



ACQUISITION,
TECHNOLOGY,
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

NOV 17 2016

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference – Defense Science Board Summer Study on Countering Anti-access Systems with Longer Range and Standoff Capabilities

The development and fielding of potential adversary weapons systems that are intended to defeat the United States ability to project power forces a consideration of options that would allow successful operations from greater standoff ranges. The purpose of this study is to explore new defense systems, and technology that will enable cost effective power projection that relies on the use of longer stand-off distances than current capabilities. System components may be deployed on manned or unmanned platforms with a range of potential autonomous capabilities. Use of cost reducing technology and advanced production practices from defense and commercial industry may be a major part of the strategy for deploying adequate numbers of weapons. The study should investigate and analyze all of these areas and recommend preferred system options.

Several areas of investigation should be covered as part of the broad study goals above. These areas include:

- Finding the best mix of air-breathing, ballistic, and hybrid hypersonic weapons and defense penetration aids for strike actions from operationally feasible distances given projected threat anti-access capabilities.
- Determining the most cost effective mix and characteristics of future launch platforms (air, sea surface, space, ground, sub-surface) for these weapons.
- Determining the required intelligence, surveillance, and reconnaissance requirements to support the needs for timely long-range targeting, battle management, and damage assessment.
- Finding the best options for the development of arsenal platforms for the deployment of large numbers of weapons in support of regional conflict.
- Investigating systems and technologies that enable the development of low-cost weapons in large numbers. Possible technologies may include low-cost, commercially available sensors, data links, propulsion systems, energy storage, and platforms.
- Investigating manufacturing practices that may enable the rapid production of large numbers of low-cost weapons.

- Defining proposed programs to transition new long-range strike capabilities into operational capability.
- Review currently funded demonstrations and programs to determine those with the greatest potential for providing operational capability from greater range.

I will sponsor the study. Dr. David Whelan and Mr. Mark Russell will serve as co-chairs of the study. The Executive Secretary is Col Niles Cocanour. CAPT Jeff Nowak will serve as the Defense Science Board Secretariat Representative.

The task force members are granted access to those Department of Defense (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 to 12 months. The final report will be completed within 6 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, "Federal Advisory Committee Act," and DoD Directive 5105.04, "DoD 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.



Frank Kendall