THE UNDER SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-3010

ACQUISITION,
TECHNOLOGY,
AND LOGISTICS

DEC 15 2016

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference – Survivable Logistics

Logistics is an area of critical importance to the Department of Defense (DoD). The United States military has excelled in providing and moving forces, equipment and sustainment around the world, for operations and for humanitarian relief. In the most recent conflicts, however, our adversaries have had limited potential to disrupt our logistics enterprise.

As we consider the potential for conflict against a peer or near peer competitor, logistics operations have several potential challenges and vulnerabilities to include:

- Some operations will have no secure rear areas from which to provide logistics support. In addition support may have to be provided closer to the areas of active combat and on a much more distributed or disaggregated basis.

- The reliance on forward logistics support from contractors has become the norm for US forces, but this may not be possible on future battlefields. The cost of maintaining greater organic capability within the government and within the military may be prohibitive, however.

- Logistics Information Systems are potentially vulnerable to cyberattacks. The wide use of non-secure (i.e. NIPRnet) information technology across the logistics enterprise (both military and commercial) makes the military's systems more susceptible to enemy activity as does the integration with commercial networks for suppliers and mobility.

- Mobility assets, forward-deployed stock, ports, assembly areas, and multiple lines of communication located across the globe are vulnerable to attacks by a range of threats, but particularly by precision weapons.

- Limitations on the interoperability and capability of joint logistics information systems and joint processes/solutions across the military affects our logistics forces' efficiency and effectiveness.

In order to combat these and other vulnerabilities, we need to clearly understand the 21st century battlefield and the implications of the threats to our ability to provide the required logistics support to operations against peer and near peer adversaries. This study should focus on high-end threats, particularly Russia and China, and how their activities could challenge future logistics systems and operations.

The study will evaluate the implications of the current and emerging threats to the DoD logistics enterprise, develop concepts to mitigate these threats, and make prioritized actionable recommendations for steps that will reduce the most significant vulnerabilities. Applications of emerging technology, to include autonomous systems, applications of artificial intelligence, and information technology will be considered. Concepts that can enhance survivability of the logistics enterprise such as disaggregation, deception, and hardening will be developed and evaluated for cost effectiveness.

I will sponsor the study. General (Ret) Paul Kern and General (Ret) Duncan McNabb will serve as Co-chairmen of the study. Mr. Gary Motsek will serve as the Executive Secretary. Lt Col Victor Osweiler, U.S. Air Force, 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 the 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, the "Federal Advisory Committee Act," and DoD Directive 5105.04, the "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