



OFFICE OF THE UNDER SECRETARY OF DEFENSE

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ACQUISITION,
TECHNOLOGY,
AND LOGISTICS

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference – Defense Science Board Task Force on 21st Century
Multi-Domain Effects

The evolving threats to United States national security from China, Russia, North Korea, Iran, and non-state terrorists have vastly increased the complexity of U.S. responses. The array of potential responses, whether kinetic, electronic warfare, cyber, or other means, must be assessed along with measures to deter attacks and control escalation. These modalities must also take into account the level of response, the reversibility of actions, and the potential to escalate or de-escalate hostilities.

This Task Force is established to examine the range of doctrine, policy, authority, strategy, operational capability, tactics, implementation, and support options required to respond to threats to U.S. national security and give the Department a full range of options for the employment of 21st century multi-domain effects.

The study will encompass undersea, naval surface, land warfare, and air and space domains. The task force will not address the use of nuclear weapons.

A number of challenges affect the ability of the Department of Defense (DoD) to successfully implement a multi-domain response. To begin, doctrine, policy, and authority are key elements that underpin implementation of a multi-domain strategy and today are inadequate to support a fully integrated response. Further, acquisition strategies that are needed to deploy a multi-domain strategy are often negatively impacted by long cycle times and the cost of platform integration. Re-engineered support, training, simulation, and exercising are also essential. Logistical support is often the largest contributor to lifecycle cost, and well-designed exercises will drive the essential tactics, techniques, and procedures. All of these will have a significant cost impact on implementation.

Specific questions for the Task Force to address include:

- What is the promise – and what are the critical considerations – for use of 21st century multi-domain effects?
- What are the doctrine, policy, and authority implications? What specific recommendations would ensure rapid adoption of multi-domain courses of action? What considerations will enable the full range of options and the needed proportional and flexible nature of the response?

- What are the strategic and operational employment characteristics needed, considering existing near-term (2 to 4 years) and future (5 to 10 years) capabilities, that can and should be employed? What strategies are needed for “left-of-action” preparation of the battlefield?
- What acquisition strategies will be needed to implement these objectives, considering modularity, open architectures, data rights, and other stressing conditions? What levels of developmental and operations test and evaluation are needed?

I will sponsor the study, and Mr. David Van Buren and General Philip Breedlove (U.S. Air Force, retired) will serve as co-chairmen. Captain John Lemmon, U.S. Navy, will serve as Executive Secretary for the study, and Captain Jeff Nowak, U.S. Navy, will serve as the Defense Science Board Secretariat Representative.

The task force members are granted access to those DoD officials and data necessary for the appropriate conduct of their study. The Under Secretary of Defense for Acquisition, Technology, and Logistics will serve as the DoD lead for the matter under consideration and will coordinate decision-making as appropriate with other stakeholders identified by the study’s findings and recommendations. The nominal start date of the study period will be within 3 months of signing this Terms of Reference, and the study period will be between 9 and 12 months. The final report will be completed within six months from the end of the study period. Extensions for unforeseen circumstances will be handled accordingly.

The study will operate in accordance with the provisions of Public Law 92-463, the “Federal Advisory Committee Act,” and DoD Instruction 5105.04, the “Department of Defense Federal Advisory Committee Management Program.” It is not anticipated that this study will need to go into any “particular matters” within the meaning of title 18, United States Code, section 208, nor will it cause any member to be placed in the position of action as a procurement official.



James A. MacStravic
Performing the Duties of the
Under Secretary of Defense
for Acquisition, Technology,
and Logistics