



RESEARCH
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MEMORANDUM FOR CHAIR, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference – Defense Science Board Task Force on Commercial Space System Access and Integrity

The Department of Defense (DoD) increasingly uses access to commercial space systems for imagery, communication, and other purposes. Technological improvements in commercial space technology continues to enhance the quality and accessibility of commercial space products in ways that provide significant value for DoD operational needs. Because of the rapidly improving commercial space capabilities and access, a comprehensive plan for using commercial space systems in the context of classified U.S. space capabilities is needed.

Utilization of commercial space is accelerating throughout DoD at all operational levels. Mounting demand is leading to heightened competition between traditional consumers of space products at the strategic level and users operating at the operational and tactical levels. DoD faces an impending challenge in deconflicting the prioritization of those needs, efficiently managing distributed demand, and optimizing commercial space acquisition activities.

Moreover, space has become a contested environment with emerging and evolving threats to space systems. In addition to direct threats to space architecture, adversaries could disrupt DoD access to space products and services by competing as users of the same systems or by controlling access through economic means. As use of commercial space rises, such threats must be evaluated and mitigated to ensure DoD does not become overly dependent on capabilities that may or may not be available in times of armed conflict.

I am establishing the Task Force on Commercial Space System Access and Integrity (“the Task Force”) as a subcommittee of the Defense Science Board (DSB) to provide advice and recommendations on commercial space systems. The DSB, working through the Task Force, should:

- Identify the commercial space systems most useful for current and future DoD needs;
- Identify potential enhancements to commercial space systems that will improve resilience or protection against current and future threats;
- Recommend approaches for managing the priorities and governing the use of commercial space system use for DoD strategic and tactical needs. Governing options should include government-owned, contractor-operated models, as well as direct purchase or lease of products and services;
- Provide recommendations on models for acquiring commercial space services and products that best balance governmental security, accessibility, and cost factors;

- Investigate the potential risks and vulnerabilities of an adversary's exploitation or attack on U.S. use of commercial space systems. Potential vulnerabilities include privacy corruption, integrity corruption, espionage, and reduction of system availability.
- Investigate the impact and possible mitigations for potential adversary use of commercial space systems against U.S. defense systems.

The Task Force findings, observations, and recommendations will be presented to the full DSB for its thorough, open discussion and deliberation at a properly noticed and public meeting, unless it must be closed pursuant to one or more of the Government in the Sunshine Act exemptions. The DSB will provide its findings and recommendations to the USD(R&E) as the Sponsor of the DSB. The nominal start date of the study period will be within 30 days of the initial appointment of Task Force members. In no event will the duration of the Task Force exceed 12 months from the start date.

In support of this Terms of Reference (ToR) and the work conducted in response to it, the DSB and the Task Force have my full support to meet with Department leaders. The DSB staff, on behalf of the DSB and the Task Force, may request the Office of the Secretary of Defense and DoD Component Heads to timely furnish any requested information, assistance, or access to personnel to the DSB or the Task Force. All requests shall be consistent with applicable laws; applicable security classifications; DoD Instruction 5105.04, "Department of Defense Federal Advisory Committee Management Program"; and this ToR. As special government employee members of a DoD federal advisory committee, the DSB and the Task Force members will not be given any access to DoD networks, to include DoD email systems.

Once material is provided to the DSB and the Task Force, it becomes a permanent part of the DSB's records. All data/information provided is subject to public inspection unless the originating Component office properly marks the data/information with the appropriate classification and Freedom of Information Act exemption categories before the data/information is released to the DSB and the Task Force. The DSB has physical storage capability and electronic storage and communications capability on both unclassified and classified networks to support receipt of material up to the TS/SCI level.

The DSB and the Task Force will operate in conformity with and pursuant to the DSB's charter, the Federal Advisory Committee Act (5 United States Code (U.S.C.), Appendix), the Government in the Sunshine Act (5 U.S.C. § 552b), and other applicable federal statutes, regulations, and policy. Individual DSB and Task Force members and the Task Force as a whole do not have the authority to make decisions or provide recommendations on behalf of the DSB nor report directly to any Federal representative. The members of the Task Force and the DSB are subject to certain Federal ethics laws, including 18 U.S.C. § 208, governing conflicts of interest, and the Standards of Ethical Conduct regulations in 5 Code of Federal Regulations, Part 2635.



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