies Institute, Carlisle.
- SNYDER, GLENN H. 1962: The "New Look" of 1953, in: Schilling, Warner R./Hammond, Paul Y./Snyder, Glenn H. (Ed.): Strategy, Politics, and Defense Budgets, New York, 379-524.
- SNYDER, JACK 1984: The Ideology of the Offensive. Military Decision Making and the Disasters of 1914, Ithaca.

- SNYDER, RICHARD/BRUCK, H.W./SAPIN, BURTON 1962: Decision-making as an Approach to the Study of International Politics, in: Snyder, Richard/Bruck, H.W./Sapin, Burton (Eds.): Foreign Policy Decision-Making: An Approach to the Study of International Politics, New York, 14-185.
- SPARROW, JOHN C. 1994: History of Personnel Demobilization in the United States Army, Washington.
- SPENCE, FLOYD D. 1997: Military Readiness 1997: Rhetoric and Reality, Washington.
- SPINNEY, FRANKLIN 1997: What Went Wrong with the Defense Review: And How to Fix It, in: Challenge 40: 5, 6-28.
- STAVRIDIS, JAMES 1997: The Second Revolution, in: Joint Force Quarterly 15, 8-13.
- STEEL, RONALD 1995: The Domestic Core of Foreign Policy, in: The Atlantic Monthly 275: 6, 84-92.
- STEVENS, AUSTIN 1951a: 60 Billions Asked in Defense Budget to Bar World War, in: New York Times, 01.05.1951.
- STEVENS, AUSTIN 1951b: \$11,500,000,000 Cut in Defense Budget Next Year Studied, in: New York Times, 11.11.1951.
- STEVENS, AUSTIN 1952a: Atomic Gun Fired on Proving Range, in: New York Times, 16.10.1952.
- STEVENS, AUSTIN 1952b: Lovett Discounts Service 'Friction', in: New York Times, 03.12.1952.
- STEVENS, AUSTIN 1953a: Kyes Tells Military Services to Cut Budgets by Feb. 28, in: New York Times, 10.02.1953.
- STEVENS, AUSTIN 1953b: Wilson Appoints 7 for 'Streamlining', in: New York Times, 20.02.1953.
- STEVENS, CHARLES W. 1989: Grumman Vows Dogfight in Bid to Save F-14 Output, Slated by Pentagon End, in: Wall Street Journal, 21.04.1989.
- STEVENSON, RICHARD W. 1990: Grim Contractors Ready for Cutbacks on Arms, in: New York Times, 27.04.1990.
- STEVENSON, RICHARD W. 1991: Nuclear Cuts Post Threat For Other Arms Programs, in: New York Times, 01.10.1991.
- STEWART, RICHARD W. (ED.) 2005: American Military History. Volume II. The United States Army in a Global Era, 1917-2003, Washington.
- STIMSON, HENRY 1945: Farewell Statement, in: The New York Times, 20.09.1945.
- STIMSON, JAMES A. 1999: Public Opinion in America: Moods, Cycles, and Swings, 2nd Ed., Boulder.
- STOCKTON, PAUL 1995: Beyond Micromanagement: Congressional Budgeting for a Post-Cold War Military, in: Political Science Quarterly 110: 2, 233-259.
- STROUT, RICHARD L. 1948a: Plan for Big Air Armada Takes Hold of Congress, in: Christian Science Monitor, 08.04.1948.
- STROUT, RICHARD L. 1948b: House Approves Funds For 70-Group Air Force Despite 'Balance' Plea, in: Christian Science Monitor, 15.04.1948.

- STROUT, RICHARD L. 1952: House Unit Asks \$4¼ Billion Arms Cut, in: Christian Science Monitor, 04.04.1952.
- STROUT, RICHARD L. 1953: Defense Bill Faces Storm, in: Christian Science Monitor, 02.05.1953.
- SULLIVAN, GORDON 2002: Why We Need Crusader, in: Washington Post, 16.05.2002.
- SZAFRANSKI, RICHARD 1996: Interservice Rivalry in Action: The Endless Roles and Missions Refrain?, in: Airpower Journal 10:2, 48-59.
- TALMADGE, CAITLIN 2006: Transforming the Pentagon: McNamara, Rumsfeld and the Politics of Change, in: Breakthroughs 15: 1, 12-20.
- TAYLOR, MAXWELL D. 1959: The Uncertain Trumpet, New York.
- TERRIFF, TERRY/FARRELL, THEO 2002: Military Change in the New Millennium, in: Farrell, Theo/Terriff, Terry (Eds.): The Sources of Military Change. Culture, Politics, Technology, London, 265-277.
- THE ECONOMIST 2010: Defence spending in a time of austerity, in: The Economist, 28.08.2010.
- THEE, MAREK 1989: Military Technology A Driving Force Behind the Arms Race and an Impediment to Arms Control and Disarmament, in: Brand, Hans-Günter (Eds.): Military Technology, Armaments Dynamics and Disarmament, Houndmills, 39-64.
- THEE, MAREK 1990: Science-Based Military Technology as a Driving Force behind the Arms Race, in: Gleditsch, Nils Petter/Njølstad, Olav (Eds.): Arms Races. Technological and Political Dynamics, London, 105-120.
- THOMPSON, MARK 1990: U.S. Armed Services Battle for Funding in the 1990s, in: Times-Union, 24.06.1990.
- THOMPSON, MARK/WALLER, DOUGLAS 1995: Onward Cyber Soldiers, in: Time 146: 8, 21.08.1995.
- TIBONI, FRANK 2003: Shinseki's term was a quiet storm: Chief of staff endured flak while pursuing his vision of Army's future, in: Army Times, 16.06.2003.
- TIBONI, FRANK 2004: Army speeds up some future combat technology, in: Federal Computer Week, 02.08.2004.
- TILFORD, EARL H. 1998: Halt Phase Strategy: New Wine in Old Skins... with Powerpoint, Strategic Studies Institute, Carlisle.
- TILL, GEOFFREY 2008: A Cooperative Strategy for 21st Century Seapower: A View from Outside, in: Naval War College Review 61: 2, 25-38.
- TIRPAK, JOHN A. 1996: Air Force 2025, in: Air Force Magazine 79: 12.
- TOMES, ROBERT R. 2009: Defense Strategy in the 1990s: Old wine, new bottles, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 155-171.
- TOMES, ROBERT R. 2004: Military Innovation and the Origins of the American Revolution in Military Affairs, Dissertation, University of Maryland.
- TONELSON, ALAN 1993: Superpower Without a Sword, in: Foreign Affairs 72: 3, 166-180.
- TORRES-REYNA, OSCAR/SHAPIRO, ROBERT Y. 2002: The Polls-Trends: Defense and the Military, in: Public Opinion Quarterly 66: 2, 279-303.

- TRASK, ROGER R./GOLDBERG, ALFRED 1997: The Department of Defense 1947-1997: Organization and Leaders, Washington.
- TREST, WARREN A. 1998: Air Force Roles and Missions: A History, Washington.
- TRITTEN, JAMES J. 1994: Lessons From the History of Naval Doctrinal Development, in: Marine Corps Gazette, October, 50-52.
- TRITTEN, JAMES J. 1995a: Developing Naval Doctrine ...From the Sea, in: Joint Force Quarterly 9.
- TRITTEN, JAMES J. 1995b: Naval Perspectives on Military Doctrine, in: Naval War College Review 48: 2, 22-38.
- TROTT, HARLAN 1951a: Draft-UMT Bill Faces Determined Opposition, in: Christian Science Monitor, 07.04.1951.
- TROTT, HARLAN 1951b: Korean War School: Navy Report Card, in: Christian Science Monitor, 10.07.1951.
- TROXELL, JOHN F. 1997: Force Planning in an Era of Uncertainty: Two MRCs as a Force Sizing Framework, Strategic Studies Institute, Carlisle.
- TRUBOWITZ, PETER 1998: Defining the National Interest: Conflict and Change in American Foreign Policy, Chicago.
- TRUMAN, HARRY S. 1945: Address of the President of the United States before a joint session of the Senate and House of Representatives presenting his Recommendations with Respect to Universal Military Training, 79th Cong., 1st Sess., H.Doc. 359, 23.10.1945.
- TRUMAN, HARRY S. 1951: Annual Message to the Congress on the State of the Union, January 8, 1951, Washington.
- TRUMAN, HARRY S. 1955: Memoirs, Volume One: Year of Decision, New York.
- TRUSSELL, C.P. 1948a: Senators Slow Defense Bill in Fear of Deficit Spending, in: New York Times, 17.04.1948.
- TRUSSELL, C.P. 1948b:House Rules Group is Urged to Allow Draft Floor Vote, in: New York Times, 19.05.1948.
- TRUSSELL, C.P. 1951: General Satisfies Congress Critics, in: New York Times, 02.02.1951.
- TSEBELIS GEORGE 2002: Veto Players: How Political Institutions Work, New York.
- TSOURAS, PETER/WATSON, BRUCE W./WATSON, SUSAN M. (EDS.) 1991: United States Army. A Dictionary, New York.
- TYLER, PATRICK E. 1990: Military Chiefs Detail Plans to Cut Troops, Weapons, in: Washington Post, 12.05.1990.
- TYLER, PATRICK E. 1992a: Pentagon Imagines New Enemies To Fight in Post-Cold-War Era, in: New York Times, 17.02.1992.
- TYLER, PATRICK E. 1992b: U.S. Strategy Plan Calls For Insuring No Rivals Develop, in: New York Times, 08.03.1992.
- TYLER, PATRICK E. 1992c: Senior U.S. Officials Assail Lone-Superpower Policy, in: New York Times, 11.03.1992.
- TYLER, PATRICK E. 1992d: Pentagon Drops Goal of Blocking New Superpowers, in: New York Times, 24.05.1992.

- TYSON, ANN SCOTT 2002: If more duty calls, can US military deliver?, in: Christian Science Monitor, 09.09.2002.
- TYSON, ANN SCOTT 2006: Pentagon Adds Initiatives, Retain Old Ones, in: Washington Post, 07.02.2006.
- TYSON, ANN SCOTT 2007: Bush's Defense Budget Biggest Since Reagan Era, in: Washington Post, 06.02.2007.
- TYSON, ANN SCOTT 2008: U.S. to Raise 'Irregular War' Capabilities, in: Washington Post, 04.12.2008.
- TYSZKIEWICZ, MARY T./DAGGETT, STEPHEN 1998: A Defense Budget Primer, CRS Report for Congress RL 30002, Washington.
- U.S. BUREAU OF THE CENSUS 1956: Statistical Abstract of the United States 1956, Washington.
- U.S. BUREAU OF THE CENSUS 1990-2008: Statistical Abstract of the United States, Washington.
- U.S. MARINE CORPS 1996: Operational Maneuver From The Sea: A Concept for the Projection of Naval Power Ashore, Washington.
- UCHITELLE, LOUIS 1992a: Army Makers: Rather Fight Than Switch, in: New York Times, 20.09.1992.
- UCHITELLE, LOUIS 1992b: An Odd Aircraft's Tenacity Shows Difficulty of Cutting Arms Budget, in: New York Times, 02.11.1992.
- UCHITELLE, LOUIS 1995: Long March Of the Arms Contractors; The y Migrate South For Cheaper Labor in the Lower-Cost States, in: New York Times, 19.04.1995.
- UCKO, DAVID H. 2009: The New Counterinsurgency Era: Transforming the U.S. Military for Modern Wars, Washington.
- ULLMAN, HARLAN 2005: The 'Vietnamization' of Iraq; With U.S. support and deliberate speed, in: Washington Times, 23.11.2005.
- ULLMAN, HARLAN K. 1995: In Irons: U.S. Military Might in the New Century, London.
- ULLMAN, HARLAN/WADE, JAMES 1996: Shock & Awe: Achieving Rapid Dominance, Washington.
- VAN ATTA, RICHARD H./LIPPITZ, MICHAEL J./LUPO, JASPER C./MAHONEY, ROB/NUNN, JACK H. 2003: Transformation and Transition: DARPA's Role in Fostering an Emerging Revolution in Military Affairs, Volume 1 Overall Assessment, Institute for Defense Analyses, Alexandria.
- VANDEHEI, JIM/EILPERIN, JULIET 2002: 9/11 Changed Equation for Democrats; 1991's Doves Now Back War, in: Washington Post, 06.10.2002.
- VARTABEDIAN, RALPH 1990: Aerospace Retrenching in Los Angeles, in: Washington Post, 13.05.1990.
- VAWTER, RODERICK L. 1983: Industrial Mobilization: The Relevant History, Washington.
- VÄYRYNEN, RAIMO 1983: Military R&D and science policy, in: International Social Science Journal 35:1, 62-79.

- VÄYRYNEN, RAIMO 1990: Economy, Power, and the Arms Race, in: Gleditsch, Nils Petter/Njølstad, Olav (Eds.): Arms Races. Technological and Political Dynamics, London, 314-345.
- VERBA, SIDNEY/BRODY, RICHARD A./PARKER, EDWIN B./NIE, NORMAN H./POLSBY, NELSON W./EKMAN, PAUL/BLACK, GORDON S. 1967: Public Opinion and the War in Vietnam, in: American Political Science Review 61: 2, 317-333.
- VICKERS, MICHAEL 2002: The 2001 Quadrennial Defense Review, the FY 2003 Defense Budget Request and the Way Ahead for Transformation: Meeting the "Rumsfeld Test", Center for Strategic and Budgetary Assessments, Washington.
- VICKERS, MICHAEL/KOSIAK, STEVEN 1997: The Quadrennial Defense Review An Assessment, CSBA-Report, http://www.csbaonline.org/4Publications/PubLibrary/R.19971200.The_Quadrennial_De/R.19971200.The_Quadrennial_De.php; 04.02.2010.
- VON DREHLE, DAVID 2000: Cheney Steps Up Criticism of Military Readiness, in: Washington Post, 31.08.2000.
- VON DREHLE, DAVID 2005: Wrestling with History; Sometimes you have to fight the war you have, not the war you wish you had, in: Washington Post Magazine, 13.11.2005.
- VON DREHLE, DAVID 2006: Rumsfeld's Transformation; There's Been a Small Change in Plan, in: Washington Post, 12.02.2006.
- VON DREHLE, DAVID/DEWAR, HELEN 1993: The Contrary Democrat: What Is Sam Nunn Thinking?, in: Washington Post, 03.05.1993.
- WAGGONER, WALTER H. 1947: Royall Appointed Army Secretary; Sullivan for Navy, in: New York Times, 22.08.1947.
- WAGGONER, WALTER H. 1948: U.S. 'Ready' in Air, Spaatz Declares, in: New York Times, 22.08.1948.
- WAGGONER, WALTER H. 1949: House Group Votes more for Defense than Truman asks, in: New York Times, 10.04.1949.
- WALL STREET JOURNAL 1949: Air Force Cancels \$300 Million for 240 New Planes, in: Wall Street Journal, 12.01.1949.
- WALLACE, WILLIAM S. 2008: FM 3-0 Operations: The Army's Blueprint, in: Military Review 88: 2, 2-7.
- WALLER, DOUGLAS 2001: Bush Prepares the Generals for a Long War, in: Time, 25.09.2001.
- WALT, STEPHEN M. 1985: Alliance Formation and the Balance of World Power, in: International Security 9: 4, 3-43.
- WALT, STEPHEN M. 1991: The Renaissance of Security Studies, in: International Studies Quarterly 35: 2, 211-239.
- Walt, Stephen M. 1997: The Progressive Power of Realism, in: The American Political Science Review 91: 4, 931-935.
- WALTZ, KENNETH N. 1979: Theory of International Politics, Reading.
- WAR DEPARTMENT 1944: Field Service Regulations: Operations, Field Manual 100-5, Washington.

- WARD, BRYAN H. 1993: United States Defense Reorganizations: Contending Explanations, Dissertation, Ohio State University.
- WARD, MICHAEL D./DAVIS, DAVID R. 1992: Spending in the United States, 1948-1996, in: The American Political Science Review 86: 3, 748-755.
- WASHINGTON POST 1946: Dominant' Role for Air Force Urged by Senator Bankhead, in: Washington Post, 04.01.1946.
- WASHINGTON POST 1949a: Big Air Power Backers Dealt Senate Defeat, in: Washington Post, 27.08.1949.
- WASHINGTON POST 1949b: Frozen Air Force Fund, in: Washington Post, 31.10.1949.
- WASHINGTON POST 1951: Final Accord on Draft, UMT Bill is Reached, in: Washington Post, 29.05.1951.
- WASHINGTON POST 2004: Congress cut back the Bush..., in: Washington Post, 07.12.2004.
- WASHINGTON POST 2007: Wartime Budgeting, in: Washington Post, 09.02.2007.
- WATSON, ROBERT J. 1986: History of the Joint Chiefs of Staff. Volume V. The Joint Chiefs of Staff and National Policy 1953-1954.
- WATTS, BARRY D. 2008: The US Defense Industrial Base: Past, Present and Future, CSBA, Washington.
- WAYNE, LESLIE 2002: So Much for the Plan to Scrap Old Weapons, in: New York Times, 22.12.2002.
- WAYNE, LESLIE 2006: Spending More for Less is Frequent in Weapons Projects since 9/11, in: New York Times, 11.07.2006.
- WEIDENBAUM, MURRAY L. 1969: The Militay-Industrial Complex: An Economic Analysis, in: Carey, Omer L. (Ed.): The Military-Industrial Complex and United States Foreign Policy, Pullman, 29-41.
- WEIDENBAUM, MURRAY L. 1974: The Economics of Peacetime Defense, New York.
- WEIDENBAUM, MURRAY L. 1992: Small Wars, Big Defense: Paying for the Military After the Cold War, New York.
- WEIDENBAUM, MURRAY L. 2003: The Changing Structure of the U.S. Defense Industry, in: Orbis 47: 4, 693-703.
- WEIGLEY, RUSSELL F. 1973: The American Way of War: A History of United States Military Strategy and Policy, New York.
- WEINER, SANFORD L. 2009: Evolution in the post-Cold War Air Force: Technology, doctrine, and bureaucratic politics, in: Sapolsky, Harvey M./Friedman, Benjamin H./Rittenhouse Green, Brendan (Eds.): US Military Innovation since the Cold War: Creation without destruction, London, 100-118.
- Weiner, Tim 1996: Clinton as a Military Leader: Though On-the-Job Training, in: New York Times, 28.10.1996.
- Weiner, Tim 1999: The Fine Print: The Military Spending Bill; Senate Leader Presses Navy On a Ship It Does Not Want, in: New York Times, 22.09.1999.
- WEINER, TIM 2005: Drive to Build High-Tech Army Hits Cost Snags, in: The New York Times, 28.03.2005.

- WEINRAUB, BERNARD/SHANKER, THOM 2003: A Nation at War: Under Fire; Rumsfeld's Design for War Criticized on the Battlefield, in: New York Times, 01.04.2003.
- WEISMAN, JONATHAN 2003: Iraq Cost Could Mount to \$100 Billion; Impact on Other Programs Feared, in: Washington Post, 13.07.2003.
- WEISMAN, JONATHAN 2005: Record '05 Deficit Forecast; War Costs to Raise Total to \$427 Billion, in: Washington Post, 26.01.2005.
- WELCH, DAVID A. 1992: The Organizational Process and Bureaucratic Politics Paradigms: Retrospect and Prospect, in: International Security 17: 2, 112-146.
- WERRELL, KENNETH P. 1985: The Evolution of the Cruise Missile, Maxwell.
- WHEATLEY, STEPHEN B. 2006: Unmanned Aircraft Systems (UAS) and Innovation, Master Thesis, University of Calgary.
- WHEELER, WINSLOW T. (ED.) 2008: America's Defense Meltdown: Pentagon Reform for President Obama and the New Congress, Washington.
- WHITE HOUSE 1994: Clinton Administration Policy on Reforming Multilateral Peace Operations (PDD 25), Washington, http://www.fas.org/irp/offdocs/pdd25.htm; 10.07.2010.
- WHITE, JOHN P. 1996: Defense Organization Today, in: Joint Force Quarterly 13.
- WHITE, JOSH/RICKS, THOMAS E. 2007: Joint Chiefs Chair Will Bow Out; Pentagon Wary of Thorny Reconfirmation Hearings, in: Washington Post, 09.06.2007.
- WILDAVSKY, AARON 1988: The New Politics of the Budgetary Process, Glenview.
- WILLIAMS, CINDY 2001: Introduction, in: Williams, Cindy (Ed.): Holding the Line: U.S. Defense Alternatives for the Early 21st Century, Cambridge, 1-33.
- WILSON, GEORGE C. 1989a: Aspin, Contractors Trying to Save Defense Budget, in: Washington Post, 15.06.1989.
- WILSON, GEORGE C. 1989b: Hill Lobbying Mires Pentagon Budget: Cheney Begins Trip Abroad With Controversial Decisions in Air, in: Washington Post, 21.10.1989.
- WILSON, GEORGE C. 2000a: Clinton Armors Democrats With Rising Budget for Defense, in: National Journal, 01.03.2000.
- WILSON, GEORGE C. 2000b: This War Really Matters: Inside the Fight for Defense Dollars, Washington.
- WILSON, GEORGE C. 2001a: Rumsfeld faces big choices in second tour at Pentagon, in: National Journal, 30.01.2001.
- WILSON, GEORGE C. 2001b: CEO Rumsfeld and His Pentagon Inc., in: National Journal, 17.03.2001.
- WILSON, JOHN B. 1998: Maneuver and Firepower: The Evolution of Divisions and Separate Brigades, Washington.
- WILZEWSKI, JÜRGEN 1999: Wandel und Kontinuität: Der Präsident, der Kongress und die öffentliche Meinung in der amerikanischen Außenpolitik nach dem Ost-West-Konflikt, in: Medick-Krakau, Monika (Ed.): Außenpolitischer Wandel in theoretischer und vergleichender Perspektive: Die USA und die Bundesrepublik, Baden-Baden, 127-143.
- WINES, MICHAEL 1990: Upheaval in the East: U.S. Policy; Congress Starts Review of U.S. Military Posture, in: New York Times, 24.01.1990.

- WIRLS, DANIEL 2008: Hidden in Plain Sight: The Bush Military Buildup, in: Reveron, Derek/Stiehm, Judith (Eds.): Inside Defense: Understanding the U.S. Military in the 21st Century, New York.
- WLEZIEN, CHRISTOPHER 2004: Patterns of Representation: Dynamics of Public Preferences and Policy, in: Journal of Politics 66: 1, 1-24.
- WLEZIEN, CHRISTOPHER 1995: The Public as Thermostat: Dynamics of Preferences for Spending, in: American Journal of Political Science 39: 4, 981-1000.
- Wolfe, Steven A. 1994: Leaving Key West: The Struggle to Rationalize Roles and Missions, in: Blechman, Barry M./Durch, William J./Graham, David R./Henshaw, John H./Reed, Pamela L./Utgoff, Victor A./Wolfe, Steven A.: The American Military in the Twenty-First Century, Houndmills, 1-53.
- WOOD, DANIEL B. 1991: National Guard's Fitness for Role in War Debated, in: Christian Science Monitor, 25.01.1991.
- WOOD, LEWIS 1950: Mobilizing Urged as Reply to Russia, in: New York Times, 13.12.1950.
- Woods, Randall B. 2003: World War II, Congress, and the Roots of Postwar American Foreign Policy, in: Woods, Randall B. (Ed.): Vietnam and the American Political Tradition: The Politics of Dissent, Cambridge, 42-57.
- WOODWARD, BOB 1991: The Commanders, New York.
- WOODWARD, BOB 1993: The Secretary of Analysis, in: Washington Post, 21.02.1993.
- WOODWARD, BOB 1994: The Agenda: Inside the Clinton White House, New York.
- WOODWARD, BOB 2002a: Bush at War, New York.
- WOODWARD, BOB 2002b: Plan of Attack, New York.
- WOODWARD, BOB 2008: The War Within: A Secret White House History 2006-2008, New York.
- WORDON, MIKE 1998: Rise of the Fighter Generals: The Problems of Air Force Leadership 1945-1982, Maxwell.
- WORK, ROBERT O. 2003: The Department of the Navy and Assured Access: A Critical Risk Assessment, in: Krepinevich, Andrew/Watts, Barry/Work, Robert O.: Meeting the Anti-Access and Area-Denial Challenge, Center for Strategic and Budgetary Assessments, Washington, 29-67.
- WORK, ROBERT O./TOL, JAN VAN 2008: A Cooperative Strategy for 21st Century Seapower: An Assessment, CSBA Backgrounder, Washington
- YORK, HERBERT F. 1976: The Advisors. Oppenheimer, Teller, and the Superbomb, San Francisco.
- ZACHER, MARK W./MATTHEW, RICHARD A. 1995: Liberal International Theory: Commen Threads, Divergent Strands, in: Kegley, Charles W. (Ed.): Controversies in International Relations Theory. Realism and the Neoliberal Challenge, New York, 107-150.
- ZAKARIA, FAREED 1992: Realism and Domestic Politics: A Review Essay, in: International Security 17: 1, 177-198.
- ZAKHEIM, DOV S. 1994: Our Unready Military, in: New York Times, 30.12.1994.
- ZAKHEIM, DOV S. 1997: Tough Choices, in: National Interest 47, 32-44.