



ACQUISITION,  
TECHNOLOGY  
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

FEB 02 2007

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference -- Defense Science Board 2007 Summer Study on  
Challenges to Military Operations in Support of National Interests

The United States capability in conventional warfare is unmatched by any other state for now and the immediate future. The success in Operation DESERT STORM followed by even greater success a decade later in the initial phases of Operations ENDURING FREEDOM and IRAQI FREEDOM demonstrate an overwhelming ability to continually grow conventional capability and outmatch opponents.

However, the same overmatch does not exist across the conflict spectrum and is unlikely to exist in the conventional space forever. For example, the Soviet Union threatened the existence of the United States along nuclear and ideological lines and seriously threatened U.S. interests with conventional arms. Russia retained sufficient nuclear capability to threaten U.S. existence, but that threat is no longer coupled with the same ideological and conventional threat. The growing proliferation of nuclear weapons may challenge U.S. conventional forces in some regions or thwart U.S. interests. Finally, we have to expect WMD proliferation, e.g., biological, in general. Will WMD proliferation transform unexpected adversaries into challengers sufficiently capable to threaten the existence of the U.S. or at least thwart U.S. interests?

Asia's economic growth may enable several states to compete along conventional lines if they so choose. An important part of Asia's growth is driven by globalization of technology and manufacturing prowess that discounts historical DoD advantages in these areas. The worst-case scenario results in a technologically inferior U.S. vis a vis an opponent. There are also indications that opponents may not choose to confront the U.S. head to head with conventional forces: asymmetric warfare is the province of states as well as of terrorists and insurgents, e.g., the recent conflict in Lebanon demonstrated gaps in conventional vs. asymmetric forces. Finally, the U.S. may choose capabilities and resultant force structures that provide opponents unrecognized vulnerabilities for their exploitation. Although these types of challenges may not threaten the existence of the United States, they may prove sufficiently challenging to justify serious consideration and planning to mitigate the effect on U.S. interests.



In addition, the U.S. Armed Forces will likely face: continuing and long lasting stabilization and reconstruction operations; an increasing number of humanitarian missions driven by epidemics and AIDS, climate change, famine and water shortages, religious and tribal strife; and more instances of domestic catastrophe support, like Katrina. These responsibilities will inevitably detract from capabilities for deterring and defeating competitors who could challenge military operations.

Further, nowadays competition is intrinsically global. On one hand, we need the capability for very swift deployment anywhere on Earth to counteract “blitzkrieg” tactics, capability for decisive deployment of massive force to counteract a peer, and capability for sustained deployment for operations that might take years. On the other hand, attacks on our homeland must be not only anticipated but expected; and the very same resources needed for foreign expeditions, e.g., the Reserve, might be needed for protection at home.

As the world evolves in the 21<sup>st</sup> century, the Department of Defense must anticipate future stressing wars. What would a challenger look like and how would it successfully challenge military operations? Will states attempt to achieve peer status in a conventional force-on-force conflict, or will some other strategy prove successful? If not, what will they attempt to enable them to maintain their interests? Under what circumstances might a coalition or transnational group successfully challenge military operations? What are the metrics for success in this environment? Are there innovative technologies, systems or operational concepts that can be applied to this subject before it becomes a national crisis?

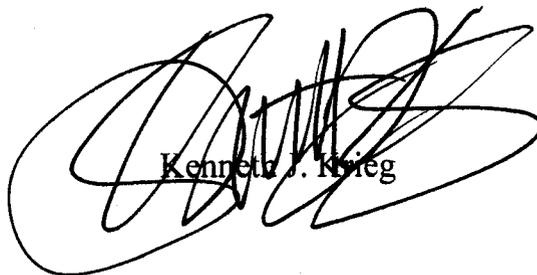
Specifically the Summer Study should:

- (1) Review previous and ongoing studies regarding stressing wars;
- (2) Identify defining parameters for challenges to military operations (e.g., physical size, population, technological prowess, and denial and deception);
- (3) Assess capability gaps;
- (4) Identify possible solutions. At a minimum, the Summer Study should assess technological, operational, and policy oriented solutions.

The study will be co-sponsored by the Under Secretary of Defense for Acquisition and Technology and the Under Secretary of Defense for Policy. Dr. Craig Fields and Mr. Rich Haver will serve as Chairmen of the Task Force. Mr. Todd Lowrey, OUSD(P) will

serve as Executive Secretary; and Commander Cliff Phillips, USN, will serve as the DSB Secretariat Representative.

The Task Force will operate in accordance with the provisions of P.L. 92-463, the "Federal Advisory Committee Act," and DoD Directive 5105.4, the "DoD Federal Advisory Committee Management Program." It is not anticipated that this Task Force will need to go into any "particular matters" within the meaning of title 18, U.S. Code, section 208, nor will it cause any member to be placed in the position of acting as a procurement official.



Kenneth J. Krieg