



# FY 2023 Appropriations Priorities Defense

## **DEPARTMENT OF DEFENSE (DoD)**

### **SCIENCE AND TECHNOLOGY (S&T) (6.1 - 6.3)**

**APLU FY2023 Request: \$20.025 billion**

**FY2023 PBR = \$16.455; FY2022= \$18.892 billion;**

**FY2021 = \$16.873 billion**

To advance the national security of the United States, it is critical our military remain on the leading edge of scientific and technological capabilities. The S&T program supports cutting-edge research that leads to the development of new defense and safety capabilities, warfare technologies, and weapon systems.

We must maintain a strong investment in our defense science and research efforts if we intend to stay ahead of our adversaries. Tomorrow's military capabilities depend on the R&D investments we make today. Through partnerships with the research community, Department of Defense basic research is securing our nation's future military capabilities in areas such as quantum computing, artificial intelligence, and advanced autonomous systems.

### **BASIC RESEARCH (6.1)**

**APLU FY2023 Request: \$2.929 billion**

**FY2023 PBR = \$2.376 billion; FY2022= \$2.763 billion;**

**FY2021 = \$2.671 billion**

Discoveries from defense basic research have led to paradigm shifts in military capabilities that are supporting the men and women in the military today. In addition to advocating for strong funding for all defense basic research efforts, APLU encourages a six percent increase from FY22 levels for each of the below basic research program elements. These requested funding levels are consistent with "Innovation: An American Imperative"<sup>1</sup> and the National Defense Strategy Commission's 2018 report<sup>2</sup>, as well as the recent report from the American Academy of Arts and Sciences (AAAS). The AAAS report recommends a sustained real growth rate above the rate of inflation of *at least* four percent for basic research across the federal government, with commensurate growth in applied research investment trajectories, in order to maintain U.S. research and development leadership internationally.<sup>3</sup> This request level includes the recommended growth rate of four percent, plus an additional two percent to conservatively reflect inflation.

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<sup>1</sup> Innovation Imperative, 2018. Available at <https://innovation-imperative.herokuapp.com/index.html>

<sup>2</sup> Providing for the Common Defense: The Assessments and Recommendations of the National Defense Strategy Commission, 2018. Available at <https://www.usip.org/publications/2018/11/providing-common-defense>

<sup>3</sup> American Academy of Arts and Sciences, "Restoring the Foundation: The Vital Role of Research in Preserving the American Dream" 2014. Updated 2018. Available at <https://innovation-imperative.herokuapp.com/index.html>

<b>Agency/Account</b>	<b>Item</b>	<b>Program Element (PE)</b>	<b>APLU Request (in thousands)</b>
Army RDT&E	Defense Research Sciences	601102A	392,455
Army RDT&E	University Research Initiatives	601103A	97,500
Army RDT&E	University and Industry Research Centers	601104A	134,888
Navy RDT&E	University Research Initiatives	601103N	185,392
Navy RDT&E	Defense Research Sciences	601153N	554,826
Air Force RDT&E	Defense Research Sciences	601102F	374,501
Air Force RDT&E	University Research Initiatives	601103F	198,647
Defense-Wide RDT&E	DTRA Basic Research Initiatives	601000BR	12,538
Defense-Wide RDT&E	Basic Research Initiatives	601110D8Z	81,438
Defense-Wide RDT&E	National Defense Education Program	601120D8Z	153,907

APLU urges Congress to provide robust funding for the Minerva Research Initiative (MRI), which is DoD’s signature social science basic research program that funds university-led teams to address problems of strategic importance to U.S. national security. Through MRI grants, university researchers help DoD better understand complex issues such as statecraft, influence, and regional power balances; alliances and burden sharing; economic interdependence and security; and autonomy, artificial intelligence, machine ethics, and social interactions. Thanks to university research funded through the MRI, DoD personnel have the tools to better understand sociopolitical implications in various regions that impact national security and will be more adaptable to future technological capabilities such as artificial intelligence. In FY2021, Minerva only funded 17 projects but received approximately 220 applications<sup>4</sup>. By only funding seven percent of applications, DoD is missing out on new ideas that will enable the U.S. to maintain military superiority with competitor nations and better prepare our armed forces both at home and abroad. With increased appropriations in FY23, the Department will be able to fund more strong MRI proposals. APLU requests \$TBD for the Minerva Research Initiative in FY2023 within the Basic Research Initiatives line.

APLU also requests support of the applied program elements delineated below. The Defense-Wide Manufacturing Science and Technology Program supports the Manufacturing USA network. Manufacturing USA is a network of 16 manufacturing institutes where universities, industry, and government partners collaborate to develop and accelerate the commercialization of innovative manufacturing technologies. Currently, the DoD sponsors nine of the sixteen institutes. The goal of DoD investments in the Manufacturing USA network is to support regional hubs to accelerate technological innovation into commercial application and concurrently develop the educational competencies and production processes via shared public-private sectors. Manufacturing leadership is essential to sustaining the U.S. military’s technical superiority and global dominance.

<sup>4</sup> [Department of Defense Awards \\$28.7M in Grants for the FY2021 Minerva Research Initiative > U.S. Department of Defense > Release](#)

Healthy soldiers and families lead to a strong military. It is imperative for DoD to contribute to curing diseases that affect not only men and women in the military, but also the public since we have an all-volunteer force. The Undistributed Medical Research/Peer-Reviewed programs play a vital role in ensuring the U.S. has the medical technologies necessary to enable military readiness and serve those who have been wounded on the battlefield. CDMRP grants are awarded to universities to study illnesses and therapeutic remedies to areas such as Alzheimer’s Disease, kidney and lung cancer, and ALS.

<b>Agency/Account</b>	<b>Item</b>	<b>Program Element (PE)</b>	<b>APLU Request (in thousands)</b>
Defense Wide RDT&E	Defense-Wide Manufacturing S&T Technology Program	603680D8z	271,007
DHP RDT&E	Undistributed Medical Research/ Peer-Reviewed (CDMRPs)	N/A	1,959,092

## **DEFENSE ADVANCED RESEARCH PROJECTS AGENCY (DARPA)**

**APLU FY2023 Request: \$4.119 billion**

**FY2023 PBR = \$4.119 billion; FY2022= \$3.857 billion;**

**FY2021 = \$3.501 billion**

DARPA has a singular and important mission: to make pivotal investments in breakthrough technologies for national security. DARPA funds high-risk, high-reward research at universities and with industry members which has led to many significant defense technologies, some of which have also evolved into remarkable civilian applications. For example, DARPA funded projects have led to military capabilities such as precision weapons and stealth technology, but also such icons of modern civilian society such as the Internet, automated voice recognition and language translation, and Global Positioning System (GPS) receivers small enough to embed in numerous consumer devices.

DARPA searches for and funds potentially transformational projects by working within an innovation ecosystem that includes academic, corporate, and governmental partners, with a constant focus on the nation’s military needs. As Congress seeks to optimally allocate limited resources, cutting-edge national security research should remain a top priority.

### **ABOUT THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES**

*APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities. With a membership of 244 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. Annually, its 202 U.S. member campuses enroll 4.2 million undergraduates and 1.2 million graduate students, award 1.2 million degrees, employ 1.1 million faculty and staff, and conduct \$48.7 billion in university-based research.*