

**BY ORDER OF THE COMMANDER  
SCOTT AIR FORCE BASE**

**SCOTT AIR FORCE BASE  
INSTRUCTION 15-101**



**18 SEPTEMBER 2024**

**Weather**

**WEATHER SUPPORT**

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This instruction implements DAFPD 15-1, *Weather Operations*, DAFPD 10-25, *Emergency Management Program*, AFMAN10-206\_AMCSUP10-206, *Operational Reporting*, DAFI 10-2501, *Emergency Management Program*, AFMAN 15-111, *Surface Weather Observations*, AFMAN 15-124, *Meteorological Codes*, DAFMAN 15-129, *Air and Space Weather Operations*, AMCI 15-101, *Weather Operations and Support*, and DAFI 48-151, *Thermal Stress Program*. It establishes responsibilities, weather support procedures, and general weather services information to include weather observations and forecasts, weather watches, warnings, and advisories, space weather, supported services, dissemination of information, and base-wide reciprocal support. It applies to the 375th Air Mobility Wing (375 AMW), the 932d Airlift Wing (AW), the 126th Air Refueling Wing (ARW), and mission partners assigned, attached to, or supported by Scott AFB. Ensure all records created as a result of processes prescribed in this publication are maintained IAW AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). 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.

**SUMMARY OF CHANGES**

This document has been rewritten entirely and must be completely reviewed. Changes include shift of Terminal Aerodrome Forecast (TAF) and resource protection (RP) responsibilities from

15th Operational Weather Squadron (15 OWS) to 375th Operations Support Squadron Weather Flight (375 OSS/OSW).

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## Chapter 1

### ROLES & RESPONSIBILITIES

**1.1. Overview.** The 375th Operations Support Squadron Weather Flight (375 OSS/OSW), referred to as the Weather Flight (WF) throughout this document, provides and/or arranges for support to the 375th Air Mobility Wing, Headquarters United States Transportation Command (USTRANSCOM), Headquarters Air Mobility Command (AMC), Headquarters United States Army Surface Deployment & Distribution Command (SDDC), Headquarters Eighteenth Air Force (18 AF), 618th Air & Space Operations Center (618 AOC), National Geospatial-Intelligence Agency (NGA), Defense Information System Agency (DISA), AF Audit Agency (AFAA), US Army Corps of Engineers (USACE), USAF Band of Mid-America (BoMA), 635th Supply Chain Operations Wing (635 SCOW), 932d Airlift Wing (932 AW), 126th Air Refueling Wing (126 ARW), 15th Operational Weather Squadron (15 OWS), subordinate units, and units assigned, attached, or supported by Scott Air Force Base (AFB). The instruction establishes the requirements and procedures pertaining to WF support and will be reviewed and/or revised no greater than biennially or in accordance with (IAW) host/parent unit procedures.

**1.2. Concept of Operations.** The WF is the focal point for weather support on Scott AFB. The units below collaborate to provide world-class weather information and services in support of mission requirements.

1.2.1. The 15 OWS, located at Scott AFB, provides regional operational-level graphical weather forecasts, specialized environmental information, numerical weather modeling and visualization products and services, and data collection and dissemination services to units within the northeastern continental United States.

1.2.2. The 618 AOC/Weather Division (WXD), located at Scott AFB, is the designated weather support unit for global reach missions. They brief all Integrated Flight Management (IFM) missions originating from Scott AFB and produce graphic and hazard products for use in conjunction with global reach mission briefings.

1.2.3. The WF incorporates and utilizes 15 OWS and 618 AOC/WXD products, information, and services to brief non-IFM, training, and transient missions at Scott AFB, as well as to alert decision makers on environmental factors potentially impacting the installation, personnel, and/or mission execution.

**1.3. Duty Priorities.** The WF duty priorities are noted within [Table 1.1](#). The WF follows these duty priorities to save and preserve life, property, and the mission when the environment poses imminent danger.

**Table 1.1. Scott AFB Weather Flight Duty Priority Listing.**

<b>Priority (order)</b>	
1	Perform Emergency War Order taskings
2	Execute WF evacuation
3	Respond to Aircraft/Ground emergencies
4	Respond To Pilot-to-Metro Service (PMSV) Contacts
5	Issue Weather Warnings, Watches and Advisories
6	Severe Weather Action Procedures (SWAP) Operations
7	Augment/Backup Automated FMQ-19 Observation for Mandatory Elements
8	Mission Execution Forecast Process - Produce & Disseminate TAF
9	Mission Execution Forecast Process - Produce & Disseminate Mission Weather
10	Disseminate Urgent Pilot Reports (PIREPs) Locally and to the 15 OWS
11	Disseminate routine PIREPs locally and to the 15 OWS (as required)
12	Perform MISSIONWATCH
13	Provide other weather products, information, and weather briefings
14	Weather Functional Training
15	Accomplish Administrative Tasks
16	MCA/ACE Functions
17	All Other Tasks

## Chapter 2

### WEATHER FLIGHT (WF) OPERATIONS

**2.1. General.** The WF's daily operations provide a set schedule, contact information, and alternate methods of ensuring mission success. The WF supports the full spectrum of operations at Scott AFB, including Airfield Weather Services, Mission Integration, and Staff Integration functions. Respective chapters (Chapters 4-6) provide great detail for these functions. WF Leadership provides and coordinates all weather support services to Scott AFB and its tenant units IAW DAFMAN 15-129.

**2.2. WF Location, Hours of Operation, & Contact Information.** The WF's primary operating location is 433 Hangar Road, bldg 433 (Base Operations).

2.2.1. Operating Hours. The WF is normally open 24/7.

2.2.1.1. The WF will maintain a standby operations posture during any period of airfield closure, during holiday breaks and/or weekends when no flying is scheduled, and weather permits, IAW local policy and approved waiver.

2.2.1.2. Staff integration services are available on normal duty days from 0800-1600L and can be extended as required.

2.2.2. Phone Numbers. The WF's primary phone numbers are listed in [Table 2.1](#).

**Table 2.1. WF Duty Phone Numbers.**

Functional Area	Phone Number (DSN prefix 576)
Weather Flight Operations Desk	(618) 256-3663
Flight Chief Office	(618) 256-4149
Airfield Services NCOIC	(618) 256-5905
Standby Phone	(618) 256-3663
Weather Flight e-mail	

2.2.3. Organizational Email Address: [375OSS.OSW.ScottWeather@us.af.mil](mailto:375OSS.OSW.ScottWeather@us.af.mil).

2.2.4. Mailing Address. The Scott WF mailing address is: 375 OSS/OSW, 433 Hangar Road, Suite 104, Scott AFB, IL 62225.

**2.3. Post Mission Analysis & Feedback.** Units that utilize weather support from the WF are encouraged to provide feedback IAW DAFMAN 15-129.

**2.4. Release of Information to Non-DoD Agencies or Individuals.** Weather information will not be released to non-DoD agencies, individuals, or to the public without approval from 375 AMW/PA (Public Affairs) and 375 AMW/JA (Legal). Coordinate any related issues through the WF leadership.

## Chapter 3

### WEATHER EQUIPMENT

**3.1. General.** This chapter provides a brief description of the equipment used to determine the current state of the atmosphere and formulate forecasts. Additionally, this chapter provides information on backup systems, maintenance, and restoral priorities.

**3.2. Meteorological (Weather) Equipment.** The WF uses a wide range of equipment to determine the current state of the atmosphere. These critical systems are used continuously to provide customers the most timely, accurate, and relevant weather intelligence possible.

3.2.1. FMQ-19 Fixed Base Weather Observing System (FBWOS). The FMQ-19 is an automated suite of integrated weather sensors, processors, and communication components that continually measure weather conditions to provide reliable, real-time weather data in support of airfield operations.

3.2.1.1. The FMQ-19 detects and measures: wind direction and speed, temperature and dew point, pressure, visibility, present weather, cloud heights and coverage, and lightning.

3.2.1.2. The FMQ-19 is composed of one primary weather sensor located near runway 32L and 3 additional sensors suites located near runways 32R, 14R, and 14L.

3.2.1.3. The FMQ-19 is maintained by 375 OSS/OSAM (Radar and Airfield Weather Systems (RAWS)).

3.2.1.4. Limitations. The FMQ-19 measures cloud height and coverage using a 30-minute average over the airfield. As a result, the sensor may be slow to report rapidly changing conditions. Forecasters will augment the FMQ-19 observations during rapidly changing conditions to mitigate any operational impacts and ensure flight safety.

3.2.2. TMQ-53, Tactical Meteorological Observing System (TMOS). The TMOS is a portable automated suite of integrated weather sensors, processors, and communication components that continually measure weather conditions to provide reliable, real-time weather data in support of operations.

3.2.2.1. The TMOS is primarily a deployment asset. When not deployed, the TMOS can be used in a backup capacity in the event of an FMQ-19 outage.

3.2.2.2. The TMOS detects and measures: wind speed and direction, temperature and dew point, pressure, visibility, present weather, cloud heights and coverage, and lightning.

3.2.2.3. The TMOS is maintained by RAWS.

3.2.2.4. Limitations.

3.2.2.4.1. Because the TMOS is portable and cannot be properly sited, wind and pressure data observed by the TMOS is to be considered estimated.

3.2.2.4.2. The TMOS software is prone to crashing and requires regular restarts.

3.2.3. Gibson Ridge. The WF does not operate or maintain a weather radar. However, the WF does utilize Gibson Ridge software to ingest and interrogate radar data from across the country.

### 3.2.3.1. Limitations:

3.2.3.1.1. Gibson Ridge is installed on a NIPR network and building power dependent computer desktop, which is vulnerable to intermittence during periods of severe weather.

3.2.3.1.2. At times, Gibson Ridge servers are not available, causing forecasters to utilize commercial data on the standalone computer and/or personal devices.

3.2.4. Kestrel. The Kestrel is a hand-held weather instrument used to measure wind speed and direction, temperature and dew point, wind chill, heat index, wet bulb, and pressure.

3.2.4.1. The Kestrel is the primary tool for conducting manual observations.

3.2.4.2. Limitations: wind and pressure output are considered “estimated” due to limitations of the Kestrel’s specifications.

3.2.5. Rain Gauge. Permanent rain gauge used to manually verify rainfall totals.

3.2.5.1. Limitations: Must be manually measured and emptied and may become unverifiable due to debris or contamination.

3.2.6. Snow Board. Simple wooden board, painted white, used for measuring snow depth.

3.2.7. Limitations: Must be manually measured and swept clean of snow to facilitate snow fall and depth measurements.

3.2.8. Laser Range Finder. Used to find distances of objects for visibility reporting and to determine cloud heights.

3.2.8.1. Limitations: The laser range finder is not designed for weather observing. Therefore, the device has inherent limitations. The laser range finder cannot reliably detect cloud bases above 2000FT. Additionally, the laser range finder struggles to detect thin cloud layers.

3.2.9. Joint Environmental Toolkit (JET). The JET is an automated dissemination system and is the primary method of disseminating observations, forecasts, PIREP, and weather watches, warnings, and advisories.

3.2.9.1. As of the date of publication of this document, the JET is in the process of being replaced by the Bridging Environmental Intelligence For Responsive Operational Support (BIFROST) portal, which will replace and combine the capabilities of JET, OWS websites, and the AF Weather Website (AFW-Webs).

3.2.10. Pilot-to-Metro Service (PMSV) Radio. Due to the lack of aircrew utilization and cost associated to replace the broken radio, the WF does not possess PMSV radio support capability.

3.2.11. WF Online Products. The 375 OSS/OSW SharePoint site is the primary location to find WF products. Additionally, the WF will post aviation specific products to Mattermost.

3.2.11.1. SharePoint: <https://usaf.dps.mil/sites/375OSS/OSW/SitePages/Home.aspx>.

3.2.11.2. Mattermost Channel: Scott AFB Mission Weather Products.

3.2.11.2.1. Contact the WF if you require access to the Mattermost channel.

## Chapter 4

### AIRFIELD WEATHER SERVICES

**4.1. General.** The Airfield Weather Services function includes those actions and areas that affect the Scott AFB aerodrome (5 nautical mile radius around the center of the airfield).

**4.2. Airfield Weather Services Function.** Airfield Weather Services function responsibilities and tasks pertain to the following areas: (1) airfield observations, (2) backup dissemination of weather products, (3) terminal aerodrome forecasts, (4) cooperative weather watch, and (5) meteorological watch.

**4.3. Airfield Weather Observations.** The WF takes, records, and disseminates observations IAW AFMAN 15-111. The FMQ-19 is the AF standard FBWOS and the primary means of taking observations. During airfield operating hours, the WF will augment these observations as needed and conduct manual observations if the FMQ-19 is not reporting as outlined in local standard operating procedures.

4.3.1. Types of Observations. The WF provides four basic types of weather observations: routine weather observations (METAR), special weather observations (SPECI), local weather observations (LOCAL), and Manual weather observations.

4.3.1.1. METAR. A METAR is a regularly scheduled observation taken and disseminated every hour at 55-59 minutes after the hour.

4.3.1.2. SPECI. A SPECI is an unscheduled observation taken and disseminated when any special criteria are observed or as the forecaster deems necessary. Criteria are maintained in local standard operating procedures.

4.3.1.3. LOCAL. A LOCAL is an unscheduled observation for elements not meeting SPECI criteria.

4.3.1.4. Manual. A manual weather observation is taken by the weather forecaster using a Kestrel handheld instrument. Manual weather observations are normally taken during equipment and computer network outages.

4.3.2. Official Points of Observation. The official points of observation for Scott AFB are at the FMQ-19's 4 sensor suites. Additionally, the official observing location for weather forecasters to conduct manual and/or augmented observations is located approximately 50 feet from the northeast exit of Hangar 1 where the sidewalk meets the flight line.

4.3.2.1. Limitations:

4.3.2.1.1. Several fixed structures (e.g., buildings, hangars, aircraft shelters, etc.) block portions of the sky and ground visibility. To mitigate this limitation, WF technicians will walk around the immediate area to get a better sample of the sky and surroundings.

4.3.2.1.2. The ends of the runways 14R and 32L are not visible from the official observation point making it difficult to observe low level ground fog.

4.3.2.1.3. The entirety of runways 14L and 32R are not visible from the official observation point, limiting the observer's ability provide finite weather data for that runway during outages.

4.3.3. FMQ-19 Operations. The WF operates the FMQ-19 IAW AFMAN 15-111 to provide the official METAR and SPECI observations. Forecasters will augment the FMQ-19 when needed.

4.3.3.1. Augmentation. Augmentation is the process of having weather forecasters edit or add additional data to an observation generated by the FMQ-19. The two augmentation processes are supplement and back-up.

4.3.3.1.1. Supplement. Supplementing is the process of manually adding observed weather conditions beyond the capabilities of the FMQ-19. Supplemental criteria are listed in standard operating procedures.

4.3.3.1.2. Back-up: Back-ups are completed when the FMQ-19 is either missing one or more weather elements or when the sensor is not correctly reporting one or more weather elements.

4.3.3.1.2.1. WF observers will open a ticket with RAWS to troubleshoot sensor outages that requires them to back-up the sensor.

**4.4. Backup Dissemination Procedures.** In the event of JET/BIFROST or other communication outages, the WF will disseminate weather observations and resource protection products (watches, warnings, and advisories) locally to agencies in **Table 4.1** (in prioritized order) and track dissemination on a local log.

**Table 4.1. WF Backup Dissemination Log.**

Agency	Phone Number (DSN prefix 576)
Air Traffic Control Tower	(618) 256-9611; DSN 576-9611
375 AMW Command Post	(618) 256-5891; DSN 576-5891
932 AW Command Post	(618) 256-5891; DSN 576-5891
126 ARW Command Post	(618) 222-4255; DSN 760-4255
Airfield Management (375 OSS/OSAA)	(618) 256-1861; DSN 576-1861

**4.5. Scott 5-Day Outlook.** The Scott 5-day outlook is a planning tool for all Scott AFB operations and activities. The 5-day is produced daily Monday – Friday, with the exception of holidays and family days, is emailed to Scott AFB leadership, and will be posted to the 375 OSS/OSW SharePoint site.

**4.6. Terminal Aerodrome Forecast (TAF).** The TAF is the official airfield forecast and covers the 5-statute mile radius around Scott AFB. The TAF is produced and disseminated by the Scott WF based on 375 AMW operational requirements.

4.6.1. Scott AFB TAFs are issued at 00Z, 08Z, and 16Z, are valid for a 30-hour period and issued at a frequency not to exceed every 8 hours.

4.6.2. The WF will amend the TAF IAW AFMAN 15-129, Table 5.1 and for horizontal consistency with any watches, warnings, or advisories.

4.6.3. With respect to any airfield closures, a TAF will be issued no later than 3 hours prior to the airfield opening, and the next TAF will be posted at the next standard time.

**4.7. Cooperative Weather Watch.** IAW this instruction, the WF maintains a Cooperative Weather Watch with 375 OSS/OSA, 375 SFS, 375 CES, 375 LRS, and flightline personnel, as outlined below:

4.7.1. Personnel from units annotated in [paragraph 4.7](#) should notify the WF immediately when any of the following unreported conditions are observed at Scott AFB:

4.7.1.1. Tornadoic Activity (Funnel clouds or tornados).

4.7.1.2. Thunderstorms or lightning.

4.7.1.3. Visibility changes of one or more reportable values, when the prevailing visibility at the tower or the surface is less than 4 statute miles.

4.7.1.4. Any precipitation beginning or ending.

4.7.1.5. Any significant meteorological condition.

4.7.1.6. PIREPs of previously unreported weather conditions that could affect flight safety or be critical to the safety and efficiency of other local operations and resources.

4.7.2. The WF will:

4.7.2.1. Reevaluate weather conditions and ensure airfield weather equipment is working properly when a credible source (e.g., ATC, SFS, flightline personnel, etc.) reports conditions differing from those in the last reported weather observation.

4.7.2.2. Accomplish the following when FMQ-19 augmentation is required, based on reevaluation of the differing weather conditions reported and local policy:

4.7.2.2.1. Notify ATC whenever prevailing visibility at the official weather observation point increases or decreases above or below 4 statute miles.

4.7.2.2.2. Reevaluate prevailing visibility after differing reports are received from the ATC tower.

4.7.2.2.3. Use tower ATC tower reported prevailing visibility values as a guide in determining surface visibility when portions of the horizon are obstructed from view.

4.7.2.2.4. Include ATC tower visibility remarks in the METARs and SPECIs IAW local procedures.

4.7.2.2.5. Issue SPECI or LOCAL observations IAW local procedures.

4.7.2.2.6. Augment the weather sensor for operationally significant weather IAW local procedures.

**4.8. Meteorological Watch (METWATCH).** METWATCH is the process of monitoring observed and forecast weather conditions and notifying select agencies (e.g., ATC, Command Post, etc.) when specific weather conditions occur or are forecasted. Through the METWATCH process, changes in related weather elements drive notifications from the WF to base agencies.

**4.9. Severe Weather Action Plan (SWAP).** The SWAP is in place to ensure sufficient personnel are available during potential/actual severe weather events or during meteorological or operational events critical to mission success.

4.9.1. The WF will initiate SWAP IAW local procedures based on the criteria listed in [Table 4.2](#).

**Table 4.2. Conditions Requiring SWAP Activation.**

<b>SWAP ACTIVATION Criteria</b>
<b>One of the following is issued:</b>
Tornado Watch/Warning
Severe Thunderstorm Watch/Warning

**4.10. ATC Limited Observation Training.** The 375 OSS/OSW oversees the Scott AFB Limited Observation Training Program. ATC personnel requiring training should contact the WF to schedule an appointment. To satisfy Limited Observation Training requirements, personnel are required to receive an orientation of the weather facilities.

## Chapter 5

### MISSION INTEGRATION FUNCTION

**5.1. General.** The Mission Integration Function consists of actions directly related to supporting daily flying operations of 375 AMW, 126 ARW, and 932 AW. The mission weather product, GDSS, and weather briefers are the primary means for supporting daily missions.

5.1.1. The WF supports all non-IFM missions originating from Scott AFB via the Mission Execution Forecast (MEF) for 375 AMW and 932 AW/54 AS missions, and GDSS briefing for 126 ARW/906 ARS missions.

**5.2. Mission Weather Products.** Mission weather products fuse theater scale products with local mission requirements enabling the direct inject of weather impacts into timely, accurate, and relevant environmental information for planning and execution. Mission weather products include the MEF, 5-Day weather outlook, verbal briefings, and DD Form 175-1 Flight Weather Briefings.

**5.3. Mission Support Element.** The Mission Support Element performs Mission Watch for all missions regardless of location. The Airfield Support Element and Mission Support Element may be accomplished by the same technician when manning constraints prohibit separate roles. Mission Support Element tasks include:

5.3.1. Weather Briefings.

5.3.1.1. Standard Weather Briefs. The WF will provide weather briefs IAW the duty priorities outlined in [Table 1.1](#). Weather briefs can be provided via telephone or in-person at the WF Operations office.

5.3.1.2. Mass Briefs. With proper coordination and when manning allows, the WF will provide a mass weather brief at the flying unit or an alternate desired location.

5.3.1.3. Airshow. Upon request/coordination, the WF will provide a mass briefing to airshow flyers and support personnel.

**5.4. Local Flying Area.** The 100-mile radius from Scott AFB defines the local flying area. The purpose of this definition is to provide a boundary for WF forecasters to perform consistent monitoring and analysis of the full spectrum of weather elements/impacts. Regardless of global location, the WF will support all aircraft assigned to the 375 AMW.

**5.5. Weather Impacts on Supported Customers.** The WF maintains a list of weather sensitivities, thresholds, and minimums for C-21, C-40, and KC-135 aircraft. At a minimum, the document will be reviewed and verified annually with each flying unit. However, the WF will update the document on an ad hoc basis upon notification of changes. The WF will incorporate these sensitivities, thresholds, and minimums into all mission weather products and weather briefings.

**5.6. Mission Execution Forecast (MEF).** The MEF is the official weather forecast for all Scott AFB non-Flight Managed sorties, while the Terminal Aerodrome Forecast is primarily intended for aircraft launch and recovery.

5.6.1. The WF will disseminate a MEF no later than 01Z, 09Z, and 17Z on days with scheduled missions.

5.6.2. The WF develops the MEF using the administrative and operational MEF-Process outlined in local operating procedures and DAFMAN 15-129.

5.6.3. The WF will utilize the Global Decision Support System (GDSS) to identify the missions and destinations to include on the MEF.

5.6.3.1. All Scott AFB-assigned missions, including those designated as local and/or training, will be supported via the MEF.

5.6.3.2. To allow ample time for the WF to produce accurate and relevant mission planning products, aircrew should mission plan early enough to work with their unit scheduler to ensure accurate GDSS mission depiction for all desired destinations, including local training missions.

5.6.3.2.1. In the event an aircrew requests changes or additions that differ from the mission in GDSS, the WF will provide the aircrew with a verbal briefing IAW the duty priorities listed in [Table 1.1](#).

5.6.4. The WF will amend the MEF IAW [Attachment 3](#).

5.6.4.1. The WF will publish the MEF and amendments to SharePoint and Mattermost.

**5.7. Flight Weather Briefings (DD 175-1).** Upon request, when the MEF will not suffice, the WF will provide DD Form 175-1, *Flight Weather Briefings*, or verbal weather briefs for walk-in requests and/or transient aircrews IAW the duty priorities listed in [Table 1.1](#).

5.7.1. Weather technicians will provide or arrange for weather support for transient aircrews IAW the duty priorities list [Table 1.1](#). The WF may provide flight weather briefings (DD Forms 175-1) and/or verbal updates to transient aircrews or may arrange for weather support from the appropriate lead weather unit when greater duty priorities take precedence.

5.7.1.1. After providing a transient weather briefing, the WF technician will coordinate with the aircrew's designated/aligned weather unit to coordinate MISSIONWATCH.

5.7.2. To allow adequate planning and ensure manpower availability, aircrews will request DD 175-1's with ample lead time, ideally the day prior to mission execution, but no less than 3 hours prior to desired briefing time.

5.7.2.1. DD 175-1 requests should be requested by phone or email using contact information in [Table 2.1](#).

**5.8. MISSIONWATCH.** The WF will perform MISSIONWATCH process with the intent to identify previously unidentified environmental threats and alert decision-makers at the operational unit and/or airborne mission commanders, enabling dynamic changes to mission profiles that may mitigate the environmental threat and optimize the chance of mission success.

5.8.1. The WF will amend the MEF and provide notification via Mattermost when previously unidentified environmental threats occur.

## Chapter 6

### STAFF INTEGRATION FUNCTION

**6.1. General.** The Staff Support Function consists of all activities and briefings for 375 AMW briefings, and installation event planning and execution.

**6.2. The 375 AMW Meetings.** The WF provides support for various meetings. Weather briefs will be tailored to meet the needs for each meeting. These meetings include, but are not limited to:

- 6.2.1. The 375 AMW Battle Update Briefs.
- 6.2.2. The 375 AMW Snow & Ice Meetings.
- 6.2.3. Quarterly Flight Safety Meetings.

**6.3. Emergency Operations Center (EOC)/Crisis Action Team (CAT).** The WF typically provides support to the EOC and/or CAT from the WF operations desk.

- 6.3.1. The WF will respond to all recalls as required by the 375 AMW/CC and will provide a representative for any EOC and/or CAT activations, when directed.

**6.4. Deployment/Evacuation Mass Briefings.** The WF will provide support for any deployment or emergency evacuations as required.

**6.5. Air Traffic Controller (ATC) Training/Orientation.** The WF will provide a WF orientation and task certify all newly assigned ATC personnel IAW AFMAN 15-111.

- 6.5.1. ATC controllers will complete the “ATC Weather Training” PowerPoint. A task-certified forecaster will certify this ATC training via signature.

**6.6. Exercise Support.** Upon request, the WF will provide inputs to develop realistic exercise scenarios.

- 6.6.1. Upon tasking, the WF will provide personnel to participate in exercises.

**6.7. Pre-Deployment Briefing.** Upon request, the WF will provide pre-deployment weather briefs.

- 6.7.1. Deployment Concept briefs can include climatology data to enable adequate planning for the deployed location.
- 6.7.2. Deployment Execution briefs will include takeoff, enroute, and arrival weather data.

**6.8. Climatology/Special Weather Requests.** The WF can provide historical data for requested airfields. Some requests may take a few days to be completed depending on their complexity.

- 6.8.1. Requests for climatology and/or special weather requests should be sent to: [375OSS.OSW.ScottWeather@us.af.mil](mailto:375OSS.OSW.ScottWeather@us.af.mil).

**6.9. Flight Information Publications Updates.** The WF is responsible for ensuring all weather information in the Flight Information Publications is current and accurate. The WF will coordinate required changes with Airfield Management.

**6.10. Chemical, Biological, Radiological, Nuclear Coordination.** The WF will provide their weather expertise during CBRN operations and will provide Chemical Downwind Messages as requested.

**6.11. Wing Inspection Team.** The WF will support the Wing Inspection Team as needed.

**6.12. Wing Safety (375 AMW/SE).** The WF will support any investigations of ground or aircraft mishaps by providing requested weather data.

## Chapter 7

### EMERGENCY ACTIONS

**7.1. Alternate Operating Location (AOL).** In the event of a building evacuation, the WF will relocate operations to the AOL. Once operations are established at the AOL, the WF will resume weather operations and services IAW the duty priorities listed in **Table 1.1**. The WF will call and advise the agencies listed in **Table 7.1** on the relocation to the AOL (or other location if needed) and again upon return to the primary operating location.

**Table 7.1. Agencies/Personnel Notified of Changes in Operating Location.**

Agency	Phone Number (DSN prefix 576)
Tower Watch Supervisor	Recorded Line: (618) 256-5521
375 AMW Command Post	Recorded Line: (618) 256-5891
458 AS Scheduler	(618) 256-2731
126 ARW Command Post	(618) 222-4255; DSN: 760-4255
932 AW Current Operations	DSN 229-7185
Airfield Management AOL	(618) 256-5196
Weather Flight Leadership	See Recall Roster

7.1.1. If the airfield sensors are inoperable, manual observations will be taken IAW local procedures.

7.1.2. AOL Limitations:

7.1.2.1. Several fixed structures (e.g., buildings, hangars, aircraft shelters, etc.) and tree lines block portions of the sky and ground visibility. To mitigate this limitation, WF technicians will walk around the immediate area to get a better sample of the sky and surroundings.

7.1.2.2. The ends of the runways are not visible from the official observation point making it difficult to observe low level ground fog.

7.1.2.3. The entirety of runways 14L and 32R are not visible from the AOL observation point, limiting the observer's ability provide finite weather data for that runway during outages.

### 7.2. Aircraft Emergencies.

7.2.1. In-Flight Emergency/Ground Emergency. When notified of an in-flight emergency or ground emergency, the WF will maintain a heightened level of awareness and advise various agencies as needed.

7.2.2. Aircraft Mishap. When notified of an aircraft mishap, the WF will record a full-element SPECI observation and perform a data save of all pertinent weather data. The Weather Forecasters will maintain a heightened level of awareness and advise various agencies as needed.

## Chapter 8

### RESOURCE PROTECTION (RP) AND WARNINGS, WATCHES, AND ADVISORIES (WWA)

**8.1. General.** The WF conducts a continuous meteorological watch to identify and assess emerging and imminent threats to Scott AFB. Special Weather Statements (SWS) and WWAs are special notices resulting from both the forecast and METWATCH processes to assist military decision makers with resource and RP decisions. Watches and warnings provide notice of weather events posing a hazard to life or property. Advisories provide specific notice to an operational agency of environmental phenomena with the potential to impact operations. Customer responses to WWAs are listed in [Attachment 4](#).

**8.2. Coordination.** Scott AFB units are responsible for coordinating any weather watch, warning, or advisory requirements with the WF. Units requesting support should validate the requirement by providing a list of user impacts and protective actions taken for each watch, warning, or advisory.

**8.3. Special Weather Statement (SWS).** In the event of significant mission and installation impacting weather events, the WF will produce and disseminate a SWS to Scott AFB leadership via email.

8.3.1. The WF will provide inputs or briefs to any installation weather conference calls that result from SWS's.

**8.4. Watches, Warnings, & Advisories (WWAs).** Watches, warnings, and advisories serve to notify Scott AFB personnel of hazardous weather to personnel, assets, and operations. All WWAs are normally issued for a 5 nautical mile radius around Scott AFB, unless otherwise noted.

8.4.1. Every WWA will have a specified issued time and valid time.

8.4.1.1. Issue Time – The time for when the forecaster puts out the WWA.

8.4.1.2. Valid Time – The time for when the weather is expected to occur.

8.4.1.3. WWAs can be upgraded by adding phenomena or crossing to a higher threshold, downgraded by removing phenomena or crossing to a lower threshold, and extended by increasing the valid time.

8.4.1.4. All WWAs will be canceled regardless of valid times if conditions are no longer expected, and the weather does not warrant the valid time to be extended. Another WWA may be issued later if required. Forecasters will use their best judgement when deciding whether to cancel or extend WWAs to mitigate impacts and allow 375 AMW to safely conduct operations.

8.4.2. Weather Watches. A weather watch is a special notice to installation personnel/supported units of a **potential** for environmental conditions of such intensity as to pose a hazard to life or property. They are used by installation personnel and/or supported units to make force protection and risk management decisions. Watches are issued for a 5 NM radius of the center point of the Scott AFB runway complex and are defined in [Table 8.1](#).

**Table 8.1. Weather Watches.**

<b>Watch Type</b>	<b>Criteria</b>	<b>Desired Lead Time</b>
Tornado	within 5 NM	As potential warrants
Severe Thunderstorms Damaging Hail Damaging Winds	$\geq 3/4$ inch $\geq 50$ knots	As potential warrants
Damaging Winds	$\geq 50$ knots	As potential warrants
Freezing Precipitation	Any Intensity	As potential warrants
Heavy Rain	$\geq 2$ inch accumulation in $\leq 6$ hours	As potential warrants
Heavy Snow	$\geq 2$ inch accumulation in $\leq 6$ hours	As potential warrants
Lightning	within 5 NM	30 Minutes

8.4.3. Weather Warnings. A special notice to notify installation personnel when an established weather condition of such intensity as to pose a hazard to life or property **is occurring or is expected to occur**. Weather warnings provide concise information outlining environmental threats and are used by commanders and personnel to make RP decisions and take protective action. Warnings are issued for a 5 NM radius at the center point of the runway and are defined in **Table 8.2**.

8.4.3.1. Observed Weather Warnings. Lightning warnings are the only observed warning issued for Scott AFB and extends 5 NM in all directions from the airfield. Lightning warnings are not issued until lightning is observed, either visually or via the National Lightning Detection Network. The lightning warning will remain valid until lightning is no longer observed within 5 NM for at least 15 minutes. **Exception:** A lightning warning will not be cancelled if a thunderstorm is within 5 NM.

**Table 8.2. Weather Warnings.**

Warning Type	Criteria	Desired Lead Time
Tornado	expected within 5 NM	15 minutes
Severe Thunderstorms Damaging Hail Damaging Winds	$\geq 3/4$ inch $\geq 50$ knots	1 hour
Moderate Thunderstorms Large Hail High Winds	$\geq 1/4$ inch but $< 3/4$ inch $\geq 35$ knots but $< 50$ knots	1 hour
Damaging Winds	$\geq 50$ knots	1 hour
Strong Winds	$\geq 35$ knots but $< 50$ knots	1 hour
Freezing Precipitation	Any Intensity	1 hour
Heavy Rain	$\geq 2$ inch accumulation in $\leq 6$ hours	1 hour
Heavy Snow	$\geq 2$ inch accumulation in $\leq 6$ hours	1hour
Lightning	within 5 NM	Observed

8.4.4. Weather Advisories. The purpose of an advisory is to alert personnel of mission impacting weather not covered by watches or warnings. Advisories are only issued when the airfield is open. Advisories are issued for a 5 NM radius at the center point of the runway and are defined in [Table 8.3](#).

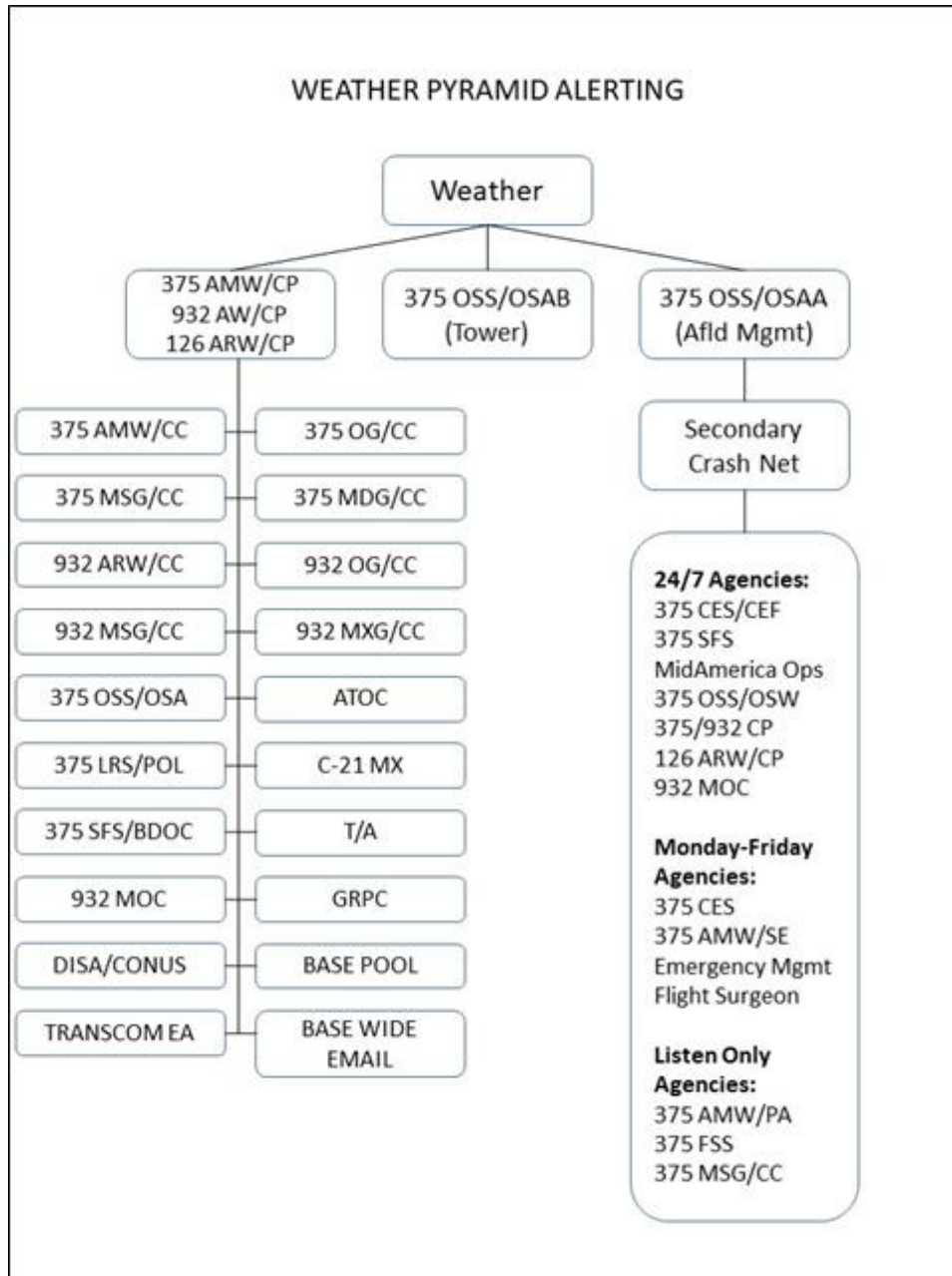
**Table 8.3. Observed Weather Advisories.**

Criteria	Forecast/Observed
Low Level Wind Shear	Observed
Crosswinds $\geq 15$ kts but $< 25$ kts	Observed
Crosswinds $\geq 25$ kts	Observed
Ice Pellets	Observed
Observed Wind Chill less than or equal to -15 F	Observed
Observed Wind Chill less than or equal to -20 F	Observed
<b>Note:</b> Crosswinds are calculated based on the maximum observed wind speed (to include gusts) and worst case observed direction including variability.	

8.4.5. WWA Notifications. The WF will issue WWAs through JET or the BIFROST portal, which will disseminate the information to ATC, 375 AMW/CP, 932 AW/CP, 126 ARW/CP, and 375 OSS/OSAA. If JET or BIFROST is nonoperational, the WF will make back up calls. Upon notification, these units will further disseminate all WWAs using the pyramid notification scheme shown in [Figure 8.1](#). In addition, the 375 AMW/CP disseminates WWAs via e-mail, AtHoc, and/or Mattermost.

8.4.5.1. Exception for tornado warnings: The base tornado siren will be the primary notification system for Scott AFB. Command post will sound the tornado siren when instructed by the WF. Similarly, the command post will sound the “All Clear” upon notification from the WF that the threat is no longer present.

Figure 8.1. Weather Pyramid Alerting.



## Chapter 9

### RECIPROCAL SUPPORT

**9.1. General.** The WF requires reciprocal support to accomplish its mission. This chapter details the necessary support for successful weather support.

**9.2. All supported agencies will establish and coordinate any weather requirements and procedures with the WF.**

**9.3. The 375 AMW, 126 ARW, and 932 AW Command Posts (CP) will:**

9.3.1. Ensure dissemination of weather watches, warnings, and advisories as outlined in [Chapter 8](#) of this instruction.

9.3.2. Notify the WF forecaster-on-duty immediately of all aircraft emergencies, incidents, or accidents.

**9.4. The 375 AMW CP will:**

9.4.1. Activate sirens for a tornado when notified by the WF that a tornado WARNING is issued.

9.4.2. Run applicable Quick Reaction Checklists (QRCs) to notify wing leadership and various base agencies of severe weather when notified by the WF.

**9.5. The 375 AMW/PA.** Coordinate tours of the WF by community groups and others with the WF chief.

**9.6. The 375 AMW Safety Office.** Request a WF briefer for safety and/or seasonal weather briefings and provide two weeks advance notice when possible.

**9.7. All Supported Flying Units (458 AS, 54 AS, 906 ARS, Detachment-X, 126 ARW, and 932 AW) will:**

9.7.1. Ensure aircrews plan missions, including locals, far enough in advance that schedulers can update GDSS appropriately (see paragraphs [5.6.3.2-5.6.3.3](#)).

9.7.2. Notify weather technician of current and planned weather alternates and any special considerations affecting duration of tour (i.e., weather categories, exercise/deployment considerations, etc.).

9.7.3. Notify the WF of required additional support as soon as it becomes known to include monitoring of alternate observations/forecast and tracking of weather conditions affecting local flying operations.

9.7.4. Notify the WF of scheduled non-IFM Off Station Training (OST) missions as early as possible and include the WF in the planning phase to coordinate support requirements.

9.7.4.1. Provide timely notification of changes to scheduled operations affecting weather support requirements as soon as the change is identified.

9.7.5. Provide PIREPS either directly to the WF or through ATC or airfield management.

9.7.6. Provide feedback on weather briefings via e-mail to the WF.

9.7.7. Notify the WF on any changes to weather sensitivities, thresholds, and minimums (see [paragraph 5.5.](#)).

9.7.8. Provide guidance (at least 2 weeks in advance, when possible) to the WF regarding any weather training/educational requirements (or changes in requirements) if applicable.

9.7.9. Coordinate in-person and/or DD 175-1 weather briefings with the WF in advance to allow adequate preparation (see [paragraph 5.7.1.](#)).

**9.8. The 375 SFS, 375 CES, 375 LRS, and flightline personnel.** Will participate in the Cooperative Weather Watch program IAW [paragraph 4.7.](#)

**9.9. The 375 OSS/OSA:**

9.9.1. **Base Operations (375 OSS/OSAA)** will:

9.9.1.1. Participate in the Cooperative Weather Watch program IAW [paragraph 4.7.](#)

9.9.1.2. Publish NOTAMs as applicable for the WF.

9.9.1.3. Publish necessary changes to the Flight Information Publications for the WF.

9.9.1.4. Notify weather personnel of all aircraft emergencies, aircraft mishaps, and ground emergencies.

9.9.1.5. Ensure dissemination of weather warnings and advisories as outlined in [Chapter 2](#) of this instruction.

9.9.2. **ATC Tower (375 OSS/OSAB)** will:

9.9.2.1. Participate in the Cooperative Weather Watch program IAW [paragraph 4.7.](#)

9.9.2.2. Notify the WF when the JET or BIFROST portal is inoperative or of any weather equipment issues.

9.9.2.3. Relay Pilot Reports (PIREPs) containing weather information to the forecaster.

9.9.2.4. Notify the forecaster of a change in the active runway.

9.9.2.5. Notify the forecaster when the airfield opens and closes.

9.9.2.6. Provide control tower orientation training for weather personnel.

9.9.3. **RAWS (375 OSS/OSAM)** will:

9.9.3.1. Provide, coordinate, or arrange for the installation, maintenance, and repair of all-weather communication and meteorological sensing equipment, except for the communication and meteorological equipment maintained by contract (i.e., JET).

9.9.3.2. Ensure scheduled maintenance does not degrade METWATCH and/or MISSIONWATCH performed by the WF during periods of inclement weather and notify the weather technician prior to routine maintenance.

9.9.3.2.1. Provide the WF with the RAWS building access code.

9.9.3.3. Provide a RAWS standby roster, when applicable, to the WF for reporting outages and assigning job control numbers.

9.9.3.4. Provide routine updates on open WF work orders.

9.9.3.5. Utilize the restoration priorities for weather communications and meteorological sensing equipment outlined in this document.

9.9.3.6. Notify the responsible service agents for weather communications and meteorological sensing equipment outages.

9.9.3.7. Coordinate with off-base agencies to repair off base lines.

9.9.3.8. Perform necessary follow-up actions as required until full service is restored.

9.9.3.9. Ensure weather data and telephone circuits are assigned repair priorities.

9.9.3.10. Ensure established maintenance response times are met.

9.9.3.11. Coordinate with WF shift supervisor prior to taking any equipment down for maintenance.

**9.10. The 375 CES.** Contact the WF chief to request climatological data and specialized support for projects on Scott AFB.

**9.11. The 375th Security Forces Squadron (SFS).** Participate in the Cooperative Weather Watch program IAW [paragraph 4.7](#) to promptly inform the WF of any hazardous weather reported by security forces personnel (tornado, hail, etc.).

**9.12. Bioenvironmental Engineering.** Determines environmental contribution to thermal stress for base population and provides WBGT data to command post to disseminate to installation personnel IAW local procedures.

**9.13. All weather support recipients.**

9.13.1. Notify WF through proper chain of command when new weather support requirements are identified.

9.13.2. Coordinate changes/additions to weather support requirements as soon as they are foreseen.

JOHN D. POOLE, Colonel, USAF  
Commander

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

AFMAN 10-206, *Operational Reporting*, 18 June 2018  
AFMAN10-206\_AMCSUP, *Operational Reporting*, 4 November 2021  
AFMAN 13-204 Volume 1, *Management of Airfield Operations*, 22 July 2020  
AFMAN 15-111, *Surface Weather Observations*, 12 March 2019  
AFMAN 15-124, *Meteorological Codes*, 16 January 2019  
AMCI 15-101, *Weather Operations and Support*, 29 December 2023  
DAFI 10-2501, *Emergency Management Program*, 16 October 2023  
DAFI 48-151, *Thermal Stress Program*, 2 May 2022  
DAFMAN 13-204 Volume 3, *Air Traffic Control*, 26 April 2024  
DAFMAN 15-129, *Air and Space Weather Operations*, 7 September 2023  
DAFPD 10-25, *Emergency Management Program*, 6 February 2024  
DAFPD 15-1, *Weather Operations*, 28 May 2024

***Adopted Forms***

DD Form 175-1, *Flight Weather Briefings*

***Abbreviations and Acronyms***

**AFAA**—AF Audit Agency  
**AFRIMS**—Air Force Records Information Management System  
**AFW-WEBS**—Air Force Weather-Web Services  
**AMC**—Air Mobility Command  
**AMCI**—Air Mobility Command Instruction  
**AMW**—Air Mobility Wing  
**AOC**—Air and Space Operations Center  
**AOL**—Alternate Operating Location  
**ARW**—Air Refueling Wing  
**AS**—Airlift Squadron  
**ATC**—Air Traffic Control  
**ATOC**—Air Terminal Operations Center  
**AW**—Airlift Wing

**BIFROST**—Bridging Environmental Intelligence For Responsive Operational Support

**BOMA**—USAF Band of Mid—America

**CAT**—Crisis Action Team

**CBRN**—Chemical, Biological, Radiological, and Nuclear

**CES**—Civil Engineer Squadron

**CIG**—Ceiling

**CP**—Command Post

**CS**—Communications Squadron

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

**DAFI**—Department of the Air Force Instruction

**DAFMAN**—Department of the Air Force Manual

**DD 175-1**—Flight Weather Briefings

**DISA**—Defense Information Systems Agency

**EOC**—Emergency Operations Center

**FBWOS**—Fixed Based Weather Observing System

**FLIP**—Flight Information Publication

**GDSS**—Global Decision Support System

**IFM**—Integrated Flight Management

**JET**—Joint Environmental Toolkit

**KT**—Knots (nautical miles per hour)

**LOCAL**—Local Weather Report

**LRS**—Logistics Readiness Squadron

**M—Meters**—MDG—Medical Group

**MEF**—Mission Execution Forecast

**METAR**—Meteorological Terminal Aviation Routine Report

**METWATCH**—Meteorological Watch

**MINS**—Minimums

**MSG**—Mission Support Group

**NGA**—National Geospatial-Intelligence Agency

**NM**—Nautical Miles

**OG**—Operations Group

**OMO**—One Minute Observation

**OPR**—Office of Primary Responsibility  
**ORM**—Operational Risk Management  
**OSAA**—Airfield Management  
**OSAB**—Tower  
**OSAM/RAWS**—Radar, Airfield, and Weather Systems  
**OSS**—Operations Support Squadron  
**OST**—Off-Station Training  
**OSW**—375<sup>th</sup> Operations Support Squadron Weather Flight  
**OWS**—Operational Weather Squadron  
**PA**—Public Affairs  
**PIREP**—Pilot Report  
**PMSV**—Pilot-to-Metro Service  
**QRC**—Quick Reaction Checklists  
**RDS**—Records Disposition Schedule  
**RP**—Resource Protection  
**RVR**—Runway Visual Range  
**RVRNO**—Runway Visual Range Unavailable  
**SCOW**—Supply Chain Operations Wing  
**SDDC**—Headquarters United States Army Surface Deployment & Distribution Command  
**SE**—Safety  
**SFS**—Security Forces Squadron  
**SM**—Statute Mile  
**SPECI**—Special  
**SWAP**—Severe Weather Action Procedures  
**SWS**—Special Weather Statements  
**TACC**—Tanker Airlift Control Center  
**TAF**—Terminal Aerodrome Forecast  
**TMOS**—Tactical Meteorological Observing System  
**USACE**—US Army Corps of Engineers  
**WBGT**—Wet Bulb Globe Temperature  
**WF**—Weather Flight  
**WXD**—Weather Directorate

**WWA—Warning, Watches, and Advisories**

## Attachment 2

## SPECIAL WEATHER OBSERVATION CRITERIA

## A2.1. A special weather observation will be taken and disseminated for listed criteria:

A2.1.1. Visibility. When the prevailing visibility decreases below or, if below, increases to equal or exceeds any of the values listed below:

Table A2.1. Visibility Levels.

<b>Visibility (Statute Miles)</b>	3	<b><u>2<sup>3</sup>/<sub>4</sub></u></b>	<b><u>2<sup>1</sup>/<sub>2</sub></u></b>	<b><u>2<sup>1</sup>/<sub>4</sub></u></b>	2	<b><u>1<sup>5</sup>/<sub>8</sub></u></b>	<b><u>1<sup>1</sup>/<sub>2</sub></u></b>	<b><u>1<sup>3</sup>/<sub>8</sub></u></b>	<b><u>1<sup>1</sup>/<sub>4</sub></u></b>	<b><u>1</u></b>	<b><u>3<sup>4</sup>/<sub>4</sub></u></b>	<b><u>5<sup>8</sup>/<sub>8</sub></u></b>	<b><u>1<sup>2</sup>/<sub>2</sub></u></b>	<b><u>1<sup>4</sup>/<sub>4</sub></u></b>
<b>Note:</b> Items in <b><u>bold/underlined</u></b> indicate criteria found in the high and low altitude FLIPs.														

A2.1.2. Ceiling. When the ceiling goes below or, if below, increases to equal or exceeds any of the values listed below:

Table A2.2. Ceiling Levels.

<b>Height (feet)</b>	3,000	2,000	1,500	1,000	<b><u>800</u></b>	<b><u>700</u></b>	<b><u>600</u></b>	<b><u>500</u></b>	<b><u>400</u></b>	<b><u>300</u></b>	<b><u>200</u></b>	<b><u>100</u></b>
<b>Note:</b> Items in <b><u>bold/underlined</u></b> indicate criteria found in the high and low altitude FLIPs.												

A2.1.3. Sky Condition. A layer of clouds (it does not have to be a ceiling) or obscuring phenomena aloft is observed below 800 feet and no layer was reported below this height in the previous METAR or SPECI.

A2.1.4. Wind.

A2.1.4.1. Shifts. A directional change of 45 degrees or more in less than 15 minutes with sustained winds of 10 knots or more throughout the wind shift.

A2.1.4.2. Squall. A strong wind characterized by a sudden onset in wind speed increasing at least 16 knots and sustained at 22 knots or more for at least 1 minute. A SPECI is not required to report a squall if one is currently in progress.

A2.1.5. Volcanic Ash. Eruption or volcanic ash cloud first noted. Only a single-element special observation is needed.

A2.1.6. Thunderstorm.

A2.1.6.1. Begins (**Note:** A Special observation is not required to report the beginning of a new thunderstorm if one is currently reported as in progress at the airfield).

A2.1.6.2. Ends (**Note:** 15 minutes after the last occurrence of criteria for a thunderstorm; an audible sound of thunder, lightning within five NM of the airfield, etc.).

A2.1.7. Precipitation.

A2.1.7.1. Hail begins or ends.

A2.1.7.2. Freezing precipitation begins, ends, or changes intensity.

A2.1.7.3. Ice pellets (also known as sleet) begin, end, or change in intensity.

A2.1.7.4. Any other type of precipitation begins or ends. **Note:** Except for freezing rain, freezing drizzle, hail, and ice pellets, a special observation is not required for changes in type (e.g., drizzle changing to snow grains) or the beginning or ending of one type while another is in progress (e.g., snow changing to rain and snow).

A2.1.8. Tornado, funnel cloud, or waterspout. Only a single-element special observation is needed.

A2.1.8.1. Observed and/or disappears from sight.

A2.1.9. Runway Visual Range (RVR). WF will provide RVR output IAW the specifications listed in [Table A2.3](#).

**Table A2.3. RVR Reporting.**

<b>Runway Visual Range (RVR)</b>
- Prevailing visibility first observed < 1SM/1600 meters, again when prevailing visibility goes above 1SM/1600 meters.
- RVR for active runway decrease to less than or, if below, increase to equal or exceed the following values (measured in feet): 6,000; 5,500; 5,000; 4,000; 3,500; 2,600; 2,400; 2,000; 1,600; 1,200; 1,000; 600.
- All published RVR minima applicable to the runway in use.
- RVR is first determined as unavailable (RVRNO) for the runway is use, and when it is first determined that the RVRNO report is no longer applicable, provided conditions for reporting RVR exist.

A2.1.10. Upon Resumption of Observing Services. Take, disseminate, and record a SPECI within 15 minutes after returning to duty following a break in hourly coverage, if a METAR was not filed as scheduled during the 15-minute period.

A2.1.11. Aircraft Mishap. When notified of an aircraft mishap, the WF will check the latest AN/FMQ-19 observation (i.e., METAR/SPECI/OMO (1 minute observation) and perform augmentation/back up if required. When operating in a backup mode WF will immediately take a SPECI observation IAW AFMAN 15-111.

A2.1.12. Any other meteorological situation that, in the weather technician’s opinion, is critical.

## Attachment 3

## TAF &amp; MEF SPECIFICATION AND AMENDMENT CRITERIA

**A3.1. TAF. Forecasters will ensure the TAF is representative of expected or actual conditions.** Forecasters will specify and amend the TAF under the following conditions:

A3.1.1. Ceiling and/or visibility is forecast to decrease less than or if below, is forecast to equal or exceed any of the following levels:

**Table A3.1. Ceiling/Visibility Forecast levels.**

Ceiling	Visibility	Category
≥ 2,000 FT	≥ 3 SM (4,800 M)	E
< 2,000 FT	< 3 SM (4,800 M)	D
< 1,000 FT	< 2 SM (3,200 M)	C
< 700 FT	< 2 SM (3,200 M)	B
< 200 FT	< ½ SM (800 M)	A

A3.1.2. Temporary Conditions.

A3.1.2.1. When temporary conditions become predominant.

A3.1.2.2. When temporary conditions do not occur as forecast.

A3.1.2.3. When temporary conditions are no longer expected to occur.

A3.1.2.4. Changes to Predominant Conditions. When forecast changes conditions occur before the specified period of change, do not occur, or are no longer expected to occur.

A3.1.3. Representative Conditions. When forecast conditions are not considered representative of the characterized state of the atmosphere and an amendment improves safety, flight planning, operational efficiency, or assists in-flight aircraft.

A3.1.4. When the ceiling and/or visibility is observed, or later forecast, to increase to or exceed, or decrease to less than any of the levels listed in [Table A3.1](#) and was not specified in the TAF.

A3.1.5. Winds.

A3.1.5.1. Wind Speed: The difference between the predominant wind speed and the forecast wind speed is > 10 knots.

A3.1.5.2. Wind Gusts: The difference between observed gusts and the forecast is > 10 knots.

A3.1.5.3. Wind Direction: A change > 30 degrees when the predominant wind speed or gusts are expected to be 15 knots or greater.

A3.1.6. Icing, if beginning or ending of icing meets, exceeds, or decreases to less than moderate (or greater) intensity and is not depicted accurately in the forecast.

A3.1.7. Turbulence, if the beginning or ending of turbulence meets, exceeds, or decreases to less than moderate (or greater) intensity and is not depicted accurately in the forecast.

A3.1.8. Non-convective low-level wind shear, if the non-convective low-level wind shear is occurring, expected to occur, or no longer expected to occur during the forecast period.

A3.1.9. Weather Warning Criteria.

A3.1.9.1. If weather warning criteria occurs, or is expected to occur, during the forecast period, but was not specified in the forecast.

A3.1.9.2. Was specified in the forecast but is no longer occurring or expected to occur during the forecast period.

A3.1.10. Altimeter Setting. Specify and/or amend the TAF for the following Altimeter settings thresholds.

A3.1.10.1. Altimeter setting meets or exceeds 31.00 INS and was not specified in the forecast.

A3.1.10.2. Altimeter setting, if above, drops below 31.00 INS and was not specified during the forecast period.

A3.1.10.3. Altimeter setting drops below 28.00 INS and was not specified in the forecast.

A3.1.10.4. Altimeter setting, if below 28.00 INS, increases above 28.00 INS and was not specified in the forecast.

A3.1.11. Forecast Weather Advisory Criteria. If the forecast weather advisory criteria is improperly specified, occurs and was not forecast, or is no longer expected to occur.

A3.1.12. Precipitation:

A3.1.12.1. If freezing precipitation begins and was not forecast, or freezing precipitation was specified in the forecast but is no longer occurring or expected to occur during the forecast period.

A3.1.12.2. If the beginning or ending of precipitation causes local weather warnings or advisories specified in the TAF to be issued, canceled, or amended.

A3.1.12.3. If the occurrence or nonoccurrence is considered operationally significant.

A3.1.13. Thunderstorms. If the start or end time of the thunderstorm is incorrectly specified.

### **A3.2. MEF Amendments.**

A3.2.1. The MEF will be amended if local airfield weather or weather at destinations other than Scott AFB crosses from Low or Moderate impacts to Significant impacts, or from Significant impacts to Low or Moderate impacts, IAW [Table A3.2](#).

Table A3.2. MEF Specification &amp; Amendment Criteria.

<b>MEF SPECIFICATION &amp; AMENDMENT CRITERIA (ORM COLOR CODE)</b>			
<b>LOW IMPACT</b>	<b>MODERATE IMPACT</b>	<b>SIGNIFICANT IMPACT</b>	
<b>CIG / VIS <math>\geq</math> 020 / 3</b>	<b>CIG / VIS <math>\geq</math> 003/ 3/4 &lt; 020/3</b>	<b>CIG / VIS &lt; 003/ 3/4</b>	<b>Winds &gt; 50KT</b>
<b>NEG-LGT TURB / ICG <math>\leq</math> FL100</b>	<b>LGT-MDT TURB / ICG <math>\leq</math> FL100</b>	<b>TSTMS</b>	<b>MDT OR GRTR ICING &lt; FL100</b>
	<b>VCTS</b>	<b>FREEZING PRECIP</b>	<b>MDT OR GRTR TURB &lt; FL100</b>
	<b>15KT <math>\leq</math> X-Wind &lt; 20kt</b>	<b>X-Wind <math>\geq</math> 20KT // LLWS</b>	<b>&gt; 15KT on Icy Rwy</b>

## Attachment 4

## CUSTOMER RESPONSE MATRIX

Table A4.1. Customer Response Matrix.

Weather Phenomena	Lead Time	Impact	Customer Action
Tornado	15 min	Personnel injury/death Equipment damage	Forecast Outlook: consider aircraft evacuation; Imminent: Seek shelter
Hail (3/4" or more)	60 min	Personnel injury/death Equipment damage	Seek shelter; hangar, divert or protect aircraft
Freezing Precipitation	60 min	Delay or cease operations	Cease flying; hangar, divert or protect aircraft
Surface winds $\geq 50$ knots	60 min	Flight hazard Equipment damage	Cease unnecessary flying; secure or hangar aircraft; secure light objects outside
Surface winds 35-49 knots	60 min	Flight hazard Equipment damage	Cease unnecessary flying; secure or hangar aircraft
Lightning w/in 5 NM of Scott AFB	30 min	Personal injury/death Delay operations	Cease flight-line work; clear pool/golf course
Crosswinds $\geq 25$ knots	Observed	Flight hazard	Cease/delay take-off for C-21A and KC-135E/R
Crosswinds 15-24 knots	Observed	Flight hazard	Cease take-off/landings for small private aircraft; no touch and goes
Low Level Wind Shear	Observed	Delay or cease operations	Delay or cease take-off/landing; evaluate shear conditions
Rain accumulation $\geq 2''$ in $\leq 6$ hours	60 min	Delay operations	Prepare water pumps for building flooding
Snow accumulation $\geq 2''$ in $\leq 6$ hours	60 min	Delay operations	Activate snow removal plan; Hangar aircraft
Wind Chill $-15^{\circ}\text{F}$ to $-19^{\circ}\text{F}$	Observed	Personal injury Slow/delay outside work	Work 50 minutes; Rest 10 minutes in heated area; cover exposed skin
Wind Chill $\leq -20^{\circ}\text{F}$	Observed	Personal injury/death Slow/delay outside work	Work 40 minutes; Rest 20 minutes in heated area; cover exposed skin Frostbite time: 30 mins
Ice Pellets	Observed	Reduces de-icing effectiveness	Evaluate de-icing effectiveness

Attachment 5

AIRFIELD LAYOUT & SENSOR LOCATIONS

Figure A5.1. Scott AFB Airfield Layout and FMQ-19 Sensor Locations.

