

**Army Regulation 115–10  
AFI 15–157 (IP)**

**Climatic, Hydrological, and  
Topographic Services**

**Weather  
Support and  
Services for  
the U.S.  
Army**

**Headquarters  
Department of the Army  
and the Air Force  
Washington, DC  
17 December 2018**

**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

AR 115–10/AFI 15–157 (IP)

Weather Support and Services for the U.S. Army

This expedited revision, dated 17 December 2018—

- o Adds climate change responsibilities (para 2–1e(11)).
- o Updates responsibilities associated with weather facilities (paras 2–1g(1) and 2–1g(2)).
- o Adds Army and Air Force technical exchange considerations (para 2–1j(9)).
- o Clarifies Army responsibilities regarding weather support and services (para 2–2c(2)).
- o Clarifies information assurance responsibilities for Air Force weather systems on Army networks (para 2–3a).
- o Defines Air Force and Army maintenance responsibilities (para 2–5g).
- o Clarifies contractual responsibilities for weather support and services (para 3–2a(1)).
- o Clarifies Air Force operations responsibilities (paras 3–2a(1), 3–2a(4), and 3–2a(7)).

Headquarters  
Department of the Army  
and the Air Force  
Washington, DC  
17 December 2018

**\*Army Regulation 115–10**  
**AFI 15–157 (IP)**

Effective 17 January 2019

**Climatic, Hydrological, and Topographic Services**  
**Weather Support and Services for the U.S. Army**

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By Order of the Secretary of the Army and Air Force:

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**History.** This publication is an expedite revision. The portions affected by this expedite revision are listed in the summary of change.

**Summary.** This regulation sets forth policies and establishes U.S. Army and U.S. Air Force responsibilities for weather services in support of the U.S. Army.

**Applicability.** This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. This regulation also applies to the Regular Air Force, the Air National Guard, and U.S. Air Force Reserve.

**Proponent and exception authority.** The proponent of this regulation is the Deputy Chief of Staff, G–2 and the Air Force Deputy Chief of Staff for Operations, Plans and Requirements (Headquarters, U.S. Air Force (A3)). The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or

field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Army internal control process.** This regulation is not subject to the requirements of AR 11–2. It does not contain internal control provisions.

**Supplementation.** Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–2 (DAMI–PIP), 1000 Army Pentagon, Washington, DC 20310–1040 and Headquarters, U.S. Air Force Director of Weather (USAF/A3W–P), 1490 Air Force Pentagon, Washington, DC 20330–1490.

**Suggested improvements.** Users are invited to send comments and suggested

improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Headquarters, Department of the Army (DAMI–PIP), 1000 Army Pentagon, Washington, DC 20310–1040. Air Force users are invited to send comments on AF Form 847 (Recommendation for Change of Publication) to Headquarters, U.S. Air Force Director of Weather (USAF/A3W–P), 1490 Air Force Pentagon, Washington, DC 20330–1490.

**Distribution.** This regulation is available in electronic media only and is intended for command levels for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve. Air Force: Compliance with this publication is mandatory.

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\*This regulation supersedes AR 115-10/AFI 15-157, dated 24 February 2017.

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## **Chapter 1**

### **Introduction**

#### **1–1. Purpose**

This regulation provides policy and states responsibilities for Air Force (AF) elements engaged in meteorological support of the Army's mission and provides guidance to the Army for supporting the AF in that role. Inter-Service and intra-Service cooperation and synchronization are imperative to the establishment and maintenance of effective and efficient weather support and services in support of the Army's mission. The policy contained in this regulation guides this mutually supporting relationship. This regulation describes responsibilities of the AF to provide weather support and services to enable the Army's mission, and the responsibilities of the Army to support the AF as they develop and execute weather operations and provide weather services. This regulation assigns the Army and AF general responsibilities in the areas of operations, communications, training, administration, budget, and logistics. It includes Army and AF responsibilities for the execution of installation, garrison, and deployed (combat or field) weather operations. This publication does not address special operations forces-peculiar weather-related requirements and/or relationships.

#### **1–2. References and forms**

See appendix A.

#### **1–3. Explanation of abbreviations and terms**

See the glossary.

#### **1–4. Responsibilities**

*a. Coordination.* All Army and AF elements responsible for establishing Army or AF meteorological and space weather requirements will ensure that capabilities and Joint Capability Integration and Development Systems (JCIDS) requirements documents are coordinated across all military departments in accordance with Department of Defense (DOD), Joint, and Service regulations to promote interoperability and avoid duplication of weather capabilities, support, and services (see paras 2–1 and 3–1). The AF and Army weather functional leads will work closely together during the development phase of requirement documents to ensure that weather capabilities solutions meet interoperability objectives outlined in Chairman Joint Chiefs of Staff Instructions.

*b. Specifics.* Army and AF responsibilities are listed in chapters 2 and 3 respectively. Army-specific responsibilities are documented in AR 5–25 and AF-specific responsibilities in AFI 15–128.

*c. Collaboration.*

(1) The AF and the Army will collaborate in development of weather and weather system concepts to set weather policy and resolve weather issues across the spectrum of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF).

(2) When advantageous to DOD interests, the Army and AF will collaborate with the other Services and Federal agencies across a broad spectrum of disciplines and capabilities (including but not limited to geospatial, terrain, operations, military capabilities, weapon systems, sensors, tactics, techniques, and procedures, and so forth). The intent of this collaboration is to provide the best weather capability for DOD in context of strategic direction and guidance of the Department.

#### **1–5. Recordkeeping requirement**

The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Records Retention Schedule-Army (RRS-A). Detailed information for all related record numbers, forms, and reports are located in Army Records Information Management System (ARIMS)/RRS-A at <https://www.arims.army.mil>. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see DA Pam 25–403 for guidance.

#### **1–6. General**

*a. Requirements.* The Army establishes, validates, prioritizes, and communicates weather requirements for Army installation, garrison, training, and deployed (combat or field) operations to the AF. To enable the AF to fulfill these requirements, the AF establishes, validates, prioritizes, and communicates specialized Army training, equipment, facilities, communications, and other requirements to the Army. The Army will provide the AF with training, equipment, facilities, communications, and other services in accordance with this regulation and AR 5–25.

*b. Emerging requirements.* For dynamically-generated, directed requirements, such as Quick Reaction Capabilities, in support of contingency operations, the AF will provide weather support to the extent possible. When these requirements are Army-validated and Army-approved, the AF will program for the resources as outlined in para 1–6c.

*c. Resources.* The Army budgets, plans, and programs for resources to meet the Army’s responsibilities as described in chapter 2. The AF budgets, plans, and programs to meet the AF’s responsibilities as described in chapter 3. When the AF is unable to meet a new Army weather support requirement, the Headquarters (HQ) U.S. Air Force (USAF) Deputy Chief of Staff (DCS), Operations (HQ USAF/A3) will request the Army prioritize the affected missions so the AF can support using available resources (to include arranging for/leveraging other Services’ capabilities as the AF deems appropriate) until the AF receives additional resources through the program objective memorandum process.

*d. Personnel and command relationships.*

(1) AF personnel conducting weather operations and providing weather services in support of Army organizations will not be assigned duties (for example, guard duty, charge of quarters, mess hall duty) inconsistent with their primary mission of conducting weather operations and providing weather services.

(2) The AF retains administrative control (for example, command and Uniformed Code of Military Justice authority, and personnel actions), operational, and tactical control of AF personnel and equipment unless otherwise directed by the appropriate authority consistent with Joint publications.

(3) The AF senior weather representative at each Army echelon is traditionally referred to as the staff weather officer (SWO). The SWO is designated a special staff officer and will coordinate activities under the staff supervision of the Assistant Chief of Staff, G–2 (S–2) or the coordinating staff officer.

(4) SWOs will comply with Army regulations and directives that do not conflict with AF instructions and directives as deemed appropriate by the AF command authority.

*e. Accident and incident boards.* When weather or weather service is expected to be a contributing factor to an Army accident or incident, upon request, the AF will provide a qualified weather officer subject matter expert (SME) to the Army Safety Investigation Board.

## **Chapter 2**

### **Army Responsibilities**

#### **2–1. General**

General responsibilities of Army Headquarters, Army commands (ACOMs), Army service component commands (ASCCs), and direct reporting units (DRUs) are listed in this regulation.

*a.* The Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA (ALT)), through Program Executive Office-Intelligence, Electronic Warfare and Sensors (PEO-IEWS), will coordinate development of tactical weather capabilities for the Army with DCS, G–2 and collaborate with the AF program offices to ensure Army-developed meteorological capabilities are compatible and interoperable with AF weather capabilities. ASA (ALT) fund U.S. Army Corps of Engineers, Army Test and Evaluation Command, U.S. Army Medical Command, Army Materiel Command, and PEO IIEWS acquisition-related efforts that support meeting the Army’s weather requirements to include the following:

(1) Simulations and visualization of environmental effects on Army personnel, systems, and operations.

(2) Designing systems to operate in the Army operational environment and to meet Army standard criteria for tactical mobility, target signature, and communications capability and accreditation.

(3) System of systems architecture development, including statutory DOD Architecture Framework products meeting JCIDS program of record requirements.

(4) Meteorological research and development (R&D) activities, the development of components and subsystems and integration of these components into prototypes for use in field experiments, and activities that evaluate prototype systems, and transition resultant technology into a major system.

(5) When R&D for Army capability gaps also meets AF needs (for example, meteorological models, tools, and applications), work with appropriate AF acquisition authorities and lead commands to transition research for the AF to operationalize in support of Army operations.

(6) With AF assistance, developing and providing materiel solutions to meet the Army’s responsibilities, ensuring a robust logistics and maintenance capability for those solutions, and developing and providing Army-procured weather system installations and required certifications.

*b.* The Army Chief Information Officer/G–6 (CIO/G–6) will—

(1) Lead Army-AF development of technical and data standards as defined in the current annual Standard View One (StdV–1) for the Common Operating Environment to effectively integrate weather operations into the Army communications architecture, such as Army communications network email accounts for the SWOs.

(2) Assist the AF with processing and approving information assurance and accreditation, such as but not limited to, certificates of net worthiness, interim authorization to test, interim authority to connect, interim approval to operate, and approval to operate fixed base and deployed weather equipment and systems on Army networks (to include firewall exemptions) in accordance with AR 25-1, AR 25-2, and DOD Information Assurance and Reciprocity Policy.

(3) Account for AF weather capabilities and requirements in support of the Army when developing installation and deployed communication capacity and information technology (IT) infrastructure (see para 2-3).

(4) Guide and facilitate AF efforts to meet Army communications security (COMSEC) requirements.

c. The Chief, National Guard Bureau (CNGB), directly or by delegation to the Director, Army National Guard (ARNG) will—

(1) Coordinate with DCS, G-3/5/7, and DCS, G-2 to ensure AF weather personnel are provided with facilities that meet mission essential functionality and Army standards and in accordance with National Guard Bureau (NGB) Pamphlet 210-20.

(2) Provide oversight for the fielding of fixed meteorological equipment at ARNG-managed airfields and heliports. Ensure procedures are in place to staff all weather equipment related documentation in coordination with DCS, G-3/5/7, and DCS, G-2.

(3) Leverage aligned Air National Guard weather flights for weather support and services.

(4) Establish requirements for operational weather services for continental United States-based ARNG units and provide an updated list of ARNG locations requiring weather support to the DCS, G-2.

(5) Coordinate installation weather support requirements with aligned AF organizations via a support assistance request with the supporting regional operational weather squadron in absence of aligned support.

(6) Notify the supporting regional operational weather squadron of all aircraft mishaps and communication outages in the absence of local AF weather personnel.

d. The Director of Army Safety (U.S. Army Combat Readiness Center) will, when meteorological expertise cannot be accessed locally (for example, AF weather element and/or SWO), coordinate with DCS, G-2 (DAMI-PIP) for meteorological expertise on accident and/or incident boards when weather or weather support or service is suspected to be a contributing factor.

e. The DCS, G-2 will—

(1) Coordinate AF weather policy issues with the AF DCS for Operations, Plans and Requirements (HQ USAF/A3).

(2) Coordinate with the AF on Army-AF and Joint Service weather functions, operational concepts and doctrine.

(3) Coordinate with DCS, G-3/5/7 on Army weather program and resource issues, ARNG and Army Reserve weather issues, and Army weather support requirements.

(4) Coordinate AF weather support and services shortfalls and other perceived weather deficiencies received from U.S. Army Training and Doctrine Command (TRADOC) with DCS, G-3/5/7.

(5) Coordinate all weather capabilities for Army personnel with Army Materiel Command to ensure integration, compatibility, and interoperability with current AF weather capabilities.

(6) Provide weather subject matter expertise in support of DCS, G-3/5/7 advocacy of Army-provided facilities and equipment to the AF.

(7) Coordinate force design updates (FDUs) and basis of issue plans for all operational weather elements in coordination with TRADOC and U.S. Army Intelligence Center of Excellence (USAICOE) prior to DCS, G-3/5/7 approval.

(8) Assist the U.S. Army Combat Readiness Center/Safety Center with arranging for meteorological expertise on accident/incident boards.

(9) Coordinate with DCS, G-3/5/7 and the Commanding General (CG), Installation Management Command to ensure weather personnel are provided with facilities that meet mission essential functionality and Army standards.

(10) Serve as the weather facilities proponent.

(11) Serve as the U.S. Army lead for coordinating climate information in support of Army activities to assess and mitigate the effects of climate change.

f. The DCS, G-3/5/7 will—

(1) Serve as the Army's approval authority for TRADOC-staffed and validated Army weather requirements.

(2) Submit approved Army weather requirements and priorities to the HQ USAF/A3.

(3) Coordinate with the DCS, G-2 on Army weather program and resource issues, ARNG and Army Reserve weather issues, and Army weather support requirements.

(4) Advocate for Army facilities and equipment required by the AF to provide weather support to the Army.

g. CG, Installation Management Command, will—

(1) Coordinate with Office of The Assistant Chief of Staff, Installation Management, DCS, G-3/5/7, and DCS, G-2 to ensure AF weather personnel are provided with facilities that meet mission essential functionality and Army standards.

(2) Provide oversight for the fielding of fixed meteorological equipment at Installation Management Command (IMCOM) garrisons. Ensure procedures are in place to staff all weather equipment related documentation through HQ IMCOM.

*h.* The commanders, ACOMs, ASCCs, DRUs, ARNG commanders, and responsible Regular and Reserve Component (RC) commanders at all levels will—

(1) Submit requests for weather services information and needs in accordance with AR 5–25.

(2) Program for and provide support and for weather operations, communications, training, administration, budget, and logistics to supporting AF personnel as outlined in this regulation and in AR 5–25.

(3) Ensure standard Army equipment is issued to the AF, including that listed in the modified table of organization and equipment (MTOE), table of distribution and allowances (TDA), and common table of allowances (CTA).

(4) Guide and facilitate AF efforts to meet Army COMSEC requirements.

*i.* The CG, U.S. Army Forces Command will—

(1) Manage combat training centers for AF weather personnel in order for them to support their aligned Army commanders and exercise combat skills.

(2) Communicate contingency weather support requirements through DCS, G–3/5/7 to Joint Staff to support real world deployments of operational forces.

(3) Provide recommended (MTOE) items for Army Contingency Force mission sets (regionally aligned forces, global response force, and so forth) to DCS, G–3/5/7 for validation.

*j.* The CG, TRADOC will—

(1) Lead Army development of Army-AF inter-Service weather operations and services concepts and doctrine required to conduct Army operations in coordination with AF SWOs and Army SMEs at TRADOC units.

(2) Document standard Army equipment for use by AF weather personnel in the appropriate force design (see AR 71–32).

(3) Provide FDUs and basis of issue plans for all operational weather elements in coordination with USAICOE and DCS, G–2 to the DCS, G–3/5/7 for approval (see AR 71–32).

(4) Develop and/or provide operational architectures for transmission of meteorological data and information on Army systems.

(5) Develop solutions for deficiencies within the Army’s area of responsibility specified in this chapter, in coordination with AF SWOs and SMEs at TRADOC units.

(6) Develop, validate, staff, and recommend to the DCS, G–3/5/7 and DCS, G–2 perceived shortfalls across all DOTMLPF domains in the AF’s ability to meet Army requirements for weather support and services and other perceived weather deficiencies within the AF’s area of responsibility.

(7) As the Army requirements lead, coordinate with Warfighting Function Centers of Excellence, DCS, G–2, Army Staff directorates and agencies, the AF and other principal stakeholders, including academia and industry, as applicable, to develop, validate, and forward Army weather support requirements to the Army Requirements Oversight Council Process Review Board/Army Requirements Oversight Council, as required by the JCIDS process.

(8) Prepare, coordinate, and obtain validation and approval of weather capabilities documents and supporting analyses per AR 71–9.

(9) In coordination with appropriate stakeholders, conduct formal technical exchange meetings with respective to AF Weather organizations to refine Army weather support requirements and assist in capabilities development.

*k.* The CG, U.S. Army Materiel Command will—

(1) Through the Research, Development and Engineering Command, will coordinate weather R&D programs with comparable AF program offices to ensure Army meteorological capabilities are compatible with AF weather R&D programs.

(2) Provide logistics and sustainment of Army-owned weather capabilities.

## **2–2. Operations responsibilities**

*a. Weather support.* The Army will leverage AF-provided weather support and services for Army training, planning, and operations through aligned, direct support, and general support AF personnel and organizations. When the AF cannot meet its weather support responsibilities, the respective AF component or major command will formally notify the respective Army component or ACOM. The Services will then coordinate to determine if a contract vehicle is appropriate to mitigate the shortfall and assign appropriate responsibilities.

*b. Weather sensing in the deployed environment.* Outside of air and space environmental data and information collected by the AF, the Army provides for the collection of deployed weather data when the Army deems necessary, both full observations and limited parameters and/or elements (for example, ceiling and visibility only, temperature only, soil moisture, soil temperature, and snow depth) from traditional and non-traditional sources (for example, manned and unmanned

aerial systems, indigenous sources, and so forth). During intelligence and weather collection planning, the Army will request SWO expertise to determine the best locations to emplace Army-owned weather sensing equipment. The Army will share weather information from Army-owned weather sensing equipment to the AF whenever possible. The Army will procure AF recommended operational weather sensing equipment and sensors whenever possible and will provide operational weather sensing equipment requirements to the AF.

*c. Deployed and/or installation support plans development.* The Army includes required AF weather operations and services needed for Army mobilization, contingency, and operations in appropriate planning documents.

(1) During mobilization and deployment planning, the Army provides to the AF the Army's requirements for weather support and services to enable deployment, RC mobilization, and Army residual forces, installations, garrisons, airfields, heliports, and helipads.

(2) During contingency and operations plans development, the Army, in coordination with their respective SWO, provides to the AF the Army's requirements for weather services to support operations in accordance with the Adaptive Planning and Execution (APEX) and Joint Operational Planning and Execution System (JOPES). In coordination with the AF, the Army includes and synchronizes Army-provided equipment used to support AF weather forces in the Time-Phased Force Deployment Database (TPFDD).

*d. Installation support.* The Army identifies, documents, prioritizes, validates, and approves Army airfield, heliport, helipad, and installation weather requirements.

(1) The Army will provide weather sensing equipment at Army installations not meeting the criteria listed in paragraph 3-2d.

(2) Absent compelling circumstances, weather observations obtained from this equipment should be made available to AF reachback organizations to improve weather support at that location (for example, resource protection). Likewise, the Army should participate in the AF's weather sensing programs of record and procure systems leveraging existing or planned AF contracts for weather sensing capabilities.

(3) Army personnel with access to the observation will provide the observations to the AF upon request.

*e. Artillery meteorology.* The Army will integrate AF-approved weather model data and modeling software into Army Field Artillery Systems (for example, the Army's Profiler Program of Record).

*f. Range support.* The Army provides weather sensing at Army ranges, as required, and will provide these observations and limited parameters/elements to the AF whenever possible.

*g. Research, development, test and evaluation.* The Army will provide weather support and services to Army research, development, test, and evaluation (RDT&E). The Army will conduct R&D on fine scale/microscale weather models and tools to support Army laboratories conducting RDT&E, and RDT&E test ranges and centers. The Army will conduct R&D verification and validation for Army microscale models. The Army will provide the AF with microscale R&D prototype models to be considered for operational use. The Army will coordinate with the AF to ensure prototype fine scale and/or microscale models are compatible with the AF's operational numerical weather model capability. The AF will verify and validate Army-developed weather model capabilities selected for operational use, which reside at AF weather squadrons supporting Army operations, in accordance with paragraph 3-2d. The Army will verify and validate the accuracy of meteorological inputs and approve for implementation to meet Army Field Artillery System requirements.

*h. Weather decision and exploitation tools.* The Army will determine critical and operationally significant threshold values for weather effects on Army systems, capabilities, weapon systems, component systems, and land component threat systems. The Army will provide this information and Army-developed, Soldier-level decision aids and exploitation tools to the AF to be considered for operational use. The Army will develop prototype decision aids and exploitation tools in coordination with the AF to be integrated into a common set of exploitation tools and decision aids for operational use by the AF and the Army.

*i. Vehicle licensing and dispatch.* The Army delegates vehicle dispatch and employment authority to the supporting AF SWO comparable to that provided to the supported Army commander's senior and special staff. Per AR 600-55, the Army recognizes validated AF-issued operator licenses that meet reciprocity requirements for dispatch and operation of Army vehicles (also see para 3-4c).

*j. Staff supervision.* The SWO is a member of the supported commander's special staff. The Army will provide staff guidance to assist the SWO in executing their duties. The supported Army commander or his designee will provide written performance input and/or feedback to the commander of the supporting SWO upon request.

*k. Chemical, biological, radiological, nuclear, high-yield explosive.* The Army develops and provides chemical, biological, radiological, nuclear and high-yield explosive (CBRNE) models and decision aids and makes derived weather information from the models and decision aids available to the AF whenever possible.

*l. Hydrological products.* The Army, with inputs from SWOs and/or weather SMEs as required, develops and provides hydrological studies, forecasts, and decision aids for military training, operations, and emergency purposes.

*m. Weather services hardware and/or software.* The Army integrates AF-provided weather services capabilities into an ACOM and control system (for example, the Army's Intelligence System) and will collaborate and/or work with the AF to ensure weather services capabilities interface with, are interoperable with, and are compatible with Army-provided hardware.

### **2-3. Communications responsibilities**

*a.* The Army manages and operates Campus Area Networks for Army and AF personnel on Army posts, camps, and stations and provides required information technology services at both common-user (baseline) and mission unique (above-baseline) basis, to include personnel meeting certification requirements under DOD 8570.01-M, to assist in sustainment of AF weather systems on Army networks. These categories of service provisioning are broken down in the Army's Command, Control, Communications, Computers and Information Management Services List available for review at the following site (select your Email Certificate when prompted) <https://www.itmetrics.hua.army.mil/>.

*b.* The Army programs for, and provides, installs, tests and evaluates, operates, and maintains secure and non-secure communications to move data (for example, weather)—

(1) Within the Army operational network (for example, around the tactical operations area), from the theater downlink site, to the theater uplink site, and to and/or from the Joint forces theater entry point. Respective Army Network Enterprise Centers (NECs) provide baseline IT services on both secure and non-secure communications networks to the AF weather organizations that provide support to the Army without reimbursement from the AF in accordance with AR 5-25.

(2) Within the Army institutional network (for example, around the installation) to include ranges and airfields. Army NECs provide above-baseline requirements to tenants based on service level agreements contracted between the tenant and the respective NEC.

(3) To ensure weather information is provided in a timely manner to Army commanders for the purpose of resource protection and aviation safety, firewall exemptions, SWO email and communications connectivity should be considered a high priority.

### **2-4. Training responsibilities**

*a. Army personnel.* The Army trains Army personnel on the following:

(1) Weather effects on Army operations and warfighting functions, weather information exploitation, and integration of weather information into decisionmaking processes, mission planning, execution, and sustainment.

(2) Requesting or obtaining weather support and services from AF or Army sources. For AF sources, the Army will seek advice and collaborate with the AF on the proper process to request and obtain weather services for inclusion into Army training content.

(3) Weather operations and equipment that are an Army responsibility.

(4) The roles, responsibilities, and operational concepts of AF weather operations through use of AF-developed or provided lesson plans and materials.

*b. Army funds.* The Army funds or provides training for AF personnel on—

(1) Army doctrine, organization, planning and operations concepts, requirements, and processes. The Army does not fund travel and per diem for formal AF Air Education and Training Command courses.

(2) Operations and user-level preventive maintenance checks of MTOE, TDA and CTA equipment.

(3) Weather effects on Army operations and warfighting functions, weather information exploitation, and integration of weather information into decisionmaking processes, mission planning, execution, and reconstitution sustainment operations.

(4) Common Soldier and deployed field skills that are not provided by standard AF formal training programs or that supplement basic skills obtained in AF training courses.

(5) Specialized tactical skills, as required, to support Army operations and training (for example, air assault; airborne; arctic survival; jumpmaster; survival, evasion, resistance, and escape).

(6) Safety and security issues necessary to operate in the Army environment.

*c. Army standards.* For proficiency, qualification, and certification training, the Army provides instructors, support personnel, range access, range operations, and all materials for AF personnel.

*d. Army coordination.* The Army coordinates with the AF to determine the level and types of training required.

### **2-5. Administration, budget, and logistics responsibilities**

The Army programs for and provides (on a non-reimbursable basis from the AF)—

*a.* Capabilities, personnel, and equipment identified as an Army responsibility in this regulation.

- b.* Assistance to AF weather organizations in Army programming and budget submissions. The Army provides funding in the supported Army units' budget for execution by the AF SWO to support the AF's installation, garrison, and deployed weather operations and training.
- c.* Budget, supply, clerical, and administrative services as well as logistical and intelligence expertise and support commensurate with, and comparable to, the supported Army unit.
- d.* Office space and furniture, office equipment, vehicle and equipment storage facilities, and real property to house AF personnel conducting administration, weather operations, maintenance, and training. The Army provides operation and maintenance of real property and other Army-owned facilities and equipment provided for use by AF personnel.
- e.* Special Security Office (SSO) support, required sensitive compartmented information (SCI) access for eligible AF personnel, and SCI access management (as defined in DODM 5105.21, Volume 3). The Army also provides dedicated storage of classified materials and other intelligence support (for example, threat briefings).
- f.* COMSEC account manager services, COMSEC equipment and material, and dedicated storage for COMSEC equipment and material.
- g.* Armorer services, when both required by Army Policy and within the capabilities of the Army armorer, to store weapons and ammunition dedicated to AF weather personnel. Army weapons and ammunition issued to AF personnel will meet Army standards.
- h.* Standard Army ammunition for proficiency training and operations.
- i.* Preventive, organizational, and/or unit-level, scheduled, and depot maintenance, fuels, lubricants, and parts for Army and AF provided vehicles, generators, radios, and trailers (the AF will reimburse the Army for parts required on AF-provided vehicles, generators, radios, and trailers.) These services will also be provided to AF RC weather units not collocated with their supported Army unit. The AF RC unit coordinates with the nearest Army maintenance support activity for their preventive, organization, scheduled, and depot maintenance on their assigned Army equipment.
- j.* Procurement, preventive, organizational and/or unit-level, scheduled, and depot maintenance, operation, and sustainment of Army-provided equipment including that listed in the MTOE, TDA and CTA and other equipment required to operate in the Army-deployed environment.
- k.* Non-deployed vehicles on a dispatch basis to conduct administrative tasks, installation support, and operational support functions comparable to the supported Army unit or HQ. The Army will delegate vehicle dispatch and employment authority to the supporting AF SWO comparable to that provided to the supported Army commander's senior and special staff.
- l.* Installation services (comparable to those provided to Army organizations, personnel, and families) to AF organizations, personnel, and families to include, but not limited to, those shown in appendix B.
- m.* Installation and deployed IT equipment, connectivity, and services.
- n.* Non-standard services and equipment required by the Army but not available from the AF comparable with that furnished to the supported Army unit.
- o.* The CBRNE equipment required or issued by the Army, but not provided by the AF.
- p.* Individual equipment required or issued by the Army, but not provided by the AF.
- q.* Building construction maintenance and utilities including, but not limited to, heating and/or air conditioning, electricity, gas, water, sewage, garbage collection, housekeeping supplies, and fee-for-service utilities (for example, fixed and mobile telephone, pagers, cable).
- r.* Allied support (for example, structures, foundations, environmental control (for example, asbestos abatement/removal), communication cables (for example, copper, fiber, power, and so forth)) to prepare sites for installation and fielding of AF-provided weather equipment. Technical details will be coordinated with installation agencies responsible for allied support during the site survey. The Project Support Agreement (PSA) will outline all allied support technical details.
- s.* Training quotas for AF personnel requiring specialized skills training in accordance with paragraph 2-4*b*.
- t.* Functional area SMEs to assist AF development of instructional materials for use in AF courses and continuation training programs.
- u.* Travel and per diem of AF personnel, conducting weather operations and providing weather services in support of the Army, for training and non-contingency operations per the Joint Travel Regulation and applicable AF instructions unless provided in-kind. The Army funds for non-collocated (supplemental) AF personnel only after arrival at the supported Army unit's location (see para 3-5*b*).
- v.* Travel and per diem for AF-provided weather subject matter expertise and/or SMEs supporting Army safety investigation boards, for AF weather SMEs supporting airfield inspection and certification, and for AF weather SMEs when required to certify Army-procured weather sensing systems.
- w.* Shipment of weather equipment assigned to collocated AF units and/or elements for Army training and non-contingency operations. The Army funds shipment of non-collocated (supplemental) equipment only after arrival at the supported unit's location.

- x. Maintenance technicians for required on-site maintenance tasks for select AF-funded equipment as agreed to (through an exception to policy) by HQ USAF/A3W; DCS, G-2; G-3/5/7; and/or the NGB where the AF cannot fulfill their responsibility according to paragraph 3-5e.
- y. See AR 5-25 for additional guidance on Army funding responsibilities.

## **Chapter 3**

### **Air Force Responsibilities**

#### **3-1. General**

HQ USAF, through A3, will—

- a. Manage AF weather resources, develop plans and concepts, and establish policy to address Army-validated requirements that are the responsibility of the AF.
- b. Coordinate with DCS, G-2 on weather policy and requirements issues.
- c. Coordinate with DCS, G-3/5/7, DCS, G-2 IMCOM, and ARNG through the Air National Guard on Army installation and aviation/airfield support policy, requirements, resources, programs, and priorities.
- d. Coordinate with Secretary of the Air Force, Information Dominance and Chief Information Officer and CIO/G-6 on communications and IT issues.

#### **3-2. Operations responsibilities**

a. *General.* In accordance with the CJCSI 3810.01D, the AF is responsible for meteorological operations in support of the Army and provides—

(1) Weather support and services for all Army training, planning, and operations first through the AF weather unit aligned with the supported Army unit, then through other units as determined by the AF. If the Army procures operational contract weather support, the AF is not liable for the timeliness, accuracy, reliability, or relevancy of weather data and information provided to the Army by the contractor.

(2) Tailored mission planning and mission execution weather services for Army-manned aviation and Joint category 3-5 unmanned aircraft systems (UAS) via direct support. The AF provides general aviation planning and execution weather data and information for small UAS (SUAS) via general support.

(3) Formal coordination with DCS, G-2 on AF-developed weather policies and concepts.

(4) Weather personnel colocated with DCS, G-2 to assist with the coordination of Army weather policy, with TRADOC to assist with Army requirements development and determination, capabilities assessments, doctrine, training, and concepts development, and with the NGB to manage the NGB weather program and weather support to the ARNG.

(5) Weather SMEs to participate in Army airfield inspections and certifications.

(6) Tailored climatological information and long-range outlooks in direct support of Army planning and operations through the designated AF SWO.

(7) Technical assistance to the Army as they develop materiel/nonmateriel solutions to meet the Army's weather responsibilities. Additionally, the AF schedules and organizes formal technical exchanges with TRADOC and other stakeholders to refine Army weather support requirements.

(8) Weather subject matter expertise and data and information tailored to assist Army hydrological forecasting, terrain analysis, and mobility assessments.

b. *Deployed and/or installation support plans development.* During mobilization, deployment and/or redeployment, contingency and emergency management/response plan development and in coordination with the supported Army commander, the AF develops a plan to provide the Army with weather services to support Regular and RC mobilization, deployment and/or redeployment, contingency operations, stay-behind forces, installations, garrisons, and airfields. During mobilization, deployment, and emergency management and/or response planning, the AF will provide staff weather services for the garrison commander.

c. *Deployed support.* The AF provides—

(1) The personnel and equipment to support Army-deployed operations and Army weather requirements in deployed, contingency, and/or wartime operations as described in Joint Chiefs of Staff-directed operations plans and operations orders as reflected in the task organization of these and component plans and orders. Organizations providing reachback support are included in these plans and orders as tasked organizations. Detailed weather planning and coordination of the array of requirements that generate reliable, quality weather support and services are critical to successful operations.

(2) Qualified individuals to attend specialized tactical or mission-specific Army-provided training based on the Army mission supported as deemed appropriate by the AF command authority.

(3) TPFDD entries for AF personnel and AF-provided equipment unit type codes (see para 2-2c(2)).

(4) AF personnel aligned at the following Regular and RC echelon HQ in direct support of—ASCCs, corps, divisions, combat aviation brigades (CABs) (to include aviation battalions), brigade combat teams (BCTs), armored cavalry regiments, special forces groups, special forces battalions, ranger regiments, and special operations aviation regiments, both in garrison and when deployed. The AF may task organize and align personnel at other echelons based on the Army mission supported and as deemed appropriate by the AF command authority. The Air National Guard will align weather flights in support of ARNG BCTs, theater aviation brigades, and expeditionary CABs.

*Note.* Air National Guard weather flights are not normally co-located (same state) as ARNG units.

(5) Advice to Army leadership during determination of emplacement locations for Army-owned weather sensing equipment.

*d. Installation weather services.* The AF provides—

(1) Weather services supporting activities on select Army installations such as: operational tenant units, the garrison commander and staff, airfield, range operations, emergency management and/or response (for example, hurricane/tropical cyclone warnings and watches), mobilization and training. Support at each location will be documented/updated in a local weather support regulation according to Air Force Manual (AFMAN) 15–129, Volume 2 and DA Pam 25–40.

(2) Weather sensing equipment capabilities to meet weather observing requirements at only those operational Army air traffic controlled airfields, heliports, and helipads with approved Federal Aviation Administration Class D airspace, unless deemed operationally necessary by the U.S. Army Aeronautical Services Agency and approved by HQ USAF/A3.

(3) Personnel to augment (supplement and backup) automated weather sensing capabilities at locations where the AF provides equipment as defined in paragraph 3–2d(2).

(4) Reachback weather services and support for NGB-identified continental United States ARNG facilities.

(5) The Army with recommendations on the purchase of standard weather sensing equipment to assist the Army in meeting its applicable responsibilities for deployed, installation, airfield, heliport, helipad, and range weather sensing. The AF will ensure AF contracts for weather sensing equipment include an option for the Army to purchase these systems. The AF will assist the Army with required system certifications until an Army certification program is in place. If the Army uses AF contracts to purchase weather sensors or sensing equipment for the Army, the Army will provide maintenance, parts, and life-cycle management of those systems within Army Resources, in accordance with AR 5–25.

*e. Numerical weather modeling.* The AF leads numerical weather modeling efforts to fulfill Army operational requirements. The AF will include and integrate land-surface (soil moisture, temperature, snow characterization) and other relevant (for example, atmospheric chemical constituents, aerosols) parameters into numerical weather modeling products. The AF in coordination with the Army will verify, validate, approve, and implement prototype microscale models developed by the Army (see para 2–2f) for operational use. The Army will verify and validate the accuracy of meteorological inputs and approve for implementation to meet Army Field Artillery System requirements.

*f. Environmental scenarios.* Through Army coordination with the designated SWO, the AF provides or arranges (within means and capabilities) a replication of the operational weather environment to support Army training and operational systems during BCT and higher-level exercises, aviation battalion and higher exercises, special forces battalion and higher exercises, and for weapons system simulators.

*g. Weather decision aids and exploitation tools.*

(1) The AF provides critical and operationally-significant threshold values for weather impacts on AF and air component threat (including air defense) systems to the Army.

(2) The AF will assist the Army with the development of deployed and operational level decision aids and exploitation tools. The AF will collaborate with the Army to develop one common set of exploitation tools and decision aids to be employed operationally with AF weather capabilities in support of the Army.

*h. Weather services hardware and/or software.* The AF will provide an AF weather services capability and collaborate with the Army to ensure it interfaces with and/or is interoperable with an ACOM and control system (for example, the Army's intelligence system).

*i. Air Force systems development.* Through the JCIDS process, the AF, with Army assistance, designs systems to operate in the deployed environment and meet Army standard criteria for tactical mobility, target signature, and communications capability and accreditation.

*j. Office of the Federal Coordinator for Meteorology liaison.* The AF provides a liaison to the Office of the Federal Coordinator for Meteorology to facilitate coordination of weather issues that affect both the AF and Army at the Federal Government level.

### **3–3. Communications responsibilities**

*a.* The AF funds, provides, installs, tests and evaluates, operates and maintains secure and non-secure communications to move weather data, information, and products, based on AF-validated requirements—

(1) Within AF information networks from/to the theater uplink site for use at Army locations (where the Army is the using command), and to/from the Joint forces theater entry point.

(2) Within AF information networks (for example, around a base or its ranges).

b. The AF will meet Army-specific security and information assurance certification/accreditation requirements for AF-provided equipment and software that are expected to operate on Army garrison/installation locations and/or on Army-deployed networks.

c. AF weather functional systems do not fund to operate or maintain any specific or unique information network and rely solely on the AF information networks.

d. The AF provides access to its weather data, information, and products via reachback and web-services to strategic, operational, and regional units operating within AF information networks (for example, weather groups, air operations centers, and operational weather squadrons).

### **3-4. Training responsibilities**

a. The AF trains AF personnel—

(1) On technical weather skills required to conduct weather operations and provide weather services in support of the Army.

(2) To operate and perform user-level maintenance of AF-provided weather equipment and software.

b. The AF trains Army—

(1) Commanders and staff of Army units on AF weather operational capabilities, concepts, and limitations. This includes, but is not limited to, the importance of established communications capability, sufficient transportation, and CBRNE equipment to employ weather as an enabler in support of Army operations.

(2) Personnel to take and disseminate supplemental weather observations in support of Army operations. This training is provided to, but is not limited to, specified air traffic controllers, military intelligence, aviation support, and Special Forces personnel.

(3) Maintenance technicians on required on-site maintenance tasks for select AF-funded weather equipment, as agreed to in para 2-5x. The AF will provide or arrange for the same level of training (using provided Army funds) for Army-funded weather equipment during initial installation, or as requested.

c. AF commanders validate that AF-issued operator licenses meet, or arrange training to meet, the inter-Service reciprocity requirements stated in AR 600-55.

d. AF provides functional area SMEs to assist Army development of instructional materials for use in Army courses and continuation training programs. This includes, but is not limited to, providing lesson plans and materials required for Army instructors to teach the roles, responsibilities, and operational concepts of AF weather operations to Army personnel.

### **3-5. Administration, budget, and logistics responsibilities**

The AF funds and provides (on a non-reimbursable basis from the Army)—

a. Manpower (for example Regular and RC military, Government civilian, contractor) to conduct weather operations and provide weather services that are the responsibility of the AF as specified in this regulation.

b. Travel and per diem of non-collocated AF personnel conducting weather operations and providing weather services in support of the Army to the supported Army unit's location for training and non-contingency operations.

c. AF-unique training, professional development, and other requirements as specified in AF Instructions, and all associated temporary duty (TDY) costs.

d. Shipment of equipment (supplemental) owned by non-collocated AF organizations to the supported Army unit's location for training and non-contingency operations.

e. Installation, test and evaluation, technicians to maintain/troubleshoot/repair, spare and consumable parts of all AF-provided fixed and deployed weather equipment except as stated in paragraph 2-5x. The AF leads PSA development and provides technical assistance to Army allied support efforts.

f. Depot-level maintenance for AF-provided vehicles.

g. Standard individual equipment issued to AF personnel.

h. Deployed equipment to supplement Army-provided MTOE items as required.

i. Functional area SMEs to assist Army development of instructional materials for use in Army courses and continuation training programs.

j. Pay (for example, hazardous and special duty) and allowances for AF personnel-except travel pay and per diem when those items are identified as an Army responsibility in chapter 2.

k. The AF will supply ammunition for AF armorers.

l. Management of any operational support contracts as described in paragraphs 2-2a and 3-5a.

## **Appendix A**

### **References**

#### **Section I**

##### **Required Publications**

###### **AR 600–55**

The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing) (Cited in para 2–2*i*.)

###### **DOD 8570.01–M**

Information Assurance Workforce Improvement Program (Cited in para 2–3*a*.)

###### **DODM 5105.21, Volume 3**

Sensitive Compartmented Information (SCI) Administrative Security Manual: Administration of Personal Security, Industrial Security, and Special Activities (Cited in para 2–5*e*.)

#### **Section II**

##### **Related Publications**

A related publication is a source of additional information. The user does not have to read it to understand this publication. Unless otherwise indicated, DA publications are available on the Army Publishing Directorate website (<https://armypubs.army.mil/>). AF publications are available on the AF website at <http://www.e-publishing.af.mil/>. DoD publications are available on the Office of the Secretary of Defense website (<http://www.esd.whs.mil/dd/>). Joint publications are available on the Joint Electronic Library website (<http://www.jcs.mil/doctrine/joint-doctrine-pubs/>).

###### **AFI 15–128 and MAJCOM Supplements**

Air Force Weather Roles and Responsibilities

###### **AFMAN 15–111**

Surface Weather Observations

###### **AFMAN 15–129, Volume 2**

Air and Space Weather Operations - Exploitation

###### **AR 5–25**

Army Weather Functional Activities

###### **AR 11–2**

Managers' Internal Control Program

###### **AR 25–1**

Army Information Technology

###### **AR 25–2**

Information Assurance

###### **AR 25–30**

Army Publishing Program

###### **AR 71–9**

Warfighting Capabilities Determination

###### **AR 71–32**

Force Development and Documentation

###### **AR 95–1**

Flight Regulations

###### **AR 95–2**

Air Traffic Control, Airfield/Heliport, and Airspace Operations

###### **AR 420–1**

Army Facilities Management

**CJCSI 3810.01E**

Meteorological and Oceanographic (METOC) Operations

**DA Pam 25–40**

Army Publishing Program Procedures

**Department of Defense Dictionary of Military and Associated Terms**

(Available at <http://www.jcs.mil/portals/36/documents/doctrine/pubs/dictionary.pdf>.)

**DODD 4715.21**

Climate Change Adaptation and Resilience

**DODD 8000.01**

Management of the Department of Defense Information Enterprise

**FM 6–0**

Commander and Staff Organization and Operations

**JP 1**

Doctrine for the Armed Forces of the United States

**JP 3–0**

Joint Operations

**JP 3–30**

Command and Control of Joint Air Operations

**JP 3–59**

Meteorological and Oceanographic Operations

**JP 5–0**

Joint Operation Planning

**NGB Pam 210–20**

Real Property Development Planning Procedures for the Army National Guard

**Section III**

**Prescribed Forms**

This section contains no entries.

**Section IV**

**Referenced Forms**

DA forms are available on the Army Publishing Directorate website at <https://armypubs.army.mil>. AF forms are available from the AF website at <http://www.e-publishing.af.mil/>.

**AF Form 847**

Recommendation for Change of Publication

**DA Form 2028**

Recommended Changes to Publications and Blank Forms

## Appendix B

### Army Services Provided to Air Force Personnel

#### B-1. Services

Per paragraph 2-51, Army services provided to AF personnel include, but are not limited to, the following:

- a.* Accounting and finance.
- b.* Billeting and temporary lodging.
- c.* Chaplain.
- d.* Chapel and religious.
- e.* Child development.
- f.* Contracting.
- g.* COMSEC storage and COMSEC account manager.
- h.* Dental and medical (provided according to existing DOD policies and AF instructions).
- i.* Education and schools.
- j.* Equal Opportunity Office.
- k.* Enterprise internet.
- l.* Enterprise email services.
- m.* Exchange and commissary.
- n.* Family and unaccompanied housing.
- o.* Family support.
- p.* Fire and police.
- q.* Furnishing for Family and unaccompanied housing, when applicable.
- r.* Hazardous materials and environmental protection.
- s.* Inspector General.
- t.* Legal.
- u.* Library.
- v.* Mess, field rations, and dining.
- w.* Morale, welfare, and recreation.
- x.* Mortuary.
- y.* Packing and crating.
- z.* Pass and identification.
- aa.* Postal.
- bb.* Public affairs.
- cc.* Recreation and physical training facilities.
- dd.* Sexual harassment/assault response and prevention training.
- ee.* SSO and personnel security services.
- ff.* Transportation office services (for example, personal property, permanent change of station, TDY, and deployed equipment shipment).
- gg.* Veterinary.
- hh.* Youth services.

#### B-2. Exceptions

Civilians and contractors may not be eligible for some of these services per regulation or law.

## **Glossary**

### **Section I**

#### **Abbreviations**

**ACOM**

Army command

**AF**

Air Force

**AF/A3W**

Air Force Director of Weather

**AFI**

Air Force Instruction

**AFMAN**

Air Force manual

**APEX**

Adaptive Planning and Execution

**AR**

Army Regulation

**ARIMS**

Army Records Information Management System

**ARNG**

Army National Guard

**ASA (ALT)**

Assistant Secretary of the Army (Acquisition, Logistics and Technology)

**ASCC**

Army service component command

**BCT**

brigade combat team

**C4IM**

Command, Control, Communications, Computers and Information Management

**CAB**

combat aviation brigade

**CBRNE**

chemical, biological, radiological, nuclear and high-yield explosives

**CG**

commanding general

**CIO/G-6**

Chief Information Officer, G-6

**COMSEC**

communications security

**CTA**

common table of allowance

**DCS**

Deputy Chief of Staff

**DOD**

Department of Defense

**DODD**

Department of Defense directive

**DOTMLPF**

doctrine, organization, training, materiel, leadership and education, personnel and facilities

**DRU**

direct reporting unit

**FDU**

Force design update

**HQ**

Headquarters

**HQ USAF**

Headquarters, United States Air Force

**IMCOM**

Installation Management Command

**IT**

Information technology

**JCIDS**

Joint Capability Integration and Development System

**JOPES**

Joint Operational Planning and Execution System

**JP**

Joint Publication

**MTOE**

modified table of organization and equipment

**NEC**

Network Enterprise Center

**NGB**

National Guard Bureau

**OPCON**

Operational control

**R&D**

research and development

**RC**

Reserve Component

**RDT&E**

research, development, test, and evaluation

**RRS-A**

Records Retention Schedule-Army

**SCI**

sensitive compartmented information

**SME**

subject matter expert

**SSO**

Special Security Office

**SUAS**

small unmanned aircraft system

**SWO**

staff weather officer

**TDA**

table of distribution and allowances

**TDY**

temporary duty

**TPFDD**

time-phased force deployment database

**TRADOC**

U.S. Army Training and Doctrine Command

**UAS**

unmanned aircraft system

**UAV**

unmanned aerial vehicle

**USAF**

U.S. Air Force

**USAF/A3**

U.S. Air Force Deputy Chief of Staff for Operations, Plans and Requirements

**Section II****Terms****Administrative control**

Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called ADCON. (JP 1)

**Air Force personnel**

In the context of this regulation, AF-provided military, civilian, and contractor personnel conducting weather operations, providing weather services, commanding and/or controlling weather operations and/or services, and operating or maintaining weather systems. Note: civilians and contractors may not provide or be eligible for some services per regulation or law.

**Airfield**

An area prepared for the accommodation (including any buildings, installations, and equipment), landing, and takeoff of aircraft. See also departure airfield; landing area; landing site. (DOD Dictionary of Military and Associated Terms)

**Airfield weather services**

For an installation, garrison, or deployed airfield— 1) Augmenting (supplementing/backing-up) automated systems when required or manually taking, recording, and disseminating surface weather observations; 2) Issuing, amending, and canceling forecast and observed weather watches, warnings, and advisories; 3) Producing and amending terminal aerodrome forecasts.

**Align/Aligned/Alignment**

AF weather squadrons and their subordinate detachments are normally assigned to specific Army units to provide support. However, AF squadron commanders also possess inherent flexibility to assign their personnel resources to meet Army weather support and services requirements. This could include the use of assigned forces to support a non-aligned Army unit IAW standard Air Force Global Force Management (GFM) policy.

**Augmentation (automated weather observing system)**

The process of having certified weather personnel manually add or edit data to an observation generated by a properly sited, automated observing system. The two augmentation processes used are supplementing and backup.

**Backup (automated weather observing system)**

The method of manually providing meteorological data, and/or dissemination to an automated weather observation when the primary automated method is not operational or unavailable (due to sensor or communication failures) or when unrepresentative and operationally significant.

**Collection plan**

A systematic scheme to optimize the employment of all available collection capabilities and associated processing, exploitation, and dissemination resources to satisfy specific information requirements. (DOD Dictionary of Military and Associated Terms)

**Deployed**

1) Away from home station to conduct training or operations in a contingency area of operations.  
2) Real-world or simulated deployed conditions and/or operations at home station, training centers, or other locations. Command post exercises, field training exercises, mission rehearsal exercises, and other exercises are considered deployed conditions and/or operations. (DOD Dictionary of Military and Associated Terms)

**Depot maintenance**

That maintenance performed on materiel requiring major overhaul or a complete rebuild of parts, assemblies, subassemblies, and end-items, including the manufacture of parts, modifications, testing, and reclamation as required. Depot maintenance serves to support lower categories of maintenance by providing technical assistance and performing that maintenance beyond their responsibility. Depot maintenance provides stocks of serviceable equipment by using more extensive facilities for repair than are available in lower level maintenance activities.

**Direct support**

A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. (DOD Dictionary of Military and Associated Terms)

**Emergency Management and Response**

Capabilities and services designed to reduce the loss of personnel and capabilities due to accidents, health threats, and natural disasters. (JP 3-0)

**Garrison force**

All units assigned to a post, installation, or area for defense, development, operation, and maintenance of facilities.

**General support**

That support which is given to the supported force as a whole and not to any particular subdivision thereof. (DOD Dictionary of Military and Associated Terms)

**Hydrology**

The scientific study of the waters of the earth, especially with relation to the effects of precipitation and evaporation upon the occurrence and character of water on or below the land surface. The scope of hydrology may be defined as that portion of the cycle from precipitation to evaporation or return of the water to the seas. Applied hydrology utilizes scientific findings to predict rates and amounts of runoff (river forecasting), estimate required spillway and reservoir capacities, study soil-water-plant relationships in agriculture, estimate available water supply, and for other applications necessary to the management of water resources.

**Information technology**

Any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information by the DOD component. The term "information technology" includes computers, ancillary equipment, software, firmware, and similar procedures, services (including support services), and related resources. (DODD 8000.01)

**Installation**

A grouping of facilities, located in the same vicinity, which support particular functions. Installations may be elements of a base.

**Maintenance (materiel)**

1) All action taken to retain materiel in a serviceable condition or to restore it to serviceability. It includes inspection, testing, servicing, classification as to serviceability, repair, rebuilding, and reclamation. 2) All supply and repair action taken to keep a force in condition to carry out its mission. 3) The routine recurring work required to keep a facility (plant, building, structure, ground facility, utility system, or other real property) in such condition that it may be continuously

used at its original or designed capacity and efficiency for its intended purpose. (DOD Dictionary of Military and Associated Terms)

**Meteorological data**

Measurements or observations of meteorological variables (such as wind, temperature, air density, and other phenomena that affect military operations). (DOD Dictionary of Military and Associated Terms) Note: In the context of this regulation, synonymous with weather data.

**Microscale**

Pertaining to meteorological phenomena, such as wind circulations or cloud patterns that are less than 2 kilometers in horizontal extent. (National Weather Service Glossary)

**Military requirement**

An established need justifying the timely allocation of resources to achieve a capability to accomplish approved military objectives, missions, or tasks. Also called operational requirement.

**Mission weather services**

Production of and provision of tailored mission planning and execution forecasts and mission-tailored weather effects (for example, weather impacts) to support operational decisionmaking and mission execution. Conducting mission-focused meteorological overwatch (also known as MISSIONWATCH) for the supported Army unit's area of operation.

**Operation and maintenance**

Maintenance and repair of real property, operation of utilities, and provision of other services such as refuse collection and disposal, entomology, snow removal, and ice alleviation. Also called O&M. (DOD Dictionary of Military and Associated Terms)

**Operational Architecture**

A description (often graphical) of the operational elements, assigned tasks, and information flows required to accomplish or support a warfighting function. It defines the type of information, the frequency of exchange, and what tasks are supported by these information exchanges.

**Operational control**

Command authority that may be exercised by commanders at any echelon at or below the level of combatant command and may be delegated within the command. Operational control (OPCON) is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations and joint training necessary to accomplish the mission. OPCON should be delegated to and exercised by the commanders of subordinate organizations; normally this authority is exercised through subordinate Joint force commanders, Service, and/or functional component commanders. OPCON provides authority to organize and employ commands and forces as the commander considers necessary to accomplish assigned missions. It does not include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. (JP 1)

**Organizational maintenance**

That maintenance that is the responsibility of and performed by a using organization on its assigned equipment. (DOD Dictionary of Military and Associated Terms)

**Preventive maintenance**

The care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. (DOD Dictionary of Military and Associated Terms)

**Reachback**

The process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed. (DOD Dictionary of Military and Associated Terms)

**Residual forces**

Unexpended portions of the remaining United States forces that have an immediate combat potential for continued military operations, and that have been deliberately withheld from utilization. (DOD Dictionary of Military and Associated Terms)

**Small Unmanned Aircraft Systems**

SUAS's are characterized by close range, short duration missions (for example, one to two hours). This class of UAS operates below the coordinating altitude identified in the airspace control plan.

**Staff supervision**

A staff relationship consisting of formal guidance and assistance provided to AF SWOs by the Assistant Chief of Staff, G-2 (S-2).

**Staff weather officer**

The AF senior weather representative (officer or non-commissioned officer) assigned to provide and/or arrange for weather support at a respective Army echelon.

**Staff weather services**

Providing the supported Army commander weather subject matter expertise during Army Airspace Command and Control collection management and/or intelligence, surveillance, and reconnaissance synch, military decisionmaking process, plans development, and other staff and decisionmaking processes and operations. Providing oversight of weather services provided to subordinate commanders of the SWO's supported Army commanders. Integration of tailored mission planning and/or execution forecasts and mission-tailored weather effects (for example, weather impacts) to support operational decisionmaking and mission execution.

**Supplement (automated weather observing systems)**

A method of manually adding meteorological information to an automated observation that is beyond the capabilities of the automated observing system to detect and/or report.

**Tactical Operations Center**

A command and control facility that serves as a planning, coordinating, monitoring, advising, and directing location for current deployed operations and the deployed support thereof.

**Unmanned aerial vehicle**

A powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable and can carry a lethal or non-lethal payload. Ballistic or semi ballistic vehicles, cruise missiles and artillery projectiles are not considered UAVs. (DOD Dictionary of Military and Associated Terms)

**Unmanned aircraft system**

That system whose components include the necessary equipment, network, and personnel to control an unmanned aircraft, referred to as UAS. (DOD Dictionary of Military and Associated Terms)

**Weather data**

See Meteorological Data.

**Weather operations**

Five core processes-collection, analysis, prediction, tailoring, and integration-to characterize the past, current, and future state of the atmosphere and space environment then enable the exploitation of this environmental information at key decision points.

**Weather services**

The result of specialized actions to supply or meet a request for weather data, information, or products.

**Section III****Special Abbreviations and Terms****IP**

Interservice Publication

**O&M**

operations and maintenance

**PEO-IEWS**

Program Executive Office-Intelligence, Electronic Warfare and Sensors

**PSA**

Project Support Agreement

**USAICOE**

U.S. Army Intelligence Center of Excellence

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