



November 11, 2021

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

The Honorable Mike Rogers
Ranking Member
Committee on Armed Services
House of Representatives
Washington, DC 20515

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

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 advancing the fiscal year (FY) 2022 National Defense Authorization Act (NDAA) (S. 2792 and H.R. 4350). We appreciate your support for the Defense Science and Technology (S&T) program in both pieces of legislation. As legislative process continues, below please find recommendations (in no particular order) to further strengthen the defense scientific research enterprise as Congress works towards enacting the FY 2022 NDAA.

Defense S&T Funding Authorization Recommendations

The Biden-Harris Interim National Security Strategic Guidance states that the United States will double down on science and technology investments and support cutting-edge technologies and capabilities that will advance our military and national security in the future. In addition, the *National Defense Strategy (NDS)* calls for establishing an unmatched twenty-first century national security innovation base and sustaining Joint Force military advantages. Robust authorization levels for the Defense S&T program in the NDAA are essential to meeting these goals and maintaining the military's global technical superiority during the era of strategic competition.

Given that the FY 2022 DoD budget request calls for cutting Defense S&T funding by more than \$2.1 billion, including defense basic research by approximately \$388 million, compared to FY 2021 Congressionally enacted levels, CNSR supports all Defense S&T plus ups in S. 2792 and H.R. 4350. Specifically, we support additional resources for:

- University Research Initiatives (all Services);
- Basic Research Initiatives (including Minerva Research Initiative and Defense Established Program to Stimulate Competitive Research (DEPSCoR));
- National Defense Education Program; and

- Defense-Wide Manufacturing S&T Program.

We greatly appreciate that both bills restore funding for the Minerva Research Initiative. As noted by DoD officials, many of the challenges we face are social or have social elements to them. The Minerva Research Initiative serves as DoD's signature social science basic research program providing an important source of new ideas to better understand social, behavioral, cultural, and political aspects that are inherent to our security and stability. Minerva research is contributing to areas of strategic interest to DoD such as COVID-19 misinformation, artificial intelligence (AI)/machine learning (ML), contested maritime water issues, cyber and ransomware, and China's rise in foreign affairs among others. We thank you for your continued support for Minerva over the past several years.

Legislative Provision Recommendations

Minority Institute for Defense Research

Sec. 214 of H.R. 4350 appears to mandate that University Affiliated Research Centers (UARC)s subcontract no less than 5 percent of every contract to minority institutions to develop their defense research capacity. While well intentioned, there will be tremendous compliance and implementation challenges associated with this mandate including the subcontracting of classified research, avoiding simply passing through funds to existing minority institutions that can perform defense research instead of building new capacity, and that the definition of minority institution in this section may exclude Native American serving among other minority institutions as defined in federal law. If Congress wants to truly build the defense research capacity of minority institutions by utilizing UARCs, additional funding should be provided to support partnerships or adding responsibilities of collaboration to existing UARC mechanisms so that specific minority institutional capacity needs can be addressed to enable the institutions to compete for defense research dollars independently in the future.

CNSR recommends that Sec. 214 of H.R. 4350 be modified to foster real capacity building collaboration opportunities between UARCs and minority institutions in the FY 2022 NDAA conference agreement.

Department of Defense Contractor Professional Training Material Disclosure Requirements

Sec. 818 of S. 2792 would require defense contractors (including universities) to publish online all internal materials and policies on diversity, equity and inclusion including syllabi, lists of guest speakers and instructors, internal policy memos, workshop descriptions, and reading lists for identification of critical race theory. This provision is incredibly burdensome and does nothing to enhance our national security. From a university perspective, this provision will force colleges and universities to push this burden down to student groups as institutions will have to adopt policies *requiring all student groups to report all guest speakers no matter what forum*. Additionally, large research universities have vast library collections. This provision will require colleges and universities to go through their entire libraries to find necessary materials – it will take hundreds of staff hours to comply with this mandate. Ultimately, this mandate means more unnecessary administrative burdens that will time away from supporting national security research and training the next generation workforce.

CNSR strongly opposes Sec. 818 of S. 2792 and respectfully requests it not be included in the FY 2022 NDAA conference agreement.

Pilot program on data libraries for training artificial intelligence models

Sec. 229 of H.R. 4350 requires the Joint Artificial Intelligence Center to establish data libraries containing DoD data sets relevant to the development of artificial intelligence (AI) software and technology among other requirements. Unfortunately, this section only requires that DoD make these data libraries available to private companies. According to data from the National Science Foundation, colleges and universities perform more than 54 percent of DoD-sponsored basic research, which is the type of research that produces revolutionary new military technologies. Furthermore, academic institutions have a long history of advancing AI technologies including helping to develop the computer chips fueling most AI technologies, unmanned aerial vehicles/drones, and unmanned underwater vehicle capabilities among others. If colleges and universities have access to more data sets from DoD, it can lead to further innovations in military technologies that would help the U.S. maintain its global military superiority.

CNSR recommends that language be added requiring that AI data sets be made available to colleges and universities in the FY 2022 NDAA conference agreement.

Report on Cybersecurity Maturity Model Certification effects on small business

Sec. 848 of H.R. 4350 requires the Secretary of Defense to submit a report on the effects of the Cybersecurity Maturity Model Certification (CMMC) framework on small businesses. The section requires DoD estimate costs of compliance and an explanation on how the Department will mitigate negative effects to small business. CMMC will impact more than just small businesses – universities will be required to participate and comply with new cybersecurity requirements as well. This could result in millions of dollars of increased costs simply to conduct research that DoD has assessed its needs the academic community to conduct to strengthen our national security.

CNSR recommends that language be added requiring colleges and universities be included as part of the report on the effects of the CMMC in the FY 2022 NDAA conference agreement.

Feasibility study regarding establishment within the Department of Defense a designated central office, headed by a senior department official, responsible for overseeing all academic engagement programs focusing on creating cyber talent across the Department

Sec. 1531 of H.R. 4350 directs the Secretary to conduct a feasibility study of establishing a central program office responsible for overseeing all academic engagement programs focusing on creating cyber talent across DoD. As noted in the Cyberspace Solarium Commission’s final report, “the federal government must reform how it recruits, trains, and educates its workforce to ensure that it has the necessary cybersecurity talent¹. From our perspective, a central office for academic institutions to engage with is a desperately needed reform at DoD. Industry and small businesses have many different access points to DoD officials – colleges and universities do not outside of the Basic Research Office, which does not have authority over cybersecurity matters. Increasing collaboration with the academic community and DoD can improve the development of cyber talent DoD needs to succeed in the era of strategic competition.

¹ https://drive.google.com/file/d/1ryMCIL_dZ30QyjFqFkfk10MxIXGT4yv/view

CNSR supports Sec. 1531 of H.R. 4350 being included in the FY 2022 NDAA conference agreement.

Admission of essential scientists and technical experts to promote and protect National Security Innovation Base

Sec. 6446 of H.R. 4350 would allow for limited admission of essential scientists and technical experts to promote and protect the national security innovation base. As noted in the *NDS*, “recruiting, developing and retaining a high-quality military and civilian workforce is essential for warfighting success.” Without the best and brightest minds in the world working on complex military problems, scientists and technical experts could end up supporting strategic competitor nations. Permitting limited admission to the United States of key individuals with specific talents to enhance our national security is smart public policy and will enhance our military’s ability to maintain its global technological superiority.

CNSR supports Sec. 6446 of H.R. 4350 being included in the FY 2022 NDAA conference agreement.

Modification of mechanisms for expedited access to technical talent and expertise at academic institutions to support Department of Defense missions

Sections 212 and 213 of H.R. 4350 encourage the sharing of information on research consulting in DoD-wide information sharing systems and adds nuclear science, security, and non-proliferation; chemical, biological, radiological, and nuclear defense; and spectrum activities as mission areas. Sec. 212 specifically extends authorization of this authority through FY 2028.

CNSR continues to hope that DoD will expedite implementation of this authority to expedite access to technical talent at colleges and universities. It is our understanding that the Offices of the Under Secretary for Research and Engineering and Acquisition and Sustainment are collaborating on implementation. It is our hope that contracts and task orders will begin to be issued in the coming months.

CNSR supports including Section 212 and 213 of H.R. 4350 in the FY 2022 NDAA conference agreement.

Defense Industrial Base Coalition for Career Development

Sec. 844 of H.R. 4350 would require the establishment of a coalition among eligible institutions of higher education, career and technical education programs, workforce development boards, labor organizations, and organizations representing defense industrial base contractors to focus on career pathways for individuals seeking careers in manufacturing among other items. In August of 2021, there were nearly 900,000 manufacturing job openings². A study by Deloitte and The Manufacturing Institute concludes that U.S. manufacturing is expected to have 2.1 million unfilled jobs by 2030³. Manufacturing is the foundation of the defense industrial base and our national security depends on the ability of the defense industrial base to develop and

² <https://www.bls.gov/news.release/jolts.t01.htm>

³ <https://www2.deloitte.com/us/en/insights/industry/manufacturing/manufacturing-industry-diversity.html>

build the goods and services needed to preserve the military's global dominance⁴. Consequently, Congress must support efforts to address the manufacturing skills gaps as global strategic competition increases in the coming years.

CNSR support Sec. 844 of H.R. 4350 being included in the FY 2022 NDAA conference agreement.

Codification of Requirement for Defense Established Program to Stimulate Competitive Research

Sec. 233 of S. 2792 creates in statute the Defense Established Program to Stimulate Competitive Research (DEPSCoR), which awards defense research and infrastructure funding to institutions of higher education in underutilized states and territories. DoD often relies on scientists and engineers on an as-needed basis. It is therefore critical that the Department support communities in states that typically are not heavily involved in defense research – not doing so could harm innovation and limit talent development opportunities for future scientists and engineering which are just beginning to emerge.

CNSR supports Sec. 233 of S. 2792 being included in the FY 2022 NDAA conference agreement.

Public-private consortium to improve professional military education

Sec. 559F of H.R. 4350 authorizes the Secretary to establish and maintain a public-private consortium to improve and broaden professional military education for military officers and civilian employees of the federal government. The long-term national security challenges for the United States are broad and encompass not just military preparedness but also the economic, technological, and political spheres. The consortium authorized in Sec. 559F would bring the military education system together with a broad group of civilian institutions of higher education, policy research institutes, and the commercial sector to research, develop, and implement professional military education course curricula related to geo-economics, innovation, and national security to meet the needs of an era of great power competition.

CNSR support including Sec. 559F of H.R. 4350 in the FY 2022 NDAA conference agreement.

Finally, CNSR is generally supportive of the following sections from both the House and Senate bills being included in the FY 2022 NDAA conference agreement:

- ***Sec. 315 of S. 2792. Demonstration Program on Domestic Production of Rare Earth Elements from Coal Byproducts***
- ***Sec. 906 of S. 2792. Management Innovation Activities***
- ***Sec. 1608 of S. 2792. Improvements to Consortium of Universities to Advise Secretary of Defense on Cybersecurity Matters***

⁴ https://www.businessdefense.gov/Portals/51/USA002573-20%20ICR_2020_Web.pdf?ver=o3D76uGwxcg0n0Yxvd5k-Q%3d%3d

- *Sec. 3125 of S. 2792. Environmental Management University Program*

Thank you in advance for consideration of our recommendations. Please do not hesitate to contact me with any questions.

Sincerely,

John Latini
Chairman