

## *Evaluating Military Balances Through the Lens of Net Assessment: History and Application<sup>1</sup>*

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### **Introduction**

For senior statesmen and their advisers, the task of evaluating external security threats and identifying strategic opportunities is a perennial challenge. This process is an exercise familiar to all states and is the antecedent of effective national strategy and policy. It requires significant intellectual effort, curiosity, creativity, and a tolerance for uncertainty in the exploration of alternative futures. But this task has vexed statesmen throughout history, who have frequently misperceived the threats and behavior of their competitors.<sup>2</sup> This article examines one contemporary approach the United States has employed to understand the complex state-based military and security threats confronting it: net assessment.

Four major tasks are attempted in this article: first, to provide a clear definition of net assessment, as practiced by the Pentagon's Office of Net Assessment (OSD/NA); second, to present a blueprint for the conduct of net assessments; third, to detail its history in the Department of Defense during the cold war; and fourth, to explain its value as an analytical

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<sup>2</sup> Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, *Psychology and Deterrence* (Baltimore: The Johns Hopkins University Press, 1989), p. 1.

framework for analysts and policymakers. The body of scholarly literature examining net assessment is limited. Primary sources comprise the majority of work on this subject and many of these sources remain classified. As a result, net assessment is one of the more esoteric tools available to analysts and policymakers. Many who have heard of net assessment often mistake it as simply a threat assessment or a strategic, “big picture” evaluation. To do so, however, misses a great deal. Additionally, there are no textbooks on net assessment, just a few articles from former practitioners and the courses they teach at a handful of American universities. Therefore, the acquisition of this knowledge is generated more from apprenticeship rather than academic study.

Drawing on a number of declassified and other primary source documents, this article fills a gap in the existing literature by telling an important, but largely untold, cold war narrative. Field interviews were also conducted with former Department of Defense officials, including current and former staff members of the Office of Net Assessment. Net assessment, like the field of strategic studies itself, is a product of the cold war struggle for power that defined the latter half of the twentieth century. It provided analysts and policymakers in the Pentagon with a framework for conceptualizing the United States-Soviet military competition. It remains applicable today for the United States in the post-cold war world as the relative military power of states such as China and India increases.<sup>3</sup>

### Defining Net Assessment

The scholarly literature offers few definitions of net assessment. Eliot Cohen, who served as a military assistant to the Director of Net Assessment in the 1980s, defined net assessment simply as “the appraisal of military balances.”<sup>4</sup> Stephen Rosen, who worked as a civilian assistant in the Office of Net Assessment, offered an equally concise definition identifying net assessment as “the analysis of the interaction of national security establishments in peacetime and war.”<sup>5</sup> Each of these definitions captures the fundamental characteristics of

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<sup>3</sup> While this article focuses on the utility of net assessment for analyzing state interactions, Yee-Kuang Heng examines how net assessment could be modified to analyze the Global War on Terror and the Iraqi insurgency: See Yee-Kuang Heng, “Old Wine in New Bottles? Reconfiguring Net Assessment for 21st Century Security Analysis,” *Contemporary Security Policy*, Vol. 28, Issue 3 (December 2007), pp. 423-443.

<sup>4</sup> A military balance is a quantitative and qualitative appraisal of two or more military forces. Eliot A. Cohen, “Net Assessment: An American Approach,” memorandum no. 29, (Tel-Aviv: Jaffee Center for Strategic Studies, April 1990).

<sup>5</sup> Stephen Peter Rosen, “Net Assessment as an Analytical Concept,” in Andrew W. Marshall, J.J. Martin, and Henry Rowen, eds., *On Not Confusing Ourselves* (Boulder: Westview Press, 1991), p. 290.

net assessment. However, a more robust definition, and a full exploration of its analytical elements and characteristics, are warranted.

Building on the work of Cohen and Rosen, the following definition is offered: Net assessment is a multidisciplinary approach to national security analysis that is comparative, diagnostic, and forward-looking. More precisely, net assessment is a framework for evaluating the long-term strategic political-military competitions in which states engage. As the word “competition” implies, net assessors view the interactions of states as inherently competitive rather than inherently cooperative. The aim of net assessment is to diagnose strategic asymmetries<sup>6</sup> between competitors and to identify environmental opportunities in order to support senior policymakers in the making of strategy.

Net assessment relies heavily on the analysis of long-term trends in order to explore plausible alternative security futures. As a multidisciplinary framework, it incorporates elements of economics, military history, political science, and organizational behavior<sup>7</sup> and employs a variety of quantitative and qualitative methodologies. Two characteristics differentiate net assessment from other modes of defense analysis: (1) it analyzes both Blue and Red<sup>8</sup> capabilities together in order to identify strategic asymmetries and areas of comparative advantage, and (2) it focuses on diagnosis rather than policy prescription.<sup>9</sup> The desired analytical output of a net assessment is a complete picture of a competitive political-military relationship including the strengths, weaknesses, opportunities and fears of each competitor (state). This is dependent on an even-handed, objective analysis of each competitor—including a dispassionate self-assessment of one’s capabilities and weaknesses.

Net assessments generally fall into one of two categories: geographical or functional. Geographical net assessments examine the military balance of a particular region, such as the

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<sup>6</sup> In the context of net assessment, “asymmetries” are areas of comparative advantage within a military balance.

<sup>7</sup> Insights from other disciplines—including psychology, cultural anthropology, demography, strategic culture, and the life sciences—have been leveraged as well in order to conduct assessments.

<sup>8</sup> The terms “Red” and “Blue” are used in the United States defense community, especially in the context of wargaming. Traditionally, “Red” represents an adversarial state or non-state actor while “Blue” refers to U.S. or allied forces.

<sup>9</sup> Andrew W. Marshall, “The Nature and Scope of Net Assessments,” memorandum, 10 April 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01198; Andrew W. Marshall, “Ad Hoc Committee Report to the NSCIC in Response to NSSM 178,” memorandum, 15 May 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01200; Paul Bracken, “Net Assessment: A Practical Guide,” *Parameters*, Vol. 36, No. 1 (Spring 2006), p. 93.

Middle East or Northeast Asia, for example. Functional assessments examine the military balance in specific military domains such as air, land, maritime, space, or nuclear.<sup>10</sup> During the cold war, significant energy was focused on analyzing two specific aspects of the United States-Soviet military competition: the strategic nuclear balance (functional) and the NATO-Warsaw Pact conventional balance in Central Europe (geographical).

### **Andrew W. Marshall and Net Assessment**

Any meaningful discussion of net assessment must include an examination of strategic thinker and futurist Andrew W. Marshall, whose contributions to military thought helped to shape net assessment as a discrete analytical approach within the United States Department of Defense. After graduating with a Master's degree in Economics in 1949 from the University of Chicago, Marshall went to work as an analyst at The RAND Corporation where he worked until 1972 when he joined the staff of the National Security Council (NSC). During his tenure at RAND, much of his work focused on the United States-Soviet strategic nuclear balance and improving defense analytics—in other words, finding better ways to conceptualize and analyze the balance. Marshall's work at RAND highlighted the challenges of evaluating military balances. He employed a variety of methodologies including scenario-based planning, game theory, and systems analysis to analyze deterrence and military strategy.<sup>11</sup> His work at the NSC during the early 1970s helped to define net assessment for senior policymakers at the highest levels of the United States government. In October 1973, Marshall became the Director of Net Assessment in the Pentagon.<sup>12</sup> He has been reappointed by every president since Richard M. Nixon.<sup>13</sup>

Marshall's contributions to military thought began with his work at RAND where he explored the analytical challenge of estimating military power. His work emphasized the importance of both relative power and comparison when evaluating military balances—the

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<sup>10</sup> Cohen, "Net Assessment: An American Approach," p. 13.

<sup>11</sup> Herbert W. Goldhamer and Andrew W. Marshall, "The Deterrence and Strategy of Total War, 1959-1961: A Method of Analysis," *RAND Memorandum RM-2301*, (Santa Monica: The RAND Corporation, 1959).

<sup>12</sup> Barry Watts, interview with the author, 21 February 2008. The Office of Net Assessment was first established in the Department of Defense in 1971, as outlined in Department of Defense Directive 5105.39, "Director of Net Assessment," 6 December 1971. Marshall's appointment to the position occurred on 18 October 1973.

<sup>13</sup> As of March 2010, Marshall is serving as the Director of Net Assessment in the administration of President Barack Obama.

concept that military power in the international system is relative and can only be assessed in relation to other states. In 1966, Marshall explained: “Estimating the military power of the United States, or any other country, can only be done relative to that of another country, or set of countries viewed as an alliance.”<sup>14</sup> Marshall’s words underscore the centrality of both comparison and relative power—two important elements of the net assessment framework.

Marshall also understood that estimating military power depended on more than quantitative force comparisons: “One has only to cite the extremely successful German attack in 1940 on the combined French and British forces to indicate that equality of forces and equipment does not lead to a stalemated outcome.”<sup>15</sup> Marshall was a pioneer in emphasizing the human element of military balances—factoring in important considerations such as organizational and bureaucratic behavior. His example of the Battle of France underscores the importance of non-materiel variables such as military doctrine, training, and leadership when evaluating military balances. In this case, the role of doctrinal innovation by the German military is instructive. The Germans, numerically outnumbered, developed new and innovative ways of employing their forces, effectively negating any advantage the French enjoyed in terms of force strength—to include manpower and tanks.<sup>16</sup> In the case of the Battle of France, German doctrinal innovation proved to be a critical determinant in the evolution and eventual outcome of the campaign.

To take a contemporary example, a net assessment examining the India-Pakistan military balance would not only consider the force structure and posture of each competitor but also each side’s military doctrine, training, leadership and economic capacity to make war. This approach differs drastically from the so-called “bean counters” who rely more exclusively on quantitative force figures to analyze balances and predict military outcomes. Net assessors

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<sup>14</sup> Andrew Marshall, “Problems of Estimating Military Power,” (Santa Monica: The RAND Corporation, August 1966), p. 2.

<sup>15</sup> *Ibid.*, p. 8.

<sup>16</sup> While the Allies enjoyed overall numerical superiority, the Allies were numerically inferior in certain sectors along the Western Front including Gerd Von Rundstedt’s Army Group A where the major breakthrough occurred. For more on a more detailed analysis of the Battle of France, see Williamson Murray and Allan R. Millett, *A War To Be Won: Fighting the Second World War* (Cambridge: Harvard University Press, 2000). History is replete with examples of numerically inferior military forces defeating numerically superior forces. However, while numerical superiority alone does not always guarantee outcomes in military conflict, states with numerically superior forces have tended to win the majority of their wars against states with smaller military forces. See, for example, Melvin Small and J. David Singer, *Resort to Arms: International and Civil Wars, 1816-1980*, (Beverly Hills: Sage Publications, Inc., 1982) pp. 194-195.

perform force structure analysis, but it is one of multiple data points considered when evaluating a balance.

### **Blueprint for the Conduct of Net Assessments**

Building on the previous section which examined the definition of net assessment and explored some of its fundamental concepts, this section provides a blueprint for the conduct of net assessments by analysts. Determining how to conceptualize a given balance is an important first step and depends largely on the type of assessment being conducted (functional v. geographical) and the nature of the competition being investigated. For example, an assessment focusing on a maritime competition between two states would analyze the acquisition trends of each state's naval service as well as their respective naval doctrines. The ability of each state to maintain, deploy, and employ its operational capabilities in a variety of military contingencies would also be considered. The analysis would likely focus on the operational and strategic levels of war. However, the overall balance would be analyzed in the context of each competitor's national interest, grand strategy, and foreign policy. The integration of this type of high-level political analysis into military assessments provides much needed context for understanding the balance. Net assessors, therefore, are generally Clausewitzian<sup>17</sup> in their belief that war is an extension of politics by other means<sup>18</sup> and that separating political decision-making from military decision-making is an artificial cleavage that will result in an incomplete analysis.

Deciding how to structure the assessment requires the analyst to decide on which metrics, variables, and capabilities to consider. A military balance can be evaluated using any number of materiel and non-materiel factors.<sup>19</sup> Force structure and posture tend to be the default variables for many analysts but an overreliance on these factors can result in flawed assessments.<sup>20</sup> As noted in a previous section, a balance is much more than the sum total of each side's forces. This discussion of analytic metrics highlights an important part of the net

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<sup>17</sup> Eliot A. Cohen, "Toward Better Net Assessment: Rethinking the European Conventional Balance," *International Security*, Vol. 13, No. 1 (Summer 1998), pp. 88-89

<sup>18</sup> Carl von Clausewitz, *On War* (New York: Pelican Classics, 1982), p. 119.

<sup>19</sup> Other variables would likely include force structure, training, officer education, leadership, personnel and manpower, facilities, logistics, national defense policy and defense spending.

<sup>20</sup> See, for example, Eliot Cohen's critique of Barry Posen, John Mearsheimer, et al., in assessing the NATO-Warsaw Pact conventional balance, "Toward Better Net Assessment: Rethinking the European Conventional Balance," pp. 50-89.

assessment process—one that requires significant intellectual effort—and that is ensuring that the right questions are asked and explored.

While there are certain distinguishing characteristics and a basic structure that differentiates net assessment from other modes of defense analysis, it is a malleable framework. In other words, the assessor has significant creative license in how the assessment is conducted in terms of the questions asked and the methodologies employed. There are four pillars of a net assessment: trends, doctrine, asymmetries and scenarios.<sup>21</sup>

Trend analysis is the first pillar of net assessment. Long-term trends in the acquisition of specific weapons systems and platforms are especially instructive for net assessors. National-level trends such as defense spending constitute equally valuable data points. For example, gradual increases in a state's defense spending over a number of years might look insignificant if observed only incrementally but when the aggregate increase is assessed the implications can be substantial.<sup>22</sup> The emphasis on long-term trends is important because it provides policymakers with an understanding of potential future "shocks" to the balance—developments which could fundamentally alter the military balance. For instance, let us say that country Green acquires several new combat aircraft over the course of a decade but due to budget constraints is forced to forgo the acquisition of precision munitions for the aircraft. After a period of rapid economic growth, Green procures advanced precision munitions for its combat aircraft. Such a scenario could significantly impact Green's position vis-à-vis neighboring country Orange, which does not possess an operational precision strike capability. The extrapolation of long-term trends supports the development of plausible alternative futures, or scenarios, which are used to conduct assessments. Scenarios are discussed in more detail later in this section.

Doctrine is the second pillar of net assessment. As the 1940 Battle of France illustrated, there is more to understanding military balances than the numbers of divisions, tanks, fighters, or submarines a military organization possesses; how it elects to employ its forces matters, too. Net assessment takes into account the fact that all militaries do not fight wars in the same way and recognizes that even individual military services within a single military organization can vary dramatically in the manner in which they conduct military operations. Additionally, as Barry Posen noted, doctrine is an important "subcomponent of grand strategy that deals

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<sup>21</sup> Cohen, "Net Assessment: An American Approach," pp. 13-19. Cohen uses "concepts of operation" in lieu of "doctrine."

<sup>22</sup> Cohen, "Net Assessment: An American Approach," p. 14.

explicitly with military means.”<sup>23</sup> Thus, an analysis of a state’s military doctrine can provide insights into the fundamental goals of the state, its perceived threats, and the interests it may be willing to go to war in order to defend—not to mention *how* it intends to employ its forces in the event of armed conflict. Revisiting the example of country Green in the paragraph above, a net assessor would analyze Green’s air power doctrine looking for shifts from a defensive posture to an offensive posture, or other doctrinal modifications, that could impact the balance.

The identification of strategic asymmetries is the third pillar of net assessment. When comparing the military capabilities of two competitors, asymmetries or areas of comparative advantage are likely to emerge. Continuing with the previous example, Green’s acquisition of new combat aircraft and precision munitions have given it a significant advantage in air power over its neighbor, Orange. However, while Orange may have a disadvantage in the air domain, its land and naval power is superior to that of Green. These asymmetries would directly impact how Green and Orange perceive each other as well as the manner in which each would prepare for, and potentially, fight a war.

The final pillar, scenarios, enables net assessors to test their hypotheses. Through the extrapolation of long-term trends, plausible scenarios are generated to examine how the balance could evolve over a period of twenty to twenty-five years. Since its establishment, the Office of Net Assessment has relied heavily on scenario-based planning methodologies such as wargaming to investigate a variety of military problems. Wargames are forums used to test hypotheses and to evaluate political-military decision-making under constraints meant to simulate reality. This practice allows net assessors to understand how each state perceives the other within the balance, thus safeguarding against the analytical pathology of mirror-imaging.<sup>24</sup> A basic wargame typically features three teams: a Red team, a Blue team, and a Control team. Red and Blue are typically engaged in some type of competitive interaction, either political, economic, or military, while the Control team serves as a neutral arbiter.

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<sup>23</sup> Barry Posen, *The Sources of Military Doctrine* (Ithaca: Cornell University Press, 1984) p. 13.

<sup>24</sup> Mirror-imaging occurs when an organization (or individual) superimposes its own paradigms and biases in its analysis. See Jervis, Lebow, and Stein, *Psychology and Deterrence*, p. 30. Policymakers frequently make this mistake, according to Robert Jervis: “Because statesmen believe that they understand the other side’s view of the world, they usually assume that their messages have been received and interpreted as intended. If the other ignores a signal, statesmen often conclude that it has been rejected when in fact it may not have been received.”

1. Political-Military Context for Analyzing the Competition
  - 1.1. Trends in the Balance
  - 1.2. Doctrinal Asymmetries
  - 1.3. Analysis of Perceptions
  - 1.4. Scenarios
2. Assessment of the Balance
  - 2.1. Strategic Asymmetries
  - 2.2. Environmental Opportunities
  - 2.3. Impact of Third Party States or Alliance Systems
  - 2.4. Issues and Questions that Require Further Exploration

**Figure 1**

Figure 1 provides a notional outline of a net assessment. Each of the four pillars of net assessment is represented in the outline. The exact order of the pillars is immaterial and depends on the preference of the assessor. The basic analytic output of a net assessment has some basic parallels to the SWOT<sup>25</sup> analysis methodology developed by Alfred S. Humphrey at the Stanford Research Institute and used widely in the business world. A SWOT analysis highlights an organization's internal strengths and weaknesses along with external opportunities and threats. The key differentiator is the integrated assessment of Red and Blue capabilities and the process of understanding how each competitor perceives the other.

### **Challenges to Conducting Net Assessments**

The acquisition of the data required to perform the analysis can be a barrier to conducting meaningful assessments. First, it may be difficult to acquire the classified military assessments from the individual military services to perform the required self-analysis. Second, as Rosen has noted, much of the information required for conducting assessments (which is maintained by the Department of Defense) is simply "imprecise" or out of date.<sup>26</sup> Third, the

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<sup>25</sup> SWOT is an acronym for strengths, weaknesses, opportunities and threats.

<sup>26</sup> Rosen, "Net Assessment as an Analytical Concept," pp. 291-293.

military services are not always eager to provide a civilian office with assessments critical of the United States' military capabilities and readiness, Cohen explains.<sup>27</sup> Still, not all of the information needed to conduct thorough assessments is classified. In fact, much of the information useful for conducting assessments is unclassified and publicly available.<sup>28</sup>

### **Net Evaluation in the Eisenhower Administration**

This section details the history of net assessment within the United States government. The origins of net assessment within the United States government can be traced to the administration of President Dwight D. Eisenhower who established a small group within the NSC to provide annual scenario-based evaluations of United States and Soviet nuclear capabilities. The evaluations were forward-looking, typically looking up to two years in the future. The group, first called the Special Evaluation Subcommittee, was established in January 1953 with an interagency membership that included the Joint Chiefs of Staff, the Central Intelligence Agency, the Interdepartmental Intelligence Conference and the Interdepartmental Committee on Internal Security.<sup>29</sup> The group went through a series of name changes—known as the Net Capabilities Evaluation Subcommittee in 1954 and finally the Net Evaluation Subcommittee (NESC) in 1955 when the group was made permanent.<sup>30</sup> The NESC was chaired by the Chairman of the Joint Chiefs of Staff.<sup>31</sup> Its assessments focused solely on the United States-Soviet strategic nuclear balance and hypothesized what a nuclear exchange between the two states might actually look like. NESC explored concepts central to United States nuclear planning from strategic early warning and nuclear targeting to force requirements and the proliferation of intercontinental ballistic missiles.

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<sup>27</sup> Cohen, "Net Assessment: An American Approach," p. 20.

<sup>28</sup> *Ibid.*, p. 21.

<sup>29</sup> James S. Lay, Jr., "Directive for a Special Evaluation Subcommittee," National Security Council Report, 19 January 1953 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00312.

<sup>30</sup> James S. Lay, Jr., "Directive for a Net Capabilities Evaluation Subcommittee," National Security Council Report, 23 June 1954 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00413 and S. Everett Gleason, "Directive on A Net Evaluation Subcommittee," National Security Council Report, 14 February 1955 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00449.

<sup>31</sup> S. Everett Gleason, "Directive on A Net Evaluation Subcommittee," National Security Council Report, 14 February 1955 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00449.

Writing in 1973, Marshall noted that NESC analyses “had considerable impact on the view of top-level policymakers on the nature of the strategic balance between the U.S. and USSR.”<sup>32</sup> The NESC report from January 23, 1956 which examined two nuclear conflict scenarios prompted Eisenhower to lament its findings in his personal diary:

...the United States experienced practically total economic collapse, which could not be restored to any kind of operative conditions under six months to a year. Members of the federal government were wiped out and a new government had to be improvised by the states. Casualties were enormous. It was calculated that something on the order of 65 percent of the population would require some kind of medical care and, in most instances, no opportunity whatsoever to get it.<sup>33</sup>

Eisenhower received annual reports from NESC throughout the rest of his presidency.<sup>34</sup> The formulation of American strategy during the cold war was predicated on Washington’s understanding of where it stood—politically, economically and militarily—in relation to the Soviet Union. NESC analyses provided Eisenhower with a senior-level perspective of the strategic competition the United States found itself in.

NESC survived the 1960 presidential election but was eventually eliminated during the Johnson administration at the behest of Secretary of Defense Robert McNamara who believed NESC’s studies duplicated efforts of the Joint Chiefs of Staff and the Office of the Secretary of Defense.<sup>35</sup> McNamara believed that the final NESC report, issued in 1964, was an inadequate “basis for planning guidance.”<sup>36</sup> Ironically, the NESC was eliminated at a time when it was arguably most needed. Once the Limited Test Ban Treaty (LTBT) entered into force in October 1963, the ability of the United States to monitor Soviet nuclear developments through air

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<sup>32</sup> Andrew W. Marshall, “National Net Assessment,” memorandum, 10 April 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01198.

<sup>33</sup> Robert H. Ferrell, ed., *The Eisenhower Diaries*, (NY: W.W. Norton & Company 1981), p. 311.

<sup>34</sup> For more on NESC and the Eisenhower administration, see David Alan Rosenberg, “The Origins of Overkill, Nuclear Weapons and American Strategy: 1945-1960,” *International Security*, Vol. 7, No. 4 (Spring 1983), pp. 54-63.

<sup>35</sup> Robert McNamara, “Elimination of the Net Evaluation Subcommittee of the National Security Council,” memorandum, 23 December 1964 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00399 and McGeorge Bundy, “Discontinuance of the Net Evaluation Subcommittee of the National Security Council,” memorandum, 18 March 1965 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01116.

<sup>36</sup> McNamara, “Elimination of the Net Evaluation Subcommittee of the National Security Council.”

sampling was greatly impaired. Before the U.S. acceded to the LTBT, the ability of the U.S. to monitor Soviet nuclear advances through U-2 spy plane surveillance and air sampling was robust.<sup>37</sup> The U.S. began to depend on technical extrapolations for weapons intelligence.

By the beginning of the Nixon administration, U.S. policymakers had become increasingly frustrated with the intelligence estimates on the Soviet nuclear weapons program.<sup>38</sup> The basic understanding of Soviet capabilities in Washington was based largely on extrapolations of the latest collections of radio-data activity on Soviet weapons. The leadership in the Pentagon was especially concerned with its grasp of Soviet strategic posture. During this time, the United States and the Soviet Union were building delivery systems and weapons at an unprecedented rate and, for U.S. policymakers, the question soon became: “Where is the Soviet Union vis-à-vis the U.S. in terms of nuclear development?”<sup>39</sup>

“Department of Defense leadership needed a higher level of analysis,” recalled Stephen J. Lukasik, who served as the Deputy Director and then Director of the Defense Advanced Research Projects Agency (DARPA) from 1967 – 1974.<sup>40</sup> The recognition of this demand within the Department of Defense led the Director of Defense Research and Engineering (DDR&E), John S. Foster, to establish the Office of Net Technical Assessment, which was led by Fred Wikner. The office focused on technical comparisons of U.S. and Soviet systems but did not address the grand strategic policy questions of American power in the context of its ongoing competition with the Soviet Union. The Office of Net Technical Assessment was eventually eliminated during the Carter administration. Still, in the early 1970s, the need for a higher level of analysis persisted.

In November 1971, President Richard M. Nixon established the Net Assessment Group to assist Henry A. Kissinger, his national security adviser, with monitoring the reorganization of the intelligence community. The secondary function of the Net Assessment Group was to provide comparative, national net assessments of United States and Soviet capabilities. Nixon’s decision to establish a net assessment function within the U.S. government stemmed largely from the results of a March 1971 review of the U.S. foreign intelligence community conducted

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<sup>37</sup> Stephen J. Lukasik, interview with the author, 11 February 2007.

<sup>38</sup> Lukasik, interview with the author, February 11, 2007. For more on this see, Richard Nixon, “Organization and Management of the U.S. Foreign Intelligence Community,” memorandum, 5 November 1971 (College Park, MD: CIA CREST Collection, NARA II) and James Schlesinger, “A Review of the Intelligence Community,” report, 10 March 1971 (Washington, DC: The National Security Archive).

<sup>39</sup> Lukasik, interview with the author, February 11, 2007.

<sup>40</sup> Ibid.

by James Schlesinger. The report identified serious deficiencies in the analytical output of the intelligence community, citing its convoluted organization as one of the primary causes.

Nixon was unsatisfied with the quality of information he was receiving from the intelligence community, especially the Central Intelligence Agency (CIA), about Soviet military capabilities.<sup>41</sup> Nixon envisioned that the Net Assessment Group would “be responsible for reviewing and evaluating all intelligence products and for producing net assessments of U.S. capabilities vis-à-vis those of foreign governments constituting a threat to U.S. security.”<sup>42</sup> Kissinger instructed the NSC to prepare a memorandum detailing the net assessment process, topics for exploration, a methodology and coordinating procedures.<sup>43</sup> Marshall was selected to lead the Net Assessment Group.

As the Nixon administration sought to establish a net assessment program in the early 1970s, Marshall believed that net assessment—and its potential role as a tool for senior policymakers within the U.S. government—remained ill-defined. He provided a number of guidelines for thinking about net assessment and what it could offer senior policymakers. Specifically, he discussed net assessment as a diagnostic tool:

[Net assessors should] aim at providing diagnosis of problems and opportunities, rather than recommended actions. The focus on diagnosis rather than solutions is especially significant. Provide an objective and comprehensive comparative analysis of U.S. programs, policies, and military forces with those of potential adversaries or competitors, which will in most cases, be the basis of diagnosis.<sup>44</sup>

From Marshall’s perspective, the goal of net assessment was to provide diagnostic insights on national security issues for senior policymakers that they would not otherwise receive. Marshall insisted that net assessment could significantly enhance the way senior policymakers understood strategic competitions by answering broad, national-level policy questions. Marshall listed four questions in particular: “Do we [the U.S.] have a problem? If so, how big is it? Is it getting worse or better? What are the underlying causes?”<sup>45</sup> Marshall believed that

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<sup>41</sup> Lukasik, interview with the author, 11 February 2007.

<sup>42</sup> Nixon, “Organization and Management of the U.S. Foreign Intelligence Community.”

<sup>43</sup> Henry A. Kissinger, “National Security Study Memorandum 178,” memorandum, 29 March 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01197.

<sup>44</sup> Andrew Marshall, “National Net Assessment,” memorandum, 10 April 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 001198.

<sup>45</sup> *Ibid.*

these grand strategic questions were often lost in the bureaucracy and that it was the responsibility of those serving the president to provide perspective on them.

In order to define net assessment, Marshall leveraged concepts he had explored during his time at RAND—namely those of comparison and relative power:

Our notion of a net assessment is that it is a careful comparison of U.S. weapon systems, forces, and policies in relation to those of other countries. It is comprehensive, including description of the forces, operational doctrines and practices, training regime, logistics, known or conjectured effectiveness in various environments, design practices and their effect on equipment costs and performance, and procurement practices and their influence on cost and lead times.<sup>46</sup>

While Marshall believed net assessment would provide senior policymakers with a more complete understanding of the major strategic challenges facing the United States, he believed that net assessment should augment rather than replace other existing methods of analysis being undertaken in the intelligence community. By April 1973, Marshall believed that the “basic assumptions of U.S. foreign and defense policy” were evolving and he envisioned that net assessment would test existing assumptions.<sup>47</sup>

The first net assessment was a comparison of the U.S. and Soviet armies. However, prospective topics for future assessments were also suggested and included the U.S.-Soviet strategic nuclear balance, the theater nuclear balances in Europe and Asia and the NATO-Warsaw Pact conventional military balance. Other proposed subjects included the cost of U.S. and Soviet research and development programs. The range of proposed topics was diverse, spanning both functional and geographical domains, including comparative studies of U.S. and Soviet military doctrine and weapons programs to defense economics and energy.<sup>48</sup>

While there was no shortage of potential topics for exploration, there was a need to understand better the mechanics of the new net assessment process—especially the question of methodology. In an April 1973 memorandum to Marshall, Seymour Weiss, a former

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<sup>46</sup> Marshall, “The Nature and Scope of Net Assessments,” p. 1.

<sup>47</sup> *Ibid.*, 4.

<sup>48</sup> Seymour Weiss, “Topics for National Net Assessment Analysis and Comments for Procedures for this Analysis,” 19 April 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01199, pp. 1-3.

ambassador and Assistant Secretary of State,<sup>49</sup> suggested the use of wargaming, computer-based simulations and mathematical models to support the development of net assessments.<sup>50</sup> Marshall had already leveraged scenario-based planning methodologies such as wargaming during his tenure at the RAND Corporation during the 1950s and 1960s. He believed that analyses based solely on systems analysis—used extensively by the Pentagon during Robert McNamara’s tenure—were incomplete; systems analysis oversimplified complex problems into purely quantitative terms. The multidisciplinary nature of net assessment is one of its defining characteristics and has been since its formal establishment within the U.S. government as a framework for national security analysis. Marshall’s willingness to experiment with different methodologies is a constant theme in his writings.<sup>51</sup>

In 1972, Marshall believed that the analytic methods required for conducting effective assessments simply did not exist. He was convinced that existing analytical efforts were failing to properly illuminate key areas of the U.S.-Soviet military competition—including naval forces, the strategic nuclear balance, weapons research and development, and defense spending. According to Marshall, “The single most productive resource that can be brought to bear in making net assessments is sustained hard intellectual effort.”<sup>52</sup> Complicating the mechanics of net assessment, Marshall explained, would be the acquisition of information useful to net assessments.

In a May 15, 1973 memorandum to Kissinger, Marshall presented the findings of the Net Assessment Group. In it, he outlined a way ahead for the national net assessment process, including objectives and suitable methodologies. He also recommended that a Net Assessment Standing Committee be established to produce future assessments, as directed by the president or national security adviser. Marshall distinguished net assessments from other analyses, stating “[net assessments] will be different from intelligence threat assessment in that they will include as inputs U.S. forces, programs, and policies; they will often focus on a comparison of U.S. and adversary capabilities, doctrines, strategies and programs.”<sup>53</sup> Net assessment,

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<sup>49</sup> Ronald Reagan, “Executive Order 123311 President’s Foreign Intelligence Advisory Board,” 20 October 1981, (Ronald Reagan Presidential Library Archive database, accessed 11 February 2009).

<sup>50</sup> Weiss, “Topics for National Net Assessment Analysis and Comments for Procedures for this Analysis,” A, 1-4.

<sup>51</sup> This is in stark contrast to some his contemporaries like Robert McNamara who relied heavily on systems analysis.

<sup>52</sup> *Ibid.*, p. 4.

<sup>53</sup> Andrew Marshall, “Ad Hoc Committee Report to the NSCIC In Response to NSSM 178,” memorandum, 15 May 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01200, p. 5.

Marshall argued, differed from traditional military assessments because political, economic and technological variables would be accounted for, not simply technical estimates of an adversary's force structure or weapons systems. Marshall emphasized three areas as forming the basis of the new net assessment methodology: comparison, diagnostics and trend analysis.<sup>54</sup>

Marshall's proposal was not universally accepted as the path forward, however. Admiral T.H. Moorer, Chairman of the Joint Chiefs of Staff, raised concerns over Marshall's proposal. He insisted that the concept of net assessment remained ill-defined and that assessments of a military nature should not be conducted by civilians. Moorer argued that military matters and related assessments should be conducted by the Joint Chiefs of Staff.<sup>55</sup> He was particularly concerned with the idea that a civilian organization would be producing assessments on military matters. While Moorer's non-concurrence did not halt the development of the net assessment program, his objections highlight an important tension that often exists between civilian and military personnel in the Pentagon.<sup>56</sup>

The Deputy Secretary of Defense, William "A.P." Clements, largely supported Marshall's findings but wanted the net assessment mission to be defined more clearly so as to not duplicate existing analytical efforts.<sup>57</sup> Like Marshall, Clements believed that net assessment should be diagnostic rather than prescriptive. Marshall was enthusiastic about the level of interest the incoming secretary of defense, Marshall's close friend and former RAND colleague Jim Schlesinger, had shown in the nascent net assessment program:

If the Secretary of Defense creates a focal point in his immediate office for the management of Defense's net assessment efforts, I do not believe there is a problem. I have been assured that Schlesinger will create such a focal point. Otherwise, net assessment could become embroiled in internal differences over bureaucratic prerogatives in Defense...Jim Schlesinger's arrival in Defense

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<sup>54</sup> Ibid., p. 6.

<sup>55</sup> T.H. Moorer, "Program for National Net Assessment: NSSM 178," memorandum, 31 May 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01201, pp. 1-2.

<sup>56</sup> See Cohen, "Net Assessment: An American Approach," p. 22: Cohen has argued that net assessment offices should be civilian-led for three reasons: 1) military officers rotate every two to three years and the nature of net assessment requires a more permanent leadership, 2) it is easier for civilians to maintain a "policymaking perspective," and 3) military personnel tend to think of themselves as "apolitical technical experts" unwilling to ask difficult political questions.

<sup>57</sup> William P. Clements, "NSSM 178, National Net Assessment," memorandum, 1 June 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01202.

should assist us in getting net assessment going. He is very interested in developing net assessment as a separate type of analysis.<sup>58</sup>

Here, Marshall explains that net assessment is separate from existing intelligence estimates and cautions against conflating net assessment with existing analytical methods. He also recommends that the secretary of defense create a “focal point” in the secretary’s immediate office to direct the net assessment function within the Department of Defense. The Office of Net Assessment, located within the Office of the Secretary of Defense, became that “focal point.”

In June 1973, Nixon approved the recommendations of Marshall and the ad hoc committee.<sup>59</sup> In September of that same year, Kissinger sent a memorandum to the principals at the Departments of State and Defense and CIA:

The first national net assessment will evaluate the comparative costs to the U.S. and the USSR to produce, maintain, and operate comparable military forces. It will assess the status of the competition between the U.S. and the USSR in maintaining such forces, trends in the competition, significant areas of comparative advantage or disadvantage to the U.S., and the nature of opportunities and problems implied.<sup>60</sup>

The first assessment was a comparison of U.S. and Soviet ground forces. In many ways, this first assessment epitomized the net assessment process with its emphasis on trend analysis, comparative advantage, and diagnostics. It was originally proposed that net assessments would be commissioned either by the president or his national security adviser.<sup>61</sup> This policy was later revamped when the responsibility of initiating net assessments was given to the secretary of defense in late 1973.<sup>62</sup>

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<sup>58</sup> Andrew Marshall, “Reply to NSSM 178,” memorandum, 21 June 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01203, pp. 3-4.

<sup>59</sup> Henry A. Kissinger, “National Net Assessment Process, NSSM 178,” memorandum 28 June 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00180, p. 1.

<sup>60</sup> Henry A. Kissinger, “National Net Assessment of the Comparative Costs and Capabilities of U.S. and Soviet Military Establishments,” memorandum, 1 September 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 01216.

<sup>61</sup> Marshall, “Ad Hoc Committee report to the NSCIC In Response to NSSM 178.”

<sup>62</sup> Henry A. Kissinger, “National Security Decision Memorandum 239,” 27 November 1973 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), no. 00195.

### Research and Contributions Since 1973

Over the past four decades, the Office of Net Assessment and its work has, at times, subtly influenced the way senior Department of Defense officials considered defense and military matters. Through its sponsorship of important research and its ability to convey its findings directly to the secretary and deputy secretary of defense,<sup>63</sup> the Pentagon's internal think tank has served an important function within the Department of Defense. Since its establishment, the office has made significant intellectual contributions in several national security areas including: the U.S.-Soviet strategic nuclear balance; the NATO-Warsaw Pact conventional military balance; the Revolution in Military Affairs (RMA); and more recently the emerging U.S.-China military competition.

Periodically, elements of OSD/NA's work influenced important national policy changes, including Presidential Directive-59, which introduced the "countervailing" strategy that aimed to provide the president with more limited strike options in the event of a nuclear conflict. In an effort to enhance the credibility of U.S. deterrence posture, PD-59 also called for the explicit targeting of Soviet political and military leadership.<sup>64</sup> While PD-59 was billed by the Carter administration as a "refinement" of existing U.S. nuclear policy, approval of PD-59 represented an important modification in U.S. nuclear policy consistent with Marshall's belief<sup>65</sup> in the deficiencies of the U.S.'s existing assured destruction doctrine. Barry Watts, who worked for Marshall in OSD/NA, explained that the major assessments conducted by OSD/NA in 1977-79

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<sup>63</sup> For the roles and responsibilities of the Office of Net Assessment, see Department of Defense Directive 5111.11, "Director of Net Assessment," December 23, 2009, available at <http://www.dtic.mil/whs/directives/corres/pdf/511111p.pdf>, accessed 14 January 2009.

<sup>64</sup> Histories of the Secretary of Defense, Harold Brown, Department of Defense, accessed 26 June 2007, available at [http://www.defenselink.mil/specials/secdef\\_histories/bios/brown.htm](http://www.defenselink.mil/specials/secdef_histories/bios/brown.htm); Jimmy Carter, "Presidential Directive-59," Presidential Decision Directive, 25 July 1980 (Jimmy Carter Library database, accessed 11 February 2009).

<sup>65</sup> See Andrew Marshall, "The Future of the Strategic Balance – INFO," memorandum, 26 August 1976. unpublished collection. By August 1976, Marshall believed that the Soviet Union was developing systems and capabilities that would "erode our [U.S.] assured destruction capabilities." Marshall explained that as the circular error probable of Soviet missiles dropped, the risk to the U.S. silo-based Intercontinental Ballistic Missile (ICBM) fleet would increase. As U.S. ICBMs became increasingly vulnerable, the ability of the U.S. to credibly threaten the Soviet economy would drop along with the ability to deter. Marshall also indicated that the Soviets were taking steps to ensure that their political and military leadership as well as the centers of their economic and military power would survive a nuclear war—measures inconsistent with the U.S. view of the doctrine of assured destruction. The Soviet programs included the protection of the civilian population as well as Soviet officials. Other measures included the dispersal of Soviet industry, grain reserves, hardened underground facilities and survivable civil defense.

heavily shaped senior Department of Defense thinking on the strategic nuclear balance. According to Watts, findings from these assessments were sent by Secretary of Defense Harold Brown to the White House and incorporated into major policy documents including PD-59.<sup>66</sup>

The office also sponsored groundbreaking research on the RMA. In 1992, Andrew Krepinevich, who served as a military assistant to Marshall, authored *The Military-Technical Revolution: A Preliminary Assessment*, which provided a construct for thinking about military revolutions. The assessment emphasized four areas: technological change, military systems evolution, operational innovation, and organizational adaptation.<sup>67</sup> Marshall called Krepinevich's assessment "...the best known assessment prepared by the Office of Net Assessment."<sup>68</sup> In order to consider the potential implications of an emerging RMA on the Department, Marshall recommended that the secretary of defense establish a senior-level group to explore the RMA and its implications for the Department of Defense. In 1994, the RMA Steering Group was established, chaired by Deputy Secretary of Defense John Deutch, and included the participation of Secretary of Defense William Perry.<sup>69</sup> In the 1990s, Marshall's work continued to highlight the human dimensions of RMAs and the importance of doctrinal innovation, concluding in a statement before the Senate Subcommittee on Acquisition and Technology that: "Innovations in technology make a military revolution possible, but the revolution itself takes place only when new concepts of operation develop and, in many cases, new military organizations are created."<sup>70</sup> Summing up Marshall's contributions to RMA research, Thomas G. Mahnken noted Marshall's "central (though quiet) role...in sponsoring path-breaking research and analysis of the emerging RMA."<sup>71</sup>

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<sup>66</sup> Barry Watts, e-mail to the author, 17 May 2007.

<sup>67</sup> Andrew F. Krepinevich, "The Military-Technical Revolution: A Preliminary Assessment," Prepared for the Office of Net Assessment, (Washington, DC: Center for Strategic and Budgetary Assessments 2002), p. 3.

<sup>68</sup> *Ibid.*, p. i.

<sup>69</sup> Andrew W. Marshall, "RMA Update," memorandum 2 May 1994 (Washington, DC: The Pentagon), unpublished collection, 4. In an interview with John Deutch on 11 May 2007, he noted that Marshall played a major role in advancing the debate on precision guided munitions (PGM) beginning in the 1970s. When asked about the role OSD/NA plays in the Department of Defense, Deutch replied: "[OSD/NA] gives senior officials new ideas about national security, defense and conflict."

<sup>70</sup> Andrew W. Marshall, "Revolutions in Military Affairs," Statement Prepared for the Subcommittee on Acquisition and Technology, Senate Armed Services Committee, 5 May 1995, p. 1.

<sup>71</sup> Thomas G. Mahnken, Reviewed Work(s): *The Revolution in Military Affairs* by Elinor C. Sloan, *The Journal of Military History*, Vol. 67, No. 1 (January 2003), pp. 316-317.

The Office of Net Assessment has also sponsored important research on China and the evolving military balance in Northeast Asia. As early as 1977, OSD/NA produced an assessment of the military balance in Northeast Asia identifying the region as an area of emerging strategic importance for the United States.<sup>72</sup> In the mid-1990s, the office sponsored several studies which highlighted major differences in strategic thinking between the Chinese political leadership and officer corps and their American counterparts.<sup>73</sup> The insights from these studies caution American defense analysts to avoid the analytical trap of mirror-imaging—that is superimposing U.S. biases and prejudices when analyzing Chinese behavior. Marshall made the same argument throughout the cold war when assessing Soviet behavior.<sup>74</sup>

The Office of Net Assessment's influence has varied greatly since 1973, depending largely on the office's relationship with the Pentagon leadership it served. Research suggests that the office enjoyed its greatest influence under Secretaries of Defense Donald Rumsfeld and Harold Brown, and its least influence under Caspar Weinberger and William Cohen. According to Barry Watts, the office had the most influence in the Carter administration under Harold Brown and the least influence during the Reagan administration under Caspar Weinberger.<sup>75</sup> In fact, William Taft, who served as deputy secretary of defense from 1984 – 1989 in the Reagan administration, had relatively limited interactions with Marshall and the office during his tenure in the Pentagon; the same was true for his boss, Caspar Weinberger.<sup>76</sup> Watts echoed this sentiment concluding that, "The net assessments per se probably had their greatest impact during Harold Brown's tenure as SecDef [secretary of defense]—and their least under his successor, Weinberger."<sup>77</sup> However, during that time period, Marshall did support research efforts for the Under Secretary for Policy, Fred Iklé.

The Office of Net Assessment worked closely with Secretary of Defense Donald Rumsfeld, particularly during his second tour in the Pentagon from 2001 – 2006. Douglas J.

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<sup>72</sup> For example, see "Northeast Asia: Summary," prepared by the Office of Net Assessment, 28 April 1977 (Washington, DC: The Digital National Security Archive, accessed 11 February 2009), Document Number 00201.

<sup>73</sup> See, for example, Michael Pillsbury, *China Debates the Future Security Environment*, (Washington, D.C.: National Defense University Press, January 2000).

<sup>74</sup> See, Andrew Marshall, "A Program to Improve Analytic Methods Related to Strategic Forces," *Policy Sciences*, Vol. 15, No. 1, (November 1982), p. 48. Marshall argued: "Soviet calculations are likely to make different assumptions about scenarios and objectives . . . perform different calculations, use different measures of effectiveness, and perhaps use different assessment processes and methods. The result is that Soviet assessments may substantially differ from American assessments."

<sup>75</sup> Watts, e-mail to the author.

<sup>76</sup> William Taft, interview with the author, 15 May 2007.

<sup>77</sup> Watts, e-mail to the author.

Feith, who served as Under Secretary of Defense for Policy from 2001 – 2005, called OSD/NA an “influential operation” within the Pentagon. During Rumsfeld’s tenure, Marshall’s office did substantive work in two major area of particular interest to Rumsfeld, defense transformation and China, according to Feith who noted that, “Rumsfeld valued Andrew Marshall’s opinion.”<sup>78</sup>

In May 2000, Marshall reflected on OSD/NA’s contributions to the Department of Defense during the cold war:

One of our biggest contributions was in providing a better way of thinking about the military balance in particular areas providing an analysis of the long term trends and asymmetries that impacted the military balance, as well as an intelligent choice in how to measure ourselves against the Soviet Union.<sup>79</sup>

OSD/NA’s influence has fluctuated over the years as its relationship with the various secretaries, military services and others within the Office of the Secretary of Defense has changed. The impact of Marshall and OSD/NA on U.S. defense policy is difficult to quantify, but as Watts said, “Marshall has had subtle influence in many indirect and hard to nail down ways.”<sup>80</sup>

### **The Utility of Net Assessment for Analysts and Policymakers**

This section examines the analytical utility of net assessment for defense analysts and, more importantly, for senior statesmen and their advisers. The argument focuses on two points: (1) how net assessment can redress organizational impediments to sound national security analysis typically found in large bureaucracies, and (2) how net assessment can both inform and enhance the development of national strategy.

First, the organizational imperative will be addressed. The value of net assessment stems from the nature of organizations which tend to focus disproportionately on short-term challenges, often to the detriment of long-term, strategic thinking. This is especially true in the

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<sup>78</sup> Feith, interview with the author.

<sup>79</sup> Andrew W. Marshall, “Further Thoughts on Future Net Assessments,” memorandum, 9 May 2000 (Washington, DC: The Pentagon), unpublished collection, p. 2.

<sup>80</sup> Watts, e-mail to the author.

United States which has a sprawling and arguably disjointed national security bureaucracy.<sup>81</sup> Further, the proliferation of twenty-four hour news networks, blogs, and an increase in internet news readership have compressed the news cycle. This new reality compels senior policymakers to operate largely within this accelerated news cycle dealing often with short-term emergent crises.<sup>82</sup> There is a tendency to focus on day-to-day operations, the so-called “crisis of the hour” and, of course, budgetary matters. Michael E. Milakovich argues that governments in particular are driven by “annual budget cycles” and that long-term thinking is often, at best, an ancillary concern.<sup>83</sup> Another explanation for this phenomenon, according to Graham Allison and Philip Zelikow, is that organizations are typically reluctant to “base actions on estimates of an uncertain future.”<sup>84</sup> Paul Bracken notes that Washington’s national security agenda is usually driven by one of two “rhythms”: the current news cycle or a change in presidential administrations.<sup>85</sup> Neither of these “rhythms,” he argues, is particularly long-term in orientation. Thus, net assessment should be viewed as a vehicle for facilitating the type of long-term, strategic thinking that typically gets neglected in large bureaucracies.

The challenge of sharing and integrating national security information across various departments, agencies, and offices is another organizational barrier which frequently hinders analytical efforts. According to Douglas J. Feith, who served as Under Secretary of Defense for Policy from 2001 – 2005, “National security policy requires a lot of thinking and there are a number of major flaws derived from institutional problems that hurt the quality of thinking in the government about national security.”<sup>86</sup> One of these flaws is the way governments divide their responsibilities. Take, for example, the United States national security bureaucracy. The offices and agencies which comprise this bureaucracy—such as the National Security Council, the Department of Defense, the Department of State, and the Intelligence Community—are typically organized regionally or functionally. Most of the Department of Defense’s primary military organs—the combatant commands—are organized regionally or functionally. As a result, the personnel in these organizations tend to focus solely on their regional or functional responsibilities. In doing so, they often miss the broader, strategic picture.

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<sup>81</sup> Efforts to enhance interagency coordination among the U.S. departments, agencies, and offices with national security missions has improved dramatically in recent years. However, significant organizational deficiencies remain.

<sup>82</sup> Bracken, “Net Assessment: A Practical Guide,” p. 18.

<sup>83</sup> Michael E. Milakovich, “Total Quality Management for Public Sector Productivity Improvement,” *Public Productivity and Management Review*, Vol. 14, No. 1(Fall 1990), p. 23.

<sup>84</sup> Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis* (New York: Addison Wesley Longman, 1999), p. 152.

<sup>85</sup> Bracken, “Net Assessment: A Practical Guide,” p. 18.

<sup>86</sup> Douglas J. Feith, interview with author, 20 July 2007.

Policymakers need “to have a net assessment [of the strategic landscape],” Feith insists because, “If you’re the secretary of defense, you need a global perspective,” not an analysis limited by artificial organizational barriers.<sup>87</sup> Few organizations focus on analyzing Red and Blue capabilities together and are often only responsible for one piece of a larger analytic puzzle. Because net assessment analyzes the whole of a competitive relationship – including political, military, and economic dynamics – this analytical pathology can be avoided.

Second, the role of net assessment in the making of strategy will be examined. Senior statesmen and their advisers serve to benefit the most by leveraging net assessment to craft national strategy. This is because a well-executed net assessment will compel senior statesmen to think about high-level policy issues that they may not otherwise consider in their day-to-day management of the state. Because net assessment identifies strategic asymmetries between competitors, areas of comparative advantage can be identified, exploited, and codified in strategy.

However, net assessment also forces statesmen to think about the future. This is especially valuable to statesmen because it enables them to recognize nascent threats as well as emerging opportunities in the strategic environment. The net assessment process is akin to medical diagnostics. Statesmen, like physicians, must diagnose both current and emerging threats to their interests. Niccolo Machiavelli, the Italian political philosopher, employed this analogy nearly five centuries ago: “...by recognizing evils in advance (a gift granted only to the prudent ruler), they can be cured quickly; but when they are not recognized and are left to grow to such an extent that everyone recognizes them, there is no longer any remedy.”<sup>88</sup> A physician who diagnoses a disease at its onset generally has more treatment options at his or her disposal. Similarly, statesmen who diagnose national problems before they mature have a greater chance of effectively managing emerging threats and securing favorable outcomes than those who fail to think beyond the present.

Yet, perhaps net assessment’s greatest gift to strategists is the Clausewitzian reminder that war is “a continuation of policy by other means” and that failing to consider military affairs in a broader political context can have catastrophic consequences for the state.<sup>89</sup> In other words, the integration of high-level political analysis into military assessments provides statesmen with the necessary context for thinking about the strategic competition in which they are engaged.

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<sup>87</sup> Ibid.

<sup>88</sup> Niccolo Machiavelli, trans. by Peter Bondanella, *The Prince* (New York: Oxford University Press, 2005), p. 12.

<sup>89</sup> Carl von Clausewitz, *On War* (New York: Pelican Classics, 1982), p. 119.

Historically, statesmen who have neglected system-level, grand strategic realities have not fared well. Geoffrey Parker's analysis of Habsburg Spain under the leadership of Phillip II powerfully captures the importance of net assessment and the need for high-level political analysis into military appraisals:

For although the Spanish Habsburgs could win battles, they seemed incapable of winning wars. The problem stemmed from the absence of any organization for high-level strategic planning. The king had no "cabinet," no "war office," and no "Combined Chiefs of Staff." There was—for better or worse—no Pentagon or Net Assessment Office to evaluate strategic possibilities and limitations.<sup>90</sup>

And, while the German military was able to secure impressive tactical and operational victories, the failure of Adolf Hitler and the German high command to assess the global military balance and craft a grand strategy consistent with its means helped ensure its defeat in the Second World War. History has repeatedly shown that statesmen neglect net assessment at their own peril. To this end, net assessment can serve as a critical decision-support tool to a state's civilian leadership and military high command as they seek to optimize the "chain of political and military ends and means" that Barry Posen has defined as grand strategy.<sup>91</sup>

### Conclusion

In this article, the author has attempted to provide a blueprint for thinking about strategic military competitions through the lens of net assessment. This article fills an important gap in the literature by clearly defining net assessment and its core concepts, detailing its history, and examining its value for analysts and policymakers. The use of previously classified primary source materials in addition to field interviews with former Department of Defense officials, including current and former staff members of the Office of Net Assessment, enabled a penetrating exploration of net assessment.

Thinking about the future is difficult as it requires significant intellectual effort, curiosity, creativity, and a tolerance for uncertainty. Defense analysts and statesmen face the unenviable challenge of understanding vast amounts of complicated and often conflicting data.

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<sup>90</sup> Geoffrey Parker, "The making of strategy in Habsburg Spain: Phillip II's 'bid for mastery,' 1556-1598" in Williamson Murray, MacGregor Knox and Alvin Bernstein, eds., *The Making of Strategy: Rulers, States, and War*, (Cambridge: Cambridge University Press, 1994), p. 132.

<sup>91</sup> Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World War* (Ithaca: Cornell University Press, 1984), pp. 33.

The cognitive limitations of the human brain make this a daunting task, often resulting in flawed analyses and ineffectual strategies. But net assessment brings order to the study of war and statecraft by decomposing complicated political-military relationships into understandable zero-sum competitions: for example, during the cold war, Washington's gain was Moscow's loss. While this article focused on net assessment in the American context, its applications are widespread. Anyone interested in political-military strategy will surely benefit from the application of concepts presented in this article.