

ACTION INFRASTRUCTURE ACTION PLAN

November 2024











PLEASE CITE THIS INSTALLATION INFRASTRUCTURE ACTION PLAN AS:

Department of the Air Force, Office of the Assistant Secretary for Energy, Installations, and Environment. November 2024.

Installation Infrastructure Action Plan. Washington, DC.

Cover photo descriptions.

B-21 Raider Unveiling

The B-21 Raider was unveiled to the public at a ceremony Dec. 2, 2022, in Palmdale, Calif. The B-21 will provide survivable, long-range, penetrating strike capabilities to deter aggression and strategic attacks against the United States, allies, and partners. (U.S. Air Force photo)

509th CES Airmen fix water main

U.S. Air Force Senior Airman Stern Sturges, 509th Civil Engineer Squadron water and fuel system maintenance journeyman, tosses broken concrete out of the way while fixing a water main at Whiteman Air Force Base, Mo., Sept. 27, 2023. The 509th CES maintains 3.98 million square feet of real property worth \$1.8 billion, 43.83 miles of roads and 1.756 million square yards of airfield pavement at Whiteman AFB. (U.S. Air Force photo by Tech. Sgt. Anthony Hetlage)

Falcon 9 Intelsat G-37 Launch

A Falcon 9 rocket launches a satellite designated as INTELSAT G-37 from Space Launch Complex 40 at Cape Canaveral Space Force Station, Florida, Aug. 3, 2023. INTELSAT G-37 marked the 39th launch of 2023 at Space Launch Delta 45. (U.S. Space Force photo by Senior Airman Samuel Becker)

Stepping Toward Energy Resilience

Posts are driven into the ground by a crew installing a new solar array at Hill Air Force Base, Utah, Dec. 14, 2018. The new system will generate 17 times more power than the base's first array installed in 2008. (U.S. Air Force photo by R. Nial Bradshaw)

OSD Joint Base director visits Hickam

Lt. Col. Katharine McGregor, 15th Operations Group deputy commander, speaks to Col. Gregory Hammond, Office of the Deputy Assistant Secretary of Defense for Real Property deputy and Joint Basing director, during a familiarization tour of Air Force installations on Joint Base Pearl Harbor-Hickam, Hawaii, Sept. 14, 2023. Hammond was briefed on the importance of Hangar 34 and 35's purpose to maintain mission readiness by providing shelter for aircraft during hazardous weather, and their use for general-purpose maintenance. (U.S. Air Force photo by Staff Sgt. Alan Ricker)

KC-135

A KC-135 aircraft assigned to the 171st Air Refueling Wing, taxis on the apron at the Pittsburgh International Airport after completing local training mission, Nov. 8, 2023. (U.S. Air National Guard photo by Master Sgt. Bryan Hoover)

Atlas V rocket stands upright on launchpad for Lucy mission

A United Launch Alliance Atlas V rocket stands upright on SLC-41 at Cape Canaveral Space Force Station, Fla., October 15, 2021. The rocket will carry NASA's Lucy spacecraft into orbit where it will begin its 12-year mission to explore Jupiter's Trojan asteroids. (U.S. Space Force photo by Joshua Conti)

First Cyberspace Wing in the Air National Guard

Members of the Ohio Air National Guard stage a cyber themed photography session at Mansfield Lahm ANGB, Ohio, June 4, 2023. Although the unit is not yet operational in cyber operations, a redesignation ceremony was held in September officially designating the unit as the 179th Cyberspace Wing, making it the first of its kind in the Air National Guard. (U.S. Air National Guard photo by Master Sgt. Joe Harwood)

Raptors Arrive

A 325th Fighter Wing F-22A Raptor taxis at Eglin Air Force Base, Fla., Nov. 20, 2018. The first six Raptors arrived at their temporary home at Eglin from Tyndall Air Force Base. This move is part of mission shift by the Air Force as Hurricane Michael recovery efforts continue at Tyndall. (U.S. Air Force photo/Samuel King Jr.)

38th Cyber Engineering Squadron visits MacDill

U.S. Air Force Senior Airman Kyle Joshua Collera, 6th Communication Squadron network infrastructure technician, bundles a fiber jumper at MacDill Air Force Base, Florida, Mar. 7, 2023. Network infrastructure technicians integrate and supervise network design, and configuration operations. (U.S. Air Force photo by Airman 1st Class Derrick Bole).





Introduction Letter to Installation Infrastructure Action Plan (I2AP)

Airmen and Guardians,

Our nation has entered a decade of consequence in which Great Power Competition is shaping the global security environment. The People's Republic of China (PRC) seeks strategic parity in order to wield global influence for its benefit, particularly in the Indo-Pacific region. Added to this, Russia's unprovoked aggression in Ukraine has shattered peace in Europe and impacted stability across the globe. Our department is now re-optimizing to meet this challenge, and our installations will play a crucial role in this effort.

Throughout the history of our department, installations have served as vital platforms from which we deliver air and space power. However, we must now adapt to a new reality in Great Power Competition—our installations are no longer a sanctuary. Potential adversaries have demonstrated their intent to target our critical infrastructure using both kinetic and non-kinetic means. Threats to infrastructure include traditional approaches such as ballistic missiles and more non-traditional methods such as cyberattacks on vital utilities, fuel resources, or control systems that govern them all.

In order to respond to this critical challenge, I am directing implementation of a comprehensive Installation Infrastructure Action Plan, or I2AP. The I2AP effort builds upon the work initiated in the Operational Imperative and is designed to re-optimize our installations by 1) Better aligning them with mission critical capabilities, 2) Right-sizing vital infrastructure, and 3) Delivering more resiliency with tailored approaches at our installations.

The I2AP is designed to ensure both the Air Force and Space Force deliver combat power with enough speed, range, and intensity to deter our adversaries, and if needed win decisively. As I often state, change is hard, but losing is unacceptable. Ensuring the readiness of our installations, even while under attack, will be crucial in this decade of consequence, and we haven't a moment to lose. The I2AP is designed to direct focused action, and ensure the Department continues to deliver air and space power—anytime, anywhere.

Frank Kendall

Secretary of the Air Force

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Department of the Air Force Installation Infrastructure Action Plan

"Air bases are a determining factor in the success of air operations"

General Henry "Hap" Arnold, 1941

New Challenges for Installations and Infrastructure in Great Power Competition

The Department of the Air Force (DAF) Installation Infrastructure Action Plan directs actions to ensure its installations are ready to meet the challenge of Great Power Competition (GPC) and deliver combat power for the Joint Force. Both the National Security Strategy and National Defense Strategy describe the coming decade as pivotal for the security of our country. The rise of the People's Republic of China as a strategic competitor, as well as increasing global competition and scarcer resources has redefined our nation's defense strategy. Great Power Competition is shaping a new geostrategic landscape. The 2023 sprint to re-optimize the DAF for Great Power Competition resulted in two important conclusions. First, Air Force and Space Force installations are not a monolith and should not be treated that way. From crucial aircraft sortie generation to employed in place missions and joint base responsibilities, DAF installations are as diverse as the missions they execute. Second, DAF installations can no longer be considered a sanctuary. To ensure competitiveness in a high-end conflict, DAF installations must be able to deliver combat power with enough speed and intensity to be decisive, even while under attack. Unlike the challenges posed during Operations Enduring Freedom and Iraqi Freedom, adversaries possess high-end capabilities that can threaten DAF installations. From hypersonic technology to unmanned aerial systems to advanced cyber capabilities, our installations must meet these new challenges and effectively generate combat power. Furthermore, threats posed by the effects of climate change, such as hazardous weather and other effects threaten DAF installation infrastructure. Aging facilities, coupled with rapidly evolving cyber threats focused on targeting infrastructure has compounded this challenge, making installations more vulnerable to potential adversaries. The ability of our installations to fight through these challenges and quickly recover will be critical to success.

DAF installations, both enduring and expeditionary, are considered Power Projection Platforms from which the Air Force and Space Force successfully execute their core missions. In addition, DAF installations ensure the conduct of a diverse set of activities that include, but are not limited to training, research, depot maintenance, and weapon system test activities. Built and natural infrastructure at these installations is critical to mission success and enable the DAF to amass forces and project air and space power in support of the joint force. Operating with risks to strategic Task Critical Assets and degraded infrastructure drastically reduces the ability of the DAF to generate combat power. An effective infrastructure strategy and Mission Assurance Construct ensures combat power can be generated with enough speed and intensity to be decisive for the Joint Force.

The State of DAF Installation Infrastructure

Infrastructure and installation support accounts for approximately 10% of DAF Total Obligation Authority (TOA). However, approximately two decades of assuming risk in sustainment, coupled with an overage of infrastructure across the DAF enterprise has created a large backlog of maintenance requirements. Analysis revealed that current and future budgets can sustain approximately 65% of the enterprise. The balance of the infrastructure is equivalent to approximately 19 installations, further evidence that existing infrastructure investments are spread too thin to effectively maintain the DAF enterprise. Furthermore, funding maintenance and repair at less than 2.3% of installation facility value has resulted in compounding sustainment costs, and rapid increases in adverse mission impacts. Aging facilities, extreme weather occurrences, and antiquated control systems further compound these threats, making installations vulnerable to potential adversaries and placing mission generation at risk. Currently, half of DAF infrastructure is in a moderate or high-risk condition (see Figure 1). Figure 1 also depicts Models that forecast further degradation across the Future Years Defense Program (FYDP). Figure 2 depicts the cumulative degradation of all DAF facilities over the FYDP.

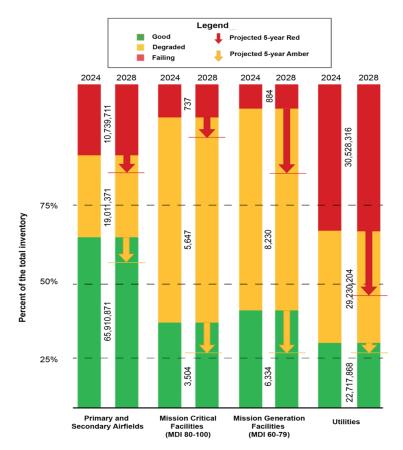


Figure 1. Current and forecasted infrastructure condition from (FY24-28). The solid bars in the figure depict the current condition of the DAF inventory by infrastructure category. The arrows show the forecast condition over the next 5 years.

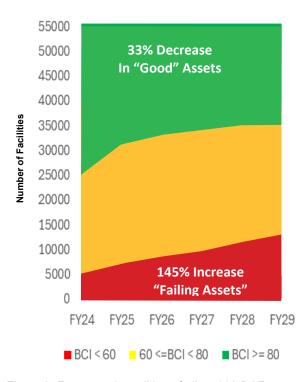


Figure 2. Forecasted condition of all 55,000 DAF facilities.



At an enterprise level, the DAF prioritizes its infrastructure and facilities by utilizing the Mission Dependency Index. Currently, DAF runways are in good condition with an average pavement condition index of 79. With a mission dependency of 99, runways have been a focus of investment, but continue to require a sustained level of investment to keep them in good condition. However, airfield pavements also consist of vital taxiways and parking aprons. Currently, 48% of secondary and tertiary airfield pavements are at risk. CONUS coastal airfields are in good condition. Pavements at PACAF installations are in good condition across all categories.

Types of Mission Critical Facilities (MDI 80-100) Airfield Pavements Aircraft Fuel Systems & Storage Communications Facilities Aircraft Navigation Fire Crash/Rescue Station Space Operations Facility Institutional Instructional & Training Facilities Utility Vaults Missile Launch & Operations Facilities RDT&E Labs Dining Facilities Child Development Center Water & Electrical

Systems

Figure 3. Facilities with a Mission Dependency Index between 80 and 100.

Across the DAF enterprise, installation utilities are at risk. When installation utilities are degraded, they are more vulnerable to threats such as extreme weather events, cyber disruptions, and more deliberate actions by adversaries to disrupt missions sets. Effects are amplified for employed in place missions requiring power redundancy and high levels of connectivity. Currently, 33% of DAF's utilities are in critical condition and 25% are degraded. PACAF utilities systems are severely degraded (70% at serious risk). The highly corrosive Indo-Pacific environment and limited availability of skilled labor compounds this problem. Implementation of Utilities Privatization (UP) programs have been successful in upgrading and maintaining utility systems by commercial entities, resulting in significant reduction in utility outages. The UP program provides the added benefit of removing infrastructure from the DAF inventory as well as associated maintenance costs.

Types of Mission Generation Facilities (MDI 60-79)

Satellite Communications Ground
Terminal Electric Substations
PMEL
Munitions Storage
Warehouse Supply & Equipment Facilities
Vehicle Fueling Stations
POL Bulk Storage
Facilities Security Forces
Facility
Small Arms & Weapons Firing Ranges
Aircraft Maintenance Shops & Labs
Hospital & Clinics
Utility System Support & Secondary Distribution

Roads

Figure 4. Facilities with an MDI between 60 and 79.

Munitions storage is another area in which risk is accumulating across the DAF. There are 640 munition storage facilities in the DAF inventory, with an average age of 47 years. While the average Building Condition Index (BCI) of 77, sporadic aging of facilities is starting to occur. A growing number of storage facilities are unable to support advanced munitions and, in some cases, cannot be modified to meet the emerging requirements.



While the Space Force carries a small percentage of total DAF facility value when compared to the Air Force, facility power requirements (both primary and back-up), system redundancy, and connectivity take on an amplified role at Space Force installations. Added to this, the Space Force has initiated an ambitious new plan to invest in launch infrastructure. Named "Spaceport of the Future," it seeks a robust new approach to ensuring resiliency of Space Launch Delta's with a multi-billion dollar investment program. As a new service, the Space Force will require focus to ensure growing infrastructure and energy requirements keep pace with growth.

Finally, housing for personnel, nuclear infrastructure, hangars, test facilities, day care, and many other subsets of mission critical and mission generation facilities have all demonstrated the imperative for a targeted approach to infrastructure.

Preparing to "Fight the Base" in Great Power Competition

The imperative to ensure installations are ready for Great Power Competition has led a comprehensive action plan designed to ensure the DAF is ready to "Fight the Base" in the wake of current and future threats. The I2AP integrates analysis and implementation of Deployable Combat Wing (DCW) and Units of Action concepts to ensure installation infrastructure reflects the future DAF trajectory on GPC. Given the intent of potential adversaries, we anticipate both civil and military infrastructure will be targeted in order to maximize disruption of DAF installations. Therefore, this plan focuses on Defense Critical Infrastructure to mitigate threats and build resiliency. Furthermore, issues such as purchase of lands, or investments by foreign entities into state and local businesses adjacent to installations is occurring with greater frequency. Therefore, partnerships with communities adjacent to installations will take on an amplified role in Great Power Competition. Installation Commanders will need to leverage their full range of influence and authority to partner with industry and communities in order to mitigate these challenges, maximize economic competitiveness, and build resiliency.

This plan seeks to optimize DAF installations for Great Power Competition. It focuses efforts on DAF installations as the foundation of combat readiness and power projection, and implements policy and processes designed to focus on best practices. The end-state of this plan is to deliver <u>mission-aligned</u>, <u>right-sized</u>, and <u>resilient</u> infrastructure that can be resourced to ensure combat capability across the Department of the Air Force to prevail in a great power competition.



Objective #1

Align Installation Infrastructure to Mission Critical Capabilities

GOALS:

- Modernize targeted communications, cyber, spaceport, and supporting infrastructure to strengthen critical infrastructure resilience at DAF installations by FY30.
- Increase health of airfield infrastructure; utilities; petroleum, oils, liquids (POL) infrastructure; munitions storage; strategic deterrence infrastructure; Task Critical Assets* to a minimum condition index of 80 with no infrastructure asset below failure by FY30.
- Plan, program, and fund facility and infrastructure bed down requirements to meet critical weapon system capability timelines through integrated resource investment plans by FY26.
- The DAF will improve the capacity and condition of dormitories and child development centers through strategic quality of life investments by FY40.



Mission aligned infrastructure is prioritized infrastructure that links to the DAF core missions, providing the operational capability to support and sustain Joint Force Commander objectives within the theater of operations.

Mission aligned infrastructure is best identified and prioritized by MDI and asset condition indexes. MDI is used to evaluate the relative importance of facilities to the mission and scored on a scale of 1-100. The more important the facility to the mission, the higher the number.

MDI is used alongside asset condition indexes, where the condition index of 100



corresponds to an asset in perfect condition, such as a new facility or a new utility line and a condition index of less than 55 denotes failure of the asset. These asset ratings, accompanied with real property knowledge of the asset, comprise a key aspect of infrastructure health and contribute to lifecycle management planning.

A C-130H Hercules, assigned to the 120th Airlift Wing, sits on the flightline during Agile Flag 24-1, an Agile Combat Employment (ACE) exercise, at March Air Reserve Base, Calif., Jan. 30. 2024. The exercise is Air Combat Command's contributing certifying event for its expeditionary air base force elements throughout the Air Force Force Generation cycle, ensuring they are ACE-capable forces that meet combatant commanders' needs. (U.S. Air National Guard photo by Airman 1st Class Ivy Thomas)

To optimize DAF infrastructure for GPC, the DAF will prioritize projects that establish aircraft dispersal sites aligned with theater plans, improve DAF airfields, mission critical utilities, and munitions storage infrastructure. In addition, the DAF will mission align cyber and communications, space, strategic deterrence, and research infrastructure through deliberate, actionable investment planning.

The DAF is committed to taking care of its Airmen, Guardians, and their families. Prioritizing quality of life projects, maintaining operational and training infrastructure, improving and modernizing dorms and family housing, along with building out capacity in dorms, and child development centers help ensure we retain the talent needed in GPC.

Objective #1 Key Actions

Key Action 1.1 – Execute base communications infrastructure modernization and enhance cybersecurity at 10 PACAF installations, under the Base Infrastructure Modernization (wired/wireless, NIPR/SIPR) and NextGen Gateway (cyber) through the Communications, Cyberspace Operations, Cybersecurity, and Information (3CIT) environment beginning in FY26, with completion by FY30. Items will demonstrate alignment with Defense Critical Infrastructure line items as prescribed by OSD.

Key Action 1.2 – Execute LTE/5G cellular infrastructure projects at 10 PACAF installations and enhance the 3CIT environment beginning in FY26, with completion by FY30.

Key Action 1.3 – Modernize Operational Technology (Control System) supporting Defense Critical Infrastructure at 3 Bases in INDOPACOM by the end of FY27, with 10 installations by FY30.

Key Action 1.4 – Create an Annual DAF Infrastructure Investment Plan, incorporating enterprise and MAJCOM/FLDCOM priorities, which outlines a five-year plan detailing investment priorities and areas at risk for lack of funding, including infrastructure risks to DAF owned Task Critical Assets

Key Action 1.5 – Provide DAF Corporate Structure with risk levels that inform infrastructure funding plans and clearly articulate risk compromises necessary to manage consequences. Incorporate joint standardized methodology (All Hazards-Threat Assessment) hazard and threat baseline probabilistic scoring.

Key Action 1.6 – Identify and prioritize 25% of Employed-in-Place mission critical infrastructure requirements for resourcing in FY27, with the remaining 75% prioritized by FY30.

Key Action 1.7 – Identify and prioritize Weapon System Infrastructure (i.e., facilities that are inseparable from and codependent with the weapon system they service).

Key Action 1.8 – Identify and prioritize munition storage facilities to meet GPC mission requirements for storage and safety.

Key Action 1.9 – Issue annual policy that centralizes a specified percentage of sustainment repair funding each year, directing expenditure tied to Great Power Competition. Policy for a given FY shall be issued NLT desired FY-2.

Key Action 1.10 – Issue annual policy that will require expenditure of a specified percentage of FSRM funds on assets with Mission Dependency Index (MDI) 80-100 for the upcoming fiscal year, commensurate with the specified FSRM funding identified in the President's Budget Request. Policy for a given FY shall be issued NLT desired FY-2.

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Key Action 1.11 – Issue annual guidance to the MILCON Working Groups (component of Air Force & Space Force Corporate Structures) identifying strategic priorities for MILCON.

Key Action 1.12 – Create a DAF Airfield Master Plan that identifies and prioritizes runway recapitalization requirements based on DAF Operational Priority.

Key Action 1.13 – Identify and prioritize facility requirements to achieve a minimum 90% of permanent party dorms and family housing in Facility Condition Index (FCI) 80 or above. Note: The DAF will shift to a Uniform Condition Index (requirement of 2024 NDAA) once available.

Key Action 1.14 – Identify and prioritize child development center facility requirements to achieve an inventory BCI of 80

Key Action 1.15 – Identify and prioritize facility requirements to ensure the DAF has enough dorm and child development center facility space to meet 80% of the authorized requirement by FY40

Key Action 1.16 – Advocate for 50% of the total requirement identified in the DoD Chief Information Officer Capability Planning Guide.



5th Aircraft Maintenance Squadron load crews prepare to load an AGM-86B air-cruise launch missile trainer onto a B-52H Stratofortress at Minot Air Force Base, N.D., Feb. 26, 2014. As part of Air Force Global Strike Command, load crews work endlessly to preserve our nation's security by providing combat-ready forces for nuclear deterrence and global strike operations. (U.S. Air Force photo/Tech Sgt. Aaron D. Allmon II)



Objective #2

Right-Size Installation Infrastructure

GOALS:

- Reduce DAF's recapitalization Plant Replacement Value by 3% from FY23 baseline (adjusted) by the end of FY30 in order to reduce the DAF's cost to operate installations.
- Prioritize activities that result in a cost share or reduction of DAF's cost to operate and sustain infrastructure.
- Shape spaceport infrastructure for enhanced space launch and test operations at USSF space launch sites by FY30 by executing the "Spaceport of the Future" infrastructure effort.



Since the Gulf War, the DAF has significantly fewer operational units and personnel, but has not proportionally downsized the number of installations. This plan commits to right-sizing facilities and infrastructure footprint by managing limiting the creation of new and infrastructure; consolidating to optimize under-utilized space; and demolishing facilities which are in poor condition or no longer aligned to mission needs-while also increasing the use innovative resourcing strategies such as public private partnerships, Enhanced Use Leases (EUL), Intergovernmental Support Agreements (IGSA) to drive down operating costs. Key actions under this objective are designed to reduce aged and unneeded infrastructure and the associated maintenance backlog. freeina resources to align with Great Power Competition requirements.



When the city of North Las Vegas needed a site for a wastewater treatment plant, Nellis, AFB, Nev., stepped up to the challenge. The Air Force is leasing land under the EUL program for the construction of the treatment plant, which, in part, provides water for irrigating base property as well as the City of North Las Vegas.

The DAF will track efforts to right-size infrastructure using DoD's selected valuation method for real property facilities, Plant Replacement Value (PRV). PRV is the holistic cost to design and construct a replacement facility at the same location in accordance with current standards. While the DAF is required to report four types of PRV to DoD, the DAF uses only the "recapitalization" PRV to estimate infrastructure funding requirements.



Developers are constructing an 8M-square-foot building. the Falcon Hill National Aerospace Research Park at Hill AFB, Utah, that will replace antiquated World War II-era buildings. The park will include office space, hotels and restaurants and is the largest commercial real estate EUL development in the Department of Defense. In this example of an EUL, a facility that a base has outgrown became a valuable asset, providing space that will be leased for private development.

Objective #2 Key Actions

Key Action 2.1 – Increase the number of Enhanced Use Leases (EULs) initiated by 10% that maximize return on investment to the DAF, and contribute to mission, mitigating climate change impacts, and energy resiliency (using Dec 2023 as the baseline) by FY28, with 20% initiated by FY32.

Key Action 2.2 – Leverage public/private partnerships to reduce operating costs and increase resilience at an installation within at least two MAJCOMs or FLDCOMs.

Key Action 2.3 – Identify two OCONUS DAF Installations where Base Operations Support (BOS) costs can be reduced or eliminated by transferring significant portions of the installation to the Host Nation or another US Government or commercial entity

Key Action 2.4 – Identify at least three active-duty CONUS DAF installations where BOS costs can be reduced or eliminated by transferring significant portions of the installation to another US Government or commercial entity.

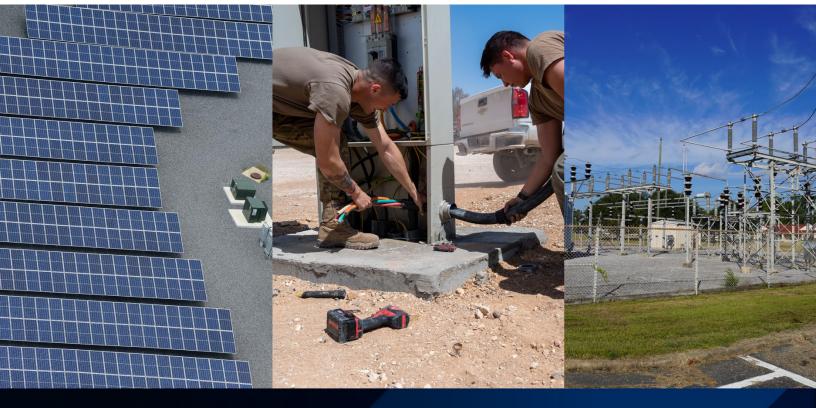
Key Action 2.5 – Identify two active duty "Base as a Workplace" pilots and assess divesting the two pilot installations of family housing, permanent party dormitories, and community support services.

Key Action 2.6 – Issue Facility Space Optimization policy based on results from the enterprise utilization rate initiative (EURI), prohibiting the expenditure of funds to renovate or repurpose unauthorized facility space.

Key Action 2.7 – Issue policy direction advising Installations, MAJCOMs, FLDCOMS and Weapon System Program Offices to maximize recapitalization in their prioritized MILCON submissions.

Key Action 2.8 – Create a Space Force Operational Test & Training Infrastructure (OTTI) Facility Investment Plan.

Key Action 2.9 – Accelerate Spaceport of the Future infrastructure improvements to support launch and test operations for assured access to space by leveraging Enhanced Use Leases, Intergovernmental Support Agreements, and other Public Private Partnerships involving state and local funding approaches, with the first complete by FY27, second complete by FY30.



Objective #3

Deliver Resilient Installation Infrastructure

GOALS:

- Increase resilience against deliberate, accidental, or natural events by reducing infrastructure vulnerability from kinetic, cyber, climate, energy, and water threats at DAF installations by FY40.
- Installations hosting a critical mission will achieve a Resilient Energy Assessment
 Framework (REAF) score of 80% by FY30, ruggedizing infrastructure with innovative
 technology solutions, to prevent, protect, mitigate, respond to, and recover from terrorist,
 manmade, and natural disasters.



Resilient installation infrastructure possesses the capability to sustain combat power projection by protecting against, responding to, and recovering from deliberate, accidental, or natural events that impede all-domain operations. They require an infrastructure foundation with near immediate 'ability to recover' timeframes and ensure that critical missions are capable of being carried out, despite facing threats or adversities. This is especially critical to the Space Force, which conducts the vast majority of its Joint warfighting from its home stations. To achieve resilient installation infrastructure, there exists a requirement for a comprehensive approach to security, operational continuity, and risk management to protect essential assets and infrastructure needed for mission success. Built-in utility system redundancy, loop fed designs and multi-source, reliable energy is critical to agile rapid recovery.



A newly installed 134 kW photovoltaic array at Joint Base Pearl Harbor Hickam, Hawaii, is part of the Pacific Energy Assurance and Resiliency Laboratory, a renewable energy microgrid project demonstrating new ways for military facilities to address energy needs. (Photo courtesy of HNU Energy/Joseph Cannon)

This action plan aims to enhance the resilience of our installation infrastructure through a focus on maintaining operational readiness and supporting mission dependency against a backdrop of diverse threats. Objective 3 supports this initiative by ensuring our utility systems are more robust, adaptive, and capable of withstanding significant disruptions. Further, the plan moves the DAF to use microgrids to provide localized energy generation, guaranteeing reliable power while maintaining energy security. Airmen and Guardians will be challenged through the incorporation of comprehensive readiness exercises that will prepare and test our personnel and infrastructure for a diverse array of threats and ensure a rapid and effective response. Additionally, the plan accounts for the growing threat of cybersecurity intrusions and building in safeguards that can help quickly recover systems from cyber based attack vectors.

Through these means, as well as updated monitoring efforts, and innovative funding strategies, this Objective will ensure that our installation infrastructure and those who depend on them will remain protected by creating robust, responsive, and adaptable infrastructure capable of facing the modern challenges that our adversaries pose.

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Objective #3 Key Actions

Key Action 3.1 – Increase installation energy resiliency by installing microgrids at two Space Force Bases (SFB) and fourteen Air Force Bases (AFB) by FY30.

Key Action 3.2 – Reduce outages and improve utility systems at installations, including resilience for critical facilities, by increasing the total number of privatized systems by 10% (6 systems) by the end of FY30.

Key Action 3.3 – Execute Energy Resilience Readiness Exercises (ERRE) at 10 installations in FY25, and 25 installations by the end of FY27. Installations that have completed an ERRE shall follow with a Joint and Interagency Resilience Readiness Exercises within their respective State/Local Community.

Key Action 3.4 – Ensure DAF installations complete an Installation Energy Plan.

Key Action 3.5 – Posture projects focused on increasing installation resilience by building a two-year FSRM and MILCON unfunded priority list (UPL) of investments that are competitive for OSD and/or congressional funding.

Key Action 3.6 – Support four projects in coordination with the Office of Local Defense Community Cooperation for selection in FY26.

Key Action 3.7 – Integrate mission support equities for Industrial Control Systems (ICS) cybersecurity by FY25, with a defined cybersecurity approach of critical infrastructure at DAF installations by FY26.

Key Action 3.8 – Initiate Cyber Resilience Exercises on both IT and OT systems at 10 installations starting FY26, and 25 installations by the end of FY30.

Key Action 3.9 – Secure off base domain for DAF mission by increasing annual Readiness and Environmental Protection Integration (REPI) investment incrementally up to a target of 22-26% of OSD REPI matching funding by FY30.

Key Action 3.10 – Validate and use existing tool to track and report facility failure and mission interruption.



Implementation and Governance

Data, resourcing, and accompanying implementation guidance are the means to prosecute the I2AP's actions and achieve the plan's goals. It is a Total Force plan, however, there is latitude granted to the US Space Force, AF Reserve, and the Air National Guard to provide a supplement to this plan to account for unique authorities and requirements, while still being accountable for the I2AP end-state and the intent of stated actions. AFMC has lead for providing implementation guidance, and will ensure the US Space Force, AF Reserve, Air National Guard, and Major/Field Commands, where appropriate, are part of the implementation guidance development. Key action OPRs are expected to solicit and incorporate MAJCOM input and priorities as appropriate when developing implementation plans and measures of effectiveness or executing key actions. Consideration of MAJCOM/FLDCOM priorities is expected at all levels of implementation.

Governance for the I2AP will fall under the Infrastructure Council governance. The Infrastructure Council is the Tier 1 (3-4 star and civilian equivalent) level governing body which provides overarching vision and enterprise priorities and aligns actions across the DAF installations and infrastructure portfolio by guiding strategy, creating unity of effort, and making decisions that affect the management and operation of installations and infrastructure. Key action OPRs are expected to use the Infrastructure Council, and the subordinate Infrastructure Board, to obtain any required vectors or approval of key action execution plans, report on progress and effectiveness against established metrics, and close out key actions to SecAF, SAF/IE, or SAF/CN, either through the bi-annual Council, out-of-cycle Council sessions or staff packages, or other governance directed by the Council. Key action OPRs should work within existing Corporate Structure and Installation and Mission Support processes to advocate for required funding, in line with quidance provided by the Infrastructure Council.

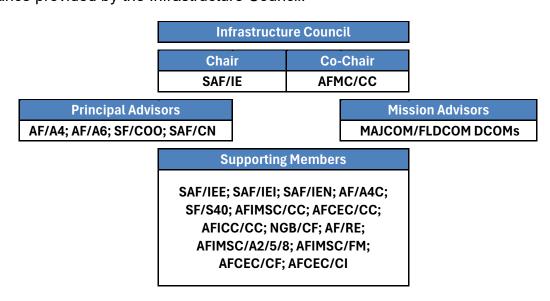


Figure 3 – Infrastructure Council Membership

Mission Owner Participation

MAJCOMs and FLDCOMs are responsible for the mission and play a critical role in identifying requirements and priorities. The DAF is committed to ensuring mission owners appropriately participate in the processes that inform how installations and infrastructure are delivered and operated. These processes are critical to ensuring mission owner priorities are integrated with enterprise and functional priorities to deliver the installations required to prevail in Great Power Completion. Going forward, MAJCOMs and FLDCOMs will be included in the Infrastructure Council governance structure as Mission Advisors.

In 2014, the Air Force made the corporate decision to centralize Installation and Mission Support authority and funding and in 2015 stood up the Air Force Installation and Mission Support Center (AFIMSC) under AFMC. AFIMSC is responsible to provide installation and mission support capabilities to all Air Force and Space Force locations. This responsibility requires them to consider and integrate command input and priorities into all aspects of their business operations. The governance structure relies on AFIMSC to bring forward an enterprise-level perspective that incorporates mission owner priorities, risks, and impacts. Some of the processes AFIMSC has established and how MAJCOMs participate include:

- MAJCOMs validate MILCON requirements from their installations and provide a prioritized list for adjudication and prioritization at the MILCON Working Group
- MAJCOM A4Cs serve as voting members at MILCON Working Group and validate and prioritize the requirements of all MAJCOMs for use in building the MILCON FYDP
- MAJCOMs build a 5-year priority list for the AF Comprehensive Asset Management Plan (AFCAMP) Council to authorize centralized FSRM funds across the enterprise
 - The AFCAMP consolidates inputs from all MAJCOMs and utilizes MAJCOM A4Cs and AFIMSC Detachments to balance risks across the entire portfolio
- MAJCOMs can move 5% of decentralized FSRM funds within their command prior to finalizing Initial Distribution allocations to support mission priorities
- MAJCOMs provide input to Installation Energy Plans and are invited to the Facility Energy Panel where Resilience Solution Report concepts are presented/approved and teed up for funding

Additionally, AFIMSC has established Detachments at each MAJCOM and with Space Force to improve the understanding and integration of command priorities into centralized decision making and to ensure AFIMSC is providing appropriate support. While AFIMSC supports the Space Force in executing installation and mission support, the Space Force has its own governance to prioritize requirements and align funding.

While enterprise priorities do not always align with specific mission owner priorities, the intent is to identify and work together on shared goals which enables unity of effort and thus accelerates implementation of this plan.



Conclusion

DAF installation infrastructure must be ready to meet the challenge of Great Power Competition, deliver combat power for the Joint Force, and support both the National Security Strategy and National Defense Strategy. The I2AP sets a clear, unified vision for installation infrastructure that delivers mission critical capability, is right sized, and resilient. This plan is part of a group of foundational strategies that are interconnected and complementary, as depicted in Figure 4. This plan will be updated as necessary to align with changes in strategic guidance, foundational strategies, and operational environment.

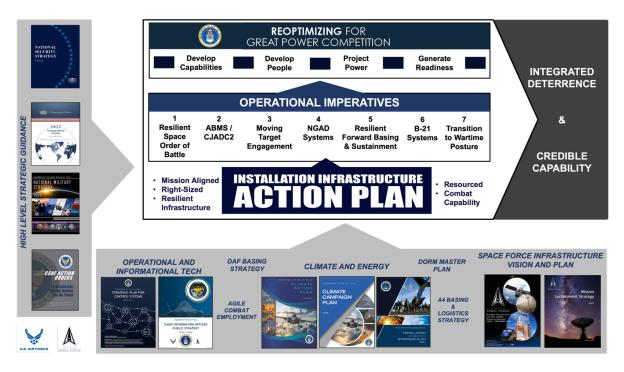


Figure 4 – Connection between strategies



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