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**Weather**



**WEATHER SUPPORT TO AIR FORCE  
RESERVE UNITS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction describes weather operations and responsibilities for support to Air Force Reserve (AFRC) units. It implements policy in AFRD 15-1, *Atmospheric and Space Environmental Support*, and provides responsibilities, guidance, and objectives for AFRC commanders, airfield managers, and weather station managers.

**1. General Responsibilities:**

1.1. HQ AFRC/DO (Weather Services Section):

- 1.1.1. Provides functional area expertise and assistance to all levels of command within AFRC.
- 1.1.2. Develops guidance and standardizes procedures for weather support within the Air Force Reserve when HQ USAF guidance or standard procedures do not apply.
- 1.1.3. Assists in the planning and programming for weather support resources.
- 1.1.4. Advocates for weather support resources as required by AFRC flying units.
- 1.1.5. Develops the concept of operations and manpower requirements for AFRC weather support functions. Writes DoD civilian position descriptions upon request of the hiring authority (normally the Operations Group Commander).
- 1.1.6. Acts as the technical advisor for weather service contracts and assists the contract functional area chief.
- 1.1.7. Performs quality evaluation of weather support by AFRC units and installations. Conducts assistance visits upon request of AFRC unit commanders.
- 1.1.8. Augments inspection teams to evaluate weather support at AFRC installations.
- 1.1.9. Coordinates personnel management policy for AFSC 1W0X1X and GS-1340/1341.

1.1.10. Assists MAJCOMs with the management of the weather Individual Mobilization Augmentee (IMA) program.

1.2. AFRC Numbered Air Forces (NAFs):

1.2.1. Review unit plans and requests which are submitted through command channels.

1.3. Operations Group Commanders (OG/CC):

1.3.1. Are responsible for weather support to installations, flying units, and activities under their operational control.

1.3.1.1. Provide on-site weather support at installations where AFRC is the host and has responsibility for airfield operations (air traffic control, base operations, and weather).

1.3.1.2. Utilize host services or off-site support at installations where another agency is responsible for airfield operations.

1.3.2. Plan and program for weather support resources.

1.3.3. Approve the base weather support document at AFRC bases.

1.3.4. Perform functional area chief duties for weather services contracts on their installations.

1.3.5. Coordinate weather support for off-site OREs/ORIs through HQ AFRC/DO and the gaining MAJCOM Directorate of Weather (DOW).

1.3.5.1. Will not deploy in-place DoD civilian weather technicians in support of off-site exercises without prior coordination with HQ AFRC/DO.

1.4. Chiefs of Airfield Operations/Ops Support Flight Chiefs:

1.4.1. Provide supervision and guidance to the supervisory meteorological technician.

1.4.2. Ensure that administrative resources within the flight are shared equally among the functional areas.

1.4.3. Assist in resolving shortfalls and problems which cannot be resolved by the supervisory meteorological technician.

1.4.4. May perform functional area chief duties for weather services contracts as delegated by the OG/CC.

1.5. Supervisory Meteorological Technicians:

**(NOTE:** At installations where weather support is provided by a contract, these duties will be performed by the contractor, quality assurance evaluator or functional area chief, as specified in the performance work statement.)

1.5.1. Manage weather functions and perform duties as stated in the position description or weather services contract.

1.5.2. Assist in accomplishing budgeting actions which affect weather support.

1.5.3. Maintain and comply with agency (USAF and higher) publications which pertain to operational weather support.

1.5.4. Maintain and comply with USAF, AFRC, and applicable gaining MAJCOM publications and supplements which pertain to operational weather support.

1.5.5. Are responsible for developing and maintaining a locally coordinated weather support document which includes as a minimum:

1.5.5.1. A weather station duty priority list.

1.5.5.2. Weather observation special and local criteria.

1.5.5.3. Terminal aerodrome forecast (TAF) specification and amendment criteria.

1.5.5.4. Weather advisory, watch, and warning criteria, and lead-times.

1.5.5.5. A list of weather sensing and weather communications equipment and their locations.

1.5.5.6. Specific procedures for local weather support including hours of operation, available products and services, dissemination/communications procedures, flight weather briefing procedures, etc.

1.5.5.6.1. Include procedures for producing toxic corridors, or a statement that the weather station is not tasked to provide this support.

1.5.6. Forward the weather support document to HQ AFRC/DO for review after it is approved by the OG/CC.

1.5.7. Manage the local analysis and forecast process (LAFP), which includes the following documentation as a minimum:

1.5.7.1. Weather sensitivities of supported aircraft and weapons systems as specified by the customer and by published performance characteristics and weather sensitivities. Include electro-optic systems if used by the customer.

1.5.7.2. Weather impact on customer operations.

1.5.7.2.1. Include critical thresholds of ceiling, visibility, wind, absolute humidity, IR visibility, etc., and how they impact customer operations. Specify go/no go thresholds if at all possible.

1.5.7.2.2. Critical thresholds should also be reflected in the LAFP as criteria for special or local observations, TAF specification/amendments, weather warnings, etc.

1.5.7.3. Procedures for conducting meteorological watch and for optimizing weather radar, meteorological satellite, lightning detection, and conventional (weather chart/alphanumeric) data for seasonal synoptic patterns.

1.5.7.4. Procedures for producing locally prepared products (e.g., local area work charts, forecast soundings, etc).

1.5.7.5. Procedures for routine analysis of upper air, surface, and Skew-T charts and data.

1.5.7.6. Procedures for verifying and initializing computer models (e.g., Nested Grid Model, Medium Range Forecast Model).

1.5.7.7. Procedures for producing forecast products, to include a TAF worksheet and severe weather checklists.

1.5.7.8. Procedures for conducting shift change briefings and forecast discussions.

1.5.7.9. Requirement and procedures to perform forecast reviews and conduct seasonal (at

least quarterly) seminars. (**NOTE:** Seminars can be in the form of written material which is circulated among unit members).

1.5.8. Develop and maintain a terminal forecast reference notebook (TFRN) for the locations that the unit has forecast responsibility for. The TFRN may be combined with LAFP documentation and must include, as a minimum:

1.5.8.1. Geographical location, topography, and local effects.

1.5.8.2. Location of meteorological sensors and NEXRAD antennas.

1.5.8.3. Reference material on climatology, synoptic regimes, and seasonal weather patterns.

1.5.8.4. Forecast techniques and rules of thumb for each forecast parameter.

1.5.9. Establish a cooperative weather watch program with the local air traffic control agency.

1.5.9.1. Provide training for controllers which includes tower prevailing visibility and weather services familiarization training (tour of the weather station, explanation of weather codes, overview of products and services, etc).

1.5.9.2. Ensure that tower personnel provide reciprocal familiarization training to meteorological technicians.

1.5.10. Maintain a quality management program which:

1.5.10.1. Identifies core products based on customer input.

1.5.10.2. Identifies metrics to be reported locally (at least quarterly).

1.5.10.3. Establishes procedures to report each month's weather warning and advisory verification data on AF Form 3810, **Weather Warning and Weather Advisory Data**. The data is to arrive at HQ AFRC/DO by the 15th of the following month.

1.5.11. Function as or appoint a system manager for each of the following systems which are in use:

1.5.11.1. Automated Weather Distribution System (AWDS).

1.5.11.2. Weather Radar (WSR 88-D or FPS-77).

1.5.11.3. Computer-based data processing systems (e.g., interactive video display (IVD) training systems, commercial data display systems, METSAT systems, local area network (LAN) systems, administrative computers, etc).

1.5.12. Ensure that system managers:

1.5.12.1. Attend applicable training courses and technical schools.

1.5.12.2. Optimize and manage each system to enhance customer support.

1.5.12.3. Provide training and certification for unit members, as required.

Serve as a focal point for maintenance issues and system modifications.

Accomplish required up-channel reporting (e.g., AWDS contractor logistics support (CLS) reports).

1.5.13. Manage weather technician availability within existing resources.

1.5.13.1. Ensure that at least two technicians are scheduled for duty when the local mission requires both forecasting and observing services. One technician may be scheduled when only observing services are required (e.g., airfield open but no local flying is scheduled).

1.5.13.2. Ensure that a single technician is not responsible for both surface observations and terminal aerodrome forecasts (TAF).

1.5.13.3. Coordinate reduced services with the OG/CC.

**2. Procedures for On-Site Weather Support.** (*NOTE:* These procedures apply if the military host has a full-service weather station on the installation. Most active duty bases and Air Reserve Bases fall into this category).

2.1. The local base weather station provides or arranges day-to-day peacetime support.

2.2. Contact HQ AFRC/DO, Weather Services Section to coordinate support for off-site exercise or ORI deployments. Provide at least three months of lead-time if possible.

2.3. The gaining MAJCOM provides contingency and wartime weather support as a function of war planning. AFRC flying units become aligned with their weather support provider either during the deployment process or at the employment location.

**3. Procedures for Off-Site Weather Support.** (*NOTE:* These procedures apply if the host is not a military unit or does not have a full-service weather station on the installation. Most Air Reserve Stations fall into this category).

3.1. The agency responsible for airfield operations normally provides weather observing. The gaining MAJCOM/DOW provides or arranges additional day-to-day peacetime support in coordination with HQ AFRC/DO. Support is usually provided via phone/fax/Internet from an active duty weather unit.

3.2. Contact HQ AFRC/DO, Weather Services Section, to coordinate support for off-site exercise or ORI deployments. Provide at least three months of lead-time if possible.

3.3. The gaining MAJCOM provides contingency and wartime weather support as a function of war planning. AFRC flying units become aligned with their weather support provider either during the deployment process or at the employment location.

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