



September 3, 2019

The Honorable James Inhofe
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

The Honorable Adam Smith
Chairman
Committee on Armed Services
House of Representatives
Washington, DC 20515

The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate
Washington, DC 20510

The Honorable Mac Thornberry
Ranking Member
Committee on Armed Services
House of Representatives
Washington, DC 20515

Dear Chairmen Inhofe and Smith, and Ranking Members Reed and Thornberry,

On behalf of the Coalition for National Security Research (CNSR), a more than 100-member coalition of industry, academia, scientific and professional associations, and non-profits, I write to commend you for your leadership in moving the fiscal year (FY) 2020 National Defense Authorization Act (NDAA) (S. 1790 & H.R. 2500) through your respective chambers. We appreciate your support for the Defense Science and Technology (S&T) program in both pieces of legislation. As negotiations continue to reconcile differences between the two bills, below please find recommendations (in no particular order) to strengthen the defense scientific research enterprise in the FY 2020 NDAA conference agreement.

Defense S&T Funding Authorization Recommendations

Investing in the Defense S&T program is essential to meeting the objectives of the *National Defense Strategy (NDS)*, including deterring adversaries, sustaining Joint Force military advantages and establishing an unmatched twenty-first century national security innovation base. The core functions of the Defense S&T program are to advance and develop the capabilities needed to ensure technological superiority over our adversaries. The Defense S&T's basic research programs have made discoveries that provided DOD with the technologies and capabilities to deter war and secure our nation.

Given that the president's budget request calls for cutting Defense S&T funding by nearly \$2 billion and basic research funding by approximately \$300 million relative to FY 2019 enacted, CNSR supports the plus ups in both S. 1790 and H.R. 2500 for the Defense S&T program. Specifically, we support additional resources for

- University Research Initiatives (all Services);
- Army University and Industry Research Centers;
- Army Cyber Collaborative Research Alliance;
- Basic Research Initiatives (including Defense Established Program to Stimulate Competitive Research (DEPSCoR));

- National Defense Education Program;
- Navy Manufacturing Technology Program;
- Defense-Wide Manufacturing S&T Program; and
- Defense-Wide National Security Innovation Network (Hacking for Defense).

Legislative Provisions

Technology and National Security Fellowship

Sec. 218 of S. 1790 and Sec. 239 of H.R. 2500 direct the Under Secretary for Research and Engineering to establish a civilian fellow program designed to place eligible individuals within the DOD to increase the number of national security professionals with science, technology, engineering, and mathematics credentials employed at DOD. The Senate NDAA authorizes fellows to serve Congress as well as DOD, therefore potentially creating additional fellowship opportunities.

Assuming appropriations are provided, this will create additional opportunities for American graduates to gain valuable work-related experience in the national security arena. With foreign competitors such as China administering opportunities like the Thousand Talents Program, now more than ever we need to invest in our own American human capital to address skills gaps, increase the number of U.S. citizens eligible to work in cleared environments, and develop the technologies that will help secure our nation in the future.

CNSR supports the inclusion of the Senate version of the Technology and National Security Fellowship provision in the FY 2020 NDAA conference agreement.

National Security Emerging Biotechnologies Research and Development Program

Sec. 231 of S. 1790 directs DOD to carry out a research and development (R&D) program in emerging biotechnologies. Establishing an emerging biotechnologies research and development program is consistent with the *National Biodefense Strategy*. The *Strategy* calls for integrating R&D into Federal planning, coordinating interagency R&D efforts, ensure decision-making is informed by sound intelligence and analysis, and promote the sustainable development of a trained biotechnologies workforce. Each of these serve as pillars in the authorization language for the National Security Emerging Biotechnologies R&D Program.

There are currently a number of R&D efforts for biotechnologies across DOD including at DARPA, Naval Research Laboratory, Army Research Laboratory and Air Force Research Laboratory. While the Under Secretary for R&E is providing technical and oversight lead for the Department's biotechnology portfolio, there is no overarching R&D effort to fill gaps in existing research and advance biotechnology science from a big picture perspective.

CNSR supports Sec. 231 of S. 1790 being included in the FY 2020 NDAA conference agreement.

Cyber Science and Technology Activities Roadmap and Reports

Sec. 232 of S. 1790 directs DOD to develop a roadmap for S&T activities to support the development of cyber capabilities to meet Department needs and missions. The Secretary is required to consult with a variety of DOD officials while developing the cyber science roadmap.

CNSR recommends expanding the list of entities for consultation to include extramural S&T-funded entities and the National Institute of Standards and Technology (NIST). Private sector entities are often at the forefront of innovations in cyber capabilities and could provide valuable insights into DOD's cyber needs. As the leading federal cyber agency, NIST could also provide insights into cyber capabilities development.

Additional Technology Areas for Expedited Access to Technical Talent

Sec. 235 of S. 1790 adds rapid prototyping and infrastructure resilience to the authority to support technical analyses and engineering through expedited acquisition avenues.

CNSR continues to work with the Department to implement expedited access to technical talent. Our conversations are occurring with officials in the Office of the Under Secretary of Defense for Research and Engineering, as well as the Office of the Under Secretary for Acquisition & Sustainment, and with individual DOD components seeking university expertise. It is our hope that contract vehicles and task orders will begin to be issued in the coming months.

CNSR supports including Sec. 235 of S. 1790 in the FY 2020 NDAA conference agreement.

Strategic Capabilities Office

Sec. 905 of S. 1790 and Sec. 226 of H.R. 2500 establish various steps DOD must take before it moves or transfers the functions of the Strategic Capabilities Office (SCO). CNSR does not have a position on whether the SCO should be moved, or its functions transferred. *However, should DOD and/or Congress change how SCO operates, we urge that existing SCO-funded projects be preserved regardless of which DOD component is serving as the administrative unit.*

It is absolutely vital that SCO-sponsored projects, such as modifying the Standard Missile 6 (SM-6) for offensive use and developing swarming drones for sea and air operations, continue to receive requested funding in order to meet their milestones and deploy new capabilities to ensure the military's technological superiority over our adversaries.

Additionally, should SCO be transferred to DARPA, we urge that the mission of DARPA remain unchanged. DARPA's focus on transformational change regardless of timeline has served the U.S. military well and should be protected from the short-term mission of typical SCO projects.

Framework to Enhance Cybersecurity of the United States Defense Industrial Base

Sec. 1634 of S. 1790 requires the Secretary to develop a consistent, comprehensive framework to enhance cybersecurity of the defense industrial base. This framework appears to be in addition to the cybersecurity regulations in DFARS and NIST information security requirements. Although Sec. 1634 does not define "defense industrial base," universities are generally considered part of the defense industrial base.

CNSR does not have concerns with reasonable cybersecurity standards for DOD-funded scientific research through contracts and subcontracts. However, Sec. 1634 does not appear to make a distinction for DOD grants. Subjecting DOD grant awards to this new comprehensive cybersecurity framework is likely to increase compliance costs significantly for research universities. Additionally, we are not aware of a stated need or emerging threat to require an extra layer of compliance requirements for grant awards. Typically, DOD grant awards result in openly publishable research findings. Why should universities be required to further protect beyond DFARS and NIST cybersecurity requirements for grant awards, especially when the results of the research will ultimately be published?

CNSR recommends the universities be excluded from Sec. 1634 of S. 1790 or, at the very least, an exclusion for DOD-funded grants be included in this section.

Consortia of Universities to Advise Secretary of Defense on Cybersecurity Matters

Sec. 1649 of S. 1790 directs DOD to establish one or more consortia to advise and assist the Secretary on matters relating to cybersecurity. These consortia would address one of the major challenges between academia and the Department – communication. Generally speaking, outreach on cybersecurity is directed to the defense industrial base but focuses on major defense contractors. Communication with academia is not nearly as widespread nor consistent.

In addition, having universities serve as trusted agents in consortia for DOD on cybersecurity matters would allow the Pentagon to leverage impartial expertise from academia. University experts can also share the latest on cutting-edge scientific cyber research that may be of interest to DOD, particularly in developing new capabilities.

CNSR supports including Sec. 1649 of S. 1790 in the final FY 2020 NDAA conference agreement.

Amendments to Research Project Transaction Authorities to Eliminate Cost Sharing Requirements and Reduce Burdens on Use

Sec. 5202 of S. 1790 eliminates cost-sharing requirements for certain Other Transaction Authorities (OTAs) including those at DARPA. For the academic community, research OTAs are still gaining widespread acceptance. University systems are tailored for traditional grants and contracts administration. Cost sharing requirements are a significant hurdle for academia to utilize research OTAs.

CNSR supports Sec. 5202 of S. 1790 be included in the FY 2020 NDAA conference agreement.

Manufacturing USA Provisions

Sec. 5206 of S. 1790 directs the Secretary to make a variety of changes to Manufacturing USA centers including leveraging existing workforce development programs. Additionally, Sec. 6008 of S. 1790 makes various changes to the DOD-sponsored Manufacturing USA centers including adding new technology areas (microelectronics, superconductors among others); requiring center

outreach to veteran owned businesses; authorizing the Secretary to designate existing centers as manufacturing centers; and requiring the establishment of performance standards for centers.

Manufacturing USA continues to be a successful public-private partnership. The \$1 billion federal investment has leveraged \$2 billion in nonfederal funding for projects with states contributing over \$400 million. The nearly 1,300 members of Manufacturing USA are working to solve challenges through applied research and development to enhance the industrial base. Sections 5206 and 6008 would further strengthen Manufacturing USA by supporting the framework that allows industry and academia to work together to develop new technologies and solutions for manufacturing in the United States.

CNSR urges Sec. 5206 and Sec. 6008 of S. 1790 be included in the FY 2020 NDAA conference agreement.

Foreign Malign Influence Operations Research Program

Sec. 218 of H.R. 2500 requires the Under Secretary for Research and Engineering to carry out a research program on foreign malign influence operations research as part of the university and other basic research programs of the Department such as the Minerva Research Initiative.

The federal government is clearly concerned about foreign influences in academia but is challenged to find solutions that adequately address the issue while maintaining the research environment that is essential to advancing science in support of national security. Establishing an effort to enhance our understanding of foreign influence operations and promote collaborative research and information exchange with the Department has the potential to lead to real solutions that academia can implement without harming the scientific research DOD relies on to advance the nation's national security.

CNSR urges that Sec. 218 of H.R. 2500 be included in the FY 2020 NDAA conference agreement.

National Security Commission on Defense Research at Historically Black Colleges and Universities (HBCU) and Other Minority Institutions (MI)

Sec. 240 of H.R. 2500 would establish an independent, temporary "National Security Commission on Defense Research at Historically Black Colleges and Universities and Other Minority Institutions" to review the state of defense research at covered institutions.

In the FY 2010 NDAA, Congress established a program to fund efforts at HBCUs and MIs to enhance defense-related research and education, increase the number of national security graduates, and encourage collaboration between these institutions and other national security organizations. Since that time, funding has been authorized for internships, fellowships, scholarships, and grants to help develop a more diverse pipeline for the national security workforce and build research capacity at covered institutions. CNSR believes this commission will examine the progress made by these programs and develop a strategy to address the ongoing underrepresentation of minorities in national security research programs.

CNSR supports Sec. 240 of H.R. 2500 be included in the FY 2020 NDAA conference agreement.

Thank you in advance for your consideration of CNSR's priorities. Please do not hesitate to contact me if we can be of any assistance as you work to finalize the FY 2020 NDAA.

Sincerely,

John Latini
Chairman