

**BY ORDER OF THE SECRETARY  
OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE  
POLICY DIRECTIVE 15-1**



**28 MAY 2024**

**Weather**

**WEATHER OPERATIONS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: AF/A3WP

Certified by: AF/A3  
(Lt Gen Adrian L. Spain); USSF Senior  
Coordinator (Lt Gen Deanna M. Burt)

Supersedes: AFPD15-1, 14 November 2019

Pages: 8

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This Department of the Air Force Policy Directive (DAFPD) provides policy and oversight for weather and environmental operations. This directive is consistent with policy and responsibilities established in the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3810.01G, *Meteorological and Oceanographic Operations* and Headquarters Air Force Mission Directive (HAFMD) 1-54, *Deputy Chief of Staff Operations*. This publication applies to all civilian employees of the Department of Air Force (DAF) and uniformed members of the Regular Air Force, United States Space Force (USSF), Air Force Reserve, and Air National Guard. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. This DAFPD may not be supplemented.

***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. Major changes include inclusion of USSF roles, removal of guidance duplicated in other DAF policy, clarification of United States Air Force (USAF) weather capabilities, roles and responsibilities, and updates based on higher-level guidance changes.

**1. Overview.** This directive establishes roles and responsibilities for weather operations within the DAF to ensure timely, accurate, relevant, and consistent environmental information is integrated into strategic, operational, and tactical planning and mission execution processes to enable lethal and non-lethal effects across the air, land, sea, space, and cyberspace domains throughout the competition continuum.

**2. Policy. It is the DAF policy to:**

2.1. Provide terrestrial weather and climate capabilities across all security enclaves for the DAF, U.S. Army, Department of Defense (DoD) Intelligence Components, Combat Support Agencies, and other Intelligence Community (IC) agencies per applicable memorandums of agreement (MOAs) to support joint operations through mission planning and execution, resource protection, and adversary forecasting.

2.2. Provide space environmental capabilities across all security enclaves to the DoD and DoD Intelligence Components.

2.3. Provide modeling and simulation of the air and space natural environments in support of all elements of the DoD IAW Department of Defense Directive (DoDD) 5000.59, *DoD Modeling and Simulation (M&S) Management*.

2.4. Provide terrestrial weather, climate studies, and related expertise in support of identification and assessment of climate change impacts to the DoD IAW DoDD 4715.21, *Climate Change Adaptation and Resilience*.

2.5. Integrate weather capabilities into planning, execution, and assessment to enable information warfare operations.

2.6. Provide weather reconnaissance support to all elements of the DoD and other U.S. Government agencies IAW Public Law 102-567 Section 107, *Hurricane Reconnaissance Program*, set out under Title 15 United States Code, Section 313.

2.7. Interface with interservice, interagency, and as authorized, international environmental service providers, to comply with national and international standards and to foster complementary efforts in research, development, and capabilities.

2.8. Provide environmental data, products, and data services to DoD, U.S. Government agencies, and, as authorized, allies, partners, and commercial entities consistent with existing MOAs or arrangements and contractual mechanisms.

**3. Roles and Responsibilities.**

3.1. Deputy Chief of Staff, Operations (AF/A3) will:

3.1.1. Provide policy, guidance, and standards for the DAF and oversee planning, programming, budgeting, and resource allocation for USAF weather and environmental operations.

3.1.2. Serve as the Weather Functional Authority IAW DAFPD 36-26, *Total Force Development and Management*, and develop weather and environmental science officers and enlisted members. Provide guidance to implement training policy, advanced academic degree requirements, certifications, and special experience and career progression opportunities.

3.1.3. Deliver weather and environmental capabilities to all elements of the DAF and U.S. Army, and DoD Intelligence Components, Combat Support Agencies, and other IC agencies per applicable MOAs, to support joint operations mission planning and execution, resource protection, and adversary forecasting to enable kinetic and non-kinetic military operations across air, land, sea, space, and cyberspace domains.

3.1.4. Operate and exploit ground-based environmental monitoring, analysis, and prediction capabilities in support of all elements of the DoD and DoD Intelligence Components consistent with applicable MOAs.

3.1.5. Provide terrestrial climate and space environmental capabilities in support of National Climate Assessments and associated DoD and IC activities requiring the mitigation of risk to operational planning, sustainment, and basing decisions.

3.1.6. Conduct Stakeholder responsibilities for the Air Force Weather Weapon System (AFWWS) IAW DAFPD 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities*.

3.1.7. Oversee cybersecurity activities and manage and reduce cybersecurity risks for the AFWWS National Security System per Department of Defense Instruction (DoDI) 8510.01, *Risk Management Framework for DoD Systems*.

3.1.8. Deliver subject matter expertise in support of Total Force, interagency, and as authorized, international, and other government inquiries for weather, space weather, hydrology, climatology, and other geosciences to inform the Chief of Staff of the USAF, Chief of Space Operations, and Secretary of the Air Force on environmental threats and considerations involving campaign planning, resourcing decisions, and operational impacts.

3.2. Chief of Space Operations, Headquarters USSF will:

3.2.1. Acquire, deliver, and sustain space environmental monitoring (ground- and space-based), analysis, and prediction capabilities in support of all elements of the DoD IAW DoDD 3100.10, *Space Policy*.

3.2.2. Develop capabilities to characterize and exploit space environmental impacts on space operations, systems, and services, to include Modeling and Simulation activities for the space environment.

3.2.3. Operate space-based space environmental monitoring capabilities in support of all elements of the DoD.

3.2.4. Provide administrative support, facilities, training, and funding for weather operations and Airmen conducting meteorological and oceanographic support to the USSF.

3.3. The Commander, Air Combat Command, will:

3.3.1. Conduct centralized global and regional weather and environmental science operations in support of the DAF, U.S. Army, IC, and all combatant commands, major commands, and designated missions.

3.3.2. Provide the full spectrum of centralized weather and environmental science information (including output from numerical weather prediction models, Space-Based Environmental Monitoring data, air and space environmental data and products, and climatology) to perform joint intelligence preparation of the operational environment and identify opportunities to enable information superiority and decision advantage.

3.3.3. Execute lead command responsibilities and duties for the AFWWS consistent with DAFPD 10-9.

3.4. The Commander, Air Education and Training Command will:

3.4.1. Assess training needs based on functional authority requirements and provide initial skills and institutional advanced training programs for enlisted weather operations specialists and weather and environmental science officers.

3.4.2. Assist the air staff in effectively developing and sustaining Total Force weather and environmental science personnel.

3.4.3. Develop distributed learning and climate literacy materials in support of the weather and environmental science training program.

3.4.4. Sustain a basic meteorological program for the entry-level accession of weather and environmental science officers without the necessary meteorology or atmospheric science degrees.

3.4.5. Sustain advanced academic degree programs at the master's and doctorate levels for environmental sciences to include resident advanced degree programs.

3.5. The Commander, USAF Materiel Command (AFMC) will:

3.5.1. Conduct integrated lifecycle management and operations of assigned components of the AFWWS through supporting program executive officers to support Air Combat Command's global and regional centralized weather mission.

3.5.2. Execute implementing command responsibilities and duties for the AFWWS consistent with DAFPD 10-9.

3.5.3. Provide weather and environmental science support to AFMC-managed research, development, acquisition, testing, evaluations, and sustainment efforts for USAF weapon systems.

3.5.4. Assist the USAF weather and environmental science community in developing and maintaining capabilities to support emerging weapon systems per requirements derived by lead command.

3.6. The Commander, USAF Special Operations Command will:

3.6.1. Maintain responsibility for weather and environmental science capabilities required to support worldwide special operations missions.

3.6.2. Support U.S. Army Special Operations Command, through U.S. Special Operations Command, to include planning, programming, budgeting, and sustainment of required capabilities.

3.6.3. Execute lead command responsibilities and duties for special operations weather teams consistent with DAFPD 10-9.

3.7. The Commander, Air Force Reserve Command will:

3.7.1. Maintain responsibility for weather reconnaissance capabilities required to support all elements of the DoD and other U.S. Government agencies.

3.7.2. Provide weather reconnaissance support to the appropriate lead federal agency for defense support of civil authorities.

3.7.3. Execute lead command responsibilities and duties for the WC-130J Weapon System consistent with DAFPD 10-9.

FRANK KENDALL  
Secretary of the Air Force

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

Public Law 102-567 § 107, *Hurricane Reconnaissance Program*

DoDD 3100.10, *Space Policy*, 30 August 2022

DoDD 4715.21, *Climate Change Adaptation and Resilience*, 14 January 2016

DoDD 5000.59, *DoD Modeling and Simulation (M&S) Management*, 8 August 2007

DoDI 8510.01, *Risk Management Framework for DoD Systems*, 19 July 2022

CJCSI 3810.01G, *Meteorological and Oceanographic Support*, 31 March 2023

HAFMD 1-54, *Deputy Chief of Staff, Operations*, 8 September 2015

DAFPD 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapons Systems, Non-Weapon Systems, and Activities*, 25 May 2021

DAFPD 36-26, *Total Force Development and Management*, 18 January 2024

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

***Prescribed Forms***

None.

***Adopted Forms***

DAF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMC**—Air Force Materiel Command

**AFWWS**—Air Force Weather Weapon System

**CJCSI**—Chairman, Joint Chiefs of Staff Instruction

**DAF**—Department of the Air Force

**DAFPD**—Department of the Air Force Policy Directive

**DoD**—Department of Defense

**DoDD**—Department of Defense Directive

**DoDI**—Department of Defense Instruction

**HAFMD**—Headquarters Air Force Mission Directive

**IAW**—in accordance with

**IC**—Intelligence Community

**MOA**—memorandum of agreement

**OPR**—office of primary responsibility

**USAF**—United States Air Force

**USSF**—United States Space Force

*Office Symbols*

**AF/A3**—Air Force Deputy Chief of Staff, Operations

*Terms*

**Adversary Forecasting**—A deliberate process of using observed and forecasted environmental conditions to predict an adversary’s strategic, operational, and tactical actions while enabling freedom of action and creating an asymmetric advantage for friendly forces.

**Environmental Science**—The study of meteorology, oceanography, space weather, climate, hydrology, and other geophysical environmental phenomenon (e.g., drought, wildland fires, flooding, volcanos, tropical cyclones, etc.).

**Prediction**—In weather operations, the process of determining the future state of the atmospheric and space weather environment from analyzed weather data and information, including, but not limited to, assessing advanced mathematical models. The end product of the predictive analysis is a weather forecast.

**Terrestrial Weather**—Atmospheric conditions on Earth from the surface to the edge of space (100km mean sea level), to include meteorology, hydrometeorology, hydrology, and other environmental sciences.