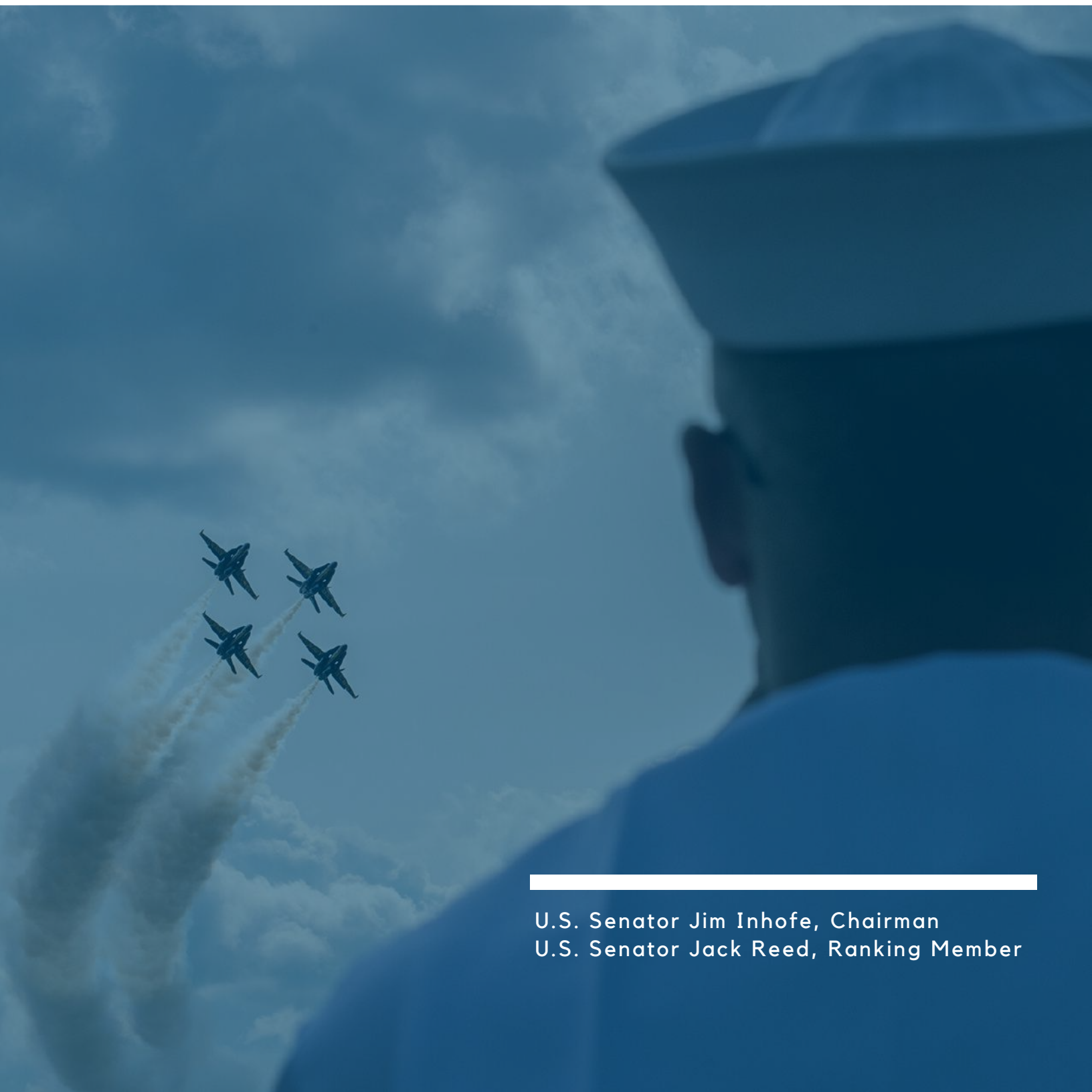


FISCAL YEAR 2021

NATIONAL DEFENSE AUTHORIZATION ACT

SENATE ARMED SERVICES COMMITTEE



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



EXECUTIVE SUMMARY

This year marks the 60th consecutive year Congress has fulfilled its constitutional duty to “provide for the Common Defense” by passing the National Defense Authorization Act (NDAA). This annual legislation provides for funding and authorities for the U.S. military and other critical defense priorities, and ensures our troops have what they need to defend our nation. On June 10, 2020, the Senate Armed Services Committee voted in overwhelming bipartisan fashion, 25-2, to advance the National Defense Authorization Act of Fiscal Year 2021 to the Senate floor.

Two years ago, the National Defense Strategy (NDS) outlined our nation’s preeminent challenge: strategic competition with authoritarian adversaries that stand firmly against our shared American values of freedom, democracy, and peace— namely, China and Russia. These adversaries seek to shift the global order in their favor, at our expense. In pursuit of this goal, these nations have increased military and economic aggression, worked to develop advanced technologies, expanded their influence around the world, and undermined our own influence. The nature of warfare is changing, and America’s military superiority is in decline or in danger of declining in many areas. Nowhere is this more evident than in the Indo-Pacific. At the same time, threats from other aggressors — rogue states like Iran and North Korea, which seek to destabilize and antagonize, and terrorist organizations, which threaten to re-emerge or expand not just in the Middle East but in Africa and other parts of the world — persist. As a nation, we must rise to these challenges.

At no time in recent memory has it been more critical to have the personnel, equipment, training, and organization needed to signal to our potential enemies, as former Secretary of Defense Jim Mattis put it, “you, militarily, cannot win it — so don’t even try.” The FY21 NDAA rests on this simple foundation. A credible military deterrent, however, requires more than just having the most planes, ships, and tanks. It requires forces in the right places, at the right time, with the right equipment and capabilities. Posture and logistics are equally as important as fifth-generation aircraft and advanced weapons. Just as necessary to an asymmetric balance of power are our alliances and partnerships, which must be strengthened and solidified. The FY21 NDAA addresses each of these areas, using the National Defense Strategy Commission as a roadmap and building off the authorities and investments provided in both the FY19 and FY20 NDAA. The FY21 NDAA boldly sets policy and prudently aligns resources to achieve irreversible momentum in implementation of the NDS and ensure that America is able to prevent and, if necessary, win the wars not just of today, but tomorrow as well.

With so much at stake, predictable, on-time, and adequate funding remains vital to the success of our military forces, as military leaders have told the Committee time and time again. After years of sustained conflict, underfunding, and budgetary uncertainty, Congress focused on rebuilding the military in the past two NDAAs. Progress has been made, but the work is not yet done. The National Defense Strategy calls for annual increases of three to five percent above inflation each year, which the Bipartisan Budget Act of 2019 did not provide for fiscal year 2021. This year’s NDAA focused heavily on prioritizing available resources to address the most worrying shortfalls and imminent threats.

Using the National Defense Strategy as a linchpin, the FY 2021 National Defense Authorization Act advances four priorities:

Supporting Our Troops, their Families, and the Civilian Workforce

The committee’s top priority is, and always has been, supporting the more than 2.1 million men and women who bravely serve our nation in our Armed Forces. They, along with military families and the civilian workforce, are the backbone of America’s national security. The FY 21 NDAA prioritizes their health and wellbeing — ensuring our troops have the resources, equipment, and training needed to succeed in their missions. The bill recognizes that family readiness strengthens our force overall, and advocates for military spouses and children. It also ensures previous reforms to the military privatized housing program and to the military health system are implemented to rigorous standards, and reemphasizes a focus on training to ensure our service members can conduct their missions safely.

Charting a Course for the National Defense Strategy Now and into the Future

The FY21 NDAA continues to reinforce and accelerate implementation of the NDS. In doing so, the bill shifts our focus even more to the Indo-Pacific, our priority theater. Critically, the bill establishes the Pacific Deterrence Initiative to enhance budgetary transparency and oversight, focus resources on capability gaps, reassures allies and partners, and restores the credibility of American deterrence in the region. The bill also emphasizes a combat-credible forward posture, making investments in posture, logistics, and intelligence capabilities, and preserves our nuclear deterrent by supporting our nuclear triad, command and control, and infrastructure. Strategic and steady support for our partners and allies provided for in the bill, including through security cooperation efforts, will strengthen the capabilities of our friends, and ensure the balance of power remains in our favor.

Building a Modern, Innovative, and Lethal Force

Our national security rests on our ability to attain and maintain an asymmetric military advantage. Our supremacy in the seas, in the skies, in space, in cyberspace, and on land must be protected, and as we look to the future of warfare, joint capabilities that ensure the protection of the joint force are essential. The FY21 NDAA ensures the United States fields a force of the optimal size, structure, and strategy, capable of supporting the conflicts envisioned by the NDS. Unfortunately, in key technologies and capabilities, we've fallen behind our near-peer competitors. The FY21 NDAA accelerates innovation so we can compete effectively and regain our comparative advantage over China and Russia.

Reshaping Pentagon Management to Maximize Performance, Accountability, and Lethality

For too long, the Pentagon has operated as a lethargic bureaucracy. Since the FY15 NDAA, Congress has implemented numerous reforms to make the Pentagon more efficient, responsive, and agile. This year, the NDAA prioritizes accountability, with flexibility, for the Department of Defense — setting up management structure and processes that better harness innovation, operate at the speed of relevance, and effectively steward taxpayer dollars. The FY21 NDAA improves the Pentagon's budget process, adjusts hiring practices to recruit and retain top talent in critical fields like advanced technology, acquisition, health care, management, and more, strengthens the defense acquisition system, and reshapes the Defense Industrial Base as a more resilient, advanced National Security Innovation Base. The COVID-19 pandemic exposed and exacerbated supply chain deficiencies across the government, and the FY21 NDAA takes numerous steps to secure the supply chain — both from overreliance on foreign nations and from infiltration by our adversaries.

Achieving the aims of the NDS is a long game, and the committee takes a long view. The FY21 NDAA sets us up for success in the long term, putting our nation on an irreversible, confident, and steady course to achieve a peaceful, free, and prosperous world — not only for us, but for our children and grandchildren.

FY 2021 NDAA HIGHLIGHTS

PROVIDING FOR THE COMMON DEFENSE

The 60th annual National Defense Authorization Act (NDAA) supports a total of \$740.5 billion in fiscal year 2021 funding for national defense, consistent with the 2019 Bipartisan Budget Agreement. Within this topline, the legislation authorizes a base defense budget of \$636.4 billion for the Department of Defense (DOD) and \$25.9 billion for national security programs within the Department of Energy. The NDAA also authorizes \$69 billion for Overseas Contingency Operations.

FY20 Defense Funding Levels (in billions of dollars)	
DOD Discretionary Base	636.4
DOE Discretionary Base	25.9
Overseas Contingency Operations	69.0
NDAA Authorized Topline with OCO	731.3
Defense-Related Activities Outside NDAA Jurisdiction	9.1
National Defense Topline with OCO	740.5

The bill allows up to \$4 billion in general transfer authority and \$2 billion in special transfer authority, in line with the 2019 Bipartisan Budget Agreement.

ACHIEVING IRREVERSIBLE MOMENTUM IN IMPLEMENTATION OF THE NATIONAL DEFENSE STRATEGY

The FY19 and FY20 NDAAs set the course for implementation of the National Defense Strategy, using the NDS Commission report as a roadmap. The FY21 NDAA builds on this work, reinforcing and accelerating implementation by properly aligning resources, encouraging innovation, and emphasizing a combat-credible forward posture.

Establishing the Pacific Deterrence Initiative

The National Defense Strategy details the enormous threats the United States faces in the Indo-Pacific region. The best way to protect U.S. security and prosperity in Asia is to maintain a credible balance of military power, but, after years of underfunding, America's ability to do so is at risk. The FY21 NDAA establishes the Pacific Deterrence Initiative (PDI) to send a strong signal to the Chinese Communist Party that America is deeply committed to defending our interests in the Indo-Pacific. PDI will enhance budgetary transparency and oversight, focus resources on key military capability gaps, reassure U.S. allies and partners, and bolster the credibility of American deterrence in the Indo-Pacific.

The bill authorizes \$1.4 billion for PDI in FY21, including \$188.6 million above the budget request for Indo-Pacific requirements, such as missile defense, enhancing forward posture, and improving interoperability with allies and partners. The bill also authorizes a PDI topline of \$5.5 billion for FY22, and directs the Secretary of Defense to create a spend plan for these resources.



PDI furthers strategic policy objectives articulated not only in the NDS, but across the government, including the Asia Reassurance Initiative Act, the National Security Strategy, the Department of State's Free and Open Indo-Pacific Strategy, and INDOPACOM's Indo-Pacific Strategy Report.

Specifically, PDI will:

- Increase lethality of the Joint Force in the Indo-Pacific, including by improving active and passive defense against theater cruise, ballistic, hypersonic missiles for bases, operating locations, and other critical infrastructure;
- Enhance the design and posture of the Joint Force in the Indo-Pacific by transitioning from large, centralized, and unhardened infrastructure to smaller, dispersed, resilient, and adaptive basing; increasing the number of capabilities of expeditionary airfields and ports; enhancing pre-positioning of forward stocks of fuel, munitions, equipment, and materiel; and improving distributed logistics and maintenance capabilities in region to ensure the sustainment of logistics under persistent multi-domain attack; and
- Strengthen alliances and partnerships to increase capabilities, improve interoperability and information sharing, and support information operations capabilities with a focus on countering malign influence.

Ensuring a Combat-Credible Forward Posture

The FY21 NDAA ensures that the United States is able to forward-deploy our forces, clearly conveying a strong message of deterrence to potential adversaries.

- Requires the Secretary of the Army to submit a plan to operationally deploy or forward station in an operational theater or theaters the two batteries of interim cruise missile defense capability,
- Prioritizes efforts to enhance the design, posture, and capabilities of the Joint Force at locations west of the International Date Line, strengthening the credibility of deterrence in the Indo-Pacific,

- Requires the Chief of Naval Operations and Commander of U.S. European Command to submit a detailed plan to base two additional destroyers at our base in Rota, Spain, as soon as practicable,
- Encourages the Air Force to establish an F-35A operating location in the Indo-Pacific quickly to posture ready forces in our priority arena,
- Encourages DOD to allocate sufficient resources and prioritize the protection of air bases that might be under attack from current or emerging cruise missiles and advanced hypersonic missiles, specifically from China,
- Encourages DOD to appropriately resource U.S. Africa Command (AFRICOM), specifically for personnel, intelligence, surveillance, and reconnaissance (ISR) capabilities, and security cooperation, and authorizes increased funding for numerous AFRICOM unfunded priorities

Prioritizing Strategic Competition with China and Russia

- Extends the limitation on providing sensitive missile defense information to Russia and on the integration of U.S. missile defense systems into those of China and Russia,
- Requires the Secretary of Defense to submit a report on the risk to DOD personnel, equipment, and operations due to Huawei 5G architecture in host countries and possible steps for mitigation,
- Requires the Secretary of Defense to consider 5G and 6G security risks posed by vendors like Huawei and ZTE when making overseas basing decisions,
- Protects the defense industrial base and supply chain, as well as intellectual property and technology, from disruption, infiltration, or theft by the Government of China (*see "Innovation Base"*),
- Fully funds the European Deterrence Initiative and increases funding to support rotational forces in Europe,
- Requires a report on Russian support to racially and ethnically motivated violent extremist groups and networks in Europe and the United States that creates or causes growing national security threats, information warfare, and increasing risks to societal stability and democratic institutions,
- Extends restrictions on military-to-military cooperation with Russia and any activities that would recognize Russian sovereignty over Crimea,
- Expresses a sense of the Senate that long-term strategic competition with Russia is a top defense priority that requires sustained investment and enhanced deterrence due to the level of threat posed,
- Prohibits the Secretary of Defense from using any funds to reduce air base resiliency or demolish protected aircraft shelters in the European theater without creating similar protection, or to close or return to host nations existing airbases until the Secretary certifies there is no need for a rotational military presence in the European theater.

Supporting Other National Security Priorities

- Codifies authorities for joint task forces that currently support law enforcement agencies conducting counter-drug activities to also support those conducting counterterrorism or counter-transnational organized crime activities, and eliminates geographic limitations, given the global nature of these threats,
- Explores opportunities to enhance ISR capabilities to provide increased area coverage and capabilities for counternarcotics, counter illicit trafficking, and other missions as appropriate,
- Provides more than \$77 million in additional funding to address U.S. Special Operations Command's highest priority unfunded requirements for replacement of combat loss equipment,
- Enables the Assistant Secretary for Special Operations and Low Intensity Conflict to more effectively fulfill responsibilities for the advocacy and oversight of special operations forces.

Military Construction and Installation Resilience

The FY21 NDAA authorizes \$8.15 billion for military construction — funding \$955 million in unfunded military construction requirements — and focuses on the facility sustainment backlog. The bill also prohibits DOD from conducting an additional BRAC round in FY 2021, provides for land conveyances at Camp Navajo, Arizona and Panama City, Florida, and extends the land withdrawals for both Fallon Range Training Complex as well as the Nevada Test and Training Range.

The legislation makes modifications to the military installation resilience project authority enacted in the FY20 NDAA to maintain, improve or rapidly reestablish mission assurance and prevent commercial and residential encroachment around military installations.

As part of the Pacific Deterrence Initiative, the FY21 NDAA adds \$15 million to accelerate military construction investments and enhance the posture of the Joint Force in the Indo-Pacific region.

MAINTAINING OUR TECHNOLOGICAL ADVANTAGE

As our strategic competitors develop more and more advanced weapons, equipment, and technology, it's critical that the United States keep pace through deliberate, knowledge-based development. The FY21 NDAA directs investments and implements policies that will maintain or expand our comparative advantage over China and Russia for key capabilities and technologies. One strategy for accelerating innovation will be through a tailored approach of both subsystem prototypes, including for unmanned surface vessels, and full-scale prototypes, including for hypersonic weapons, based on a detailed understanding of what is necessary to achieve technical and technological maturity.

- Encourages the development of our hypersonic weapons, as well as defenses against the hypersonic weapons of our competitors — an area of intense technological competition between the United States, China, and Russia — a key element of the NDS — by:
 - Increasing funding to test materials able to withstand the hypersonic environment;
 - Encouraging mission planning and the development of force structure for employing hypersonic weapons systems, as well as the architecture needed to field such systems;
 - Developing prototyping for hypersonic weapons;
 - Targeting investment to testing and infrastructure for flight and ground.
- Supports the development of fifth-generation (5G) wireless networks by establishing a cross-functional team for 5G wireless networks and designates the DOD Chief Information Officer to lead the team and serve as the senior designated official for related policy, oversight, guidance, and coordination at DOD,
- Authorizes more than \$300 million above the President's request for DOD Science and Technology research, and extends or adds authorities that accelerates research,
- Provides additional funding for missile defense priorities, including the Hypersonic and Ballistic Tracking Space Sensor, components for an eight Terminal High Altitude Area Defense (THAAD) battery, Homeland Defense Radar-Hawaii, and additional SM-3IIA interceptors,
- Encourages better coordination across DOD for research and engineering in technology areas deemed critical to the NDS,
- Authorizes \$200 million above the President's request to prototype new critical subsystems for naval vessels, including unmanned vessels,

- Strengthens Science and Technology efforts in emerging technologies, including by requiring: an assessment of U.S. efforts to develop biotechnologies compared to our adversaries; development of Artificial Intelligence use-cases for reform efforts; enhancements to the Quantum Information Science research and development program; and a demonstration of innovative 5G commercial technologies,
- Encourages DOD to leverage commercially available technology where appropriate, particularly for artificial intelligence,
- Includes several provisions designed to recruit and retain talent with technology expertise, including requiring a study comparing methods for recruiting and retaining technology researchers used by both the U.S. and Chinese governments and authorizing a pilot program to permit university students and faculty to take on part-time and term employment at DOD labs to work on critical technologies and research activities,
- Requires a certification and independent technical risk assessment by the Under Secretary of Defense for Research and Engineering prior to contracting for certain unmanned surface and undersea vessels with Research, Development, Test, and Evaluation funding.

Nuclear Modernization

Recognizing that a strong and secure nuclear deterrent will serve to counter threats from strategic competitors, the FY21 bill supports our nuclear triad, command and control, and infrastructure, and better aligns the National Nuclear Security Administration (NNSA) and DOD budget processes.

- Improves DOD coordination, insight, and participation in the NNSA budget development process and improves transparency of the NNSA budget for Congress and the public,
- Prohibits the use of FY21 funding to reduce the quantity or alert status of intercontinental ballistic missiles below 400,
- Improves cybersecurity requirements for NNSA contractors and subcontractors,
- Clarifies the role of the Nuclear Weapons Council in validating nuclear weapons requirements,
- Authorizes certain military construction projects to convert Minuteman III launch facilities to Ground-Based Strategic Deterrent configurations under certain conditions.

Spectrum Management

The FY21 NDAA transitions all functions and responsibilities related to electromagnetic spectrum operations that currently with the Commander of U.S. Strategic Command to the Chairman of the Joint Chiefs of Staff and defines additional responsibilities for the Vice Chairman to provide better oversight and advocacy as these operations are integrated into the joint warfighting concept. Further, it requires the combatant commanders and service chiefs to assess plans across the military for consistency regarding electromagnetic spectrum operations. These efforts will modernize the military's electromagnetic spectrum operations for fighting with, against, and through electronic warfare.

The bill protects critical national security equities and outlines a path forward following the Federal Communications Commission's (FCC) misguided decision to approve Ligado Networks' request for bandwidth for a terrestrial-based cellular network, that put critical GPS signals at risk. As our warfighters rely on these signals, the bill prohibits the use of DOD funds to comply with the FCC Order on Ligado until the Secretary of Defense submits an estimate of the costs associated with the resulting GPS interference, and directs the Secretary of Defense to contract with the National Academies of Science and Engineering for an independent technical review of the order to provide additional technical evaluation to review Ligado's and DOD's approaches to testing.

PROTECTING OUR MILITARY ADVANTAGE IN ALL DOMAINS

The FY21 NDAA ensures the United States fields a force of the optimal size, structure and strategy, capable of supporting conflict as envisioned by the NDS.

Developing Joint Capabilities

Recognizing the future of warfare will require all services to present an overwhelming, united array of capabilities against our enemies, the FY21 NDAA prioritizes the development of joint capabilities to improve situational awareness, decision-making, and the ability to direct forces across multiple domains.

- Requires a joint approach and plan to protect air bases and prepositioned sites in the contested environments outlined in the NDS,
- Requires a coordinated plan for the Joint Force's development of anti-ship missiles,
- Assesses our integrated air and missile defense capabilities and capacity to address existing and emerging air, missile, and other indirect fire threats to combat increasingly sophisticated and widely used threats, especially those emerging from China and Russia,
- Provides an additional \$83 million to accelerate Ground Air Task Oriented Radar integration with the Cooperative Engagement Capability and Standard Missile 6,
- Requires the Secretary of the Air Force to develop an analysis on the applicability of the Advanced Battle Management System to the broader Joint All-Domain Command and Control efforts,
- Provides leadership and alignment across the services by requiring the Joint Requirements Oversight Council (JROC) to produce Joint All-Domain Command and Control (JADC2) requirements and for the Chief of Staff of the Air Force to certify that JADC2 efforts currently being led by the Air Force will meet these requirements,
- Accelerates joint-counter small unmanned aerial system capabilities and encourages expediting procurement and fielding of commercially available solutions,
- Directs the Secretary of Defense to provide a classified report on the integrated air and missile defense; counter-rocket, artillery, and mortar (C-RAM); and Counter-Unmanned Aircraft posture in the CENTCOM area of responsibility,
- Directs the Secretary of Defense to provide a plan for the establishment of the Joint Electronic Warfare Training Range that protects sensitive technology and avoid overcrowding the spectrum,
- Accelerates counter small unmanned aerial systems (C-sUAS) efforts and the development of C-sUAS capabilities in a relevant time scale by increasing funding for these efforts totaling \$73 million above the President's budget request.

Superiority on the Seas

- Expresses a sense of the Senate on actions necessary to implement the national policy of the United States to have available as soon as practicable not fewer than 355 battle force ships
- Authorizes \$21.3 billion for shipbuilding — \$1.4 billion above the request:
 - Authorizes procurement of seven battle force ships, which is one fewer than requested due to the LPD-31 previously authorized by Congress,
 - Provides multi-ship contract authority for up to two *Columbia*-class submarines, three *San Antonio*-class amphibious ships, and one *America*-class amphibious ship,
 - Authorizes \$500 million for LPD-32 and LPD-33 long lead time material,
 - Provides for an increase of \$472 million for *Virginia*-class submarine advance procurement to preserve the option to procure 10 *Virginia*-class ships from FY 2019 to 2023,
 - Authorizes \$260 million for long lead time material for *Arleigh Burke*-class destroyers,

- Accelerates construction of the LHA-9 amphibious assault ship with \$250 million above the request, and
- Authorizes \$350 million to improve submarine and surface ship supplier stability.
- Requires certain disclosures related to foreign government involvement in shipbuilding major defense acquisition program offers,
- Requires the Navy to qualify the main engines and generators for certain unmanned surface vessels prior to vessel procurement,
- Establishes a Department of the Navy and Department of Labor joint shipbuilding industrial base working group,
- Requires the Comptroller General to reviews shipbuilding and ship repair, as well as the Supervisor of Shipbuilding organization,
- Requires the Navy to create a fighter aircraft force structure acquisition strategy and report on aircraft carrier air wing composition and carrier-based strike fighter squadrons to better prepare for potential conflicts envisioned by the National Defense Strategy

Superiority on Land

- Supports Army prioritization of multi-domain capabilities, such as long-range precision fires and increased soldier lethality,
 - Better enables operations within the Multi-domain Task Force to support planning for the future of warfare against near-peer competitors, to improve all-domain integration, and to better penetrate adversaries' vulnerabilities
- Increases investments in Future Long-Range Assault Aircraft, a top Army modernization priority (\$5 million above the request), and support ongoing development of future vertical lift capabilities

Superiority in the Air

- Establishes a minimum number of aircraft for each major mission area in the U.S. Air Force and prohibits the divestment of aircraft until the minima are reached to ensure that Air Force can meet NDS and combatant command requirements:
 - Prohibits divestment of A-10 aircraft,
 - Delays divestment of KC-10s and KC-135 aircraft until KC-46 remote visual refueling system remedies are implemented,
 - Prohibits divestment of any manned ISR aircraft operated by SOCOM,
- Requires the Air Force to have no fewer than 386 available operational squadrons or equivalent organizational units,
- Requires the Secretary of Defense to recommend a minimum number of bomber aircraft to enable the Air Force to carry out its long-range penetrating strike mission,
- Addresses issues with the KC-46 remote visual system operational limits,
- Requires the Secretary of Defense to submit an annual aviation procurement plan across all services,
- Requires a plan for the operational test and utility evaluation of the Low-Cost Attributable Aircraft Technology System, an innovative solution with game-changing capability and capacity, and increases funds by \$128 million above the President's request to purchase addition XQ-58 aircraft and operationally relevant testing,
- Provides dedicated Air Superiority aircraft in the EUCOM theater and limits divestment of F-15C aircraft in the theater,
- Increases funding for critical capabilities that will help the United States maintain air superiority in contested environments, including Systems of Systems Technology Integration Tool Chain for Heterogeneous Electronic Systems (STITCHES) and advanced air-to-air weapons,

- Authorizes \$9.1 billion to procure 95 Joint Strike Fighter aircraft, an additional 14 aircraft above the administration's request, enabling the forces to modernize and equip themselves with the most advanced and capable fifth-generation aircraft:
 - Includes \$5.5 billion to procure 60 F-35As,
 - Includes \$1.2 billion to procure 12 F-35Bs,
 - Includes \$2.4 billion to procure 23 F-35Cs,
 - Addresses the lack of strategy for the redesign of the Autonomic Logistics Information System,
 - Authorizes the Air Force to utilize, modify, and operate six Turkish F-35s that were accepted but never delivered because Turkey was suspended from the F-35 program,
 - Requires NATO partner F-35 munitions to be qualified on F-35s,
 - Continues efforts to find cost savings for the F-35 aircraft,
- Adds \$165 million for the purchase of an additional MQ-1 aircraft for the Army to meet state requirements for unmanned fixed wing ISR,
- Increases MQ-9 procurement by a total of \$170.6 million to prevent termination without a replacement,
- Supports Air Force pilot training to protect pilots and reduce the pilot shortage.

Superiority in Space

- Establishes a Space Force reserve component, but delays establishment of a Space National Guard until the completion of a study on the issue,
- Directs the Chairman of the Joint Chiefs of Staff and service chiefs to report on the space-related missions and expertise that should remain within each service and whether they require organized or liaised Space Force personnel,
- Makes technical and conforming amendments needed to continue implementation of the Space Force
- Authorizes the voluntary transfer of personnel to the Space Force,
- Prohibits the transfer of military installations to Space Force prior to analysis by the Secretary of the Air Force being presented to the congressional defense committees,
- Directs the Space Force to continue working with research institutions to establish critical research infrastructure and develop the future workforce,
- Encourages the establishment of a space training and readiness command that utilizes existing infrastructure to minimize cost and bureaucracy,
- Continues development of the space technology base, including launch vehicles and responsive launch, and recognizes the maturity of reusable space launch capability,
- Authorizes increased funding for space domain awareness, launch development, and space-based surveillance capability,
- Directs the Secretary of the Air Force to provide a report on the selection process and criteria used to determine the permanent site for Space Command HQ,
- Directs the National Security Space Launch (NSSL) program phase 2 to be implemented to sustain a healthy space industrial base and requires the Secretary of the Air Force to develop technologies and systems to enhance phase three NSSL requirements.



Superiority in Cyberspace

- Includes 11 recommendations from the Cyberspace Solarium Commission, established in the FY19 NDAA, including:
 - A review of National Guard response to cyberattacks,
 - Adding a force structure assessment in the quadrennial cyber posture review,
 - A report on enabling Cyber Command authorities, direction, and control of Cyber Operations Forces-related budgets, ensuring flexibility and agility to control acquisition,
 - An evaluation of cyber reserve force options, which could provide capable surge capability and enable DOD to draw on cyber talent in the department sector,
 - Improving cyber resiliency of nuclear command and control systems,
 - A modification to fortify the Strategic Cybersecurity program and further cyber vulnerability assessment of weapons systems,
 - A Defense Industrial Base threat intelligence sharing program to support companies' ability to defend themselves,
 - An assessment of the risk posed by quantum computing to national security systems,
 - An extension of the Cyberspace Solarium Commission for tracking and facilitating the implementation of its recommendations for 16 months,
 - An independent assessment on the feasibility and advisability of establishing a National Cyber Director.
- Updates the responsibilities of the Principal Cyber Advisor, a key driver of the Department's development and implementation of its 2018 cyber strategy, by increasing the integration and coordination responsibilities of that office to ensure that DOD's cyber policies are coherent, cohesive, and meet needs,
- Improves transparency and requires DOD to provide more regular updates on cyber operations to Congress,
- Requires pilot programs, demonstrations, and/or plans for: speed-based cybersecurity capability metrics to measure DOD performance and effectiveness; interoperability and automated orchestration of cybersecurity systems (increased by \$10 million above the President's request); addressing network timing and address inconsistencies; and integration of user activity monitoring and cybersecurity systems,
- Requires an assessment of gaps between Cyber Mission Forces and Cybersecurity Service Providers,
- Authorizes increased funding (\$25 million for Air Force Operation and Maintenance and \$5 million for Army Operation and Maintenance) to provide Cyber Mission Forces with more resources to access, operate, and train as required by increased operational demands,
- Improves cyber readiness and "man, train, and equip" by:
 - Authorizing a pilot program to prepare the National Guard for providing cyber assistance remotely in the case of cyber attacks,
 - Prohibiting the Secretary of Defense from taking any action on the National Defense University's College of Information and Cyber Space until completing an assessment of educational requirements for military and civilian leaders in this domain,
 - Modifying authority to use Operation and Maintenance funds to allow for rapid creation, testing, and fielding of cyber capabilities to respond more quickly to threats, and
 - Improving the training and retention of highly qualified cyber personnel, including providing Cyber Command with the same hiring authority for technical talent as exists at DARPA, the Strategic Capabilities Office, and the Joint Artificial Intelligence Center, and by allowing for pay that is more competitive with commercial industry.

Weapons Programs

The FY21 NDAA authorizes increases for weapons procurement programs that will be used to support NDS requirements, for a total of \$3.7 billion, which is \$48.8 million above the request. These include:

- Adding \$26 million for 10 additional Tomahawk missiles, authorizing a total procurement of 165 missiles,
- Adding \$35 million for 10 additional Long-Range Anti-Ship Missiles (LRASM), which will enhance our ability to blunt a Chinese offensive (58 total),
- Adding \$59.6 million for 36 Ground-Based Anti-Ship Missiles,
- Realigning weapons capabilities to support NDS-envisioned conflicts in the Indo-Pacific by shifting \$75 million for Joint Air-to-Surface Stand-off Missile (JASSM) production in favor of additional LRASM weapons for the Air Force.

STRENGTHENING ALLIANCES AND PARTNERSHIPS

Developing and strengthening mutually beneficial alliances and partnerships is a key tenet of the National Defense Strategy. As such, the NDAA includes numerous provisions to support America's allies and partners, build new relationships, and ensure our global network is well-positioned to counter existing and emergent threats. The bill supports DOD's security cooperation efforts to strengthen the capabilities of international partners, particularly in the Middle East, to combat terrorism so the United States can enhance its focus on NDS priorities.

- Expresses commitment to the Taiwan Relations Act and support deepened bilateral ties,
- Commemorates the 25th anniversary of U.S.-Vietnam diplomatic relations and encourages the U.S. and Vietnam to upgrade their relationship to a strategic partnership,
- Allows the Secretary of Defense to transfer \$15 million to the Secretary of State to be used for Bien Hoa dioxin cleanup,
- Commends the U.S.-Singapore Memorandum of Understanding from December 6, 2019, to establish a fighter jet training in Guam and encourages the Secretary of Defense to explore the merit and feasibility of future agreements,
- Provides \$250 million in security assistance for Ukraine, requires a long-term plan for assistance to Ukraine, and supports NATO designation of Ukraine as an "enhanced opportunities partner,"
- Calls on the United States to maintain its commitment to the Kosovo Force (KFOR), and take all appropriate steps to ensure that the KFOR has the necessary personnel, capabilities, and resources to perform its critical mission,
- Extends authorities to provide assistance to Iraq and to vetted Syrian groups and individuals to counter the threat posed by the Islamic State of Iraq and Syria through 2021, emphasizes support to Syrian Democratic Forces for the humane detention and repatriation of foreign terrorist fighters, and continues efforts to transition security assistance to standing authorities in Iraq,
- Extends the authority for the Office of Security Cooperation in Iraq through FY 2021 to continue the transition to a normalized security cooperation office,
- Extends and modifies support for reconciliation activities led by the Government of Afghanistan to ensure support is only provided for activities that include the Government of Afghanistan and do not restrict the participation of women,
- Authorizes \$4 billion for the Afghanistan Security Forces Fund (ASSF) and requires an assessment of the Afghan government's progress on shared security goals and fulfillment of commitments under the Joint Declaration between the Islamic Republic of Afghanistan and the United States for Bringing Peace to Afghanistan and requires congressional notification regarding any withholding of ASSF funds,

- Expresses a sense of the Senate urging the government to clear the backlog in processing Special Immigrant Visa applications for Afghan allies
- Includes a sense of the Senate expressing concerns about the risks of a precipitous withdrawal of U.S. military, diplomatic, and intelligence personnel from Afghanistan and the need to ensure such decisions are conditions-based. In addition, the bill requires a report on current and projected threats to the U.S. homeland and that of our allies emanating from Afghanistan and the plan for the orderly drawdown of U.S. troops
- Requires the Secretary of Defense to notify Congress 30 days before reducing the total number of members of the Armed Forces deployed to the Multinational Force and Observers in Egypt to fewer than 430 members
- Authorizes funding for the Missile Defense Agency's cooperative programs with Israel in line with both the budget request and the 2016 Memorandum of Understanding
- Updates and expands several critical DOD security cooperation authorities to better align activities with National Defense Strategy objectives
- Requires an annual report on burden-sharing contributions received from designated countries and the purposes for which such contributions were used
- Provides an additional \$50 million for the Cooperative Threat Reduction Biological Threat Reduction program

SUPPORTING U.S. HEROES: OUR ALL-VOLUNTEER FORCE

The committee's top priority remains the men and women who volunteer to serve our nation, including their families. The FY21 NDAA supports the requested 3 percent pay raise for the military, and reauthorizes more than 30 types of bonuses and special pay.

The bill also authorizes active-duty end strength levels largely consistent with the Administration request, but reflects a cautious approach due to the current outlook regarding potential impacts of COVID-19 on recruitment and basic training capacity.

- Army: 485,000
- Navy: 346,730
- Marines: 180,000
- Air Force: 333,475

The NDAA includes numerous other provisions to ensure we recruit and retain the best and to support military installations, including:

- Improving the quality and efficiency of the Defense Personal Property Program under U.S. Transportation Command, particularly during peak moving season,
- Requiring the development and implementation of training regarding religious liberty and accommodation for members of the Armed Forces,
- Authorizing funding for the STARBASE program at \$15 million, to motivate students in Science, Technology, Engineering, and Mathematics programs,
- Establishing a commission to study and provide recommendations concerning the removal, names, symbols, displays, monuments, and paraphernalia that honor or commemorate the Confederate States of America, addressing an implementation plan, cost, and criteria for renaming, among other procedures. The implementation plan is to be implemented three years after enactment,

- Requiring briefings on fielding the newest generations of personal protective equipment,
- Supporting service members as they transition from active duty to veteran status,
- Encouraging DOD to ensure commissaries remain operational during government shutdowns,
- Requiring DOD policies for government depository institutions and credit unions operating on military installations to be applied equally to all such institution.

COVID-19 Response and Support

As our nation reels with the effects of the COVID-19 pandemic, our military has stepped up and answered the call of communities in need. The bill includes specific provisions both to help our nation respond to future pandemics and to support our current military response.

- Authorizes \$44 million for vaccine and biotechnology research supported by DOD,
- Provides reserve retirement relief for service members affected by the COVID-19 stop movement order,
- Directs the Under Secretary of Defense for Personnel and Readiness to provide a briefing on the effect of non-essential training reductions on the morale and readiness of military personnel,
- Implements a pilot program on civilian and military partnerships to enhance interoperability and medical surge capability and capacity of the National Disaster Medical System, which will provide training, expand capacity, and establish a framework for well-coordinated federal response to pandemics and other threats.

Military Justice and Sexual Assault Prevention and Response

For the past 13 years, the NDAA has included provisions to reduce the occurrence of sexual assault and harassment in the U.S. military, as well as reformed the military justice system. The FY21 NDAA:

- Requires DOD to survey sexual assault response coordinators and sexual assault prevention and response victim advocates on their experiences in assisting victims of sexual assault and report on the results,
- Requires DOD to develop a policy at the military service academies and military educational institutions to minimize the association between an alleged victim and the accused while the parties complete their course of study,
- Requires the Secretary of Defense to prescribe a policy that would allow victims of sexual assault to report the assault without fear of being disciplined for minor misconduct that was collateral to the sexual assault.

Supporting Military Families and Family Readiness

Military families support our service members in important ways, and make unique sacrifices to do so. Recognizing that family readiness affects the overall morale, health, and readiness of our force, the FY21 NDAA prioritizes programs and policies that improve the well-being and resiliency of military families.

- Continues efforts to promote professional development opportunities for military spouses, by authorizing \$4 million to assist with the development of interstate compacts on licensed occupations for military spouses through the cooperative agreement with the Council of State Governments,
- Standardizes and improves the Exceptional Family Member Program, which supports military families with dependents with special needs during their assignment, and establishes requirements for the Office of Special Needs to develop and update individualized services plans,
- Improves DOD efforts to track and respond to incidents of child abuse involving dependents on members of the Armed Forces that occur on military installations,
- Requires service secretaries to factor military family readiness considerations, among other relevant factors, in future basing decisions,

- Continues efforts to provide military families with quality, affordable child care, adds funding for child development centers playground equipment and furniture to address safety issues, and encourages DOD to develop policies to identify and remove recalled consumer products from child development centers,
- Authorizes additional funding to maintain the student-teacher ratios at DOD schools and increases funding for Impact Aid by a total of \$70 million to support school districts educating military children, which includes \$20 million for Impact Aid for children with severe disabilities.

Oversight of Housing Privatized Reform

The FY21 NDAA continues stringent oversight and improves upon last year's landmark reforms to military privatized housing, including:

- Authorizes direct hire authority for installation military housing office positions responsible for supervising privatized military housing projects,
- Prohibits the service secretaries from leasing any substandard family housing,
- Requires the Secretary of Defense to implement recommendations relating to military family housing issued in a report from the DOD Inspector General,
- Requires the DOD Inspector General to conduct an audit of medical conditions of service members and their families who have resided in unsafe or unhealthy privatized military housing.

Health Care

Previous NDAA's have implemented major reform of the military health system to increase bandwidth and focus on readiness to support the National Defense Strategy. A single organization, the Defense Health Agency, now manages all military medical treatment facilities in the continental United States, as well as the purchased care system, while the military departments continue to recruit, retain, organize, and develop the military medical force. The FY21 NDAA ensures DOD concentrates on maintaining medical readiness, improving medical force readiness, and maximizing value:

- Takes steps to improve combat casualty care, including requiring a study on force mix options and service models to optimize readiness of the medical force to delivery combat casualty care,
- Addresses mental health and suicide prevention, including authorizing a GAO study on the delivery of federal, state, and private mental health services to reserve service members, and reviewing efforts to prevent suicide among service members stationed at remote installations outside of the continental United States,
- Encourages the military health system to implement telehealth and virtual health technologies using a flexible, evolutionary acquisition process that encourages competition, enables incremental improvements to provider workflows, improves access and care for beneficiaries, and lowers overall costs,
- Addresses the diagnosis and treatment of mild traumatic brain injuries and concussions to help medical personnel and commanders better understand when injured troops must receive more specialized medical evaluation and treatment,
- Increases special/incentive pay for health professions officers to make it competitive with the private sector, and extends the enhanced appointment and compensation authority for civilian personnel for the care and treatment of wounded and injured members of the Armed Forces through 2025.

Protecting the Health of Our Force and Communities

- Increases Defense-wide Operation & Maintenance by \$10 million above the President's request to support the ongoing Centers for Disease Control and Prevention nationwide human health assessment related to contaminated sources of drinking water from per- and poly-fluoroalkyl substances, Requires the Secretary of Defense to conduct a survey and market research of available firefighting technologies or substances to facilitate the phase-out of fluorinated aqueous film-forming foam,
- Makes a technical correction to include the Army National Guard in environmental restoration projects related to the clean-up of perfluorooctane sulfonate or perfluorooctanoic acid,
- Increases Defense-wide Operation & Maintenance by \$2 million above the President's request for personnel in the Office of the Assistant Secretary of Defense for Sustainment in Environment, Safety, and Occupational Health to address such challenges as per- and polyfluoroalkyl substances to the Military Housing Privatization Initiative.

IMPROVING THE PENTAGON'S BUSINESS OPERATIONS

To most effectively support the warfighting mission and remain on par with near-peer competitors, the Department of Defense's business operations must be nimble, efficient, and responsive. The FY21 NDAA encourages DOD to function better and more holistically, particularly in the areas of acquisition, management, and budget. The bill further prioritizes accountability, but also flexibility – to ensure the Department can move at the speed of relevance while respecting taxpayer dollars.

The bill also protects and enhances congressional oversight over DOD operations. It includes a provision that requires the Assistant Secretary of Defense for Legislative Affairs to assess commercially available analytics tools and technologies that will help DOD follow through on reporting requirements outlined in each annual NDAA.

The FY21 NDAA continues to refine the Chief Management Officer position and addresses a study on the role directed in the FY20 NDAA.

In total, the bill authorizes an increase of nearly \$100 million above the request to expand domestic and friendly industrial capacity, including manufacturing technologies.

Building a Resilient National Security Innovation Base

The FY21 NDAA takes numerous steps to reshape the Defense Industrial Base as a National Security Innovation Base, expanding its industrial capacity, promoting agility and resiliency, and identifying and mitigating risks associated with reliance on foreign adversaries, while investing in relationships with allies and partners. The shift to a National Security Innovation Base requires acknowledging that a whole-of-government approach is needed, and this bill encourages DOD to study broad factors that shape the industrial base and engage with outside stakeholders and interests. Recognizing that procurement restrictions are very powerful, the bill also ensures DOD is exploring all pathways to expand domestic capacity, including increased research and development. Lastly, the legislation safeguards proprietary technology, intellectual property, and other defense-sensitive data from being infiltrated by the government of China.

- Further implements recommendations from DOD's report proceeding from Executive Order 13806 on assessing and strengthening the manufacturing and defense industrial base and supply chain resiliency of the U.S., and updates the framework for modernizing acquisition processes to ensure the integrity of the Defense Industrial Base,
- Requires analyses of a variety of materials and technology sectors, such as microelectronics, rare earth minerals, medical devices, personal protective equipment and pharmaceutical ingredients, to determine actions to take to address sourcing and industrial capacity,
- Directs additional steps for certain items, such as microelectronics, printed circuit boards, critical raw materials, and unmanned aircraft systems to mitigate risk of relying on foreign sources for products, materials, components, and manufacturing,
- Strengthens the National Technology and Industrial Base (NTIB) by creating a Regulatory Council and directing DOD to establish a process for admitting new members,
- Requires assessment of foreign industrial base capabilities and capacity to see how these drive risk to the U.S. from overreliance on China and their economic aggression,
- Continues to expand the role of small business, extending the authorization of a pilot program to streamline contracting and auditing processes for innovative technology programs and ensuring DOD pays small business contractors quickly,
- Directs steps to safeguard defense-sensitive U.S. intellectual property and technology from acquisition by China and with post-employment restricts pertaining to China.

Budgeting

The bill pays particular attention to how the Pentagon manages its substantial budget and implements numerous provisions designed to streamline work, expand the ability of decision makers to access accurate and comprehensive data, and improve the Pentagon's planning and budget development process. In addition, the bill takes steps to make the process more transparent and accountable to Congress and the American people.

- Encourages DOD to expand its use of mission-based budgeting and to use modern data visualization tools, which will provide better visibility and facilitate better, more rapid decision-making,
- Directs the Comptroller to deliver a report on information systems integral to managing and sharing data relating to the Planning, Programming, Budgeting, and Execution process – including discrete IT systems used to manage and share programming and budgeting data throughout DOD,
- Requires the Secretary of Defense to deliver a report detailing changes to the budgets of agencies not under control of a military department, including programs affected by a Defense-Wide Review 2.0, with the submission of the FY22 budget request, with the goal of increasing congressional oversight and establishing a baseline for reports on defense-wide reviews,
- Encourages the Department to ensure that its budget more accurately reflects the actual budget of each military service,
- Requires the Secretary of Defense to submit an annual report on the enterprise business operations of the department, including a budget for enterprise business operations of each defense agency and field activities,
- Ensures continued DOD adherence to the annual financial audit schedule.

Talent Management

- The Department of Defense needs to be able to recruit and retain the best – not only military personnel but within the civilian workforce as well, particularly in the areas of innovation and technology. The FY21 NDAA includes numerous provisions to provide DOD with greater flexibility and

and ability to attract and hire top talent across the industry. This includes a new pilot program to offer higher compensation than normally allowed by the executive schedule for a limited number of positions requiring extremely high levels of experience managing complex organizations, and enhancing pay authority for research and technology and acquisition and technology positions at DOD.

The NDAA includes several other policies related to civilian pay, including customary extensions of combat-zone related benefits for civilian employees supporting DOD missions, as well as waivers of premium pay caps for civilians serving overseas. The bill also aligns benefits for National Nuclear Security Administration's Office of Secure Transportation with other federal law enforcement officers in the case of death in the line of duty.

Acquisition Management

Previous NDAAAs have strengthened the defense acquisition system, and the FY21 NDAA furthers implementation of these reforms, including:

- Soliciting input from the services on metrics for managing program risks under the new Adaptive Acquisition Framework;
- Initiating a GAO review on the implementation of recently issued intellectual property policy; and
- Restores proposed Defense-Wide Review cuts to the acquisition workforce and contract management and administrative functions that remain critical to implementing reform efforts.

To improve access to innovative and commercial items, technologies, and services, the bill:

- Enforces implementation of software acquisition reform, including more frequent delivery of features to end users, balancing the use of open source software with securing it, and adding a software program lead to the program management team;
- Permanently authorizes Commercial Solutions Openings;
- Allows for domestic side-by-side comparative testing for one or more programs of record to introduce competition from and capture commercial innovation; and
- Extends a pilot program for streamlined awards for innovative technology programs.

For poorly performing programs, the bill includes language that adjusts acquisition strategies. This includes prohibiting the purchase of aircraft for armed overwatch until it is determined the Air Force's current forces have neither the skill nor capacity to provide close air support to U.S. forces deployed operationally. The bill also requires an acquisition roadmap to better define current and future manned and unmanned ISR.

SUSTAINING DETENTION POLICIES

The FY21 NDAA continues long-standing provisions that prohibit the use of DOD funds to:

- Transfer or release individuals detained at U.S. Naval Station Guantanamo Bay to the United States,
- Transfer or release individuals detained at U.S. Naval Station Guantanamo Bay to Libya, Somalia, Syria, or Yemen,
- Construct or modify facilities in the U.S. to house detainees transferred from U.S. Naval Station Guantanamo Bay,
- Close or abandon U.S. Naval Station Guantanamo Bay,
- Relinquish control of Guantanamo Bay to the Republic of Cuba,
- Implement a modification to the treaty that would close U.S. Naval Station Guantanamo Bay.