

FISCAL YEAR 2022

# NATIONAL DEFENSE AUTHORIZATION ACT

Senate Armed Services  
Committee

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U.S. Senator Jack Reed, Chairman  
U.S. Senator Jim Inhofe, Ranking Member

# PREFACE

Each year, the National Defense Authorization Act (NDAA) authorizes funding levels and provides authorities for the U.S. military and other critical defense priorities, ensuring our troops have the training, equipment, and resources they need to carry out their missions. On July 21, 2021, the Senate Armed Services Committee voted in bipartisan fashion, 23-3, to advance the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2022 to the Senate floor.

The United States is engaged in a strategic competition with China and Russia, near-peer rivals that do not accept U.S. global leadership or the international norms that have helped keep the peace for the better part of a century. This strategic competition is likely to intensify due to shifts in the military balance of power and diverging visions of governance models between China and Russia and the West. This competition is now unfolding amidst a global pandemic, natural disasters, and the introduction of disruptive technologies. The interconnected nature of these threats will drive how the United States resources and transforms its tools of national power to respond to these complex security challenges. The passage of the National Defense Authorization Act for Fiscal Year 2022 is an important step in achieving that objective.

## FY 2022 DEFENSE FUNDING LEVELS

The 61<sup>st</sup> annual NDAA supports a total of \$777.9 billion in fiscal year 2022 funding for national defense. Within this topline, the legislation authorizes \$740.3 billion for the Department of Defense (DOD) and \$27.7 billion for national security programs within the Department of Energy (DOE). This legislation, like the President’s budget request, does not include a separate Overseas Contingency Operations (OCO) request – any war-related costs are included in the base budget.

<b>FY22 Defense Funding Levels (in billions of dollars)</b>	
Department of Defense	\$740.3
Department of Energy	\$27.7
NDAA Topline	\$768.0
Defense-related Activities Outside NDAA Jurisdiction	\$9.9
<b>National Defense Topline</b>	<b>\$777.9</b>

The bill allows up to \$6 billion in general transfer authority for unforeseen higher-priority needs in accordance with normal reprogramming procedures.

# MAJOR HIGHLIGHTS

1. Strengthens the All-Volunteer Force and improves the quality of life of the men and women of the total force (Active Duty, National Guard, and Reserves), their families, and Department of Defense civilian personnel, while reinforcing the principles of a strong, diverse, inclusive force; that force cohesion requires a command climate that does not tolerate extremism, sexual misconduct or sexual harassment; and that quality health care is a fundamental necessity for servicemembers and their families.
  - Includes funding to support a 2.7 percent pay raise for both military servicemembers and the DOD civilian workforce.
  - Amends the Military Selective Service Act to require the registration of women for Selective Service.
  - Creates a new category of bereavement leave for military personnel that would permit servicemembers to take up to two weeks of leave in connection with the death of a spouse or child.
  - Increases parental leave to 12 weeks for all servicemembers for the birth, adoption, or foster care placement of a child.
  - Establishes a Basic Needs Allowance to ensure that all servicemembers can meet the basic needs of their families.
  - Requires parity in special and incentive pays for members of the reserve and active components.
  - Authorizes an increase in funding of \$70 million for Defense-wide Operations & Maintenance, Department of Defense Education Activity, for Impact Aid, including \$20 million for military children with severe disabilities.
  
2. Supports the DOD and provides the resources needed by the combatant commands to carry out the National Defense Strategy (NDS) and ensure the United States can out-compete, deter, and prevail against near-peer rivals.
  - Authorizes fiscal year 2022 active-duty end strengths for the Army of 485,000; the Navy, 346,200; the Marine Corps, 178,500; the Air Force, 329,220; and the Space Force, 8,400.
  - Establishes a Commission on the National Defense Strategy to provide an independent review and assessment of the forthcoming NDS.
  - Extends and modifies the Pacific Deterrence Initiative and reiterates the committee's intent to improve our force posture in the Indo-Pacific, increase readiness and presence, and build the capabilities of our partners and allies to counter the growing threat from and increasing aggression of China.
  - Expresses the sense of the committee that future investments under the Pacific Deterrence Initiative should be focused on military and non-military

infrastructure in the Indo-Pacific region to assist in distributed military operations and counter predatory Chinese infrastructure development practices.

- Establishes the Arctic Security Initiative to improve DOD coordination in achieving U.S. objectives in the Arctic.
3. Enhances deterrence by recapitalizing and modernizing the U.S. nuclear triad; ensuring the safety, security, and reliability of our nuclear stockpile, delivery systems, and infrastructure; increasing capacity in theater and homeland missile defense; and strengthening nonproliferation programs.
- Authorizes the activities of the National Nuclear Security Administration (NNSA) at \$20.07 billion; the Department of Energy's other defense activities at \$920 million; and the Department of Energy's nuclear energy activities at \$149.8 million.
  - Authorizes the procurement of the Iron Dome short-range rocket defense system, David's Sling Weapon System, and Arrow 3 Upper Tier Interceptor Program to support our closest ally in the Middle East, Israel.
  - Authorizes the Missile Defense Agency to develop a highly reliable missile defense interceptor for the Ground-Based Midcourse Defense system.
  - Authorizes \$239.84 million for the Cooperative Threat Reduction (CTR) program to stem the proliferation of nuclear, chemical and biological threats around the world.
4. Accelerates the modernization of the Department across all domains and operational capabilities by investing in research and development of cutting-edge technologies and delivering them in a timely manner to the force.
- Authorizes an increase of more than \$1 billion in funds available for science and technology programs that fund cutting-edge research and prototyping activities at universities, small businesses, defense labs, and industry, including in critical areas such as artificial intelligence, microelectronics, advanced materials, 5G, and biotechnology.
  - Authorizes an increase of more than \$500 million in funding for Defense Advanced Research Projects Agency's (DARPA) high-risk, high-payoff research, including in areas such as quantum computing and university research.
  - Implements a number of recommendations from the National Security Commission on Artificial Intelligence, which the committee established in a previous National Defense Authorization Act.
  - Strengthens the language of the CHIPS Act to establish the national network for microelectronics research and development to support the development of world-leading domestic microelectronics manufacturing capability.

- Requires the Under Secretary of Defense for Research and Engineering to conduct an analysis comparing the research and development efforts of the United States and China on certain critical, militarily-relevant technologies.
5. Improves the ability of our Armed Forces to counter threats and promote U.S. freedom of action in the information environment including by countering information warfare, foreign malign influence, competition below the level of direct conflict, and hybrid warfare.
    - Requires the Secretary of Defense to submit a report on the activities and programs of DOD to implement the irregular warfare strategy consistent with the 2019 Irregular Warfare Annex to the National Defense Strategy (NDS).
    - Requires the Secretary of Defense to develop and implement security cooperation strategies for each of the geographic combatant commands.
  6. Improves efficiencies in resource allocation within the Department through transformations of the planning and budgeting process, acquisition process, and management structure and culture.
    - Establishes a Commission on Planning, Programming, Budgeting, and Execution (PPBE) Reform to provide an independent review and assessment of the PPBE process of DOD.
    - Requires DOD Comptroller, along with DOD's Chief Information Officer (CIO) and Chief Data Officer, to submit a plan to consolidate the IT systems used to manage data and support the PPBE process.
    - Requires the Secretary of Defense to establish a set of management innovation activities to better leverage commercial management best practices and expertise from leading management, public administration, and business schools to support modernization of Pentagon management practices.
  7. Protects and strengthens our national security industrial base by prioritizing supply chain security; improving technology security; and investing in next-generation technologies that will ensure U.S. military competitiveness.
    - Directs the Comptroller General to conduct a comprehensive assessment of Research, Development, Test and Evaluation (RDT&E) authorities and other similar authorities and brief Congress on its findings.
    - Requires the development a joint zero trust strategy and a model architecture for the Department of Defense Information Network and a data management strategy.
    - Authorizes an increase of \$268.4 million across the DOD to support cybersecurity efforts.

8. Strengthens existing U.S. alliances and partnerships, builds mutually beneficial new partnerships, and leverages opportunities in international cooperation to ensure U.S. success in competition against other great powers.
  - Requires the Secretary of Defense to provide recurring briefings on efforts to deter Chinese aggression and military coercion.
  - Requires a briefing on the advisability and feasibility of increasing United States defense cooperation with Taiwan.
  - Expresses the sense of the Senate that the United States' commitment to the North Atlantic Treaty Organization is ironclad and emphasizes the importance of expanding cooperation on shared security challenges.
  - Authorizes the appropriation of funds for the Afghanistan security forces beyond the transition of U.S. and coalition nations from the country.
  - Authorizes the Department to transport Afghan special immigrant visa (SIV) candidates and other threatened Afghan partners outside of Afghanistan for visa processing, and emphasizes the Committee's strong support for the SIV program.
  - Includes a provision to make the U.S.-Israel Operations and Technology Working Group of the Defense Acquisition Advisory Group mandatory and directed further collaboration between the United States, Israel, Egypt, Jordan, and the signatories of the Abraham accords.

# DETAILED DESCRIPTION BY SUBCOMMITTEE

## SUBCOMMITTEE ON AIRLAND

Under the leadership of Chairwoman Tammy Duckworth (D-IL) and Ranking Member Tom Cotton (R-AR), the subcommittee mark accelerates modernization of the Army and Air Force by investing in research and development of future technologies while maintaining appropriate levels of procurement and maintenance for enduring capabilities. The Airland Subcommittee mark also focuses on filling critical deficiencies and increasing investments in rapidly evolving domains, while recognizing the importance of the total force.

### Army

- Authorizes procurement of AH-64E Apache helicopters.
- Increases research, development, test and evaluation funding for Army modernization priorities and enduring capabilities that enable multi-domain operations against near-peer competitors.
- Increases procurement of enduring combat aircraft, armored fighting vehicles, and munitions at or above the Chief of Staff unfunded requirements list level.
- Supports requested funding for rapid development and fielding of land-based long-range fires, including Precision Strike Missile (PrSM), Medium-Range Capability (MRC), and Long-Range Hypersonic Weapon (LRHW), but requires a report on LRHW munitions costs and alternatives.
- Supports requested funding for Future Long-Range Assault Aircraft (FLRAA) and Future Attack Reconnaissance Aircraft (FARA), and increases funding for Future Tactical Unmanned Aircraft System (FTUAS).
- Authorizes increased funding for enduring UH-60L Black Hawk and CH-47F Block-II Chinook helicopters by \$377 million, and authorizes procurements of AH-64E Apache and UH-60M and HH-60M Black Hawk helicopters.
- Authorizes increased funding for enduring aircraft improvements, including \$15 million for Apache non-line-of-site munitions integration and improved tail rotor, and \$21 million total for Chinook advanced engine development, vibration control system, and integrated cargo handling and ballistic protection.
- Supports Next Generation Combat Vehicle programs, including Mobile Protected Firepower (MPF), Robotic Combat Vehicles (RCV) and Optionally-Manned Fighting Vehicle (OMFV), but requires a report on analysis used to refine OMFV requirements before physical prototyping.

- Authorizes increased funding by \$746 million for procurement of enduring combat vehicles, including the Abrams tank, Bradley fighting vehicle, Paladin self-propelled howitzer, and Joint Light Tactical Vehicle.
- Authorizes increased funding for continued development of enduring combat vehicles including \$64 million for Abrams tank technologies and \$21 million for Stryker and Bradley active protection systems.
- Requires the Army to establish military standards for high-hardness armor and a strategy for its incorporation into combat vehicles.
- Requires a report on tactical and combat vehicle electrification, and authorizes increased funding for development of the Electronic Light Reconnaissance Vehicle (eLRV).
- Supports requested funding for Integrated Air and Missile Defense capabilities, and requires a report on the Army's efforts to reconstitute its Short Range Air Defense (SHORAD) capabilities to meet current and future air threats to ground forces.
- Supports procurement of the Integrated Visual Augmentations System (IVAS) consistent with ongoing development, and requires a post-operational-test report on system development, functionality, and suitability, and the plan for continued iterative improvement.
- Supports continued improvements to body armor to include assessing the benefits of using Warm Isostatic Press technology to reduce weight, authorizing an additional \$2.9 million for development of anthropomorphic body armor, and ensures procurement practices prioritize servicemembers over cost savings.
- Authorizes increased funding for man-portable radiological detection systems for National Guard Chemical, Biological, Radiological, Nuclear (CBRN) response teams.
- Requires reports on future funding adequacy for CH-47F Block II, armored combat vehicles, and munitions.
- Authorizes all other unfunded requirements as requested by the Chief of Staff of the Army.

### **Air Force**

- Extends the requirement to maintain a minimum capacity of Air Force fighter aircraft.
- Prohibits the Air Force from developing a follow-on tanker to the KC-46 until the Remote Vision System (RVS) is fully operational.
- Prohibits reduction in the Air Force's C-130 total aircraft inventory below 292 aircraft.
- Prohibits retiring any A-10 aircraft in fiscal year 2022.
- Authorizes retirement of up to 18 KC-135 aircraft and 12 KC-10 aircraft in fiscal year 2022 to facilitate the acceleration of KC-46 bed down.
- Prohibits further reductions in B-1 bombers until such time as the B-21 aircraft begins fielding.
- Directs DOD transition of F-35 program sustainment from the Joint Program Office to the Air Force and Navy.



- Authorizes \$4.285 billion for the F-35A program, including an increase of:
  - \$85 million for the purchase of an additional F-35A; and
  - \$175 million for the purchase of F135 power modules and \$185 million for weapons system sustainment of F-35As.
- Authorizes an additional \$575 million to purchase five additional F-15EX aircraft.
- Authorizes \$638.2 million for F-16 modifications, including an increase of \$25 million for the procurement of additional AESA radar sets across the entire F-16 fleet.
- Directs the Secretary of the Air Force to provide a briefing to the congressional defense committees not later than December 15, 2021, addressing Air Force airborne electronic attack systems.
- Encourages the Air Force to move more rapidly in developing and adopting airborne augmented reality technologies that contribute to improved training outcomes and reduce net training costs.
- Directs the Secretary of the Air Force to provide a report to the congressional defense committees, not later than February 15, 2022, on the Air National Guard's F-16 self-protection capabilities against existing and projected surface-to-air and air-to-air weapons.
- Directs the Secretary of the Air Force, in consultation with the Secretary of the Navy, to provide to the congressional defense committees, not later than January 31, 2022, a report describing the feasibility of Agile Combat Employment exercises in the Pacific, Europe, and within the continental United States and Alaska.
- Directs the Secretary of the Air Force and the Secretary of the Navy to conduct a study and provide a report not later than June 1, 2022, on the efficiency of the various pilot training initiatives and pilot programs being undertaken with respect to the quality of graduates.
- Authorizes an increase of \$30 million for Air Force advanced engine development.
- Authorizes \$201.6 million for the Skyborg program, an increase of \$75 million for the purchase of Valkyrie aircraft.
- Authorizes an increase of \$20 million for F-35 continuous capability development and delivery.
- Authorizes \$125 million for to accelerate the use of unmanned aircraft as augmented adversary support.
- Directs the Secretary of the Air Force to conduct a study on options for maintaining 225 bombers after 2050, and submit the results of that study to the congressional defense committees with the budget request for fiscal year 2023.
- Authorizes all other unfunded requirements as requested by the Chief of Staff of the Air Force.

**Defense Wide**

- Directs the Secretary of the Air Force to provide a report on the Air Force's ability to expand digital engineering capabilities to a wide range of aircraft programs, high-cost structural parts, systems, and subsystems, as well as the plans to securely and effectively interchange data with operating locations to enable the local implementation of advanced manufacturing and sustainment operations.
- Directs the Secretary of Defense to develop criteria and a template for evaluating potential use of commercial autonomous capability with existing vehicles and aircraft and to provide a report on the development of the same to the congressional defense committees with the budget request for fiscal year 2023.
- Directs the Secretary of Defense to submit a report to the congressional defense committees on Joint Surveillance and Target Attack Radar System modifications.
- Directs the military service chiefs to provide a report on cryptographic modernization and resiliency of communications systems.
- Directs the Secretary of Defense to provide a report to the congressional defense committees on DOD's military aviation training capabilities and capacity for training foreign pilots through 2030.
- Authorizes \$66.4 million for foreign material acquisition and exploitation, a reduction of \$5 million.
- Directs the Secretary of Defense to provide the congressional defense committees a report on DOD's foreign military aviation training capabilities and capacity through 2030.
- Directs the Secretary of Defense to deliver a report to the defense committees on hypersonic test facilities.
- Directs the Secretary of Defense to conduct a study of all pilot ejections from DOD aircraft from 1985 to the present to examine injuries to pilots, determine mitigations to injury, and inform design of future ejection seat systems.
- Directs the Vice Chairman of the Joint Chiefs, in coordination with the Chiefs of the Military Services and Commanders of U.S. Indo-Pacific Command (INDOPACOM) and U.S. European Command (EUCOM), to conduct an assessment of Joint Force capability and capacity to defend against anticipated complex, high-volume, advanced missile attacks.

# SUBCOMMITTEE ON CYBERSECURITY

Under the leadership of Chairman Joe Manchin (D-WV) and Ranking Member Mike Rounds (R-SD), the subcommittee continues its efforts to strengthen and support the cybersecurity posture of the DOD, the defense industrial base, and critical infrastructure. The subcommittee mark emphasizes the need for the DOD to adopt innovative and modern cybersecurity strategies, tools, and technologies. Recognizing the ongoing risks presented by cyberattacks, the subcommittee also requires an assessment of the current and emerging offensive cyber posture of adversaries and plans for U.S. offensive cyber operations during potential conflict. The subcommittee mark also requires an assessment of DOD's policy, capacity, and capability to defend the United States from ransomware attacks.

## **Strengthening DOD's Cybersecurity Posture**

- Requires the development a joint zero trust strategy and a model architecture for the Department of Defense Information Network and a data management strategy.
- Requires a program to demonstrate and assess an automated security validation capability to assist the Department in cybersecurity efforts.
- Directs an assessment of the utility and cost-benefits of using capabilities to make risk-based vulnerability remediation decisions, identify key cyber terrain and assets, identify single-node mission dependencies, and monitor for changes in mission threat execution.
- Authorizes an increase of \$268.4 million across the DOD to support cybersecurity efforts.

## **Enhancing CYBERCOM's Authorities and Capabilities**

- Authorizes full funding for U.S. Cyber Command (CYBERCOM).
- Assigns to the Commander, CYBERCOM, responsibility for directly controlling and managing the planning, programming, budgeting, and execution of the resources to maintain the Cyber Mission Forces.
- Requires the Commander, CYBERCOM, to establish a voluntary process for engaging with the commercial information technology and cybersecurity companies to develop methods of coordination to protect against foreign malicious cyber actors.
- Encourages CYBERCOM Joint Force Headquarters-Department of Defense Information Networks (JFHQ-DODIN) to explore further application of commercial off-the-shelf solutions across the command to address urgent intelligence and operations gaps.

## **Responding to the Cyber Threat Environment**

- Requires an assessment of the current and emerging offensive cyber posture of adversaries of the United States and the plans of the military services for offensive cyber operations during potential conflict.

- Requires an assessment of the policy, capacity, and capabilities of DOD to defend the United States from ransomware attacks.
- Requires the Secretary of Defense to develop a pilot program to assess the feasibility and advisability of entering into voluntary public-private partnerships with Internet ecosystem companies to discover and disrupt the use of their platforms, systems, services, and infrastructure by malicious cyber actors.
- Directs DOD to conduct an assessment of the need to establish a cyberspace foundational and science and technical intelligence center; focus on wargaming activities and capabilities; and enhance operation models and simulations.
- Requires the Secretary of Defense to submit a report on the plans for the Cyber Maturity Model Certification Program.
- Strengthens the university cyber consortium of academic institutions that have been designed as Cyber Centers of Academic Excellence for cyber operations, cyber research, and cyber defense.
- Directs the establishment of a working group to review and propose updates to DOD and component acquisition policy and guidance on cybersecurity requirements for systems and weapon acquisitions and report on specific proposals for updating policy and guidance.
- Directs the Comptroller General to assess DOD's efforts to address information and communications technology supply chain risks.
- Requires a report on ways the DOD can improve support to the Cybersecurity and Infrastructure Security Agency to increase awareness of threats and vulnerabilities.

# SUBCOMMITTEE ON EMERGING THREATS AND CAPABILITIES

Under the leadership of Chairman Mark Kelly (D-AZ) and Ranking Member Joni Ernst (R-IA), the subcommittee mark advances many important priorities – including supporting the development of new capabilities necessary for long-term strategic competition with China and Russia, enabling security cooperation with foreign partners, and providing resources for special operations forces.

## **Research, Development, Test, and Evaluation**

- Authorizes an increase of more than \$1 billion in funds available for science and technology programs that fund cutting-edge research and prototyping activities at universities, small businesses, defense labs, and industry, including in critical areas such as artificial intelligence, microelectronics, advanced materials, 5G, and biotechnology.
- Authorizes an increase of more than \$500 million in funding for DARPA’s high-risk, high-payoff research, including in areas such as quantum computing.
- Authorizes nearly \$2.5 billion for defense university research programs of the military services and DARPA.
- Implements a number of recommendations from the National Security Commission on Artificial Intelligence, including accelerating processes to apply artificial intelligence capabilities to military systems, processes, and operations.
- Requires the Secretary of Defense to establish a set of activities to accelerate the development and deployment of a large-scale, dual-use quantum computing capability.
- Mandates the establishment of the microelectronics research network, originally established in the Creating Helpful Incentives to Produce Semiconductors for America Act (CHIPS Act).
- Strengthens the ability of the Department of Defense laboratories and DARPA to hire and retain world-class technical talent.
- Requires the Secretaries of the military departments to establish pilot programs for telecommunications infrastructure to facilitate the deployment of 5G wireless telecommunications on military installations, and submit regular reports to Congress.
- Directs the Comptroller General to conduct an assessment of the DOD trusted supply chain and operational security standards for the purchase of microelectronic products and services.
- Authorizes funding for all other unfunded requirements as requested by the Commanders of EUCOM, AFRICOM, CENTCOM, NORTHCOM, and SOUTHCOM.

## **Operation and Maintenance**

- Authorizes an increase of \$67.0 million for U.S. Africa Command (AFRICOM) for intelligence, surveillance, and reconnaissance (ISR).
- Authorizes an increase of \$40.2 million for Southern Command (SOUTHCOM) ISR operations.
- Decreases by \$5.0 million funds for the Office of Security Cooperation-Iraq as the office continues its transition to a normalized security cooperation office.
- Authorizes an increase of \$5.4 million for acceleration of U.S. Special Operations Command (SOCOM) personal signature management capabilities.
- Increases funds for analytic tools for Defense Counterintelligence and Security Agency to assess foreign ownership, control or influence of contractors or subcontractors as required by section 847 of the National Defense Authorization Act for Fiscal Year 2020.
- Authorizes an increase of \$60.0 million for AFRICOM security cooperation programs and activities.
- Authorizes an increase of \$50.0 million for the Ukraine Security Assistance Initiative.
- Authorizes funding for all other unfunded requirements as requested by the Chief of the National Guard Bureau and the Commanders of EUCOM, AFRICOM, CENTCOM, NORTHCOM, and SOUTHCOM.

## **Special Operations**

- Directs an updated manpower study to ensure the office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict has the personnel and resources it needs to fulfill its “service secretary-like” responsibilities for the oversight of and advocacy for special operations forces.
- Adds more than \$200 million for unfunded requirements identified by the Commander of SOCOM.
- Prohibits the acquisition of armed overwatch aircraft for the SOCOM until after the submission of a report on airborne intelligence, surveillance, and reconnaissance requirements directed by the FY21 NDAA and directs the Director, Cost Assessment and Program Evaluation, to provide an independent assessment of SOCOM's Armed Overwatch program at the same time as the submission of the President’s budget request for fiscal year 2023.
- Requires the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict and the Commander of SOCOM to submit a special operations forces joint operating concept for competition and conflict.

## **Policy Provisions**

- Directs the Comptroller General to assess the operational security standards for microelectronics products and services.

- Directs the Comptroller General to conduct a review of the DOD's directed energy development efforts.
- Directs the Under Secretary of Defense for Research and Engineering to provide a briefing on the support that the manufacturing institutes are providing to the technical and transition roadmaps developed for relevant modernization priorities.
- Requires the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict and the Commander of SOCOM to submit a special operations forces joint operating concept for competition and conflict.
- Requires the Secretary of Defense to provide semiannual briefings on DOD efforts to address anomalous health incidents.
- Extends and modifies the authority underpinning the Indo-Pacific Maritime Security Initiative.
- Requires the Secretary of Defense to provide an assessment of Taiwan's defensive asymmetric capabilities and a plan for assisting Taiwan with the improvement of such capabilities.
- Requires the Under Secretary of Defense for Intelligence and Security to develop a plan for more effectively fulfilling the intelligence and information requirements of the combatant commands in support of efforts to expose and counter foreign malign influence, coercion, and subversion.
- Requires the Secretary of Defense to conduct assessments with regard to barriers and opportunities to strengthen the participation of women in partner nation militaries in the course of DOD security cooperation activities.

# SUBCOMMITTEE ON PERSONNEL

Under the leadership of Chairwoman Kirsten Gillibrand (D-NY) and Ranking Member Thom Tillis (R-NC), the subcommittee mark advances numerous measures that strengthen the All-Volunteer Force and improve the quality of life of the men and women of the armed forces, their families, and the Department of Defense civilian workforce, and includes numerous reforms the Uniform Code of Military Justice (UCMJ) to address sexual assault and harassment within the military.

## Highlights

- Includes funding to support a 2.7 percent pay raise for both military servicemembers and the DOD civilian workforce.
- Amends the Military Selective Service Act to require the registration of women for Selective Service.
- Authorizes 12 weeks of servicemember parental leave for both primary and secondary caregivers on the birth or adoption of a child.
- Includes numerous provisions that would vest in military special victim prosecutors the authority to refer certain cases to trial by court-martial.
- Creates a new category of bereavement leave for military personnel that would permit servicemembers to take up to two weeks of leave in connection with the death of a spouse or child.
- Authorizes an increase in funding of \$70 million for Impact Aid — \$50 million for supplemental Impact Aid and \$20 million for Impact Aid for military children with severe disabilities.
- Authorizes an additional \$30 million to Defense Health Program to address the threat characterization and treatment of certain uniformed members, federal civilian employees, and their family members affected by “Havana Syndrome.”
- Authorizes an additional \$15 million in Defense-wide Operations & Maintenance, Defense Human Resources Activity, to fund the required restart of the Troops-to-Teachers program for a period of four years.

## End Strength

- Authorizes fiscal year 2022 active-duty end strengths for the Army of 485,000; the Navy, 346,200; the Marine Corps, 178,500; the Air Force, 329,220; and the Space Force, 8,400.
- Authorizes reserve component military end strengths in line with President’s request, with the exception of Air National Guard military technicians and full-time Reserve and Guard personnel, which are frozen at FY21 levels.
- Authorizes the Secretary of the Air Force to vary U.S. Space Force end strength by a greater degree than is otherwise permitted for the Armed Services in order to give the Secretary additional discretion to build and establish the U.S. Space Force.



## Strengthening Military Justice

- Includes all provisions of S. 1520, "Military Justice Improvement and Increasing Prevention Act of 2021."
- Includes numerous provisions that would vest in military prosecutors the authority to refer certain cases to trial by court-martial.
- Authorizes the DOD Safe Helpline to receive sexual assault reports in both unrestricted and restricted forms, and to provide support to victims making reports.
- Requires the secretaries of the military departments to conduct no fewer than six independent reviews at military installations under the control of the secretary concerned assessing the command climate at such installations, to include a review of that installation's programs to prevent and respond to sexual assault and sexual harassment, organizational culture, gender discrimination, and support of survivors.
- Requires the Secretary of Defense to submit a report containing such recommendations as the Secretary considers appropriate with respect to the establishment of a separate punitive article in the UCMJ on violent extremism.
- Requires the Secretary of Defense to include in the annual Sexual Assault Prevention and Response Office (SAPRO) report information on race and ethnicity of victims and accused.
- Requires the Secretary to designate a single office to track allegations of retaliation toward victims of sexual assault or sexual harassment.
- Requires the Secretary of Defense to instruct the Secretary of each military department to conduct a comprehensive review of that department's policies and procedures for determining and reporting servicemembers as missing, absent unknown, absent without leave, or duty status-whereabouts unknown.
- Directs the Secretary of Defense to conduct a legal review of Article 52 of the UCMJ, to determine whether that Article is constitutional in light of the Supreme Court decision in *Ramos v. Louisiana*, which states that the Sixth Amendment requires unanimous verdicts for criminal convictions in state criminal trials.
- Directs the Secretary of Defense, by not later than December 31, 2021, to implement open and unresolved Government Accountability Office (GAO) recommendations concerning Department sexual assault and sexual harassment programs, or, if the Secretary determines that implementing one or more recommendations by that date is impractical, to notify GAO of that determination, and provide a briefing to the Armed Services Committees by not later than February 1, 2022, on the reasons and status of such open recommendations.
- See the "General Provisions" section of the summary for further information on changes to the UCMJ.

## **Military Personnel Policy**

- Authorizes the Secretary of Defense to reallocate a limited number of general and flag officer authorizations among the military departments in response to emerging requirements, as needed.
- Authorizes the Secretary of the military department concerned to prescribe a shorter period of service in grade, but not less than two years, for eligibility for consideration for promotion, in the case of certain officers designated for limited duty.
- Authorizes temporary exemption for the Space Force from the grade restrictions in sections 517 and 523 of title 10, United States Code to allow the Space Force to build up its cadre of GOFOs.
- Requires the Secretary of Defense to incorporate a formal appeals process into the policies and procedures of the Integrated Disability Evaluation System.
- Requires that, at least every five years, DOD annual major mobilization exercises include the processes of the Selective Service System in preparation for the induction of personnel into the Armed Forces under the Military Selective Service Act.
- Requires military service assessments of racial disparity in military justice and discipline processes and military personnel policies and a report to Congress detailing the results of these assessments; further requires the GAO to review the assessments and compare them to existing studies on racial disparity in civilian criminal justice systems in the United States, and to report to Congress on their observations.
- Allocates unused nominations to the military service academies resulting from the death, resignation, or expulsion from office of a Member of Congress to the remaining Senator or Senators from the same State as the departed Member.
- Requires the Secretary of Defense to restart the Troops-to-Teachers Program, ended by the Administration last year; sunsets the program for new entrants on July 1, 2025, unless subsequently extended; and requires annual reports from the Secretary on a number of performance and outcome metrics.
- Authorizes \$50.0 million in supplemental Impact Aid and \$20.0 million for Impact Aid for military children with severe disabilities.
- Creates a new category of bereavement leave for military personnel that would permit servicemembers to take up to two weeks of leave in connection with the death of a spouse or child.
- Increases servicemember parental leave to 12 weeks for all primary and secondary caregivers on the birth, adoption, or foster care placement of a child.
- Amends section 113 of title 10, United States Code, to include in required reports information on diversity and inclusion pertaining to graduates of the Senior Reserve Officers' Training Corps program.
- Directs the Comptroller General to submit a report on the extent to which ROTC programs are contributing to a racially, ethnically, and socioeconomically diverse and representative military.

- Directs GAO to review and provide a briefing on DOD recruitment and retention of cybersecurity military personnel.
- Requires the Secretaries of the military departments to ensure that performance evaluations indicate the extent to which certain military officers have exercised effective oversight and leadership of military privatized housing.

### **Military Family Readiness and Dependents Education**

- Authorizes an increase of \$4.0 million for the Secretary of Defense to enter into cooperative agreements with the Council of State Governments to assist with the funding and development of interstate compacts on licensed occupations.
- Authorizes the establishment of a pilot program to provide employment for military spouses through a fellowship with employers across a variety of industries.

### **Compensation and Benefits**

- Extends through December 31, 2022, various expiring bonus and special pay authorities for military personnel, including special pay and bonus authorities for reserve personnel, military healthcare professionals, nuclear officers, and consolidated pay authorities for officer and enlisted personnel.
- Prohibits the Defense Finance and Accounting Service from suspending military retired pay or a military retirement annuity until 90 days after the provision of written notice of the basis for such proposed suspension, and requires the development of a single annual eligibility determination procedure for continued eligibility for military retired pay or annuity.
- Extends certain travel and transportation authorities, including lodging in-kind for members of reserve components, mandatory pet quarantine fees for household pets, student dependent transportation, and dependent transportation incident to ship construction, inactivation, and overhauling.
- Establishes a Basic Needs Allowance to ensure that all servicemembers can meet the basic needs of their families.
- Requires parity in special and incentive pays for members of the reserve and active components.

### **Military Health Care**

- Authorizes coverage of preconception and prenatal carrier screening tests for certain medical conditions under the TRICARE program.
- Authorizes the Secretary of Defense to provide coverage of subacute (skilled nursing and home health care services) and hospice care for eligible overseas dependents of

members of the uniformed services who are on active duty for a period of more than 30 days.

- Requires the Secretary of Defense to establish regional centers of excellence for the enhanced treatment of ocular wounds or injuries.
- Requires the Secretary of Defense to provide certain federal employees and their family members experiencing symptoms of anomalous health conditions timely access for medical assessment and treatment, subject to space availability, at certain medical treatment facilities, and authorizes \$30 million for the Defense Health Program to support this care.
- Directs the Defense Health Agency to leverage best practices from commercial health plans to eliminate low-value services from the military health system by incorporating Choosing Wisely initiatives into its TRICARE managed care support contracts and the TRICARE Dental Program.
- Directs the Director of the Defense Health Agency to establish a medical necessity and prior authorization process whereby a beneficiary may request coverage of a drug not included in the TRICARE pharmacy program at the same co-pay or cost-share as a non-formulary drug included in the program.
- Directs the Secretary of the Army to provide a briefing that describes the Army's plans to establish integrated training for the Army's chemical, biological, radiological, or nuclear first responders and medical professionals.
- Encourages the DOD to implement a point-of-care ultrasound system in the tactical combat casualty care environment.
- Directs the Defense Health Agency to provide a briefing on its efforts to increase and improve virtual health and telemedicine services available to servicemembers and their families and the resources needed to make those services more readily available.

### **DOD Civilian Personnel**

- Authorizes the Secretary of Defense to employ and pay faculty at the Defense Institute of International Legal Studies as necessary.
- Authorizes the Secretary to conduct a pilot program providing direct hire authority to hire military spouses stationed at a duty station outside of the United States to a term position within the DOD.
- Extends authority to provide allowances, benefits, and gratuities comparable to those provided to members of the Foreign Service to the agency's civilian employees on official duty in a combat zone.
- Extends authority to waive the limitation on the aggregate of basic and premium pay of certain employees in support of a military operation or an operation in response to a declared emergency.

### **Other Authorizations**

- Authorizes \$75.3 million from the Armed Forces Retirement Home Trust Fund for fiscal year 2022 for the operation of the Armed Forces Retirement Home.
- Authorizes the Secretary of Defense to transfer \$137.0 million from the Defense Health Program to the Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund for the operation of the Captain James A. Lovell Federal Health Care Center.

### **Cybersecurity**

- Requires the Secretary of Defense to conduct an assessment to determine the overall cyber and information operation civilian and military personnel and education requirements of the DOD, including an assessment of the feasibility and advisability of creating a National Cyber Academy for the training of military and civilian personnel.
- Establishes a civilian cybersecurity reserve within U.S. Cyber Command.

# SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT

Under the leadership of Chairman Tim Kaine (D-VA) and Ranking Member Dan Sullivan (R-AK), the subcommittee mark authorizes more than \$2.8 billion of additional military construction projects after incrementally funding other large projects in the budget request. The subcommittee continues efforts to improve acquisition outcomes by strengthening the ability of DOD to analyze the defense industrial base, evaluate acquisition programs, and implement acquisition reform efforts. This mark also streamlines processes to allow DOD to invest in and incorporate advanced commercial technologies to support defense missions and strengthens DOD small business programs to allow DOD to partner with innovative high-tech companies.

## **Research, Development, Test, and Evaluation**

- Authorizes an increase of more than \$25 million for industrial base programs to support development of advanced manufacturing capabilities and train a world-class manufacturing workforce.
- Requires the Defense Science Board to report on options to improve effectiveness of DOD test and evaluation organizations.
- Authorizes funding for the Acquisition Innovation Research Center to develop new and innovative acquisition policies and practices.

## **Operation and Maintenance**

- Authorizes an increase of \$7.4 million for critical Organic Industrial Base production capacity at McAlester Army Ammunition Plant, Anniston Army Depot, and Red River Army Depot.
- Authorizes an increase of \$53.0 million for additional ISR for CENTCOM.
- Authorizes an increase of \$83.0 million for C-130 divestment restoration.
- Authorizes an increase of \$272.0 million for A-10 divestment restoration.
- Authorizes an increase of \$15.0 million for the Centers for Disease Control and Prevention Nation-wide human health assessment.
- Authorizes an increase of \$2.0 million for the Defense Environmental International Cooperation program.
- Authorizes an increase of \$5.0 million for personnel in the Office of Assistant Secretary of Defense Sustainment and Environment, Safety, and Occupational Health.
- Authorizes an increase of \$2.0 million for the maintenance of analytical tools in evaluating energy resilience measures.

- Authorizes an increase of \$15.0 million for Bien Hoa dioxin cleanup.
- Authorizes an increase of \$20.0 million for the Secretary of Defense Strategic Competition Initiative.
- Authorizes an increase of \$25.0 million for additional Overseas Humanitarian, Disaster, and Civic Aid programming.
- Authorizes additional funding to each of the services for Facilities Sustainment, Restoration, and Modernization.

### **Environmental and Health Security**

- Clarifies that the Sentinel Landscape Partnership program is also authorized to address concerns of military installation resilience in addition to conservation efforts.
- Directs DOD to develop a process to ensure that when evaluating energy resilience measures, analytical tools are accurate and effective in determining life cycle costs and performance measures.
- Prohibit the use of open-air burn pits in contingency operations outside the United States unless waived by the Secretary of Defense.
- Authorizes a temporary program to demonstrate the feasibility of separating critical minerals and rare earth elements from coal byproducts and acid mine drainage.
- Extends the transfer authority for funding of study and assessment on health implications of per- and polyfluoroalkyl substances contamination in drinking water by the Centers for Disease Control and Prevention.

### **Acquisition Policy, Contracting Reform, and Industrial Base Recommendations**

- Requires the Secretary of Defense to identify the highest- and lowest-performing acquisition programs, and for the lowest-performing programs, provide a report that outlines the factors behind the program's performance and steps being taken to improve performance;
- Amends statutes governing the management and oversight of the procurement of services and would require the review and implementation findings of a GAO report with respect to the oversight and management of service contracts.
- Requires defense contractors to disclose the sources of the printed circuit boards used in certain defense systems.
- Requires defense contractors to disclose their use of workforce and facilities in the performance of certain defense contracts.
- Requires defense contractors to publicly disclose employee training materials for review and identification of Critical Race Theory or similar theoretical instruction.

- Reestablishes a permanent requirement for the Director of Operational Test and Evaluation to produce an annual report to Congress.
- Requires a report on action taken to comply with Executive Order 14036 to promote competition in the American economy and the state of competition within the defense industrial base.
- Supports the effective transition of innovative new technologies into acquisition programs and operational use, by incorporating systems engineering reviews earlier in programs.
- Requires the Under Secretary of Defense for Acquisition and Sustainment and the Chairman of the Joint Requirements Oversight Council to jointly assess impediments and incentives to improving the acquisition of commercial technology, products, and services.
- Repeals the preference for fixed-price contracts.
- Establishes a pilot program to develop and implement unique contracting mechanisms for emerging technology that can increase the speed, flexibility, and competition of DOD acquisition process.
- Authorizes DOD to use Commercial Solutions Openings to solicit and acquire innovative commercial items, technologies, or services.
- Clarifies that the technology prize authority can be used for the awarding of procurement agreements.
- Modifies certain certifications required of the Secretary of Defense before approving a multi-year procurement contract to include a certification that DOD will not reduce the quantity of end items under such a contract without prior approval from the congressional defense committees.
- Highlights critical goods and items for the Department of Defense to consider for potential restricted procurement or increased research or manufacturing investment, to support strengthening the trusted defense industrial base.
- Prohibits the Secretary of Defense from procuring personal protective equipment manufactured in China, Russia, North Korea, or Iran.
- Directs DOD to assess and report on its use of certain items covered by the Berry amendment to reduce fluctuations in DOD's demand signal to industry.
- Directs DOD to assess the need for a pilot program to increase the capacity of the U.S. pharmaceutical manufacturing base to enable combat readiness and protect the health of the Armed Forces.
- Amends section 2533c of title 10, United States Code, to add covered companies to the existing prohibition of sensitive materials from non-allied foreign nation.
- Requires the Secretaries of the military departments to collect data on Phase III Small Business Innovation Research and Small Business Technology Transfer program awards.



- Requires the Secretary of Defense to enter into an agreement with a federally funded research and development center to perform a study on technical debt in software-intensive systems.
- Requires a review and determination of optical fiber transmission equipment for Department of Defense purposes.
- Extends the current requirement for submission of Selected Acquisition Reports and requires a demonstration of a replacement reporting system.
- Requires DOD to publish any proposed revision to the Unified Facilities Criteria regarding the use of variable refrigerant flow systems in the Federal Register and specify a comment period of at least 60 days.
- Directs the Acquisition Innovation Research Center to develop a capability to model and test proposed policy changes to better assess proposed changes to law, regulation, or acquisition practices.
- Requires certain disclosures related to the sourcing of printed circuit boards.
- Requires certain disclosures related to the performance of work on DOD contracts in China.

#### **Defense Wide**

- Requires DOD to develop and implement management innovation activities to support more effective business operations, including enhancing research on management challenges and partnerships with management and business schools.
- Encourages the Department of Defense to allow servicemembers and their families to join on-base housing waitlists for their next location when they receive a notification of permanent change of station, instead of waiting on official orders.

# SUBCOMMITTEE ON SEAPOWER

Under the leadership of Chairwoman Mazie Hirono (D-HI) and Ranking Member Kevin Cramer (R-ND), the subcommittee mark directs a continuation of previous years' efforts to improve the Navy and Marine Corps' ability to implement the national defense strategy. The subcommittee includes a total of \$71.8 billion, including \$56.7 billion in procurement, and \$15.1 billion in Research, Development, Test and Evaluation funding authorizations. The subcommittee authorizes an additional \$2.3 billion in the Seapower jurisdiction for important programs, including all of the Seapower items on the Chief of Naval Operations' and Commandant of the Marine Corps' unfunded requirements lists. The subcommittee also includes several legislative provisions that reinforce best practices in Navy and Marine Corps' acquisition strategies.

## Destroyers

- Authorizes \$3.716 billion for *Arleigh Burke*-class destroyers, an increase of \$1.7 billion to restore a second guided missile destroyer to the budget.
- Authorizes an increase of \$125.0 million for long lead material for a third FY23 *Arleigh Burke*-class destroyer.
- Authorizes an increase of \$50.0 million for surface combatant industrial base stability initiatives.
- Expresses support for an acquisition strategy for the next generation destroyer that would feature greater collaboration between industry and the government, taking lessons from early successes in the *Columbia*-class program, and directs the Secretary of the Navy to provide a report on the use of such acquisition practices in the next generation destroyer program.
- Expresses support for a new multi-year procurement of destroyers beginning in fiscal year 2023 to support the shipbuilding industrial base and expansion of the Navy battle force to congressionally mandated levels.

## Amphibious Ships

- Extends through fiscal year 2022 an authority granted in last year's NDAA to enter into a multi-ship procurement for amphibious vessels.
- Authorizes \$250 million for LPD Flight II advance procurement, an increase of \$250 million to support a multi-ship procurement or long-lead time material procurement for amphibious warships.
- Expresses continued support for a multi-ship procurement of amphibious warships and directs the Secretary of the Navy to provide a report on several potential acquisition strategies for such platforms.
- Directs the Secretary of the Navy to provide a report on various options to improve the lethality and survivability of the *San Antonio*-class amphibious assault ship.

## **Navy Strategy**

- Requires the Navy to develop a 15-year acquisition, modernization, and sustainment plan for the entire carrier air wing, building off the FY21 NDAA requirement to produce a fighter force structure acquisition strategy.
- Limits transfer of certain operational test flight events and reduction in operational flight test capacity pending certain certifications.
- Directs the Chairman of the Joint Chiefs of Staff and the Chief of Naval Operations (CNO) to provide reports detailing forces that may be appropriate to allocate to SOUTHCOM if additional forces were available, as well as the potential use of platforms that would otherwise be decommissioned for such missions.
- Authorizes \$192.2 million for F/A-18 research and development, including an increase of \$3 million for the incorporation of artificial intelligence on legacy platforms such as the F/A-18.
- Requires updated Navy battle force ship assessment and requirement reporting when DOD updates strategic guidance.
- Expresses support for the replacement of aging training vessels used by the United States Naval Academy and directs the Secretary of the Navy to provide a report on the options to improve surface warfare officer ship handling training.

## **Shipbuilding**

- Prohibits the early retirement of naval vessels unless the Secretary of the Navy makes certain certifications to Congress.
- Requires the Navy to establish a position of Deputy Commander of the Naval Sea Systems Command for the Supervision of Shipbuilding, Conversion, and Repair to improve oversight and administration of shipbuilding contracts.
- Authorizes \$418.6 million for the LHA replacement, an increase of \$350 million to gain efficiencies by accelerating construction of LHA-9.
- Authorizes \$270.0 million for expeditionary fast transport vessels, an increase of \$270.0 million.
- Reduces \$299.9 million requested to purchase used sealift vessels, since the prior-year funds have not been obligated.
- Directs the Secretary of the Navy to provide a report on further risk reduction efforts for the *Constellation*-class frigate (FFG-62) program.
- Requires the inclusion of naval vessel expected service lives in the annual naval vessel construction plan.
- Requires continued reporting on Littoral Combat Ship mission package development and fielding.
- Requires a comparative assessment of shipbuilding purchasing power in the United States, China, and Russia.

- Authorizes \$3.1 billion for the *Columbia*-class submarine program, an increase of \$130 million, for industrial base development and expansion in support of the *Virginia* and *Columbia* shipbuilding programs.

### **Aircraft**

- Authorizes \$535 million to purchase an additional five F-35C aircraft.
- Authorizes \$191 million to purchase an additional E-2D aircraft.
- Authorizes \$305.8 million to purchase two additional C-130J aircraft.
- Authorizes \$191.9 million to purchase an additional KC-130J tanker aircraft.
- Authorizes \$250.0 million to purchase two additional CH-53K helicopters.
- Authorizes \$323.0 million to purchase two MQ-4C Triton unmanned aerial systems.
- Authorizes \$246.6 million to purchase additional F-35B spares and ground support equipment

### **Sensors**

- Extends a prohibition on availability of funds for certain Navy waterborne security equipment pending improvements to program management.
- Requires the Office Cost Assessment and Program Evaluation to conduct a review of three similar radar systems used for air and missile defense by the Navy and Missile Defense Agency.
- Authorizes \$303.52 million for sonobuoy procurement, an increase of \$54.4 million.
- Authorizes \$264.4 million for Joint Tactical Radio System research and development, including an additional \$30 million for an advanced resilient Link-16 like waveform that does not require any changes to the host aircraft operational flight programs, and supports the Navy's unfunded request for this program.
- Authorizes \$59.1 million for Naval Integrated Fire Control – Counter Air Systems Engineering, including an increase of \$13 million to support testing and evaluation activities for stratospheric balloon research.
- Authorizes \$15 million to restore a proposed Navy reduction to an Advanced Sensors Application Program.
- Authorizes \$304 million to purchase eight additional G/ATOR systems for the Marine Corps.
- Authorizes an additional \$30 million for implementation of a resilient advanced tactical waveform to augment Link-16.

# SUBCOMMITTEE ON STRATEGIC FORCES

Under the bipartisan leadership of Chairman Angus King (I-ME) and Ranking Member Deb Fischer (R-NE), the subcommittee continues to support the modernization of our nuclear triad and programs at the National Nuclear Security Administration (NNSA). In a time of great power competition, the triad serves as the foundational bedrock of our national security posture. As space becomes a contested domain among near-peer rivals, the subcommittee mark continues its oversight of the Space Force consistent with the intent of the fiscal year 2020 National Defense Authorization Act by consolidating DOD space programs under it. The subcommittee mark continues to support modernizing our missile defense system against evolving threats, with congressional oversight to ensure taxpayers' dollars are accounted for. The subcommittee authorizes additional funding for all of the items on the unfunded requirements lists of the SPACECOM Commander, the Chief of Space Operations, and the Director of MDA. Finally, the subcommittee mark ensures the nonproliferation programs at NNSA and DOD have the necessary funding to stem the proliferation of nuclear, chemical, and biological weapons around the world.

## **Research, Development, Test, and Evaluation**

### ***Navy***

- Authorizes an increase of \$8.0 million for the Strategic Weapons System Shipboard Navigation Modernization program.

### ***Air Force***

- Authorizes an increase of \$5.0 million for the Rapid Engineering Architecture Collaboration hub.
- Authorizes an increase of \$25.0 million for the development of the Over the Horizon Radar capability.
- Authorizes an increase of \$5.0 million for development of the polar Over the Horizon radar capability for far North detection.
- Authorizes an increase of \$3.0 million for improved battery cycle life.
- Authorizes an increase of \$5.0 million for the development of microelectronics to withstand radiation in space.
- Authorizes an increase of \$7.0 million for Space Situation Awareness Systems.
- Authorizes an increase of \$10.0 million for the development of technologies and concepts of operations based on those technologies for Tactically Responsive Launch.
- Authorizes an increase of \$20.0 million for Digital Core Services for the Nevada Test and Training Range.

### ***Defense Wide***

- Authorizes an increase of \$76 million for the development of the Homeland Defense Radar- Hawaii.
- Authorizes an increase of \$25.0 million in support of Joint All-Domain Command and Control experimentation.
- Authorizes an increase of \$8.0 million for laser communications in space.

### **Space Activities**

- Authorizes an increase of \$30.0 million for Combatant Command Mission Operations - U.S. Space Command.
- Authorizes an increase of \$8.0 million for a secondary payload adapter demonstration.
- Changes the name of the Air National Guard to the Air and Space National Guard.
- Requires the Air Force to provide the congressional defense committees with the pricing terms for any award to launch a national security payload under the National Security Space Launch program.
- Provides the Secretary of the Air Force the authority to delegate the duties and authorities of the Senior Procurement Executive that relate to space systems and programs.
- Amends section 9021(c) of title 10, USC, to modify the role of the Assistant Secretary of the Air Force for Space Acquisition and Integration to include broader responsibilities for acquisition integration of space architectures across the DOD, and modifies the role of the Space Force Acquisition Council to include certification of architecture determinations made by the Assistant Secretary while designating the Chief of Space Operations as the force design architect.
- Requires launch services providers to continue to meet federal requirements, with respect to payload to reference orbits, for Phase Two National Security Space Launch.
- Ensures that critical defense functions do not solely rely on commercial satellite services and associated systems.

### **Cooperative Threat Reduction**

- Authorizes \$239.84 million for the Cooperative Threat Reduction program to stem the proliferation of nuclear, chemical, and biological threats around the world.

### **Nuclear Forces**

- Requires involvement from senior civilian and military officials in nuclear command, control, and communications exercises, as well as in the decision-making with respect to optimize Presidential decision capability in a time of crisis.

- Extends the existing timeline for prior notification to Congress of any reductions in the number of deployed U.S. nuclear weapons; eliminates the previous sunset on a conditional net assessment of the capability of the U.S. nuclear weapons stockpile to deter global nuclear threats; and updates the date of effect for any changes to the U.S. stockpile.
- Extends the existing timeline for prior notification to Congress of any modification of the force structure for the strategic nuclear weapons delivery systems.
- Establishes a congressional commission of 12 members to evaluate developments in the international security environment since the completion of the 2009 Congressional Commission on Strategic Posture report to Congress.
- Requires the Secretary of the Air Force to ensure that the Long-Range Standoff Weapon is fully integrated with the B-21 not later than two years after it achieves initial operational capability.
- Prohibits the obligation or expenditure of fiscal year 2022 funds to reduce deployed U.S. intercontinental ballistic missiles' responsiveness, alert level, or quantity to fewer than 400.
- Expresses the sense of the Senate that the continued development of the ground-based strategic deterrent is necessary and in the national security interest of the United States.
- Requires the Secretary of Defense, through the Under Secretary of Defense for Policy and the Vice Chairman of the Joint Chiefs of Staff, to conduct a comprehensive review of U.S. nuclear posture for the next 5 to 10 years, and to submit a report on the results of the review to the congressional defense committees.

### **Missile Defense Programs**

- Authorizes the Director of the Missile Defense Agency (MDA) to develop a highly reliable missile defense interceptor for the Ground-Based Midcourse Defense system.
- Requires the Secretary of the Army to develop and execute a plan for conducting annual reliability testing for the Next-Generation Interceptor and ensure at least one test a year is performed in an operational setting for the Ground-Based Midcourse Defense system.
- Authorizes funding for the procurement of the Iron Dome short-range rocket defense system, David's Sling Weapon System, and Arrow 3 Upper Tier Interceptor Program.
- Requires the co-chairs of the Missile Defense Executive Board to provide a semiannual update to the congressional defense committees on their meetings and decisions.
- Prohibits MDA from entering into a program of record to develop and field operational satellite constellation and ground systems.

### **Items of Special Interest**

- Directs the Secretary of Defense to provide a briefing to the congressional defense committees on whether those personnel and programmatic activities performing space functions within MDA should be aligned under the Space Force.
- Directs the U.S. Space Force Chief Technology and Innovation Officer to provide a briefing to the congressional defense committees on how the Space Force will leverage modern cloud computing technologies.
- Directs the Director of the Missile Defense Agency to provide a briefing to the congressional defense committees on the Agency's plan to conduct persistent cyber operations across all networks and systems supporting the Ballistic Missile Defense System.
- Directs the Director of the Missile Defense Agency to provide a briefing to the congressional defense committees on the capability that Homeland Defense Radar-Hawaii provides against future threats.
- Directs the Assistant Secretary of Defense for Nuclear, Chemical and Biological Defense Programs to provide a report on enhancing U.S. global nuclear detection capabilities to the congressional defense committees.
- Directs the Secretary of Defense to provide a briefing to the congressional defense and intelligence committees that identifies plans to collect laser activity data of potential U.S. adversaries and plans to mitigate the effects of that activity.
- Directs the Comptroller General to brief preliminary observations to the congressional defense committees on how the U.S. Space Command is forecasting long-term satellite communications needs.
- Directs the Chief of Space Operations to provide a briefing to the congressional defense committees on the feasibility of using the prize authority for launch responsiveness to replace key national security satellites and reconstitute essential constellations during a conflict.
- Directs the Comptroller General to review the status of efforts to modernize and enhance Combatant Commanders' Integrated Command and Control System (CCIC2S) capabilities.
- Directs the Secretary of Defense to provide to the congressional defense committees a detailed briefing on the commercial space-based ISR needs of the combatant commands.

### **Defense Intelligence and Intelligence-Related Activities**

- Requires the Director of the Defense Intelligence Agency to provide to the congressional defense and intelligence committees an annual briefing on the electronic warfare threats posed to the U.S. military from the Russian Federation, the People's Republic of China, and other relevant nations.



## **Department of Energy**

### ***National Security Programs and Authorizations***

- Authorizes \$20.07 billion for the activities of the NNSA.
- Authorizes \$6.57 billion for the Department of Energy's defense environmental cleanup activities.
- Authorizes \$920 million for DOE other defense activities.
- Authorizes \$149.8 million for DOE nuclear energy activities.

### ***Nuclear Weapons Stockpile Matters***

- Directs NNSA to develop and implement an enterprise-wide portfolio management framework that details NNSA's approach and complete a single, integrated assessment.
- Modifies section 3113 of the NDAA for Fiscal Year 2021 to include a reporting requirement on industrial base risk monitoring carried out by the NNSA.
- Expresses the sense of the Senate that Congress should have an oversight role in nuclear weapons testing.

### ***Defense Environmental Cleanup***

- Creates a series of competitively selected technology demonstration programs and a university grant program to underpin the technology required to support environmental cleanup efforts.
- Directs NNSA to develop a comprehensive strategy that includes the type and quantity of defense nuclear waste it will generate, plans to treat, store, and dispose of the waste, and potential disposal facilities.

### ***Budget and Financial Management Matters***

- Increases the threshold for a minor construction project from \$20.0 million to \$25.0 million.

### ***Other Matters***

- Extends the authority to limit, in whole or in part, procurement disclosure information found in section 2786 of title 50, USC, from June 30, 2023, to December 31, 2028, to limit the risk to the nuclear weapons supply chain.
- Extends the authority found in section 3132 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 and incorporated into the Atomic Energy Defense Act to accept foreign contributions to help secure fissile material worldwide from December 31, 2023, to December 31, 2028.

- Prohibits the obligation or expenditure of any fiscal year 2022 funds at the NNSA to conduct research and development of an advanced naval nuclear fuel system based on low-enriched uranium unless certain determinations are communicated to the congressional defense committees.

### ***Budget Items***

- Authorizes an increase of \$5.0 million acquire a cold hearth furnace technology, which will increase depleted uranium production efficiency.
- Authorizes an increase of \$165.8 million to restore funding for NNSA engineering and science programs.
- Authorizes an increase of \$82.1 million to the NNSA's infrastructure and operations of facilities.
- Authorizes an increase of \$57 million to the NNSA's Defense Nuclear Non-proliferation Program
- Authorizes an increase of \$10 million to \$45 million to help accelerate cleanup at Lawrence Livermore National Laboratory.
- Authorizes an increase of \$50 million to help accelerate the cleanup of high-risk contaminated facilities at the Y-12 plant.
- Authorizes an increase of \$5.70 million to restore the proposed decrease for DOE Environmental Management Savannah River Community
- Authorizes an increase of \$24.3 million to help restore the proposed decrease and help operations at H-canyon.

### ***Items of Special Interest***

- Directs the Comptroller General to review DOE's and NNSA's acquisition planning processes.
- Directs the Comptroller General to review NNSA's acquisition process for warhead modernization and system acquisition.
- Directs the Comptroller General to assess the status of cleanup at Los Alamos National Laboratory.
- Directs the Administrator of NNSA to provide a briefing to the congressional defense committees on options for, and projected associated costs of, accelerating the reestablishment of a domestic uranium enrichment capability for the United States.
- Directs the Comptroller General to continue its ongoing evaluation of environmental cleanup efforts at the Hanford Site in the areas of cost and schedule performance, as well as the start of direct-feed low-activity waste treatment.
- Directs the Comptroller General to continue periodic briefings to the congressional defense committees on significant findings and trends at the Waste Isolation Pilot Plant.

- Directs the Comptroller General to assess DOE Office of Environmental Management (EM) implementation of End State Contracting and the extent to which EM has the capacity needed for this model to be successful.
- Directs the Comptroller General to assess EM's approach to analyzing options for direct-feed high-level waste at the Hanford Reservation, and to continue periodic briefings to the congressional defense committees on significant findings and trends at the Hanford reservation.
- Directs the Comptroller General to assess DOE's minor construction threshold in the context of the NNSA's overall construction activities and evaluate the effects that further raising the \$20.0 million limit might have.
- Directs the Comptroller General to assess EM's plans for operating the DUF-6 conversion facilities and the extent to which the DUF-6 conversion facilities are meeting their performance objectives.
- Directs the Administrator of NNSA to provide the Integrated Master Schedule and Program Management Plan for the production of 30 pits per year at the Los Alamos National Laboratory to the congressional defense committees and GAO. Directs the Comptroller General to review the Integrated Master Schedule and Program Management Plan and to provide a preliminary briefing to the congressional defense committees.
- Directs the Administrator of NNSA to submit to the congressional defense committees a report on a 10-year strategic plan for recapitalizing, upgrading, and maintaining Inertial Confinement Fusion (ICF) facilities.

# GENERAL PROVISIONS

- Allows the Secretary of Defense to transfer up to \$6.0 billion of FY22 funds authorized in division A to unforeseen higher-priority needs in accordance with normal reprogramming procedures.
- Establishes a Commission on Planning, Programming, Budgeting, and Execution (PPBE) Reform to provide an independent review and assessment of the PPBE process of DOD.
- Requires DOD Comptroller, along with DOD's Chief Information Officer (CIO) and Chief Data Officer, to submit a plan to consolidate the IT systems used to manage data and support the PPBE process.

## Air Force Programs

- Requires the Secretary of the Air Force to maintain a total active aircraft inventory of 292 C-130 aircraft.
- Prohibits the reduction of KC-135 aircraft by the Air National Guard in fiscal year 2022.
- Prohibits the reduction of A-10 aircraft by the Air Force in fiscal year 2022 and modifies a required report on close air support mission effectiveness.
- Prohibits further equipping of the Air National Guard with F-35s until an increased number are fielded in the regular Air Force.
- Authorizes the Secretary of the Air Force to divest 18 KC-135s from the active duty Air Force during fiscal year 2022 to facilitate the acceleration of KC-46 bed down.

## Military Justice

- Adds a new article to UCMJ that requires Secretaries of the military departments to detail commissioned officers to serve as special victim prosecutors and assistant special victim prosecutors.
- Adds a new section to title 10, U.S.C., to require the Secretary of Defense to establish policies with respect to the appropriate mechanisms and procedures that the Secretaries of the military departments shall establish and carry out relating to the activities of special victim prosecutors, included expected milestones for the Secretaries to fully implement such mechanisms and procedures.
- Amends title 10, U.S.C., to add definitions to the UCMJ for "military magistrate," "special victim offense," and "special victim prosecutor."
- Clarifies that a commanding officer shall not be considered an accuser in a general or special court-martial to which charges and specifications were referred by a special victim prosecutor.

- Amends the UCMJ to require that for each general and special court-martial to which charges and specifications were referred by a special victim prosecutor, a special victim prosecutor or assistant special victim prosecutor shall be detailed as trial counsel.
- Amends the UCMJ to empower only a special victim prosecutor to consent to a waiver of a preliminary hearing for special victims offenses, requires that the preliminary hearing officer in a special victim case to be a military judge or military magistrate, and directs the preliminary hearing report to be submitted to the special victim prosecutor for cases involving special victims offenses.
- Amends the UCMJ to provide a special victim prosecutor with exclusive authority to refer charges alleging special victim offense for trial by special or general court-martial, and requires pre-referral advice or determination by a staff judge advocate or special victim prosecutor, respectively, that there is sufficient admissible evidence to obtain and sustain a conviction on the charged offense.
- Amends the UCMJ to authorize a special victim prosecutor to dismiss charges or terminate a court-martial in certain cases.
- Amends the UCMJ to authorize special victim prosecutors and military defense counsel in special victim cases to issue pre-referral investigative subpoenas.
- Amends the UCMJ to provide exclusive authority in special victim cases to special victim prosecutors to enter into plea agreements on behalf of the United States.
- Provides exclusive authority to a special victim prosecutor to make a determination on behalf of the Government that a rehearing authorized by a military justice appellate authority in a special victim case is impracticable and, if so, to dismiss any affected charge.
- Requires the President to issue regulations to include sexual harassment as a standalone offense punishable under article 134 of the UCMJ.
- Adds dating partners to the victims covered by articles 128b and 130 relating to the offenses of domestic violence and stalking.
- Amends the UCMJ to require military judge-alone sentencing in non-capital courts-martial, subject to the President's establishment of sentencing parameters and criteria.
- Mandates the establishment of a uniform, consolidated, document-based data system to track the reporting, investigation, processing, adjudication and final disposition of all offenses under the Uniform Code of Military Justice arising in any component of DOD.
- Establishes a DOD Primary Prevention Workforce, and requires the publication of an annual DOD Primary Prevention Research Agenda.
- Requires the expeditious return to full functionality of certain DOD Advisory Committees and the Military Justice Review Panel.
- Requires the Secretaries of the military departments to establish the funding, mechanisms, and processes required for service military defense counsel to control their own funds and to ensure that military defense counsel have timely and reliable

access to and funding for defense investigators, expert witnesses, trial support, and other resources.

- Mandates the provision of a Special Victims' Counsel to a civilian who is a victim of sex-related offense alleged to have been committed by a person subject to the Uniform Code of Military Justice.
- Requires the Secretary of Defense to implement all recommendations set forth in Lines of Effort 2, 3, and 4 of the report, *Hard Truths and the Duty to Change: Recommendations from the Independent Review Commission on Sexual Assault in the Military*.

### **Indo-Pacific Region**

- Extends and modifies the Pacific Deterrence Initiative, reiterates the intent of the committee in establishing the initiative, and adds more than \$700 million for unfunded requirements identified by the Commander of U.S. Indo-Pacific Command.
- Expresses the sense of the committee that future investments under the Pacific Deterrence Initiative should be focused on military and non-military infrastructure in the Indo-Pacific region to assist in distributed military operations and counter predatory Chinese infrastructure development practices.
- States that it shall be the policy of the United States to maintain the ability of the United States Armed Forces to deny a fait accompli against Taiwan in order to deter the People's Republic of China from using military force to unilaterally change the status quo with Taiwan.
- Extends the authority of the Secretary of Defense to transfer funds to the Secretary of State for dioxin cleanup efforts in Vietnam.
- Authorizes the Secretary of Defense to provide administrative services and support to foreign personnel assigned to the United Nations Command in the Republic of Korea.
- Expresses the sense of Congress on the importance of defense alliances and partnerships in the Indo-Pacific region.
- Requires the Under Secretary of Defense for Research and Engineering to conduct an analysis comparing the research and development efforts of the United States and China on certain critical, militarily-relevant technologies.
- Extends and modifies an annual required report on military and security developments involving China.
- Requires the Secretary of Defense to provide to Congress a report on the feasibility and advisability of establishing improved military-to-military communications with China for crisis situations.
- Requires the Secretary of Defense to provide recurring briefings on efforts to deter Chinese aggression and military coercion.

- Requires an assessment of and briefing on the extent of security cooperation between China and Russia.
- Requires a briefing on DOD efforts to deter and respond to a Chinese use of force to alter the status quo with respect to Taiwan.
- Requires the Secretary of Defense to provide the congressional defense committees with an annual briefing on the feasibility and advisability of enhanced cooperation between the National Guard and Taiwan.
- Requires a Comptroller General review of DOD processes to approve or deny proposals for contact between DOD personnel and Chinese government officials.
- Requires a briefing on the advisability and feasibility of increasing United States defense cooperation with Taiwan.

### **Europe and the Russian Federation**

- Extends the limitation on military cooperation between the United States and the Russian Federation.
- Prohibits the use of funds for any activity that recognizes the sovereignty of the Russian Federation over Crimea.
- Extends the authority for the Secretary of Defense, with the concurrence of the Secretary of State, to provide security assistance and intelligence support to military and other security forces of the Government of Ukraine.
- Extends the authority for the Secretary of Defense, with the concurrence of the Secretary of State, to provide multilateral or regional training for countries in Eastern Europe.
- Requires the Secretary of Defense to report on the challenges the U.S. military faces in moving forces across Europe, including regulatory roadblocks and Chinese investments in critical infrastructure such as port facilities.
- Expresses the sense of the Senate that the United States' commitment to the North Atlantic Treaty Organization is ironclad and emphasizes the importance of expanding cooperation on shared security challenges.
- Expresses the sense of the Senate that the United States should continue to prioritize support for the Baltic states of Estonia, Latvia, and Lithuania as they build and invest in critical security areas.

### **Afghanistan**

- Extends and modifies the authorization for DOD to provide support for the Government of Afghanistan-led reconciliation activities.
- Extends authority to reimburse coalition nations for support provided to United States military operations in Afghanistan.
- Authorizes the appropriation of funds for the Afghanistan security forces beyond the transition of U.S. and coalition nations from the country.

- Directs DOD to brief the Armed Services Committees on the plan to execute funds and activities authorized in the Afghan Security Forces Fund beyond the U.S. retrograde.

### **Middle East**

- Extends and modifies authorization for the provision of assistance to vetted Syrian groups.
- Extends and modifies authorization for security cooperation with Iraq.
- Prohibits support for Saudi and coalition offensive operations against the Houthis, condemns Houthi tactics, and requires a report on both Saudi and Houthi obstruction of humanitarian aid.

### **Counterterrorism**

- Extends through December 31, 2022, existing restrictions relating to the detention facility at the United States Naval Station, Guantanamo Bay, Cuba, specifically:
  - A ban on the transfer of Guantanamo detainees to the United States;
  - A ban on the use of DOD funds to construct or modify facilities in the United States to house Guantanamo detainees;
  - A ban on the use of DOD funds to transfer Guantanamo detainees to specific countries; and
  - A ban on the use of DOD funds to close the United States Naval Station, Guantanamo Bay, relinquish control over that facility, or to make a material modification to the treaty between the United States and Cuba that would constructively close the Guantanamo Bay facility.
- Requires the Chief Medical Officer of the Guantanamo Bay detention facility to submit a classified report to the Armed Services Committees on the provision of medical care to detainees at Guantanamo.

### **Strategic Planning**

- Establishes a Commission on the National Defense Strategy to provide an independent review and assessment of the forthcoming NDS.
- Requires an assessment of joint force requirements for 3D terrain data to achieve Combined Joint All-Domain Command and Control and a determination of whether One World Terrain 3D geospatial data meets requirements for precision targeting and a determination of the optimum management funding structures for 3D terrain data.
- Directs the CNO and EUCOM to brief the Armed Services Committees on the plan to base two additional destroyers at Rota, Spain.
- Requires the Secretary of Defense to submit a report on the activities and programs of DOD to implement the irregular warfare strategy consistent with the 2019 Irregular Warfare Annex to the NDS.



- Requires the Secretary of Defense to develop and implement security cooperation strategies for each of the geographic combatant commands.
- Establishes a Secretary of Defense initiative to support DOD activities and programs to engage in long-term strategic competition with near-peer rivals short of armed conflict.
- Provides temporary authority to pay the personnel expenses of foreign national security forces participating in training through the U.S.-Colombia Action Plan.
- Requires the Secretary of Defense, in coordination with the Secretary of State, to submit a detailed plan for enhancing security cooperation in the Western Hemisphere.
- Requires the Secretary of Defense to develop a plan for the establishment of an Arctic Security Initiative (ASI) to enhance security in the Arctic region and establish an ASI no later than FY23.

### **Personnel / Defense and Acquisition Management**

- Creates a working group to assist the official designated to coordinate and integrate the training program on foreign malign influence and requires the working group to assist in coordinating and integrating the training program in order to enhance and strengthen servicemember and DOD employee awareness of and defenses against foreign malign influence.
- Authorizes a Secretary of a military department to present an award or decoration following a favorable review of a request of a Member of Congress after a 60-day period for congressional review.
- Establishes a requirement that a person may not be appointed to certain senior-level civilian leadership positions in DOD if they are within seven years relieved from active duty as a commissioned officer, and provides consistency in the requirements for persons appointed to the position of the secretary of a military department and makes technical corrections to other positions.
- Establishes a working group on training to enhance and strengthen servicemember and DOD employee awareness of and defenses against foreign malign influence campaigns and boost information literacy.
- Authorizes Army counterintelligence civilian special agents to serve warrants and arrest criminal suspects when conducting counterintelligence investigations.
- Directs the Comptroller General to conduct a comprehensive assessment of RDT&E authorities and other similar authorities and brief Congress on its findings.
- Restricts DOD personnel from participating in any "covered matter" that would have a direct and palpable effect on the financial interests of any organization by which the DOD officer or employee was employed in the prior four years.

