

**DEPARTMENT OF THE AIR FORCE STATEMENT  
TO THE HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON READINESS  
UNITED STATES HOUSE OF REPRESENTATIVES**

**SUBJECT:**

**STATEMENT OF:**

**HONORABLE RAVI I. CHAUDHARY  
ASSISTANT SECRETARY OF THE AIR FORCE  
ENERGY, INSTALLATIONS, AND ENVIRONMENT  
DEPARTMENT OF THE AIR FORCE**

**NOT FOR PUBLICATION UNTIL RELEASED  
BY THE COMMITTEE ON ARMED SERVICES  
UNITED STATES HOUSE OF REPRESENTATIVES**

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# PAIRS CASE 2024-C-0387

## Introduction

Chairman Waltz, Ranking Member Garamendi, and distinguished members of the subcommittee, thank you for the opportunity to discuss Department of the Air Force (DAF) energy, installations, and environment programs and our budget for Fiscal Year (FY) 2025.

The Department's budget addresses National Defense Strategy priorities and invests in our installations to deliver combat power for the nation. Our Airmen and Guardians depend on ready and resilient installation infrastructure to defend the homeland, deter strategic attacks, and deter aggression from our pacing challenge, the People's Republic of China, among other potential threats. The 2025 budget request strengthens our position as the Department optimizes for strategic competition. Every facet of the Department, from our infrastructure to our operational units, plays a crucial role in steering and supporting the nation through this pivotal decade. To enhance our competitive edge the Department is concentrated on four primary areas: Developing People, Generating Readiness, Projecting Power, and Developing Capabilities. To ensure decisiveness in each of these areas, our installations will remain the critical foundation of our success throughout every stage of conflict. Installations will continue to provide the bedrock of our readiness and quality of life, while also being required to respond swiftly, even in the face of attack. Our forces will need to fight through challenges and quickly recover, making our installations the linchpin to success in both crisis and conflict.

In order to meet these challenges, the DAF Military Construction (MILCON) program continues to prioritize nuclear enterprise modernization and combatant command infrastructure support with an emphasis on the Pacific and European theaters. Our Facilities Sustainment, Restoration, and Modernization (FSRM) portfolio is dedicated to strategically investing in our infrastructure. This commitment ensures we can adapt to emerging challenges and efficiently

build and sustain our combat capabilities. Additionally, the Department is prioritizing the well-being and quality of life of our service members and their families by requesting \$1.1 billion in FY25 to invest in housing, dormitories, and Child Development Centers (CDCs). We also allocate resources to high-impact operational energy initiatives that enhance our readiness and provide more combat capability for every gallon of fuel consumed. We are grateful for the continued partnership with Congress to ensure Air and Space Forces are postured to compete, deter, and win, anytime and anywhere.

### **Installation Infrastructure and Resilience**

The Department's 2019 Infrastructure Investment Strategy kickstarted efforts to restore the readiness of our power projection platforms by guiding investment decisions at the enterprise and installation levels. We are taking the lessons learned from this strategy and building an Installation infrastructure Action Plan to ensure our installations are ruggedized and resilient Against all hazard risks.

As previously stated, the DAF's MILCON and FSRM programs serve as the foundation of sustainable and ready installations. Yet, solely relying on direct investment at the currently budgeted levels is insufficient to reverse the longstanding trend of deteriorating facilities and infrastructure. Our installation portfolio of 179 installations, 69 thousand facilities, and 183 million square yards of airfield pavement is too large and expensive to maintain in the current budgetary environment. In response, we're scaling up our demolition investments fivefold to \$136 million per year for the next five years, targeting the removal of excess and severely degraded infrastructure.

The DAF is also pursuing innovative approaches to infrastructure management, such as privatization, third-party investments, and community partnerships, to reduce the Department's financial liability. A prime example is at Fairchild AFB, where the local county government constructed a facility designed to accommodate training sessions for both local law enforcement and Fairchild AFB security forces, fostering enhanced collaboration and preparedness. Additionally, the Department of Energy's (DoE) Federal Energy Management Program (FEMP) recently recognized Kadena Air Base for its energy and water savings project, which includes a microgrid and utility upgrades that increase energy resilience while saving over \$6.5 million a year.

### *Military Construction*

The FY25 President's Budget requests a total DAF MILCON investment of \$3.45 billion. This FY25 request is \$371 million more than the FY24 requested amount and \$404.3 million less than the FY24 enacted amount of \$3.85 billion. We are grateful for the generosity of the various congressional committees and the additional funds and authorities provided to the DAF in FY24. The DAF seeks to support the National Defense Strategy's investment priorities by focusing on our pacing challenge in the Indo-Pacific theater, the acute threat posed by Russia, as well as new weapon system beddowns, and taking care of our Airmen, Guardians, and their families, caregivers, and survivors.

We also partnered with the Defense Innovation Unit to execute the MILCON process in innovative ways using Other Transaction Authority (OTA). The collaboration between the Defense Innovation Unit (DIU) and the DAF signifies a strategic alliance dedicated to propelling forward the NetZero MILCON initiative. This initiative leverages OTA to rapidly prototype and

acquire cutting-edge solutions to design, construct, and/or renovate of major building projects for net-zero emissions and, where feasible, net-zero water and waste utilizing modern design and construction techniques and materials. This streamlined approach seamlessly blends the expertise and resources of both organizations and fosters agile and adaptable partnerships, which is crucial for navigating the complexities of achieving NetZero MILCON objectives. Moreover, the skills and tools cultivated through this OTA partnership seamlessly blends the expertise and resources of both organizations to tackle the urgent need for sustainable infrastructure within the military. This scalability broadens the impact of the NetZero MILCON initiative, enriching the fabric of our national infrastructure with resilience and sustainability.

Approximately 20 percent of the program, \$681.7 million directly, supports Combatant Commanders and their most critical requirements and builds a more lethal force while directly prioritizing preparedness for war. These funds will be used for airfield upgrades in Micronesia, an aircraft maintenance facility in Japan, pre-postured equipment storage in Denmark, and weapons generation facilities in South Dakota and Montana.

Approximately 41 percent, \$1.42 billion, supports the beddown of new weapons systems or new missions to ensure the DAF remains the world's premier Air Force and Space Force. These systems and missions include the Sentinel Ground Based Strategic Deterrent (recognizing the on-going Nunn-McCurdy Act breach process), B-21 bomber, F-35 and F-16 fighters, T-7A training aircraft, E-11A Battlefield Airborne Communications Node, C-130J cargo aircraft, Combat Rescue Helicopter, the Long-Range Standoff missile, advanced radar systems, and a space control center. We also appreciate the extension provided in the FY24 NDAA to continue

use of H2B visas in support of construction in Guam and the Commonwealth of the Northern Marianas Islands (CNMI).

Balanced with combatant command priorities and new mission beddowns, our MILCON program also includes facilities to enhance current mission capabilities and quality-of-life. Our program also recapitalizes facilities that have outlived their useful life or no longer meet mission requirements. Approximately 21 percent of the request, \$719 million, funds current mission projects, focusing on the most critical recapitalization and current mission requirements – including a CDC at Mountain Home Air Force Base (AFB) and dormitories at Joint Base Langley-Eustis (JBLE) and Joint Base San Antonio-Fort Sam Houston (JBSA-FSH).

Finally, 18 percent, \$621.8 million, funds program support to include Planning and Design (P&D) and Unspecified Minor Military Construction (UMMC). The FY25 budget request continues to target high-value designs for our large dollar programs and is based on identified requirements. The DAF's total force FY25 budget request of \$451.3 million for P&D is based on our FY26 – FY29 programmed construction with some flexibility to address emergent design requirements. The Active United States Air Force (USAF) component request is \$355 million and includes \$173.4 million for baseline P&D, \$181.6 million supporting B-21, Over the Horizon Radar, Sentinel, Next Generation Air Dominance and other programs. It also includes \$84.9 million for the United States Space Force (USSF), \$10.8 million for Air National Guard (ANG), and \$600,000 for the Air Force Reserves.

Our FY25 strategy continues to pursue fully funded designs over incremental designs to reduce timelines and costs for packages. We aim to fund projects further out into the Future Years Defense Program (FYDP) to increase executability in the year of appropriation and

maintain adequate P&D funding to support high-priority emergent requirements. The DAF request includes \$170.5 million UMMC projects to allow us to address lower-cost projects and emergent requirements. We appreciate the permanent increase of the 10 U.S.C. § 2805 threshold to \$9 million and adjustable to \$14 million. We also appreciate the expanded use of area cost factor adjustments worldwide. This helps ensure our program has equal buying power across the enterprise and gives our Combatant Commanders additional flexibility to address smaller infrastructure requirements.

#### Facility Sustainment, Restoration, and Modernization

The FSRM program provides a non-MILCON pathway to repair facilities and infrastructure, maximizing their lifespan. The DAF requested \$5.4 billion for FSRM in FY24 and Congress appropriated \$5.71 billion. The FY25 budget includes \$5.4 billion for FSRM, with \$482 million designated for the Space Force. Due to fiscal constraints resulting from the Fiscal Responsibility Act, the USAF was unable to reduce the \$46.8 billion of deferred maintenance and repair backlog. This level of funding, coupled with inflation and increased costs due to supply chain issues and labor shortages, will lead to increased degradation and continued growth of our deferred maintenance and repair backlog.

Our focus within the FSRM program remains on maintaining our current infrastructure, with a heightened commitment to quality-of-life initiatives, such as upgrading dormitories and CDCs in alignment with Congressional focus. To maximize the near-term impact of current funding levels, the Air Force and Space Force continue to assess mission threat vulnerabilities and prioritize infrastructure repair requirements which are mission-aligned to ensure combat capability across the Department of the Air Force to prevail in a great power competition.

### Sentinel Program

The Minuteman III Intercontinental Ballistic Missile (ICBM), first deployed in 1970, is the world's oldest land-based strategic missile system. The need remains to recapitalize the over 50-year-old ICBM system to maintain this critical part of our nuclear triad that is safe, secure, and reliable for the foreseeable future. We are investing in facilities supporting 450 missile launch facilities and supporting infrastructure across three wings in five states. The transition from the legacy Minuteman III to a modern land-based ICBM must occur on a precise timeline to maintain the operational readiness of the nuclear deterrent and deliver full operational capability to the warfighter in the 2030s. The FY25 budget request continues to support the Sentinel program to ensure construction remains aligned with weapons system deployment milestones. The request includes \$700 million in funding for projects and land acquisition costs at F.E. Warren AFB, Wyoming, a gate project at Malmstrom AFB, Montana, and re-entry vehicle and training facilities at Vandenberg Space Force Base, California.

In January 2024, the DAF notified Congress that Sentinel program cost growth exceeded the thresholds established by the Nunn-McCurdy Act. The Office of the Secretary of Defense is conducting a root cause analysis to determine what factors caused the growth, whether to recertify the program.

### Installation Resilience

In our current era of Great Power Competition, ruggedizing DAF installations and reducing our dependency on energy from pacing threats is critical to projecting power and assuring mission success. The DAF is requesting \$1.48 billion in FY25 to directly invest in installation and energy resilience projects and initiatives.



The DAF is modernizing with third-party financing and innovative partnerships with industry that modernize our utilities and drastically reduce system outages at our bases. Additionally, we are reevaluating the privatization of utilities at strategic installations where enhancing resilience is paramount. To date, the DAF has privatized 25 percent of our utility systems and plans to reinvigorate the program, looking at the viability, costs, and benefits of additional systems at several bases, and we are targeting a 15 percent increase in utilities privatization in FY25. These vital investments will deliver improved utility infrastructure, redundant systems, and greater installation energy resiliency. Examples of installation and energy resilience investments include:

- \$324 million for payments towards existing Utilities Privatization payments. Nine installations are currently being considered for system privatization.
- \$112 million for payments on over 50 existing Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) from the last 20 years.
- Future projects include ESPC/UESCs developing microgrids, redundant power sources and energy storage. Examples of microgrid projects in development include:
  - Yokota Air Base's Combined Heat and Power (CHP) plant linked to a full base microgrid;
  - Misawa Air Base's solar generation and liquid natural gas plant; and
  - Aviano Air Base's on-site solar generation. Aviano's design will be enhanced with ERCIP funding that will improve the financial viability of a larger, multi-mission microgrid.
- \$18 million for renewable generation and battery energy storage systems such as solar photovoltaics at Tinker AFB and energy storage in the Arctic.

Additionally, the DAF is driving critical resilience investments through innovation. In FY25, \$29.6 million in Research, Development, Test, and Evaluation (RDT&E) funds will support pathfinder pilots to demonstrate new technologies and creative pathways.

### Energy and Water Resilient Infrastructure

Our vision of “Mission Assurance through Energy and Water Assurance” emphasizes sustainment of warfighting capabilities while optimizing resource use through enhanced planning, technology, and process improvements. We assess near and long-term energy and water needs based on resilience, cost considerations, and opportunities to leverage clean and sustainable sources.

Since FY20, we have been conducting Energy Resilience Readiness Exercises (ERREs), also known as “black start exercises,” to help installations assess mission readiness at degraded energy levels. During an ERRE, an installation intentionally disconnects from commercial power for 10 hours to assess onsite backup power systems and identify infrastructure and mission interdependencies. This allows us to actively test key enabling systems under “blue sky” conditions to identify gaps in energy and mission capabilities. The DAF has been leading the Department of Defense in executing ERREs and has programmed resources to meet the requirements in 10 U.S.C. § 2920 through FY27. In 2023, we accomplished ERREs at six locations, including the first overseas location, to bring the total number of ERREs to 19 by the end of 2023. By the end of FY27, we are on track to complete 46 ERREs, exceeding statutory requirements. In addition to the ERRE program, we are launching a Water Resilience Readiness Tabletop Exercise initiative, aimed at testing and teaching installations how to prioritize personnel, operations, and resources effectively during a simulated extended water disruption.

Additionally, the DAF is implementing innovative solutions to build energy-efficient and resilient systems to improve energy security and mission assurance. These efforts include:

- Pilots to accomplish 100 percent carbon-pollution free electricity and 100 percent zero-emission non-tactical vehicle acquisitions by fiscal years 2030 and 2035, respectively.
- Exploring alternative energy opportunities through nuclear, geothermal, battery energy storage, offshore wind, and solar energy.
- Pursuing installation microgrids to enhance energy independence and changing the overall DAF approach for future energy initiatives.
- Pilot projects utilizing new or non-traditional design and construction practices, including passive heating and cooling, super-efficient HVAC systems, air and ground source heat pumps, and tight and efficient building envelopes. These initiatives will reduce energy consumption and free up resources for operational imperatives. To this end, in FY25 the DAF is investing \$117 million in MILCON funds to advance two pilot projects that will explore the potential benefits of non-traditional design and construction practices and materials. This includes using mass timber in a new \$40 million CDC at Mountain Home AFB, Idaho and net-zero emissions concrete in a new dormitory at the Joint Base San Antonio-Fort Sam Houston Medical Education and Training Complex (METC).

We identified Eielson AFB, Alaska, as the installation for our first nuclear micro-reactor pilot site due to the base's existing infrastructure, Arctic location, and critical mission resilience requirement. We are working with Defense Logistics Agency (DLA)-Energy Office to execute a firm-fixed-price power purchase agreement under 10 U.S.C. § 2922a with a third-party developer. The developer will own, operate, and maintain the microreactor and deliver zero-

emission electricity on Air Force property in exchange for long-term purchase of the generated energy. Once operational, the first-of-its-kind micro-reactor at Eielson AFB is expected to produce both electrical and thermal energy to supplement the installation's current energy sources and provide a redundant resilience measure,

We also partnered with the Defense Innovation Unit to execute \$5 million prototype agreements with non-traditional defense contractors to demonstrate innovative geothermal energy and validate on-site resilient baseload power delivery at Joint Base San Antonio (JBSA) in Southcentral Texas and Mountain Home AFB in Southwest Idaho. An additional 3.5-megawatt geothermal plant at F.E. Warren AFB, Wyoming, will be the first plant in the Department of Defense.

Finally, with more than 60,000 non-tactical vehicles across installations, we are taking a measured approach to ensure continued access to the tools and equipment to support our mission. As industry transitions to electric vehicles, fleet electrification is an opportunity to improve resiliency, decrease operation and maintenance costs, and embrace cutting edge technologies. In partnership with the DIU, we are leveraging private sector technology to ensure both personal and government vehicles can charge on our bases. In 2021, Joint Base Andrews and Joint Base McGuire-Dix-Lakehurst were selected as the initial non-tactical vehicle fleet electrification pilot sites. We used lessons learned to build a framework for installations to follow when planning for charging infrastructure requirements. Following the framework ensures installations use existing data to make resilient and data-informed investments, in accordance with DAF policy. We currently have 50 installations in various stages of infrastructure development. This measured approach will ensure the DAF is ready to meet any transition timeline.

*Community Partnerships and Innovation*

We have already seen success through our existing community partnerships and plan to expand these efforts in the future. A highlight of these partnerships is the joint effort between Spokane County and Fairchild AFB that culminated in the construction of a regional law enforcement training center. The County built the facility to host both local law enforcement and Fairchild AFB security forces training, as well as housing Fairchild's Combat Arms Training unit where Airmen will train and complete weapons qualification. Additionally, Cannon Air Force Base has a projected deficit in unaccompanied housing bedspaces and the DAF is working multiple lines of effort, including an off-base apartment lease and an Intergovernmental Support Agreement (IGSA) with Eastern New Mexico University (ENMU). Further, collaboration with the Oklahoma Department of Commerce, City of Altus, Chamber of Commerce resulted in the community building 135 new housing units near Altus Air Force Base, sized and priced affordably for military personnel. The city is also planning its own housing development that includes real estate, streets, and utilities with a developer in place to build 112 rental townhomes. These are examples of how the DAF leverages all available tools and authorities to collaborate with community partners on solutions.

Innovative approaches exist throughout our construction programs, and the \$3 billion rebuild of Tyndall AFB, Florida following the devastating effects of Hurricane Michael in 2018, is a prime example. It is being rebuilt as the Installation of the Future, which incorporates lessons learned from the storm by implementing South Florida hurricane design standards and sea level rise projections. The final result will be resilient, efficient, and innovative to serve as a model for future construction.

The DAF will continue to identify and pursue innovative and collaborative solutions to ensure our Airmen, Guardians, and their families have the safe and sustainable infrastructure needed to prevail in Great Power Competition.

### **Housing, Dormitories, and Child Development Centers**

In FY25, the DAF requested \$1.1 billion for housing, dormitories, and CDCs to ensure high quality of life for our service members and our families. This includes \$198 million in MILCON, \$350 million in FSRM, \$326 million in Family Housing Operations and Maintenance, and \$222 million in Family Housing Construction. As a former Air Force Officer, I have had the honor of raising a family on DAF installations, to include residing in both government and privatized housing. I have witnessed first-hand how housing can impact the quality of life of our personnel, and its corresponding impacts on the readiness of our force.

#### **Dormitories /Unaccompanied Housing**

From FY22 through FY26, the DAF plans \$1.1 billion in FSRM investments in permanent party dorms, with \$300 million in FY25. We are on track to meet the FY22 NDAA requirements for permanent party dorms. This is nearly triple the investment over the previous five years ending FY21 and is the largest dorm investment in over a decade. Further, we have exceeded Office of the Secretary of Defense (OSD) performance goals for dorm conditions since the inception of the metric in FY13. In FY22 through FY23, we funded 67 projects totaling \$341 million to repair and renovate dorms. The DAF plans to spend approximately \$216 million in FY24 FSRM funds to execute 31 projects at 23 installations to renovate rooms, perform HVAC repairs, roof repairs, etc. We are planning to execute \$300 million in FY25 FSRM to

continue our efforts to repair facilities, their systems, renovate rooms, and improve quality of life for our most junior Airmen and Guardians.

The DAF's overall strategy focuses on restoring and modernizing dorms in their existing configurations with FSRM funds and addressing capacity shortfalls and facility recapitalization with MILCON funds. The DAF Dormitory Master Plan (DMP) guides this effort by providing the comprehensive forecasts, estimates, and recommendations required to strategically execute dormitory projects both when and where we need them the most.

The DAF unaccompanied housing (UH) inventory includes over 57,000 permanent party and over 48,000 training beds. As of today, 99.3 percent of permanent party beds were assessed as "adequate" against OSD standards, thereby exceeding the OSD goal of 90 percent. Despite this relatively positive condition rating, we recognize that 35 percent of our dorms are ready for repairs or replacement of major systems. We will continue to use the DMP process to identify our most urgent FSRM investment and MILCON needs.

The FY25 budget includes MILCON to address UH deficits or replace dorms which need to be recapitalized while also requesting P&D funds to prepare future dormitory requirements. The FY25 budget request includes \$81 million for a new dorm at JBLE and \$77 million for the first increment to replace one of five failing dormitories at the Joint Base San Antonio's METC. The FY25-29 FYDP includes five additional dorms at Barksdale, AFB, Louisiana (\$73 million), Cannon AFB, New Mexico (\$90 million), Goodfellow AFB, Texas (\$82 million), Ellsworth AFB, South Dakota (\$75 million), and Ascension Island (\$95 million).

Training dorms are another key component of our military service members' growth and development. Currently our analytics show that 100 percent of training dorms assess as "adequate" with only 15 percent ready for some level of repair. The DAF executed 4 projects for

\$39 million in FY23 and is funding 5 projects for \$37 million in FY24. As mentioned above, the DAF is leading the way by replacing the first of five failing Military Service dormitories at the METC located on JBSA. The project will also be the DAF's Net Zero pilot project using Other Transaction Authority, as required by the FY22 NDAA.

### Command Empowerment

Installation leadership involvement and daily engagement at the unit level have been crucial for the success of our dorm program. Our commanders and enlisted leaders are committed to ensuring junior personnel reside in safe, adequate, and well-maintained facilities. The DAF has utilized an Airmen Dorm Leader (ADL) program for quite some time. These Airmen are screened, specifically selected, receive dedicated training at the Air Force Institute of Technology, and receive a new career field identifier when they formally become ADLs. Furthermore, ADLs, along with our Senior Non-Commissioned Officer Dormitory Superintendents and Civilian Dorm Managers inspect 10% of the dormitory room inventories each month and report facility discrepancies or conditions that might pose life, health and safety concerns to the Military Housing Office Manager.

### GAO Report on Military Barracks Condition

In September 2023, the Government Accountability Office (GAO) published a report on the condition and quality of Department of Defense barracks. The GAO visited two DAF installations, Joint Base Andrews, Maryland and JBSA, Texas. The DAF remains committed to addressing the GAO's 31 recommendations and has made significant progress toward addressing the five recommendations directed at the DAF. We are nearly complete with updating our barracks assignment policy and will ensure senior leaders have awareness of dormitory MILCON requirements at an enterprise level moving forward. We are also updating our policies



to ensure dormitories reflect the Department of Defense guidance on health, safety, and privacy requirements and are evaluating our dormitory oversight positions, personnel training, and their organizational structure. Additionally, we are supporting OSD and our sister Services on addressing recommendations GAO made for the Department of Defense enterprise at-large.

*Housing, Construction, Operation and Maintenance*

The FY25 DAF Budget requests \$548 million for housing construction, planning and design, and Operations and Maintenance (O&M) while focusing on eliminating inadequate housing from the DAF inventory and correcting health and safety deficiencies. In addition to enabling planning studies, designing for future construction projects, and renovating existing DAF-owned homes, the military family housing construction program also supports restructuring privatized housing projects.

The \$222 million family housing construction request includes \$6.6 million for planning studies and design for future construction projects. It allocates \$65 million for two separate projects at Yokota Air Base, Japan, to improve more than 50 homes for Senior Non-Commissioned Officers, Company Grade Officers, and Field Grade Officers. \$5.7 million is designated to construct two deficit General Officer Quarters and replace five garages at Ramstein Air Base, Germany. Additionally, our request supports \$144 million for restructures of privatized housing at Joint Base Elmendorf-Richardson (JBER), phase III, and Joint Base San Antonio-Lackland (JBSA-L).

Our military family housing O&M request of \$326 million funds efforts to sustain, improve, and modernize our inventory of approximately 15,200 DAF-owned family housing units and provides enhanced oversight of over 52,000 privatized homes. Combined, the family housing O&M and construction programs will ensure continued support for the housing needs of

Airmen, Guardians, their families and caregivers, as well as our Army, Navy, and Marine Corps teammates living in DAF-owned and privatized family housing.

### Privatized Family Housing

The DAF Military Housing Privatization Initiative (MHPI) inventory contains over 52,000 privatized end state unit homes spanning 31 projects across 63 installations. As discussed above, the Department is requesting \$144 million in financial restructures for projects to address inventory sustainment and reinvestment shortfalls. This includes \$120 million for JBER phase III and \$24 million for JBSA-L. FY22-FY24 restructures total over \$500 million and we estimate future planned restructures at \$466 million.

The DAF continues to implement a rigorous oversight program and we are seeing gains in all areas – to include holding project owners accountable through coordinated watch lists, performance improvement plans, and incorporating tenant feedback into performance incentive evaluations. For example:

- Project owners at Barksdale AFB and Keesler AFB completed community action plans to address issues with resident feedback, maintenance, operations, and commander evaluations.
- Project owners were held accountable for \$58 million in costs to address mold remediation at Keesler AFB. As of December 14, 2023, 569 units have been completed, with 456 units planned for continuing remediation efforts.
- DAF incorporated the Tenant Satisfaction Surveys (TSS) results into performance incentive fee (PIF) agreements at 59 installations. As a result of this effort, the DAF is increasing accountability of project owners at installations that have low TSS scores.

- DAF leveraged NDAA provisions to enforce payments to address life health safety projects: \$31 million in 2023 and an estimated \$33.3 million in 2024.

### Child Development Centers

We strive to provide a high quality of life for our members and their families, and at the heart of that goal is affordable, accessible childcare for our Airmen and Guardians. Like our dormitory strategy, the DAF is using a two-prong programmatic approach to improve CDCs: targeted FSRM investment to address facility condition concerns and MILCON projects to increase capacity and recapitalize. While no CDCs in the DAF portfolio are failing or in poor condition, we know we still have work to do. In FY24, we are spending \$46 million in centralized FSRM funds to address CDC facility condition requirements and \$50 million in FY25.

In FY24, the DAF requested and Congress appropriated \$37 million in MILCON for a CDC at Hanscom AFB and \$20 million to complete the CDC at JBSA-L. In FY25, we are requesting \$40 million for a CDC at Mountain Home AFB, which will also be a mass timber pilot project. Generous congressional support in recent FYs funded all CDC MILCON projects currently at an executable design stage, and the DAF is actively working on the design of additional CDC projects for inclusion in future President's Budget requests. The Child and Youth Facility Master Plan facilitates project advocacy by identifying CDC MILCON and FSRM projects that address child and youth facility conditions and capacity challenges. Out of the 35 MILCON projects identified, 11 have been authorized and appropriated, adding approximately 1,700 spaces, one was funded with O&M, 11 are in active design adding another 940 spaces, and the remaining 12 are in planning to validate requirements.

## **Environmental Stewardship**

The safety and health of the servicemen and women who work and live on our installations, their families, and the surrounding communities remain our highest priorities. We appreciate the support of Congress in our efforts to address Per- and Polyfluoroalkyl Substances (PFAS) and further progress in our Environmental Restoration Program.

Our proactive approach to addressing PFAS is yielding results, but there is more work to be done. The DAF requests \$362 million in FY25 to accelerate our PFAS efforts. This includes \$106 million for PFAS investigation and cleanup and \$256 million for Aqueous Film Forming Foam (AFFF) replacement, on-base drinking water monitoring, and RDT&E. This is nearly double the \$188 million requested for PFAS efforts in FY24. We successfully completed lockout/tagout of hangars that utilize AFFF, which contains PFAS, at 539 out of 541 facilities. These facilities will utilize water-only fire suppression systems going forward. Our FY25 investments also include procurement of a Fluorine-Free Foam (F3) for use in hangars and fire fighting vehicles. Working in partnership with state and local leaders in Michigan, we are installing ground water treatment systems at three sites near the former Wurtsmith AFB to remove PFAS from the environment at the Alert Aircraft Area site, Defense Reutilization and Marketing Office and Landfill 030/031 sites, and Wastewater Treatment Plant and Three Pipes ditch areas, and we are dedicated to continuing that progress. We have championed cooperative agreements with the City of Portsmouth, the New Hampshire Department of Environmental Services, the Pease Development Authority, and the US EPA at the former Pease AFB, New Hampshire, and brought two treatment systems online to help protect the community's drinking water supply. DAF is also piloting the soil washing process to address PFAS impacted soil at

Eielson AFB, Alaska. The DAF remains focused on working with local communities to address impacts throughout the cleanup process.

### Environmental Restoration

We are focused on being good stewards of the environment while also meeting our cleanup obligations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). Investigation objectives and environmental response actions performed under these statutes aim to reduce risk to human health and the environment in a risk-based, prioritized manner at the approximately 15,000 restoration sites at our active and closed installations. Much of our restoration program focuses on the DAF PFAS response.

The DAF PFAS response framework is built on the following lines of effort: (1) protecting human health and the environment; (2) fulfilling our cleanup obligations; (3) proactively communicating and collaborating with stakeholders (local communities, states, Federal agencies, and Congress); and (4) mitigating and eliminating AFFF use in accordance with NDAA requirements.

As of September 30, 2023, we have spent \$2.1 billion to address PFAS releases through identification, investigation, prevention, and response. Drinking water response actions are complete at nine (9) Base Realignment and Closure (BRAC) installations and 27 Active, Reserve, and ANG installations. Response actions for addressing PFAS-impacted water will include providing bottled water, installing point-of-use filtration or whole-house filtration systems, or connecting residents to municipal water supplies.

The generous FY23 appropriations provided \$216.4 million above the budget request, of which \$68 million is allotted to address PFAS at BRAC installations. FY24 appropriations

provided an additional \$5 million for PFAS, \$15 million for PFAS Destruction Technologies, and \$23 million for PFAS at BRAC installations. As of January 2024, we completed 100 percent (204 installations) of our CERCLA Preliminary Assessments and Site Inspections and initiated 68 percent of our Remedial Investigations at 191 identified DAF installations. We are investigating the potential for other non-AFFF PFAS sources in the cleanup process. We have leaned forward to take prompt actions under CERCLA by implementing interim remedial actions at 23 installations and mitigate further PFAS plume migration or ongoing impacts to groundwater

The FY24 enacted budget includes \$259 million to continue to identify, investigate, mitigate, and respond to PFAS releases across our Active, Reserve, Guard, and BRAC installations and we received an additional \$26 million to transition from AFFF to the new F3. FY25 budget requests include \$362 million to further that effort. The U.S. Environmental Protection Agency (EPA) recently finalized national primary drinking water regulations, or Maximum Contaminant Level (MCL), that address six PFAS in drinking water, individually or as part of mixture. We are still evaluating EPA's final rule and its impact on DAF operations but we expect the rule will significantly increase DAF cleanup responsibilities and liabilities, and the resultant "cost to complete," forecasted to be billions of dollars. With the finalization of the EPA's MCLs, the number of private residential wells requiring DAF action under CERCLA to address PFAS impacts will dramatically increase.

In the meantime, we continue to proactively engage with community members concerned about the possible environmental and health effects of PFAS and collaborate with our local Restoration Advisory Boards (RABs) as we constantly strive to improve our community outreach programs to be more inclusive and responsive.

### Environmental Quality

As trustee for more than 8.3 million acres of land, including forests, prairies, deserts, wetlands, and coastal habitats, we understand the important role natural resources play in maintaining our mission capability and readiness. We remain firmly committed to a robust program of integrated conservation management covering a full suite of environmental, natural, and cultural resources. Environmental quality funding has allowed us to invest in compliance, natural and cultural resource activities on and around our installations and training ranges that directly support mission readiness. The environmental quality program FY24 budget request of \$518 million and the FY25 budget of \$498 million funds mission sustainment and environmental stewardship through compliance with applicable regulations across several media areas to include natural and cultural resources, environmental planning, hazardous waste storage and disposal, hazardous materials management, and complete funded Air National Guard clean-up. Additionally, the request supports ongoing habitat and species management for 123 threatened and endangered species found across 54 DAF installations and provides for continued cooperation and collaboration with the other military Services, Federal government agencies such as the United States Fish and Wildlife Service, and applicable state fish and game agencies.

### Base Realignment and Closure Sites

BRAC received a generous \$23 million plus-up for PFAS in FY24, which will facilitate the execution of interim remedial actions to remove or treat PFAS and prevent its migration. The FY25 budget request of \$122 million for BRAC cleanup and property transfer will facilitate environmental restoration and property transfer activities at 34 former DAF installations closed through prior BRAC law and keep us on-track to transfer the remaining four former installations by 2027.

## **United States Space Force**

As partners, the USAF and USSF remain mission-focused, by ensuring infrastructure, logistics, security, medical services, and a host of other support functions needs are met at every Space Force installation. Formal agreements, directives, and instructions codify stakeholder roles and responsibilities for support to the mission, and to the Guardians, Airmen, Civilians, and their families who work and live on Space Force installations.

Most of the combat-ready space forces that we field are employed-in-place, meaning they execute combatant command missions from their home station. Mission-ready, resilient installations and facilities are absolutely integral to our readiness and effectiveness. Both the Space Force MILCON and FSRM programs prioritize power resiliency within the FYDP. Additionally, assured access to space procures launch services and delivers on-orbit capabilities used by joint warfighters, combatant commands, intelligence agencies, civilian services, and the commercial space industry.

Our Spaceport of the Future (SOTF) program is an all-encompassing initiative for which the Space Force is taking a comprehensive approach to look at all factors contributing to range costs and launch throughput. SOTF invests over a billion dollars into our aging launch infrastructure to guarantee the DoD's ability to provide world-class launch capability to public and private partners. The FY25 budget requests \$77 million in MILCON, primarily for P&D, and \$84 million in O&M to support SOTF.

Since FY22, the Space Force receives, prioritizes, and obligates an independent appropriation for FSRM funding. The Space Force has shown a commitment to resourcing infrastructure requirements by identifying those projects that directly impact the performance of



weapons systems and prioritizing them for funding consideration. The DAF provides an allotment of MILCON funding to the Space Force based on the Space Force's portion of the total plant replacement value. This approach provides flexibility to resolve resource challenges due to the Space Force's prioritization of requirements as an independent Service. We are also investing in several energy resiliency projects, to include emergency power for Cape Canaveral's main command center responsible for all missile and space launches from the Kennedy Space Center facilities, tracking space vehicles and missile tests and monitoring their performance. Additionally, the FY25 request replaces antiquated generators and switchgear that provide power for many of the launch pads supporting National Security Space Launches.

### **Operational Energy**

The DAF is the largest consumer of fuel in the Department of Defense. We have implemented a full range of techniques to increase our operational agility—decreasing fuel consumption increases loiter time for intelligence, surveillance and reconnaissance assets, and drag-reduction techniques on our aircraft increase payload range (e.g. microvanes, winglets, fairings). Once fully implemented, we project annual fuel savings of 75 million gallons, valued at roughly \$300 million. Examples include:

- An innovative Blended Wing Body prototype aircraft. In 2023, the DAF partnered with the DIU to prototype an improved body design that provides more aerodynamic efficiency than today's tankers, bombers, and cargo aircraft, enabling increased range, loiter time, and fuel offload capabilities for the DoD; as a result of this competitive process, DAF selected JetZero to demonstrate this new capability by 2027, which is projected to lower fuel consumption by 30 percent.

- The Mission Execution Excellence Program (MEEP), which incentivizes cultural change among Airmen to optimize use of aviation fuel in preparation for future conflict in a fuel-constrained environment (i.e. INDOPACOM). Since May 2022, MEEP has saved over 5 million gallons of aviation fuel valued at \$20 million. Once fully implemented, we expect it to save approximately \$80 million per year.
- Improved tools and software, which impact warfighting operations – leading to more battlefield effectiveness. For example, the tanker planning application Jigsaw, deployed to the Air Operations Center at Al Udeid in 2018, decreased planning time for air refueling support of combat operations by roughly 10 hours. Mission analysis showed the tanker schedule was also 3.6 percent more effective, increasing support for receivers or allowing redeployment of two tankers per day. Automation now deployed will increase this to almost 15 percent.
- Engine optimization technologies, like those currently deployed by commercial airlines, reduce fuel burn and increase engine performance, reliability, and time on wing for DAF aircraft. This includes a blade coating, which if implemented across the C-17 and KC-135 fleets, we expect an estimated \$30 million in fuel and maintenance savings annually (based on FY23 fuel prices). Additionally, engine detergent and foam washes can restore efficiency and power and reduces fuel consumption by 0.5 to 1.15%. Initial analysis of washing engines on wing with nucleated foam shows significant maintenance benefits, increased time on wing, and overall engine performance benefits compared to current water wash procedures. DAF expanded testing of the nucleated foam wash on the KC-135 platform in early FY23. A total of 28 engines have been washed, showing an average fuel flow improvement of 1.16 percent.

- Drag reduction technology, currently used by commercial airlines and foreign militaries, reduces fuel consumption, and improves operational range and capability of the current fleet of AMC aircraft. In partnership with DIU, we are implementing legacy aircraft drag reduction technology, which has the potential to decrease drag and increase fuel efficiency by 5-7% on our existing fleet.

### **Conclusion**

Our budget for FY25 balances risk between maintaining readiness in support of Combatant Commanders, while investing in the force infrastructure needed to compete in today's era of great power competition. As we confront the realities of a shifting global landscape, our commitment remains steadfast in ensuring resilient, optimized installations and operational energy to execute missions effectively in an evolving operational environment. While our capabilities are robust, we recognize the imperative of collaboration. We must operate as one team—within our Department, across the Joint Force and interagency, and in close coordination with our allies and partners. Only through genuine partnerships can we effectively compete, deter, and, if necessary, triumph in the strategic competition against the pacing challenge posed by the People's Republic of China and the acute threat presented by Russia. With congressional support, I am confident we can preserve the platforms necessary to enable and project combat power in air and space; deliver right-sized and sustainable built and natural infrastructure; and provide resilient installations.

Thank you for the opportunity to discuss our FY25 budget and the programs supporting energy, installations, and environment. We appreciate Congress' continued support for our enterprise and look forward to working with you.