



Department of the Air Force

# CLIMATE ACTION PLAN OVERVIEW

October 2022

## A Call to Action

Climate change is reshaping the increasingly complex global security environment and we must adapt and respond to that threat. Extreme weather and environmental conditions are already imposing high costs on Department of Air Force installations and missions, while simultaneously posing new risks to our ability to train and operate effectively. Our three priorities are to: 1) Maintain air and space dominance by making our installations more resilient; 2) Make climate-informed decisions in every aspect of our operations; and 3) Optimize energy use and pursue alternative energy sources to save resources and reduce greenhouse gas emissions, while enhancing combat capability. Our investments will target infrastructure, weapon systems, technology, and equipment that are demonstrably more efficient and combat-credible today to improve Air Force and Space Force warfighting capability tomorrow.

## Department of the Air Force Climate Priorities

### PRIORITY 1 – MAINTAIN AIR AND SPACE DOMINANCE IN THE FACE OF CLIMATE RISKS

#### Objective 1: Modernize Infrastructure and Facilities

Invest in climate-ready and resilient installations to provide the platform from which to project air and space combat power.

### PRIORITY 2 – MAKE CLIMATE-INFORMED DECISIONS

#### Objective 2.1: Develop a Climate-Informed Workforce

Developing a climate-informed workforce ensures that department personnel have the knowledge, skills, and abilities to understand when, why, and how to apply climate considerations to improve the department's ability to field a ready, combat-credible force

#### Objective 2.2: Integrate Security Implications of Climate Change into Department Strategy, Planning, and Operations

Incorporating the security implications of climate change into our processes, plans, and decisions enables the department to develop a more agile, responsive, and ready force that extends the department's ability to support integrated deterrence and project power globally

#### Objective 2.3: Incorporate Climate Considerations into Department Requirements, Acquisition, and Supply Chain Processes

Incorporating climate considerations into the department's requirements process, materiel acquisition regulatory guidance, and supply chain guidance and strategies enables the department to purchase, field, and continuously supply a more agile, resilient, combat-credible force to support integrated deterrence and power projection globally

### PRIORITY 3 – OPTIMIZE ENERGY USE AND PURSUE ALTERNATIVE ENERGY SOURCES

#### Objective 3.1: Improve Operational Energy Intensity

Optimized aircraft energy use increases the readiness and operational capability of the department, decreases risk to logistics supply chains, and informs operational plans while reducing greenhouse gas emissions. Optimization includes the adoption of ultra-fuel-efficient aircraft designs, which provide an opportunity to significantly improve combat capability.

#### Objective 3.2: Adopt Alternative Energy Sources

While the department cannot singularly reverse the causes of climate change, we can reduce our energy footprint and increase demand for zero-carbon-based energy sources. We must both reduce our energy consumption and move toward carbon pollution-free energy sources.



# Objectives and Key Results (KR) Summary

## Objective 1: Modernize Infrastructure and Facilities

- **KR 1.1:** Targeted investments to improve base resilience, starting with \$36 million in fiscal year (FY) 23 and increasing to \$100 million per year by FY27.
- **KR 1.2:** Framework established to evaluate the effects of climate change at department installations to inform resourcing and basing processes by FY24.
- **KR 1.3:** Department of the Air Force Severe Weather and Climate Hazard Screening and Risk Assessment Playbook fully implemented at installations requiring an Installation Development Plan in accordance with Department of the Air Force Instruction 32-1015, by the end of FY26, with identified climate hazards and risks incorporated into planning and project development processes.
- **KR 1.4:** Energy Resilience Readiness Exercises executed at 35 installations by the end of FY27, with results used to inform installation investments and facilitate mission execution from energy-efficient and climate-resilient bases.
- **KR 1.5:** Installation Energy Plans completed for installations requiring an Installation Energy Plan in accordance with Department of the Air Force Instruction 90-1701, by FY23, with identified projects submitted to compete for funding starting in FY24.
- **KR 1.6:** Department of the Air Force's installations portfolio is net-zero emissions by FY46, including a 50 percent emission reduction from 2008 levels by FY33.

## Objective 2.1: Develop a Climate-Informed Workforce

- **KR 2.1.1:** Climate considerations integrated into department professional military education curriculum by FY24.
- **KR 2.1.2:** Climate considerations integrated into department technical and continuing education curriculum by FY25.

## Objective 2.2: Integrate Security Implications of Climate Change into Department Strategy, Planning, and Operations

- **KR 2.2.1:** Climate considerations, security language, and goals incorporated in Air Force and Space Force concept development and Air Force Major Command and Space Force Field Command operational plans and campaign plans starting in FY24.
- **KR 2.2.2:** Climate considerations incorporated into department Title 10 wargames starting in FY23.
- **KR 2.2.3:** Potential effects and security implications of climate change included in engagements with allies and partner nations starting in FY23.

## Objective 2.3: Incorporate Climate Considerations into Department Requirements, Acquisition, and Supply Chain Processes

- **KR 2.3.1:** Energy Key Performance Parameters incorporated in weapon system capability requirements in accordance with the Joint Capabilities Integration and Development System Manual.
- **KR 2.3.2:** Effects of climate change identified for select supply chains by end of FY23 with risk mitigation approaches informed by the end of FY24.

## Objective 3.1: Improve Operational Energy Intensity

- **KR 3.1.1:** Operational energy intensity of Air Force flying missions increased 5 percent by FY27 and 7.5 percent by FY32 through standardized use of aircraft drag reduction technologies, modern software scheduling tools, and enhanced engine sustainment practices.
- **KR 3.1.2:** Development and testing of a full-scale blended wing body prototype completed by FY27.

## Objective 3.2: Adopt Alternative Energy Sources

- **KR 3.2.1:** Completed successful pilot of drop-in compatible sustainable aviation fuel at two operational Air Force locations by FY26, where 10 percent of all purchased aviation fuels consist of sustainable aviation fuel blends at the same or less cost than traditional aviation fuel. The pilot project will validate operational, infrastructure, and logistical requirements for blending and quality control in the use of sustainable aviation fuel.
- **KR 3.2.2:** Completed successful pilot of micro-reactors by FY28 to demonstrate viability of this technology as a feasible alternative energy source.
- **KR 3.2.3:** 100 percent carbon pollution-free electricity on a net annual basis by FY30, including 50 percent 24/7 carbon pollution-free electricity.
- **KR 3.2.4:** 100 percent zero-emissions non-tactical vehicle acquisitions by FY35, including 100 percent zero-emission light-duty vehicle and aircraft support equipment acquisitions by FY27 and FY32, respectively.