

**HOLD UNTIL RELEASED**  
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**Statement of**  
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**(Sustainment)**

**Before the House Committee on Armed Services**  
**Subcommittee on Readiness**  
**Fiscal Year 2020 Department of Defense Budget Request for**  
**Sustainment**

**May 1, 2019**

## **Introduction**

Chairman Garamendi, Ranking Member Lamborn and distinguished members of the Subcommittee: Thank you for the opportunity to present the President's Fiscal Year (FY) 2020 budget request for the Department of Defense programs supporting Sustainment.

### *The New Sustainment Organization*

With my confirmation as the Assistant Secretary of Defense for Sustainment, we have consolidated the former Logistics and Materiel Readiness and the Energy, Installations & Environment portfolios into a more holistic organization focused on sustaining warfighter support. As the principal sustainment official within the senior management tier of DoD, my mission is to advise and assist the Undersecretary of Defense for Acquisition and Sustainment, the Deputy Secretary of Defense, and the Secretary of Defense in providing guidance to the Secretaries of the Military Departments with respect to sustainment support. I prescribe policies and procedures for facilities management, energy, environment, infrastructure, logistics, materiel readiness, and product support. In addition, I exercise authority, direction, and control over the Office of Economic Adjustment and Director of the Defense Logistics Agency.

Sustainment is big business. We support warfighter capabilities through over 585,000 facilities, located on more than 500 bases, posts, camps, stations, yards, and centers around the world, with a facility replacement cost exceeding \$1 trillion, not including the value of the 27 million acres of land that our installations occupy. Additionally, defense logistics alone represents a quarter of the Department's budget, while sustaining nearly \$1 trillion in materiel assets, including 275 ships, 14,000 aircraft, and almost 500,000 combat and other ground vehicles. We manage approximately 5,000,000 stock numbers, 100,000 suppliers, 90,000 requisitions per day and an inventory valued at nearly \$100 billion. The Defense Logistics Agency has annual sales of \$38 billion.

As the head of this enterprise, my strategic objectives are to a) enhance materiel availability of DoD weapon systems; b) create and sustain resilient installations; and c) ensure safe places for our members and their families to live, work, play, and pray.

The FY 2020 budget request supports the National Defense Strategy's (NDS) three lines of effort: rebuilding readiness and lethality; strengthening alliances and partnerships; and improving performance and affordability through reform. Investments in infrastructure, environment, energy, logistics, materiel readiness, and weapons support are crucial for NDS implementation. Every mission the DoD Components undertake to defend this nation is supported by DoD installations, which are our power projection platforms.

## **Fiscal Year 2020 Budget Request – Military Construction and Family Housing**

The President's FY 2020 budget requests over \$21 billion for the Military Construction (MilCon) and Family Housing appropriation, which includes \$9.9 billion for the base budget MilCon requirements, \$1.3 billion for family housing, \$0.6 billion for Overseas Contingency

Operations, and \$9.2 billion for responding to emergencies. This represents a \$9.8 billion increase from the FY 2019 enacted level primarily due to the aforementioned emergency funding, which will be used to restore funding which may be reallocated in FY 2019 to build border barriers should the Acting Secretary of Defense choose to exercise the 10 U.S.C. 2808 authority. This funding will also be used to rebuild facilities damaged by Hurricanes Florence and Michael, and for unspecified military construction to build border barriers.

This budget request continues the Department's priorities to establish a foundation for rebuilding the U.S. military into a more capable, lethal, and ready Joint Force. This funding will be used to construct or acquire facilities needed to bed-down new mission capabilities, restore and modernize enduring infrastructure, eliminate those that are excess or obsolete, and begin implementing projects supporting hurricane recovery.

### **Military Construction**

We are requesting \$9.9 billion in the base budget for military construction across the Services and Defense Agencies – an increase of approximately \$1.1 billion from the FY 2019 enacted base budget. This increase is largely due to a need to fund the balance of projects that Congress incrementally funded in FY 2019; to support new capability/mission (e.g., F-35A and KC-46) bed down requirements, force structure growth, operations and training, maintenance and production, unaccompanied personnel housing, and replacing antiquated infrastructure at enduring installations in the United States and overseas.

This request includes \$2.6 billion for the Defense-Wide Components including \$267 million for fuel infrastructure; \$697 million for recapitalization of National Security Agency and National Geospatial Intelligence Agency facilities; \$494 million to address new capabilities/mission, force structure growth, and infrastructure for Special Operations Forces; and for specific programs such as the NATO Security Investment Program and the Energy Resilience and Conservation Investment Program.

In addition, the Defense-Wide request also contains \$256 million for medical facility recapitalization including the third increment of \$97 million of a \$510 million project for the Walter Reed Medical Center Addition/Alteration; \$50.0 million for the second increment (of a \$381 million, five increment project) for a new hospital at Fort Leonard Wood, Missouri; and other smaller ambulatory care center/dental and support facilities. All the projects are crucial for our continued delivery of the quality health care that our service members and their families deserve.

### **Overseas Contingency Operations**

The FY 2020 OCO budget request includes \$645 million in MilCon, a decrease of \$277 million from the FY 2019 enacted amount, to support critical global defense posture requirements focused primarily in European areas, including the ongoing European Deterrence Initiative (EDI). EDI enhances readiness in Europe to deter Russian aggression and provides our allies a clear indication of the United States' long-term commitment to Europe. This MilCon funding includes unspecified minor military construction and planning and design funds for airfield,

facility, and force protection upgrades. The improvements continue our efforts to strengthen combat readiness and theater Joint Reception, Staging, Onward Movement, and Integration capabilities in the region.

### **DoD Emergency Funding**

As noted earlier, the FY 2020 budget request includes \$9.2 billion of emergency funding to restore resources that may be reallocated in FY 2019 to build border barriers should the Acting Secretary of Defense choose to exercise the 10 U.S.C. 2808 authority, to rebuild facilities damaged by Hurricanes Florence and Michael, and for unspecified military construction to build border barriers.

### **Family and Unaccompanied Housing**

In return for the sacrifices they make in service to our nation, Service members and their families expect a safe and secure place to live, good schools for their children, access to good medical care, and a viable relocation process that respects their household goods. The Department is committed to protecting the quality of life for military personnel and their families by ensuring access to safe, high-quality, affordable Family and Unaccompanied Housing where they will want to live. The environment in which our Service members and their families live impacts their quality of life, their ability to do their job, and the Department's ability to recruit and retain. Ensuring a positive housing experience and quality of life is critical to support personnel readiness for new and current missions and strategic initiatives worldwide.

Our FY 2020 budget request includes \$1.3 billion to support our worldwide family housing inventory, which includes more than 34,000 government-owned and 7,100 leased family housing units. This request contains \$293 million for construction of new housing and about \$1 billion for operation and maintenance of DoD's government-owned and leased family housing units, oversight of privatized housing on our U.S. installations, and provisioning of housing support services to assist military members with housing issues such as resolving landlord issues or providing information on the local housing market. The requested funding demonstrates our commitment to provide safe, quality, affordable housing and housing support services to U.S. military personnel and their families.

The Department's FY 2020 budget request also demonstrates our continued commitment to modernizing Unaccompanied Personnel Housing, with more than \$674 million requested for nine construction and renovation projects that will improve living conditions for more than 3,900 trainees and permanent party unaccompanied personnel. This includes \$73 million for the second phase of a training barracks at Fort Sill, OK; \$164 million for a bachelors enlisted quarters complex at Navy Base Guam; \$110 million for a recruit barracks at Joint Base San Antonio, TX; and \$134 million for a bachelor enlisted quarters project at Marine Corps Base Hawaii. Our modernization effort includes a focus on improving privacy and access to amenities that are important to our unaccompanied personnel.

Now that the Department has privatized most of its CONUS-based housing, a primary role for the Office of the Secretary of Defense is to ensure these projects maintain quality housing where

military families will enjoy living while sustaining the projects' long-term financial viability. To support this goal, the Department is requesting \$3.5 million to help administer the Military Housing Privatization Initiative (MHPI) program. These funds are critical for us to monitor MHPI project financial health; respond to Office of the Management and Budget guidance related to oversight of federal credit including annual credit subsidy re-estimates for government direct loans and loan guarantees; and conduct analyses of MHPI projects under financial stress that may require a restructure or modification (e.g., as a result of hurricane damage). Our oversight of the MHPI program includes privatized family and unaccompanied housing, as well as lodging the Army privatized at 40 U.S. installations over the last 13 years.

### **Military Housing Privatization Initiative**

Under the Military Housing Privatization Initiative (MHPI) legislation established in 1996, the Military Departments have privatized 99 percent (more than 200,000 units) of installation family housing in the U.S., with more than 80 MHPI projects currently in place across approximately 150 installations.

The Department is confident that housing privatization was the right thing to do. Privatization has dramatically improved the quality of on-base housing and has facilitated the long-term investment necessary to maintain high quality housing. The MHPI allowed the Military Departments to leverage private sector expertise and funding to improve the quality of installation housing in the United States much faster than DoD could have done through traditional military construction and ongoing operation and maintenance funding.

Under the MHPI, Military Departments conveyed their existing government housing units to competitively selected privatization entities (i.e., the MHPI projects). MHPI projects operate under long-term (~50-year) ground leases and associated legal agreements with a Military Department, with one 25-year option period. In return, the MHPI projects assumed ownership of the houses and the responsibility for operation, maintenance, construction, and replacement of the housing during the lease term, in accordance with the authorities as defined in Title 10, United States Code.

In light of the media reports and recent hearings on the poor conditions and service some military families experienced over the last several years, I am increasing the oversight my office provides to ensure the Military Departments fully and effectively exercise their responsibilities to ensure that privatized housing is managed in a manner protective of human health and the environment. This includes establishing new reporting requirements and programmatic reviews regarding Military Department monitoring of potential hazards in privatized housing, such as reporting on the number of child falls from windows in MHPI (or military-operated) housing.

The Department and our housing privatization partners are committed to working together to increase our collective communication with military families to better ensure they have a positive experience living in privatized housing. This will start with the issuance of a Resident Bill of Rights. We will be working with Congress, the Military Departments, the privatized housing owners, and military families to articulate the responsibilities and expectations between renters and lessors. We will also be increasing our engagement with military families throughout

their residency. Through increased engagement, we will better educate military families about their roles and responsibilities to help identify any issues with housing conditions, and the roles and responsibilities of the privatized partner and the installation housing teams. Our commitment to increase engagement also extends to Military and Veteran Support Organizations and advocacy groups such as the Military Family Advisory Network.

In all cases, we commit to work with our housing privatization partners to ensure any and all resident concerns are addressed in a highly responsive, timely, and professional manner, with emphasis on expediting resolution of any concerns involving potential health or safety issues. We want our military families to know that we truly care about their experience living in privatized housing and that we want to collectively do better in delivering safe, high quality, affordable housing where our military members and their families will want and choose to live.

The Department of Defense understands that the family is important, and we honor the sacrifice that Service members and their families make to serve our nation. The Department recognizes we have a moral obligation to military families to provide safe and quality housing, and we take that obligation seriously. We are committed to the long-term success of the MHPI projects and MHPI program, and will continue our oversight of the MHPI portfolio to ensure delivery of quality housing for Service members and their families over the life of the projects. Bottom line, this requires a twin focus: ensuring our residents have a positive experience living in privatized housing, and ensuring the long-term viability of the MHPI projects for future military families.

### **Facilities Sustainment and Recapitalization**

In order for the Department's facilities to support the goals of the National Defense Strategy, they must be well maintained and renovated periodically. Over the last two years, the Department has increased its funding to sustain and modernize existing facilities. While our Components must still take risks in maintaining facilities, this budget request continues to improve our overall funding and reduce risk in our most important infrastructure.

Facility Sustainment funding, which includes the regularly scheduled maintenance and repair or replacement of facility components, is the foundation of the Department's investment to maintain the condition of our facilities. These periodic and predictable investments must be made across the service life of a facility to slow its deterioration and optimize its performance to support the safety, productivity, and quality of life of our personnel, while also reducing long-term recapitalization requirements. The Department's Operations and Maintenance (O&M) funding for Facility Sustainment in the FY 2020 budget request is \$10.4 billion, representing a seven percent increase compared to our FY 2019 budget request. This investment improves our collective sustainment rate to over 86% of our Facilities Sustainment Model requirement. This is still short of our 90% goal, but nonetheless represents significant movement in the right direction.

In addition to Sustainment funding, Restoration and Modernization funding enables renovations and upgrades to ensure a facility can support assigned missions. Thanks to authority provided in the FY 2017 National Defense Authorization Act, the DoD Components are increasing their pursuit of opportunities to more cost-effectively repurpose existing facilities to accommodate

new missions. Our FY 2020 budget request includes almost \$5 billion in the Operations and Maintenance account for facilities restoration and modernization, an increase of almost 80 percent over our FY 2019 request. As with our sustainment program, this also represents movement in the right direction to address the backlog of requirements in aging and obsolete facilities.

**Environmental and Safety Programs**

Installations are key platforms for our nation’s defense. Therefore, we must make them resilient and a “safe” place for not only our service members, but their families living on our installations and our surrounding communities. The Department’s environmental investments support these objectives through activities ranging from managing critical habitat and avoiding training restrictions to addressing drinking water health advisories and making the best use of limited cleanup dollars. The President’s FY 2020 Budget requests \$3.6 billion for environmental programs, which is an increase of \$185 million compared to the FY 2019 request.

We are requesting \$1.3 billion to continue cleanup efforts at the remaining Installation Restoration Program (IRP) sites and Military Munitions Response Program (MMRP) sites. The IRP is focused on cleanup of hazardous substances, pollutants, and contaminants, while the MMRP is focused on responding to unexploded ordnance and munition constituents at former military ranges. This includes \$1.1 billion for “Environmental Restoration,” which encompasses active installations and Formerly Used Defense Sites (FUDS – sites that DoD transferred to other Federal agencies, States, local governments, or private landowners before October 17, 1986). The remaining \$254 million is for “BRAC Environmental.”

**Progress Towards Cleanup Goals**

Goal: Achieve Response Complete at 90% and 95% of Active and BRAC IRP and MMRP sites, and FUDS IRP sites, by FY 2018 and FY 2021, respectively			
	Status as of the end of FY 2017	Status as of the end of FY 2018	Projected status at the end of FY 2021
Army	91%	91%	94%
Navy	82%	83%	88%
Air Force	83%	86%	92%
DLA	86%	85%	95%
FUDS	84%	86%	92%
<b>Total</b>	<b>86%</b>	<b>88%</b>	<b>92%</b>

By the end of 2018, the Department, in cooperation with State agencies and the Environmental Protection Agency, completed cleanup activities at 88 percent of Active and BRAC IRP and MMRP sites, and FUDS IRP sites, and is now monitoring the results. During FY 2018 alone, the Department completed cleanup at over 469 sites. Of the roughly 39,500 restoration sites, more than 33,500 are now in monitoring status or have completed cleanup.

Our focus remains on continuous improvement in the restoration program: minimizing overhead; adopting new technologies to reduce cost and accelerate cleanup; refining and standardizing our

cost estimating; and improving our relationships with State regulators through increased dialogue. All of these initiatives help ensure that we make the best use of our available resources to complete cleanup.

However, challenges remain that slow our progress. For example, unregulated or emerging chemicals of concern, such as perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), are becoming a top priority and require the DoD to reprioritize or reopen previously made decisions which will cause delays in achieving our goals. Additionally, some sites have no feasible solution to clean up the contamination, and as a result, the Department is making significant investments in environmental technology to identify new potential remediation methods.

### **Environmental Technology**

A critical part of DoD's approach to meeting its environmental obligations and improving its performance is the continued pursuit of advances in science and technology. The Department has a thirty-year record of researching, developing, and transferring innovative environmental technologies from the laboratory to actual use in the field. Many of these technologies are also now widely used by other federal agencies and industry, benefitting the nation as a whole.

The overall FY 2020 budget request for Environmental Technology is \$178 million, centered on two key programs - the Strategic Environmental Research and Development Program (SERDP - focused on basic and applied research) and the Environmental Security Technology Certification Program (ESTCP - focused on validating more mature technologies to transition them to widespread use). The FY 2020 budget request includes \$66 million for SERDP and \$39 million for ESTCP for environmental technology demonstrations, with an additional \$27 million requested specifically for energy technology demonstrations. These Defense-wide environmental technology programs coordinate closely with the Military Services to ensure research, demonstration, test and evaluation are focused on the Departments most pressing environmental needs.

These programs have already achieved noticeable results and have the potential to significantly reduce long-term costs by implementing new ways of treating groundwater contamination, to increasing training land availability by developing more effective management strategies for installation managers, and to reduce the life-cycle costs of multiple weapons systems through development and demonstration of innovative coatings and materials. During the past two years, we have also launched an aggressive initiative to address management issues associated with the use of Aqueous Film Forming Foam (AFFF) including development of fluorine-free alternatives for AFFF, as well as development of more efficient and cost-effective sampling, analysis, and treatment options for AFFF-related chemicals including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and related per- and polyfluoroalkyl substances (PFAS). In the critical area of installation energy, we are focused on proving technologies and solutions that cost-effectively improve the energy security and resiliency of our installations, and that protect our energy assets and facilities from cyber-attacks.



## **Improving Installation and Climate Resilience**

DoD must adapt current and future operations to address a variety of threats and increase the resilience of our installations. We recognize the effects of a changing climate are a national security issue with potential impacts to Department of Defense missions, operational plans, and installations. We have been and will continue to be proactive in developing comprehensive policy, guidance, and tools to mitigate these impacts, with a focus on robust infrastructure, sound land management policies, and increased energy resilience.

From a resources perspective, DoD is incorporating climate resilience as a cross-cutting consideration for our planning and decision-making processes, and not as a separate program or specific set of actions. Specifically, the Department considers resilience in the installation planning and basing processes. This includes consideration of environmental vulnerabilities in installation master planning, management of natural resources, design and construction standards, utility systems and service, as well as emergency management operations. The Department has been proactive in developing policy, guidance, and tools to mitigate the impacts of a changing climate. These mitigation strategies focus on infrastructure and land management.

From a policy perspective, the Department has published several issuances to ensure the Services and Joint Staff integrate climate scenarios into planning. DoD Directive 4715.21, Climate Change Adaptation and Resilience, assigns responsibilities to components to incorporate climate considerations into planning for infrastructure and operations. DoD Instruction 4715.03, Natural Resources Conservation Program, requires consideration of climate impacts during development of Installations Natural Resources Management Plans. In 2017, the Department updated DoDI 6055.17, DoD Emergency Management Program, to ensure the consideration of an all hazards approach to manage risks, including weather and climate related impacts on military installations.

Additionally, the Department regularly updates its building codes, known as Unified Facilities Criteria (UFCs), to reflect updated or more stringent industry and Federal standards. Over the past year, DoD has updated the Master Planning and High Performance and Sustainable Building Requirements UFCs to strengthen climate considerations. The Department has and will continue to develop tools for installation planners and engineers to assess climate impacts and develop mitigation strategies. Recent examples include The Planning Handbook on Climate Change Installation Adaptation and Resilience, produced by Naval Facilities Command (NAVFAC) in January 2017, and the Coastal Assessment Regional Scenarios Database (CARSWG) database with regionalized sea level scenarios for DoD sites worldwide.

## **Environmental Conservation and Compatible Development**

The Department continues to manage its land, water, and airspace to ensure our military and civilian personnel have the access they need to conduct mission-essential activities. As training, testing, and operational requirements expand and new weapons systems are introduced, access and use of ranges becomes increasingly important. The FY 2020 budget request for

Conservation is \$445 million. The Department will invest these funds to maximize our flexibility to use lands for military purposes and to address incompatible land uses beyond our fence lines.

The Department's lands and waters are vital to readiness. However, they also support a diverse array of fish and wildlife species, including nearly 500 that are federally protected under the Endangered Species Act, and over 550 that are at risk of needing listing protection. Managing for healthy and resilient natural landscapes, such as reducing fire risks, avoiding wildlife conflicts, removing invasive species, and improving range and training areas, provides the conditions necessary for mission-essential activities.

Regulatory protections related to threatened and endangered species and their habitats can pose significant mission challenges by restricting use of our existing ranges and training areas, or limiting our development of new infrastructure. In recent years, there has been a marked increase in the number of species being petitioned and evaluated for listing under the Endangered Species Act. To better address these issues, we have initiated a partnership with the Department of the Interior to target conservation efforts for species of primary concern to the Department. The three primary goals of this initiative are to facilitate species recovery and de-listing, establish local and regional partnerships to recover species or prevent new species from being listed, and to develop innovative tools and approaches that provide greater regulatory predictability.

The Department's participation in broader conservation partnerships for listed species is beginning to see returns on those long term investments. This past year the Lesser Long-Nosed Bat, a species that resides on three Southwest installations, was considered recovered and removed from the list of threatened and endangered species. This success alleviated training restrictions related to Unmanned Aerial Vehicle (UAV) operations and use of pyrotechnics on 18,743 acres at Fort Huachuca, AZ. Four additional species are also currently being evaluated or have been proposed for either a status change from endangered to threatened, or removal from the list of threatened and endangered species.

Building on this success, we will continue to work with our federal, state, and non-governmental partners to develop new and innovative regulatory approaches that streamline processes and provide greater mission flexibility. We will also be working to develop more comprehensive initiatives that better capitalize on both our on-installation conservation programs and our off-installation conservation partnerships through the Readiness and Environmental Protection Integration Program.

### **Readiness and Environmental Protection Integration Program**

The Readiness and Environmental Protection Integration (REPI) program supports DoD's efforts to build a more lethal and resilient force. Investments protect training, testing, and operational assets of the Department, contributing to installation resilience and sustainment of existing and new mission capabilities. Through the REPI program, we engage in a long-term and cooperative strategy to ensure military mission sustainability by limiting incompatible development near our installations and ranges. Protecting these lands using the REPI program is a more cost-effective

approach to sustain military readiness for the Department and the taxpayer than settling for suboptimal test and training alternatives or workarounds, such as replacing compromised assets with new range construction or relocating missions. This cooperative land protection also provides direct benefits to our partners and neighboring communities through the conservation of limited resources shared by the installation and its neighbors. REPI initiatives contribute to the longevity of working farms, forests, and ranchlands; increase recreational opportunities for nearby residents, active military families, and veterans; and increase the installation's military value. The REPI program invigorates public-private partnerships that strengthen military installation ties to local communities. These local alliances help to foster an increased level of communication and cooperation, which enables installation commanders to better accomplish their vital test, training, and operational missions. In the last 16 years, REPI partnerships have protected more than 586,000 acres of land around 106 installations in 33 states. In addition to the tangible benefits of preserving DoD's existing training, testing, and operational assets, these efforts have resulted in significant contributions to the economic health and recreational opportunities for local communities.

One example of a REPI initiative is working to sustain the F-35 mission at Hill Air Force Base (AFB). Located in the fastest developing locale in the state of Utah, Hill AFB anticipates that without the REPI program, the arrival of the F-35 will face significant encroachment challenges in the next 5-10 years. Challenges such as public safety concerns, noise and nighttime lighting complaints, and water availability pose potential threats to the F-35 mission. Experts at Hill AFB say flight test patterns may have to be rerouted or aircraft launch hours may have to be restricted without encroachment mitigation.

In addition to directly preserving and enhancing key mission capabilities through innovative partnerships, the REPI program has developed an approach that supports land use and habitat conservation practices beyond installation boundaries to ensure military installations do not become refuges of last resort for threatened, endangered, or at-risk species. Under this approach, DoD engages with other governmental and non-governmental partners who work with private landowners to develop voluntary initiatives and agreements that promote practices that help avoid or mitigate regulatory restrictions on training, testing, and operations on DoD lands. These efforts ease the on-installation species management burden and reduce the possibility of restricted activities.

Within the Department's \$445 million budget for conservation, \$75 million is directed to the REPI program. The REPI program is a cost-effective tool to protect the nation's existing training, testing, and operational capabilities at a time of decreasing resources.

To further REPI investments, DoD, along with the Departments of the Interior and Agriculture, continues to advance the Sentinel Landscapes Partnership to work with private and non-Federal landowners to conserve large landscapes where conservation, working lands, and national defense interests converge. Established in 2013, the Sentinel Landscapes Partnership further strengthens interagency coordination and provides taxpayers with the greatest leverage of their funds by aligning federal programs to advance the mutually beneficial goals of each agency. From 2014 through 2018, seven Sentinel Landscapes have been designated. In 2018, DoD and the Military Services invested approximately \$22 million in the seven Sentinel Landscapes,

which will further leverage funds from federal, state, local, and private partners. In 2018, the U.S. Department of Agriculture Natural Resources Conservation Service awarded \$7 million in Regional Conservation Partnership Program funding to develop the North Carolina Sentinel Landscapes High Priority Protect Program. The investments made in Sentinel Landscapes help ensure readiness and protect operational flexibility.

### **Addressing Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA)**

Ensuring the health and safety of our Service members, the families living on our installations, and the surrounding communities is one of our top priorities. This includes the investigation and cleanup of PFOS and PFOA in drinking water where previous Department of Defense activities are determined to be the source. DoD has committed substantial resources in the last three years and has taken significant actions to respond to concerns with PFOS and PFOA.

One commercial product that contains PFOS and PFOA is Aqueous Film Forming Foam, or AFFF. Besides DoD, this highly effective firefighting foam has been used by airports, fire departments, and the oil and gas industry, among others. However, AFFF only accounted for approximately 3-6% of PFOS production in 2000 and DoD is just one of many users.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provides a consistent approach across the Nation for cleanup. This includes prioritizing sites for cleanup using the CERCLA risk-based process – essentially worst first. The Defense Environmental Restoration Program statute provides authorities to DoD to perform and fund cleanup actions and requires they be carried out in accordance with CERCLA. The first step is to identify known or suspected releases. DoD has identified 401 active and Base Realignment and Closure installations with at least one area where there is a known or suspected release of PFOS or PFOA. The Military Departments then determined if there was exposure through drinking water. If so, DoD's priority is to quickly address unacceptable levels of PFOS/PFOA in drinking water. As of today, no one is drinking water above EPA's drinking water lifetime health advisory of 70ppt where DoD is the known source.

With the exposure pathway broken, the Military Departments are prioritizing sites for further action using the longstanding CERCLA risk-based process – essentially worst first. These known or suspected PFOS and PFOA release areas are in various stages of assessment, investigation, and cleanup. As DoD moves through the CERCLA process, we will work in collaboration with regulatory agencies and communities, and share information in an open and transparent manner. We are committed to funding the remainder of assessments and investigations as we move into the later phases of CERCLA process.

DoD has also committed significant funds in research and development to identify and test fluorine-free AFFF. As previously discussed, our SERDP and ESTCP programs launched numerous efforts and on-going projects from small scale to field demonstrations. At the conclusion of these projects, the Department will have invested \$60 million in PFAS-related research and development, with additional research and demonstration projects under consideration for funding beginning in FY 2020.

We have already taken steps to remove and replace AFFF containing PFOS from our supply system and to prevent new releases of AFFF. The Military Departments no longer use AFFF for maintenance, testing, and training activities. When AFFF is used to fight a fire, it is contained to prevent releases to ground water.

Currently, no fluorine-free version of AFFF meets the military's stringent performance requirements to extinguish petroleum fires. We have solicited research projects to identify and test the performance of fluorine-free AFFF. These efforts support DoD's commitment to finding an AFFF alternative that meets critical mission requirements, while protecting human health and the environment, and will represent \$10 million in research and development funding.

In summary, DoD is taking immediate actions to reduce the risks from PFOS and PFOA. Our efforts reinforce DoD's commitment to meeting critical mission requirements while protecting human health and the environment. The Department recognizes that this is a national problem involving a wide array of industries and commercial applications, as well as many federal and state agencies. Therefore, it needs a nation-wide regulatory solution.

### **Department of Defense Energy Programs**

Energy is an essential enabler of military capability and the Department depends on energy-resilient forces and facilities to achieve its mission. In FY 2018, the Department consumed over 85 million barrels of fuel to power ships, aircraft, combat vehicles, and contingency bases at a cost of nearly \$9.2 billion. At over 500 worldwide military installations, the Department spent \$3.4 billion in FY 2018 on energy to power over 585,000 facilities and 160,000 non-tactical vehicles.

The National Defense Strategy outlines an operational environment where "every domain is contested – air, land, sea, space, and cyberspace," and the "homeland is no longer a sanctuary." Preparing for the battlefield of 2025 and sustaining installation and operational energy resilience necessitates the assured delivery of cyber-secure fuel and power in contested environments against near-peer competitors.

To enable resilient, efficient, and cyber-secure energy for Joint forces, weapon systems and installations, the FY 2020 President's Budget includes approximately \$4.2 billion in energy investments, including both *operational energy* (the energy required for training, moving, and sustaining military forces and weapons platforms for military operations) and *installation energy* (the energy used to power permanent installations and non-tactical fleet vehicles).

In support of operational energy, the Department is requesting \$3.5 billion to upgrade and procure new equipment, improve propulsion, adapt plans, concepts, and plan wargames to account for increasing risks to logistics and sustainment, and enhance how the Department considers energy in developing new capabilities. As the Department responds to changing threats in Europe, the Indo-Pacific, and the Middle East, these initiatives are increasing capability and decreasing risks for warfighters deployed around the globe.

In support of installation energy, the Department is requesting \$698 million to for energy resilience and energy conservation initiatives, most of which are directed to existing buildings. This includes \$548 million in the Military Component Operations and Maintenance accounts for sustainment and recapitalization projects, which generally involve retrofits to install improved lighting, high-efficiency HVAC systems, double-pane windows, energy management control systems, and new roofs. The remainder (\$150 million) is for the Energy Resilience and Conservation Investment Program (ERCIP), which is a MilCon account that funds projects to improve energy resilience and security, save energy and water, reduce energy costs, and most importantly, contribute to the mission readiness of our military installations.

Our mission is to sustain warfighting readiness and lethality by providing all energy-related policy and governance for programs and activities that enable resilient, efficient, and cyber-secure energy for Joint forces, weapon systems, and installations. To do so, the FY 2020 President's Budget supports initiatives across four primary areas, outlined below.

### **Energy Resilience**

As defined in Section 101 of Title 10, energy resilience is the “ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to ensure energy availability and reliability sufficient to provide for mission assurance and readiness, including mission essential operations related to readiness, and to execute or rapidly reestablish mission essential requirements.” To this end, the Department has been engaged in the following programs that increase energy resilience for our weapons systems and installations.

*Energy Resilience and Conservation Investment Program (ERCIP).* ERCIP is a key Department tool to enable more robust energy security. DoD is requesting \$150 million for this program for FY 2020, including \$113 million for energy resilience projects and \$37 million for energy conservation projects. The ERCIP portfolio has a combined Savings to Investment Ratio (SIR) of 1.63. In other words, every dollar we invest in ERCIP is returned to the Department with a discounted cost savings of \$1.63 over the lifetime of the project, demonstrating that, in many cases, energy resilience does not have to come at a price premium. For example, at Beale Air Force Base, ERCIP funding will provide an electrical substation which will provide a secondary source of power from an alternate power provider to ensure the Global Hawk mission has the reliable power it needs. At Anniston Army Depot, the project will provide on-site generation and grid controls which assure critical production and maintenance of combat vehicles during extended grid outages. Both projects provide improved energy resilience to their critical missions.

*Micro-reactor Demonstration.* As directed in the FY 2019 National Defense Authorization Act, DoD and DoE are in the planning stages for a pilot program to demonstrate a commercially developed, Nuclear Regulatory Commission (NRC) licensed, micro-reactor to power critical loads at a permanent domestic military installation by December 2027. The demonstration will evaluate the energy resilience capability and the cost effectiveness of micro-reactor technology.

*Operational Energy Capability Improvement Fund (OECIF).* Overseen by the Under Secretary of Defense for Research & Engineering, OECIF supports operational energy research programs. The FY 2020 President's Budget requests \$70 million to initiate new projects and sustain projects started in FYs 2017-2019. Ongoing initiatives include efforts to increase the energy performance of unmanned systems, enhance power and thermal management for high pulse power weapons, wirelessly transmitting energy in the far field, and one-year analytical studies to identify operational energy science and technology gaps.

*Installation Energy Resilience Policy and Governance.* The Military Departments continue to implement energy resilience initiatives aligned with Department of Defense Instruction 4170.11, *Installation Energy Management*. This is the first policy the Department issued to define energy resilience; critical energy requirements; and operation, maintenance, and testing requirements for energy resilient systems.

*Standardized Mobile Electric Power Systems.* In August 2018, the Department established a DoD family of mobile electric power generation, distribution, storage, and management systems. This policy addresses the growing need for power at contingency bases with a standardized, interoperable, and maintainable family of equipment, while allowing mission-driven exceptions. The effort decreases the logistics burden – and risk – for deployed forces while enabling advanced equipment to reach the field at lower cost in less time.

*Installation Energy Plans.* The Department's ongoing energy efficiency efforts not only contribute to energy resilience by reducing critical loads, but have also lowered our base operating costs by \$5.4 billion since FY 2005. In May 2018, the Department expanded its Installation Energy Plan (IEP) policy to require the integration of energy resilience and cybersecurity at all installations. The process of comprehensive energy planning will provide a holistic approach to identifying, evaluating, and mitigating energy risks to critical missions. The IEPs are slated for completion by the end of FY 2021.

*Training and Education.* Across the Force, there is a need for uniformed and civilian personnel who are prepared to develop and implement effective solutions for energy resilience and cybersecurity. For civilian and military installation energy managers, we finalized the Energy Manager Competency Model. Additionally, we foster collaboration among the Sustainment organization, the Department of Energy, and other agencies to communicate key priorities and coordinate inter-departmental events. For example, the annual Energy Exchange, Defense Logistics Agency's Worldwide Energy Conference, and the Federal Utility Partnership Working Group, provide relevant training for our workforce. In addition, for uniformed personnel, we are working to bolster energy-informed, risk-based decisions by expanding the Defense Logistic Agency's Joint Petroleum Seminar and Joint Petroleum Officers Course.

## **Energy Risk**

To prioritize resources, the Department is identifying, assessing, and integrating energy-related analyses and risks into Department decision-making, as follows:

*Energy Informed Wargames.* To better evaluate and mitigate the effects of energy disruptions on the mission, we are actively engaged in integrating energy risks into our wargames and exercises. In 2018, my office participated in three events sponsored by the Army, Defense Logistics Agency, and USTRANSCOM. With the integration of realistic constraints to logistics capacity and threats to our fuel storage and distribution, our efforts will improve Department decision-making in operation plans, concept and capability development, and program investments. Looking ahead, the Department anticipates executing a Joint energy wargame by the end of FY 2019 that evaluates energy risks in the Indo-Pacific area of operations.

*Energy Resilience Exercises.* In alignment with U.S. Code and DoD instruction, we are performing full-scale and black-start energy disruption exercises of our energy resilience and backup power systems to evaluate risks to the readiness of our military installations. In FYs 2018 and 2019, the Department will have completed three tabletop exercise and five black-start readiness exercise tests at critical military installations. There is another planned black-start readiness exercise to be completed by the conclusion of FY 2020.

*Energy Resilience Tools and Analyses.* The Department continues to identify and develop critical energy requirements, models, and metrics for decision-making across the installation and operational energy portfolios. For installation energy, the DoD commissioned the Massachusetts Institute of Technology Lincoln Laboratory (MIT-LL) to address a congressional requirement to evaluate the costs, risks, and benefits associated with energy resilience and mission readiness against energy supply disruptions on military facilities and installations. Site-level assessments conducted across a number of military installations identified critical energy requirements and metrics for the purposes of identifying energy resilience projects. Also, the life-cycle cost analysis tool, which assesses tradeoffs between mission performance and costs, is now being assessed for enterprise-wide adoption across the Department.

## **Energy Performance**

The Department continues to leverage alternative financing authorities that ensure lower cost, resilient energy performance across DoD installations. Through mechanisms such as power purchase agreements, performance-based contracts, enhanced use leases, utility energy service contracts (UESCs), utilities privatization, and energy savings performance contracts (ESPCs), the Department has awarded over three billion dollars in alternative finance contracts to ensure energy performance, efficiency, and resilience on our military installations since 2011. In accordance with more recent congressional direction, the Department issued revised policy to integrate energy resilience and cybersecurity considerations into these alternative financing mechanisms.

The Department takes full advantage of non-Federal financing for distributed energy projects to ensure the energy resilience of our installations. This approach minimizes DoD capital investment by using contracts that incentivize industry to fund infrastructure resilience improvements. When the business case supports it, the Department pursues distributed energy projects with microgrid-ready applications able to sustain continuous power in the event of a disruption. Both the Air Force at Hill Air Force Base and the Army at Fort Huachuca awarded ESPCs last year, which included implementation of on-site generation. In addition, the project at



Fort Huachuca includes a microgrid, which will ensure the delivery of available, reliable, and resilient power while reducing life cycle costs through an ESPC with our industry partners.

Further, my Energy team is conducting a Defense Energy Resilience Bank study, also known as the DERB, to review best practices from the commercial finance industry and lenders to implement and accelerate alternative finance for energy resilience project development. This multi-stakeholder collaboration with government and industry partners is critical to develop integrated and holistic alternative finance projects that ensure the Department's energy resilience objectives are met cost effectively.

### **Cyber Secure Facilities**

Reflecting the role of our facilities as nodes for projecting and sustaining power, the Department is reducing the cyber risks to facility related control systems (FRCS) to ensure reliable power for critical missions. Similar to our approach to energy resilience, the department integrated cyber security into our energy policies and guidance of the course of the last year. For example our military installations are including cyber security considerations in the development of their installation energy plans, along with the pursuit of alternative finance. Specifically, FRCS considerations are now integral to utility privatization agreements, ESPCs, and UESCs.

Further, to build a FRCS defense posture, the Department recently began developing cybersecurity plans to account for the capabilities and resources required to implement controls on its highest prioritized assets and systems. We will continue to work with the Department's Chief Information Officer and Principal Cyber Advisor toward solutions and resources ensuring FRCS are defensible, survivable, and resilient to operate and sustain critical functions in a cyber-contested environment. Additionally, in July 2018, the Deputy Secretary of Defense issued a memorandum, *Enhancing Cybersecurity Risk Management for Control Systems (CS) Supporting DoD Owned Defense Critical Infrastructure*, mandating the Components cyber secure these critical systems.

### **Additional High Interest Programs**

#### **Border Security**

On April 4, 2018, the President directed the Secretary of Defense to support the Department of Homeland Security (DHS) in securing the southern border, including assistance to "stop the flow of deadly drugs and other contraband, gang members and other criminals, and illegal aliens into the country."

On February 15, 2019, the President declared that a national emergency exists at the southern border of the United States that requires the use of the armed forces, making available certain emergency authorities, including Section 2808 of Title 10, U.S. Code.

Section 2808 provides that, in the event of a national emergency declaration requiring use of the armed forces, "the Secretary of Defense, without regard to any other provision of law, may

undertake military construction projects, and may authorize the Secretaries of the military departments to undertake military construction projects, not otherwise authorized by law that are necessary to support such use of the armed forces.”

No military construction funds may be obligated under Section 2808 unless the Acting Secretary determines that military construction projects are necessary to support the use of the armed forces in addressing the national emergency for which the armed forces are required. At this time, the Acting Secretary has not decided whether any barrier construction projects are necessary to support the use of the armed forces and thus authorized under Section 2808. To inform his decision as to whether such military construction projects are necessary, the Acting Secretary has requested from DHS a list of proposed border barrier construction projects, prioritized in order of effectiveness, that DHS considers to be most effective in improving the effectiveness and efficiency of DoD personnel supporting Customs and Border Protection (CBP) and securing the southern border. DHS provided its input to DoD on March 20, 2019.

In support of the Acting Secretary’s consideration of Section 2808, DoD is conducting a deliberate process to identify MilCon projects that could be used as funding sources, if necessary, for MilCon projects to support the use of the armed forces in connection with the national emergency. The Department will notify the appropriate committees as required by Section 2808 of any decision to undertake MilCon projects to support the use of the armed forces under this authority.

Additionally, the Defense Logistics Agency (DLA) is supporting Secretary of Defense-approved requests for assistance from the Department of Homeland Security via validated and Service-funded requisitions. As of February 28, 2019, DLA has provided over \$7.7 million worth of Class IV materials in addition to over \$3 million in subsistence, \$56K in clothing and individual equipment, and \$3.3 million of re-utilized material in support of operations. DLA remains well positioned to support additional requirements.

### **Military Construction Reform**

Reform of the military construction process, although not represented as a budget request item, continues as an important effort of my office. Our goal is nothing less than to ensure warfighters are provided delivery of fully-mission-capable facilities within the timelines stated. We are looking for ways to reduce cost where possible, but perhaps more importantly, to improve communication between stakeholders and timeliness of completed facilities which fully meet user requirements over their expected service lives. We are continuing our proactive assessment of recent challenges in MilCon project delivery and program management to identify improvements in the MilCon process and implement reforms in a number of key areas, to include: improving identification of project requirements; enhancing collaboration between resource sponsors, end users, and construction agents to ensure projects meet mission requirements within budget constraints; selecting the best engineering and acquisition strategy to cost-effectively meet mission requirements; identifying risk mitigation measures before cost or schedule changes adversely impact the mission; and increasing awareness and accountability at all levels of management and performance as problems arise. The Department is also consulting

with our industry partners to identify commercial best practices to lower costs, save time, measure performance differently, and improve project quality in support of the warfighter.

### **Guam and the Commonwealth of the Northern Mariana Islands (CNMI)**

As Acting Secretary Shanahan recently testified, China's increasingly provocative behavior in the Indo-Pacific, particularly in the South China Sea (SCS) should concern us all. Between 2013 and 2018, China increased its air and sea incursions into the SCS twelvefold. Our posture in the Indo-Pacific, specifically in Guam and the Commonwealth of the Northern Mariana Islands (CNMI) continues to be critical to countering China's influence.

The Department continues to work on the relocation of approximately 5,000 Marines from Okinawa to Guam. This initiative reduces the burden on our Japanese allies, while bolstering regional security in the Pacific. Its focus is on sustaining a forward-deployed responsive force that counters the reach of the People's Republic of China, the aggressions of North Korea, and other regional threats, while ensuring the capability to provide regional support at a moment's notice. Marine Corps forces realigning in the Pacific will establish an improved force composition, installation construction and modernization, and new strategic hubs, of which Guam will be the most significant. This venture between the U.S. and the Government of Japan will enhance interoperability and strengthen deterrence in the Indo-Pacific Region.

The main cantonment area on Guam for the Marine Corps will be known as Marine Corps Base Blaz, to honor Marine Brigadier General Vicente "Ben" Tomas Garrido Blaz, the highest ranking Chamorro to have served in the Marines, located at Finegayan in the Northwest. We are still in the land clearing phase of construction with approximately 85 percent of land clearing complete. The North Ramp of Andersen Air Force Base (AAFB) will be home to the USMC Air Combat Element housing the MV-22 (Osprey), the H-1, and the CH-53 platforms. Hangar 1, which houses the Ospreys is completed and operational. Overall, the North Ramp construction is approximately 50 percent complete. AAFB Northfield, which is directly above the cantonment area, provides a live-fire training range for small arms and will provide a multi-purpose machine gun range. The south side of AAFB will provide urbanized training.

Apra Harbor, located in the southwest of the island, will be a sea embarkation hub. It will have the capability to support all vessels that support USMC operations, black bottom vessels and high speed vessels. Apra Harbor will also provide forces with refueling piers and an ammunition wharf. Improvements at Apra are approximately 60 percent complete.

The relocation is expected to achieve initial support capability in the mid-2020s, contingent on affordability and environmental analyses. The FY 2020 budget request includes \$277 million in MilCon and Planning & Design funding, including \$91.2 million for the second increment of a multi-purpose machine gun range on Guam. Overall, the Government of Japan has committed \$3.1 billion to fund this relocation and has already transferred \$2.023 billion of its commitment to the U.S. Treasury. We are also asking your support to authorize the use of up to \$13 million of funds appropriated in 2014 to mitigate the effects of the military construction workforce on the healthcare system of Guam, as identified during the National Environmental Policy Act process related to the Marines' relocation to the Territory.

Another initiative to increase our capabilities in the Indo-Pacific region is the Air Force's construction of facilities and infrastructure for Divert operations at Tinian International Airport. The Department signed a lease purchase agreement in November of last year and anticipates signing the final lease agreement this May. This represents a major milestone in one of the more challenging transactions we have worked. Divert operations would occur as training exercises to support readiness in the event other locations in the western Pacific are unavailable to support standard operations. For example, humanitarian assistance staging, including noncombatant evacuation operations, could also occur at the airport in the event of an emergency or disaster. The Divert initiative is estimated to cost ~\$380 million. For FY 2020, the budget request includes \$316 million to construct fuel tanks, a fuel pipeline, hydrant system, taxiway, and parking apron.

As the westernmost U.S. territory in the Pacific, Guam and CNMI offers tremendous potential to posture the U.S. for the future, engage with our regional partners, and train to maintain core competencies. This is why we continue to pursue live-fire training ranges and training areas in the CNMI. These capabilities would fulfill INDOPACOM training shortfalls and be the only U.S. venue to conduct Marine Air Ground Task Force, Joint, and Combined-level live-fire amphibious assault and maneuver from the sea, with supporting naval gunfire and close air support. The environmental analysis for this is on-going. A key element of the analysis is a construction capacity study that will forecast the amount of construction activity CNMI can support.

I would be remiss if I did not mention the devastation caused by Super Typhoon Yutu. On October, 24, 2018, the Category 5 hurricane-equivalent storm made landfall on CNMI. Its 180 mph winds caused devastating destruction in the region and according to the National Oceanic and Atmospheric Administration, it was the second strongest system to hit U.S. soil in recorded history. However, despite the catastrophic damage from the typhoon, the CNMI has chosen to continue moving the Air Force Divert initiative forward, demonstrating the strength of our relationship.

#### *Workforce Issues in Guam and Commonwealth of Northern Mariana Islands*

Stable economies in Guam and the CNMI, underpinned by a sustained labor pool, are critical to the Department's ability to implement the National Defense Strategy. Reliable access to a sustained labor pool in these forward-most territories is a national security issue that must be addressed if we hope to mitigate expanding Chinese influence and achieve our national security objectives in the region.

We thank Congress for the relief provided in the Northern Marianas Island U.S. Workforce Act of 2018 passed last July. Extending the transition period for the full application of federal immigration laws by 10 years (to December 31, 2029), and Guam and CNMI's exemption from the H-2B nationwide cap, will buy Guam and the CNMI time to work toward an interagency endorsed, long-term solution for ensuring sustained access to a viable labor pool. Without long-term access to a foreign labor pool, the economies of these isolated U.S. territories will suffer and the cost of ongoing defense projects could skyrocket beyond their current estimates.

## **Military Aviation and Installation Assurance Siting Clearinghouse**

The Military Aviation and Installation Assurance Siting Clearinghouse continues to protect the Department of Defense's ability to train, test, and operate as the nation expands its renewable and other commercial energy development and power transmission. The Department appreciates the statutory changes made by Congress in the FY 2018 National Defense Authorization Act to codify the Clearinghouse role in DoD's Title 10 responsibilities, and is actively implementing the new requirements to better protect DoD missions. As an example, the Clearinghouse now notifies state Governors and solicits their input on energy projects where DoD has made an initial determination that a project will have an adverse impact to a mission. This increase in visibility helps protect DoD missions by identifying any state concerns with an energy project at an early point in the review process, as well as by identifying any state procedures that may assist DoD in finding a compatible siting solution.

As a result of congressional direction and our own efforts, we are effectively evaluating the mission impact of commercial energy projects and implementing affordable and feasible mitigation solutions to protect DoD missions. In CY 2018, the Department reviewed over 5,000 applications for energy projects through the FAA's Obstruction Evaluation Process, which continues our historical increase of approximately 20% per year. Of these 5,000 projects, 795 were wind development projects. Commercial wind development typically poses the greatest compatibility challenge to DoD due to the height and the physical obstruction that wind turbines can pose in low level flight routes, and adverse impacts to radar systems. DoD has resolved concerns with numerous energy projects through collaboration between the Clearinghouse, the Military Departments, local communities, states, and energy developers, thereby maintaining the Department's ability to train, test, and operate while enabling development of alternative energy resources.

### *Protecting and Enhancing our Training and Test Range Infrastructure*

The Clearinghouse is also leading the Department's efforts to develop a strategic plan for training range investments. In order to ensure that our testing and training range infrastructure is sufficient to support the National Defense Strategy, we are assessing our ranges' ability to support training for peer and near-peer adversaries. This assessment will result in a strategic plan for range investment to address identified gaps, improving combat credibility by offering opportunities for more realistic maneuver, attack, and opposing force engagement. The strategic plan will be completed in FY 2020 and will complement a parallel assessment of test ranges by the Test Resource Management Center.

## **Accelerating Materiel Readiness Recovery**

Accelerating materiel readiness recovery is one of my near-term imperatives in alignment with the National Defense Strategy to increase lethality. Overall sustainment readiness is a foundational component of military strategy and pacing aspect of producing uninterrupted U.S. military capability. There is no one-size-fits-all approach – no silver bullet solution to the challenge before us today.

Effective and efficient public and private industrial capabilities & capacity is the end state we seek as the Department's accountable agent for enterprise level sustainment outcomes. Our strategy for accomplishing this follows three lines of effort; accelerating materiel availability improvement, strengthening the viability of the organic industrial base, and operationalizing sustainment reforms. Maintenance, at both the field and depot levels, is foundational to our ability to rebuild readiness, as our National Defense Strategy directs us to do. My team is laser-focused on getting Mission Capable (MC) and Operational Availability (A<sub>o</sub>) rates where they should be – challenging the status quo, reversing negative trends, and driving an aggressive reform agenda based on improved data-driven decision-making and leveraging best commercial practices. This is no small task given a \$78 billion annual spend for maintenance activities alone, and a workforce of over 606 thousand DoD personnel.

You are undoubtedly aware of the 80% Mission Capable memo that was signed this past September for F-16, F/A-18, F-22, and F-35 critical aviation assets. Our intent is to apply that same level of attention and visibility across all of our fleets—air, ground, and sea. So let me focus on what we are doing at the enterprise level to drive enduring change and improvement. Foremost, we are accelerating Materiel Availability improvements across our fielded fleets. I've charged my team with setting performance targets and measuring progress across the entire enterprise. I now can access and leverage over 1.5 billion maintenance and supply transactions going back to 2005; a virtual goldmine in my estimation. We are refining our capabilities to understand the specific causes of availability loss and/or cost drivers at the enterprise level and synthesizing that information to inform decision makers about cost and availability relationships for every weapon system.

We are also improving the viability of our organic industrial base capabilities. While our metrics initially focused primarily on mission and field-level outcomes, our next priority is depot performance and its contribution to overall supply chain effectiveness. We are working in concert with the Deputy Chief Management Officer's Cost Management team to map baseline costs of material and maintenance operations and to improve enterprise supply demand visibility and decision-making. We are also exploring and applying opportunities for broader application of commercial best practices within our public depots and repair activities.

### **Product Support for Weapons Systems**

Sustainment supports Department decision makers with comprehensive, timely, relevant, and actionable assessments for weapon system development and acquisition. More specifically, we provide the DoD enterprise with policy, processes, guidance, and tools that drive effective product support planning and execution at best value; and lead the cultural transformation necessary to deliver optimal life cycle product support.

As part of these efforts, we are pushing initiatives to address Operating & Support (O&S) Cost projections early in the program life-cycle that do not fully capture the cost to achieve the readiness levels our warfighters need. Requiring Sustainment Risk and O&S Cost Risk analysis significantly earlier than is currently the norm, by the Analysis of Alternatives (AoA) Phase, will enable Affordable Readiness of critical sustainment cost drivers (manpower, spares,

consumables, and fuel efficiency). In addition to establishing and filling the supply chain, it also means establishing essential and early repair capability of depot level reparable and line replaceable units (DLR and LRU) by the scheduled Materiel Support Date - well-prior to initial operating capability (IOC) plus 4 years. We must balance near-term production cost with the long-range readiness of deployed fleets and fielded systems -- that in reality coexist in the POM process. We also continue to improve policy and governance of the “middle tier acquisition authority” granted to the Department by Congress in order to accelerate the delivery of emerging capabilities into the hands of the warfighter. This authority provides streamlined pathways for middle tier acquisition technologies that can be prototyped within two to five years, or be put into production within six months and completely fielded within five years.

My Product Support team is especially focused on improving aircraft availability and reducing sustainment cost for the F-35 program. We are working with our allies and partners to develop sustainment capabilities where appropriate; supporting numerous ongoing cooperation efforts, including information exchanges and engagements to facilitate interoperability and enhance relationships; providing logistical expertise to develop partner logistics capacity; and supporting Geographic Combatant Commands in developing their country assessments, their Security Cooperation Programs, and their Foreign Military Sales packages.

### **Logistics Support to the Warfighter**

The core competencies of Supply, Transportation, Equipment Management, Contingency Support, and Logistics Policy and Compliance were integrated under the Deputy Assistant Secretary of Defense for Logistics as part of forming the new Sustainment organization. The Defense Logistics Agency (DLA) also performs a critical logistics role as the nation’s combat logistics support agency. DLA manages the global supply chain – from raw materials to end user to disposition – for the Army, Navy, Air Force, Marine Corps, Coast Guard, 10 combatant commands, other Federal agencies, and partner and allied nations.

We secure our supply chains, institutionalize Operational Contract Support, and implement policies and strategies to mitigate threats from vendors in overseas locations. The Department seeks ways to strengthen our supply chains to support critical capabilities. Logistics personnel work closely with the Acquisition community to prevent procurement of counterfeit, defective, and malicious material. Efforts to encourage the development of supply chain standards is paying off as the Government Accountability Office (GAO) removed Supply Chain Management from its 2019 High Risk Report. Additionally, DLA supply chains drive over \$35 billion in goods and services annually, providing 86 percent of the Military Services’ spare parts, and nearly 100 percent of fuel. By staying synchronized with the Services’ plans, DLA will take the required steps to proactively acquire and position material for aviation systems, land systems, and maritime systems, as well as industrial hardware, clothing and textiles, construction and equipment, medical, subsistence, and fuel and energy to ensure the readiness of our military forces.

Since 2007 the Department has consistently worked to establish Operational Contract Support (OCS) as an enduring capability to support current and future operations. In August 2018, the Department began implementing 15 critical actions endorsed by the Joint Requirements

Oversight Council (JROC) to fully integrate OCS across the Department, to strengthen the ability to perform OCS tasks, and ensure OCS supports all phases and ranges of joint military operations. Within OCS, Vendor Threat Mitigation (VTM) is critical. VTM is the capability to identify, assess, and mitigate risks posed by vendors supporting DoD operations outside the United States to ensure we do not do business with those entities that support our adversaries. Efforts are underway to mitigate risk to operational effectiveness and institutionalize OCS solutions by the end of 2022.

We also understand the need to build logistics-related alliances within and outside our Federal Government structure and have taken action to build ties with other Agencies, industry leading companies, and allies to improve operations. One partnership success example is the General Service Administration (GSA) acquiring more mission support vehicles for conversion from an expensive DoD-owned to a DoD-leased fleet. This action reduced DoD vehicle sustainment cost over the past five years by \$217M (15.7%). Additionally, DLA provides some level of materiel or service support to about 40 federal agencies, 50 states, 300 localities, and 115 international partners. DLA has the capacity to augment federal contingency responses domestically and internationally. Hurricane-season demand topped \$1.2 billion in support in 2017 and \$105 million in 2018.

Another important effort is the Logistic Reform Team, with a focus on identifying common sets of metrics and tools to measure and monitor our contribution to warfighting capability in terms of availability of weapon systems and cost per day of availability. Continued support of ongoing efforts to reform logistics processes not only increases weapon system readiness, but also drives down sustainment costs. The Team is evaluating sources of sustainment and commodity procurement processes, innovating our logistics processes to outpace our adversaries, and increasing transparency and governance across the enterprise.

Readiness for the warfighter is also improved through DLA's organic industrial base program, where appropriated funds are used to enable industry a means to meet known surge requirements within our long term contracts when they don't have business case to do so otherwise.

Reaching beyond sustainment organizations, we are partnering with the personnel community to improve the military personnel relocation experience by modifying the household goods relocation process.

In support of audit readiness, we are taking actions to improve accountability of mission critical assets and to achieve a clean audit in the Department. We are reviewing notices of findings and recommendations received from independent public accounting firms and performing assessments of potential valuation methodologies for General Equipment, including weapon systems, for consideration as the Department-wide approach for properly valuing them. This will improve the integrity of financial data, which positions the Department to operate more efficiently and apply costs savings toward improving lethality. Additionally, we are working with the audit community and USTRANSCOM on the implementation of an enterprise-level transportation management system that will be a significant building block towards auditability.



## **F-35 Enterprise**

The Sustainment organization touches the F-35 enterprises across multiple domains. F-35 sustainment continues to be a major focus area of the Department, as we work to increase readiness to meet the 80 percent Mission Capable rate goal set as well as reduce F-35 sustainment cost to align with the Service-budget-informed affordability constraints. As part of the strategy to meet these goals within the FY 2019-2024 time frame, the Department named U.S. Transportation Command (USTRANSCOM) and the Defense Logistics Agency (DLA) as the Global Transportation and Distribution Provider, as well as the Product Support Provider for F-35 North American Warehousing. In this capacity, they will provide wholesale and retail warehousing infrastructure and management supporting Air Logistics Complexes and Fleet Readiness Centers, along with management of designated commercial warehouses within the North American Region. Additionally, DLA and the Services have developed organic supply chain initiatives to improve readiness and lower total lifecycle costs. Further, we issued an updated F-35 Life Cycle Sustainment Plan FY 2019 that identified eight success elements necessary for the Department to improve readiness and cost to meet warfighter needs.

In FY 2018, the Department accomplished a major acquisition milestones across the F-35 sustainment enterprise. Our teams improved air vehicle availability by three percent through our reliability/maintainability progress, delivered Block 3F Air System, completed Phase 2 Global Supply Solution Capability and Capacity (for FYs 2020-2022), reduced DoD ownership costs from FY17 actuals, and planned for the Autonomic Logistics Information System re-architecture.

## **State and Community Engagement – Office of Economic Adjustment**

The request for the Office of Economic Adjustment ensures it may continue to support its many engagements with states and communities who are key partners to help the Department meet our mission. Specific program lines supported by this request include: compatible use engagements to lessen the impairments on our local missions brought about by civilian development and activity, including energy project siting; industry efforts that promote installation resilience through improved understanding of local and regional supply chains' susceptibility to funding fluctuations and cyber attacks; mission growth efforts to plan and deliver the necessary public services and infrastructure to support our forces; and, in a few rare circumstances, operational support to sustain Local Redevelopment Authorities as they await the disposal of property previously exceded through base closure actions. These funds will also permit the necessary oversight and execution of more than \$700 million in obligated projects to improve public schools on our military installations that support the education of 11,000 military dependents annually; nearly \$300 million in transportation improvements to improve access to many of our premier medical facilities for wounded warriors, their families, and our medical personnel; and, close to \$180 million in outside the fence investments on Guam for water and waste water systems to support our Indo Pacific efforts. These projects are critical to support quality of life issues for our service members and their families.

## **Conclusion**

Thank you for the opportunity to present the President's FY 2020 budget request for DoD programs supporting sustainment. We appreciate Congress' continued support for our enterprise and look forward to working with you as you consider the budget request.