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6 MAY 2022

MEMORANDUM FOR CHAIR, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference – Defense Science Board Permanent Subcommittee on Nuclear Weapons Surety

I am tasking the Defense Science Board (DSB), through the establishment of the Permanent Subcommittee on Nuclear Weapons Surety (“the DSB Permanent Subcommittee”), to provide continuous, independent technical and programmatic advice regarding the safety, security, control, and reliability of the nuclear enterprise. The DSB Permanent Subcommittee members will be eminent authorities in the fields of science and technology; manufacturing; acquisition processes; nuclear delivery systems and their weapons platforms; nuclear command and control; or other matters.


As the nuclear enterprise enters into modernization phases for nearly all of its systems—ground, sea, air, and associated nuclear command, control, and communications—use of advanced technologies will play a significant role for decades to come as new systems are fielded and updates to legacy systems are implemented. Modern safety and security features for our nuclear deterrent must also account for new threats such as cyber, autonomy, artificial intelligence, and sophisticated information operations. The DSB Permanent Subcommittee will play an independent role in ensuring that new technologies and ideas improve the safety, security, and reliability of our nuclear deterrent through the modernization and sustainment lifecycle. The DSB Permanent Subcommittee will also continuously assess the progress of the nuclear modernization and sustainment programs overall.

The DSB Permanent Subcommittee 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 subject to Government in the Sunshine Act requirements. 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 the DSB Permanent Subcommittee members.

I will be the sponsor of the DSB Permanent Subcommittee. The DSB Permanent Subcommittee members are granted access to those Department of Defense (DoD) officials and data necessary for the appropriate conduct of their studies. As such, the Office of the Secretary of Defense and Component Heads are requested to cooperate and promptly facilitate requests by DSB staff regarding access to relevant personnel and information deemed necessary, as directed by paragraphs 5.1.8. and 5.3.4. of DoD Instruction 5105.04, “Department of Defense Federal Advisory Committee Management Program,” and in conformance with applicable security classifications.

The DSB and the DSB Permanent Subcommittee will operate in accordance with the provisions of 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 DSB Permanent Subcommittee members and the DSB Permanent Subcommittee as a whole do not have the authority to make decisions or recommendations on behalf of the DSB nor report directly to any Federal representative. The members of the DSB and the DSB Permanent Subcommittee are subject to certain Federal ethics laws governing conflicts of interest, including 18 USC § 208, and the Standards of Ethical Conduct regulations in 5 Code of Federal Regulations, Part 2635.

A handwritten signature in black ink, appearing to read "Heidi Shyu". The signature is fluid and cursive, with the first name "Heidi" and last name "Shyu" clearly distinguishable.

Heidi Shyu