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SCOTT AIR FORCE BASE**

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



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Weather

WEATHER SUPPORT

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This instruction implements AFD 15-1, *Air Force Weather Operations*, AFI 15-114, *Functional Resource and Weather Technical Performance Evaluation*, AFI 15-128, *Air Force Weather Roles and Responsibilities*, AFI 10-206, *Operational Reporting*, AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*, AFMAN 15-111, *Surface Weather Observations*, AFMAN 15-124, *Meteorological Codes*, AFMAN 15-129V1, *Air and Space Weather Operations - Characterization*, AFMAN 15-129V2, *Air and Space Weather Operations—Exploitation*, Air Mobility Command Instruction (AMCI) 15-101, *Weather Operations And Support*, and Air Force Strategic Plan on Weather Reengineering. It establishes responsibilities, weather support procedures and provides general information for weather services, including weather observations and forecasts, weather warnings, watches, and advisories; space weather data, information dissemination, and base-wide reciprocal support. It applies to units assigned to the 375th Air Mobility Wing (375 AMW) and units assigned, attached, or supported by Scott AFB. This instruction is applies to the 932d Airlift Wing (AW) (AFRES) and the 126th Air Refueling Wing (ARW) (ANG). Ensure all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, 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 AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Personnel who fail to adhere to this guidance may be punished under the Uniform Code of Military Justice (UCMJ) Article 92(1) or civil equivalent.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include:

Added specific contact information/operational hours for 618 AOC/XOW, 15 OWS and 375 OSS/OSW; Chapters 8 and 9 were deleted and incorporated into Chapter 2; Figure 2.1 was updated; Tables 2.4, 2.6, and 2.7 were updated; added guidance specific to the 458th Airlift Squadron to Chapter 3; Chapters 5 and 12 were deleted and incorporated into Chapter 4; Chapter 10 was numbered to Chapter 5; Tables 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.11, 2.12, 2.13 were deleted and incorporated into new Attachment 7; added Attachments 8, 9, 11, 12, and 13.

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Chapter 1

CHARACTERIZATION UNIT (CU) & EXPLOITATION UNIT (EU) INTERACTIONS

1.1. General. The 15th Operational Weather Squadron (15 OWS), the 618th Air & Space Operations Center (Tanker Airlift Control Center) Weather Directorate, (618 AOC/XOW), and the 375th Operations Support Squadron Weather Flight (375 OSS/OSW) are the official weather information agencies for Scott AFB. These agencies provide weather information in support of the 375 AMW, the 126 ARW (ANG), the 932 AW (AFRES), and units assigned, attached, or supported by Scott AFB. The 618 AOC (TACC)/XOW is commonly referred to as 618 AOC/XOW throughout this document. The 375th Operations Support Squadron Weather Flight (375 OSS/OSW) is commonly referred to as the Weather Flight (WF) and is the focal point for all weather-related issues. This instruction will be reviewed and revised no greater than biennially or IAW with host/parent unit procedures if the time is less than biennially.

1.1.1. The 15 OWS is considered the characterization unit. Characterization encompasses the “collect, analyze and predict” weather core competencies. Characterization depends on Air Force Weather’s ability to collect accurate data, correctly analyze that data, and use the results to produce a coherent picture of the present and future state of the air and space environment.

1.1.2. The 375 OSS/OSW and the 618 AOC/XOW are considered exploitation units. Exploitation is the ability to minimize the impact of environmental threats to friendly forces while simultaneously capitalizing on environmental conditions that maximize the operational advantage over enemy forces. Exploitation units tailor the characterization provided by the characterization unit. Tailoring is the extraction of data that is pertinent to a specific mission profile from the overall characterization of the air and space environment. Tailoring does not mean changing the characterization. To the greatest extent possible exploitation, units will use the characterized data provided to them.

1.2. Concept of Operations.

1.2.1. The 15 OWS at Scott AFB, provides regional and operational-level weather products and information to Air Force and Army units in the Northeast region of the Continental United States.

1.2.2. Meteorological Watch (METWATCH). The 15 OWS performs a continuous METWATCH for Scott AFB. METWATCH is a deliberate, continuous process for monitoring terrestrial weather or the space environment in an area or region. The purpose of a METWATCH is to identify when and where observed conditions significantly diverge from forecast conditions, determine courses of action to update or amend a forecast product or group of products, and notify designated agencies.

1.2.3. The WF and 618 AOC/XOW are the primary source of tailored weather services in support of the 375 AMW, the 932 AW, the 126 ARW, various headquarters elements, and visiting aircrews. The WF and 618 AOC/XOW will make every effort to ensure that mission-limiting weather is anticipated and exploited and that safety and Resource Protection (RP) are maintained.

1.3. Responsibilities.

1.3.1. General responsibilities of the 15 OWS and WF are outlined in AFI 15-128, paragraph 4.1.

1.3.1.1. The 15 OWS issues the Scott AFB Terminal Aerodrome Forecasts (TAFs), forecast weather warnings and watches, and may provide flight weather briefings to transient aircrews passing through Scott AFB. The 15 OWS will issue observed warnings and advisories when the WF is closed.

1.3.1.2. The WF issues all observed advisories and warnings.

1.3.1.3. The WF will create Mission Weather Products (MWP) that fuse theater scale products with local mission requirements to enable the direct inject of weather impacts into warfighter planning and/or execution. Upon request, the WF will provide flight weather briefings and operational weather support for the 932 AW. The WF will also provide flight weather briefings for the 458th Airlift Squadron (AS) Formal Training Unit (FTU), 457th and 458th AS Special Air Missions Division, Office of Assistant Vice Chief of Staff (CVAM) missions, and transient aircrews IAW the WF duty priorities listed in **Table 1.1**.

1.3.1.4. 618 AOC/XOW. 618 AOC/XOW provides flight weather briefings and operational weather support for the 126 ARW and the 375 AMW (458 AS).

1.3.2. Scott AFB Installation Data Page. The 15 OWS and Scott WF will coordinate and maintain a Scott AFB Installation Data Page detailing the terminal aerodrome forecast (TAF) specification and amendment criteria, warning, watches, and advisories (WWA) thresholds, desired lead times, mission impacts, unit information, Joint Environmental Toolkit (JET) back-up contacts and local outage back-up information.

1.3.3. Eyes Forward and Collaboration. The Scott WF will act as the eyes forward for the 15 OWS by relaying significant, time-sensitive meteorological information not found in coded meteorological reports to the 15 OWS to assist in forecast operations.

1.4. Duty Priorities. The 375 OSS/OSW duty priorities. IAW AFMAN 15-129V2, paragraph 1.3.3.1, the WF has created the following duty priorities based on 375 AMW mission requirements.

Table 1.1. The 375 OSS/OSW Duty Priority Listing.

Priority	Duties
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 Observed Weather Warnings or Advisories
6	Severe Weather Action Procedures (SWAP) Operations
7	Augment Automated Meteorological Observing System (AMOS) Observation for Mandatory Elements
8	Provide “Eye’s Forward” Collaborate with 15 OWS
9	Mission Execution Forecast Process—Produce and Disseminate
10	Disseminate Urgent Pilot Reports (PIREPs) and Special Air Reports 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

1.5. Hours of Operation and Contact Information.

1.5.1. WF. Hours of operation are 24/7, except under special circumstances when the airfield is closed.

1.5.2. The 15 OWS and 618 AOC/XOW. Hours of operation are 24/7, 365 days a year.

1.5.3. Contact Information (commercial and DSN).

1.5.3.1. The WF (618) 256-5905/3340 / DSN 779-5905/3340.

1.5.3.2. The WF Alternate Operating Location (AOL) (618) 256-2589 / DSN 576-2589.

1.5.3.3. The PMSV 239.8 MHz.

1.5.3.4. The 618 AOC/XOW (618) 229-0353 / DSN 779-0353.

1.5.3.5. The 15 OWS (618) 256-9699 / DSN 576-9699.

1.6. Continuity of Operations Plan (COOP). Continuity of support to the installation is susceptible to communication outages at the 15 OWS, 618 AOC, and WF.

1.6.1. WF COOP and WF Alternate Operating Location (AOL). In the event of a building evacuation, the WF will move to building 470 (932 AW Operations building), second floor, room 220/C21, commercial (618) 256-2589 / DSN 576-2589. WF members will follow duty-specific standard operating procedures and evacuation checklists (including a list of required back-up equipment) and resume services at the AOL as soon as possible. The flight

will continue operational 375 AMW support and resume eyes forward responsibilities for the 15 OWS. If access to observing sensing equipment readouts is lost, manual equipment will be used to take observations. Most WF services/support will be provided, but will require a case-by-case assessment depending on communication line status, equipment status, etc. Expect most services to be somewhat degraded (weather products, pilot briefings, etc.) due to limited facilities and loss of dedicated data services, including sensors and various data types (meteorological satellite, radar imagery, etc.). For flight safety reasons, the WF will not evacuate during exercises.

1.6.2. The 15 OWS COOP.

1.6.2.1. For short-term outages (up to 72 hours), the WF will assume local TAF and weather watch, warning and advisory responsibility.

1.6.2.2. For long-term outages (greater than 72 hours), the 15 OWS' plan is to resume all support from an alternate location.

1.6.2.3. Exercises. In coordination with WFs, the 15 OWS conducts periodic COOP exercises.

1.6.3. The 618 AOC COOP.

1.6.3.1. IAW AMCI 15-101, if the 618 AOC/XOW loses the capability to provide flight weather briefing services, the WF will assume responsibility for all Scott AFB Integrated Flight Management (IFM) and non-IFM weather packages. If the WF is unable to provide the required support, briefing responsibility will be transferred to the servicing the 15 OWS.

1.6.3.2. Global Decision Support System (GDSS) Outages. In the event of a GDSS outage, the WF provides MWPs via DD Form 175-1, *Flight Weather Briefing*, or verbal briefing. Servicing the 15 OWS' provide DD Forms 175-1 via email or verbal briefing.

1.6.3.3. Exercises. In coordination with WFs, 618 AOC/XOW conducts COOP exercises during which the WF provides MWPs through GDSS or alternate means if a GDSS outage is simulated. WFs will coordinate with supported units as required.

Chapter 2

AIRFIELD SERVICES

2.1. General. Airfield services include those actions affecting the Scott aerodrome (defined within 5NM of the airfield) or the base as a whole.

2.2. Observations. Observations are taken, recorded, and disseminated IAW AFMAN 15-111, *Surface Weather Observations*, utilizing the FMQ-19 AMOS. Most observations are taken automatically by the FMQ-19 with no human intervention. At times, it is necessary for a weather forecaster to augment the system. Automated and augmentation processes are outlined in paragraph 2.2.7. The following observations are created and disseminated:

2.2.1. Aviation Routine Weather Report (METAR). METAR observations are created between 45 and 59 minutes after every hour. METARs are disseminated both locally and long-line between 55 and 59 minutes after the hour.

2.2.2. Aviation Selected Special Weather Report (SPECI). SPECI is an unscheduled observation completed and transmitted when any of the Scott AFB special criteria listed in [Attachment 3](#) have been observed or sensed. SPECI will contain all data elements found in a METAR plus additional remarks that elaborates on data in the body of the report. All SPECI reports will be prepared and transmitted as soon as possible after the relevant criteria are observed. [Attachment 5](#) contains an example SPECI weather observation.

2.2.3. Aviation Selected Local Weather Report (LOCAL). During augmentation, the WF will take single element LOCAL observations for altimeter setting changes.

2.2.4. Official Observing Points. The official observing point is the location of the FMQ-19 sensors. During periods of augmentation, the observation point will be approximately 125 feet away from the East side of building 433 (Hangar 1). During relocations to the AOL, and augmentation is required, the observation point is marked by a compass rose approximately 35 foot from the AOL flightline exit door.

2.2.5. Observing Point Limitations.

2.2.5.1. The FMQ-19 is properly sited and no limitations are currently noted.

2.2.5.2. Augmented observations taken at the primary augmentation site (building 433) are degraded because the observer's view to the west is blocked by an aircraft hangar and thunder may not be heard due to flightline noise.

2.2.5.3. Augmented observations taken at the AOL are degraded because building 470 blocks view to the west.

2.2.6. Automated FMQ-19 Observation. An automated observation is any observation having been evaluated, prepared, and transmitted by an observing system without human intervention. In automated mode, the FMQ-19 observing system will record and disseminate weather observations. The FMQ-19 uses time averaging of sensor data. In an automated observation, sky condition will be an evaluation of sensor data gathered during the 30-minute period ending at the actual time of the observation. All other elements evaluated are based on sensor data that is within 10 minutes or less of the actual time of the observation.

2.2.7. Forecaster FMQ-19 Augmentation. Augmentation is the process of having a certified weather forecaster manually add or edit data to an observation generated by the FMQ-19. WF personnel do not augment the FMQ-19 when the airfield is closed except when tornadic activity is occurring or forecast to occur. The two augmentation processes used are supplementing and back up.

2.2.7.1. Supplementing (definition). Manually adding meteorological information to an observation generated by the FMQ-19 that is beyond that system's capability to measure and report. For example, the sensor cannot sense a tornado or hail.

2.2.7.2. Supplementing procedures. WF personnel will supplement observations when the airfield is open and the weather conditions in **Table 2.1** are observed. WF personnel will be ready to supplement observations if the conditions in **Table 2.1** are forecast to occur within 2 hours. Weather personnel are required to log on to an AMOS and be prepared to supplement whenever a watch or warning has been issued for tornadic activity.

Table 2.1. Mandatory Supplementary Weather Conditions.

Mandatory Supplementary Weather Conditions—Body of Report (Note 1)
Tornado (+FC) (Note 2) (Note 3)
Funnel Cloud (FC) (Note 2) (Note 3)
Waterspout (+FC) (Note 2) (Note 3)
Hail (GR)
Volcanic Ash (VA)
Ice Pellets (IP)
Mandatory Supplementary Weather Conditions—Remarks Section of Report (Note 1)
Funnel Cloud (Tornadic Activity_B/E(hh)mm_LOC/DIR_Moving (MOV)) (Note 2) Hail Size Snow Depth (Note 4)(only during airfield operating hours and if heavy snow warning has been issued and snowfall is occurring)
Notes: 1. References for coding augmentable weather conditions are located in Chapter 13. 2. The immediate reporting of funnel clouds takes precedent over any other phenomenon. 3. Log on to AMOS and be prepared to supplement for tornadic activity anytime a weather watch or warning has been issued for the phenomena. 4. All Remarks and Additive Data references are provided in AFMAN 15-111, Attachment 3.

2.2.7.3. Backup (definition). The process of manually providing meteorological data and/or dissemination of an FMQ-19 generated observation when the primary automated method is not operational or unavailable due to sensor and/or communication failure.

2.2.7.4. Backup procedures. In the event of FMQ-19 malfunction or failure, back-up procedures will be implemented only during airfield operating hours and/or if tornadic activity is occurring or forecast to occur. WF personnel will use manual observing procedures when performing back-up operations. When required, the WF will encode

and disseminate METAR and SPECI observations IAW AFMAN 15-111, Table 3.2. All element entries must be observed within 15 minutes of the actual time of the observation with the exception of wind gusts and squalls, which are reported only if they are observed within 10 minutes of the time of the observation. When utilizing back-up equipment, all wind and pressure values must be estimated.

2.3. TAF Support. Scott AFB TAFs are produced and disseminated by the 15 OWS IAW AFI 15-128, AFMAN 15-124, AFMAN 15-129V1, and the Scott AFB Installation Data Page. **Attachment 4** lists forecast specification and amendment criteria. TAFs are valid for 30 hours, apply to the area within the 5NM area of the Scott AFB airfield complex, and will be issued at 0000, 0800, and 1600 Zulu time. **Attachment 5** contains examples of typical Scott AFB TAFs.

2.4. Resource Protection (RP) Support and Warnings, Watches, and Advisories (WWA). The 15 OWS 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 provided by the 15 OWS 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 6**.

2.4.1. SWS. SWS' are special notices issued by the 15 OWS to assist military decision makers with RP decisions.

2.4.2. 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/supported units to make force protection and risk management decisions. Watches are issued for a 5NM radius of the center point of the Scott runway complex and are defined in **Table 2.2**.

Table 2.2. Weather Watches.

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

2.4.3. 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 5NM radius at the center point of the runway and are defined in **Table 2.3**.

Table 2.3. Weather Warnings.

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

2.4.4. Observed Weather Warnings. Lightning warnings are the only observed warning issued for Scott AFB and extends 5NM 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 5NM for at least 15 minutes. **Exception:** A lightning warning will not be cancelled if a thunderstorm is within 5NM (as indicated on radar).

2.4.5. Observed Weather Advisories. An observed weather ADVISORY is a special product notifying an end user when an established environmental condition effecting operations is occurring or is expected to occur on Scott AFB and are defined in **Table 2.4**.

Table 2.4. Observed Weather Advisories.

Criteria	Forecast/Observed
Low Level Wind Shear	Observed
Crosswinds GTE 15 kts but < 25 kts	Observed
Crosswinds GTE 25 kts	Observed
Wind chill temp between -20°F to -50°F	Observed
Ice Pellets	Observed
Note: Crosswinds are calculated based on the maximum observed wind speed (to include gusts) and worst case observed direction including variability.	

2.4.6. WWA Numbering Scheme. Advisories, watches, and warnings are numbered consecutively by identifying the type of weather message (watch, warning, or advisory) followed by a five-digit number. The first two numbers indicate the current month while the second three numbers indicate the sequence number. For example, the message “Weather Warning 02-005” means the month is February (02) and this is the fifth (005) warning issued in the month. The message “Weather Advisory 12-013” means the month is December (12) and this is the 13th advisory issued in the month. Examples of different messages are contained in **Attachment 5**.

2.4.7. WWA Upgrades/Downgrades. WWAs will be upgraded (i.e., winds increase from 35 knots to 50 knots) or downgraded as required. Upgrades should meet the desired lead times specified in **Table 2.3** and **2.4**. Only one warning will be in effect at a given time (and will include multiple warning criteria as required) except for forecast tornado warnings and/or observed lightning warnings. Tornado and lightning will be separate warnings. With the exception of tornado and lightning warnings, if a warning is issued for one criteria and it becomes necessary to warn for another criteria, a new warning and new number will be issued, to include all criteria expected. Specify a separate valid time or each criteria if necessary.

2.4.8. WWA Amendments. When WWAs no longer adequately describe the phenomenon’s expected occurrence, a completely new WWA with a new number will be issued. The amendment will clearly state how the amendment or extension affects any previously issued notices.

2.4.9. WWA Extensions. WWAs may be extended provided the extension is issued prior to the expiration of the original notice.

2.4.10. WWA Cancellation. Warnings and watches are canceled when the weather phenomena is no longer occurring or expected to occur. Warnings not extended or canceled will automatically expire at the end of the valid period. Observed advisories will be canceled when the criteria is no longer occurring and have not occurred in the last 30 minutes. See paragraph **2.4.4** for cancellation of observed lightning warnings.

2.5. Dissemination Process.

2.5.1. Observations. Observations taken by either the FMQ-19 automated observing system or the weather technician are disseminated via JET. When JET is nonoperational, the WF will relay observations to the following local organizations in order of priority listed in **Table 2.5**.

Table 2.5. Notification Priority.

1. Tower (OSAB) commercial (618) 256-4065.
2. 375 AMW/CP commercial (618) 256-5891.
3. 932 AW/CP commercial (618) 256-8373.
4. 126 ARW/CP (618) 222-4255.
5. Airfield Management commercial (618) 256-1861.
6. 15 OWS.

2.5.2. TAFs. The 15 OWS disseminates TAFs via JET. If JET is nonoperational, the WF will disseminate TAFs to ATC and 375 AMW Command Post (CP) via telephone, fax, or e-mail.

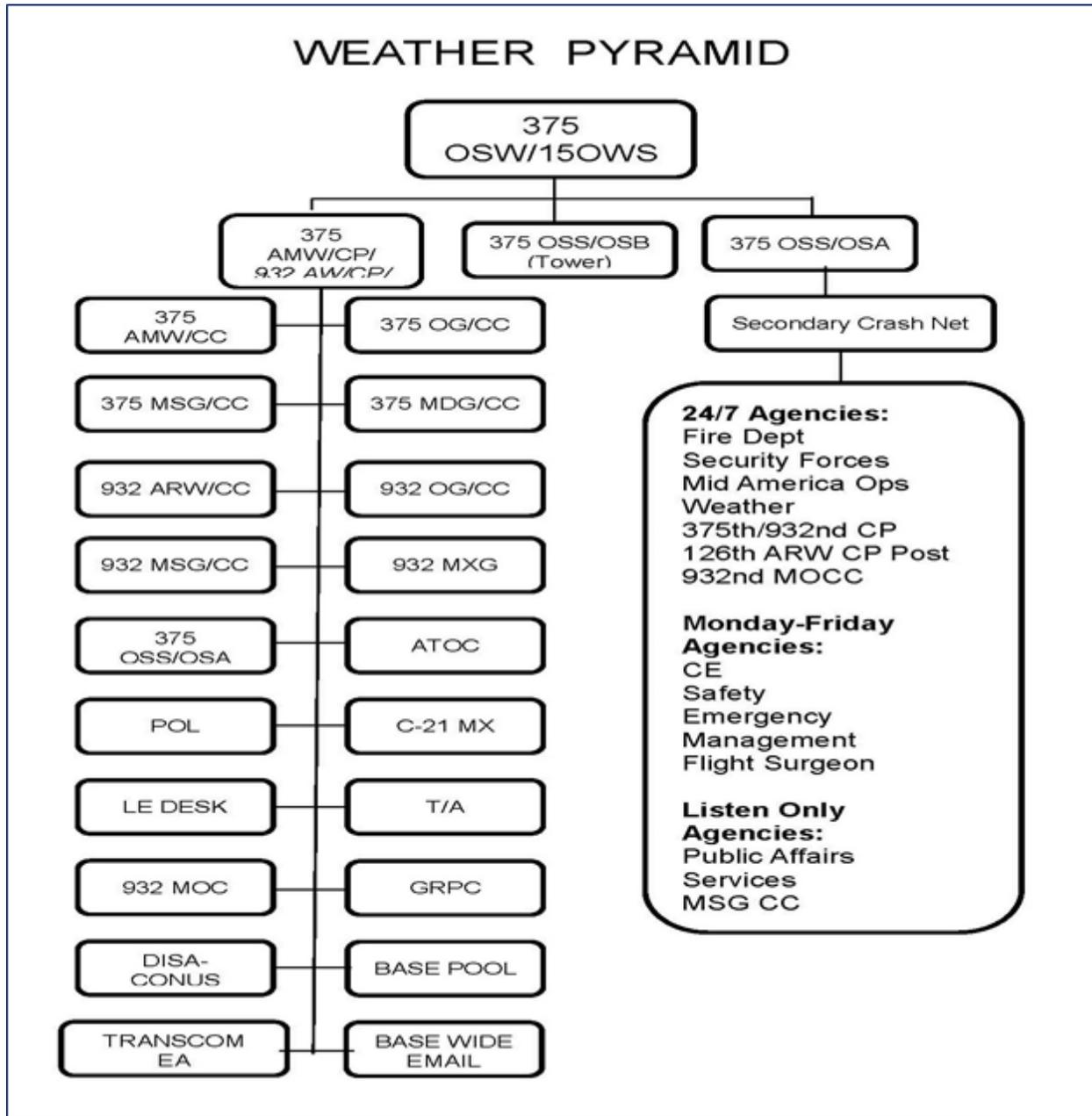
2.5.3. SWS'. SWS' provide advance notice of widespread hazardous weather conditions that have the potential to affect Scott AFB. The 15 OWS transmits SWS' to WF leadership via email. WF leadership forwards SWS' to 375 AMW leadership.

2.5.4. WWAs. The 15 OWS or WF will enter WWAs into JET which will disseminate the information to ATC, 375 AMW/CP, 126 ARW/CP, and 375 OSS Airfield Management (OSA/OSAA). If JET is out-of-service, 15 OWS or the WF will make back-up calls. Upon notification, these units will further disseminate *all* WWAs using the pyramid notification scheme shown in **Figure 2.1**. In addition, the 375 AMW/CP disseminates all WWAs via e-mail and/or AtHoc.

2.5.4.1. Lightning Warnings. All lightning warnings are disseminated by the 375 AMW/CP to the base populace via the giant voice system, allowing members on base to be prepared for dangerous weather. E-mails and/or AtHoc are used as well, 24 hours a day.

2.5.4.2. Tornado Warnings. The 375 AMW/CP has the primary responsibility for sounding the base siren for a tornado warning issuance. In the event the CP system is malfunctioning, 375 OSS/OSA will sound the siren. E-mails and/or AtHoc are used as well.

Figure 2.1. Weather Pyramid Alerting.



2.6. Cooperative Weather Watch (CWW). The WF and ATC have established a CWW as required by AFI 13-204V3 and AFMAN 15-111. The agreement outlines the ATC responsibility to notify the WF when ATC personnel observe specific meteorological phenomena. Of primary concern is the report of tower visibility differing from the prevailing surface visibility, local PIREPs, and any occurrence of previously unreported weather conditions that could affect flight safety or be critical to the safety or efficiency of other local operations and resources. All WF technicians must thoroughly understand and be able to execute every element in the local cooperative weather watch agreement.

2.6.1. Scott AFB Tower personnel will notify weather personnel when:

2.6.1.1. Tower visibility is less than four (4) statute miles (6000 meters) and different from the surface prevailing visibility. However, this information is not included in observations produced by the FMQ-19.

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

2.6.2. ATC Limited Observation Training. The 375 OSS/OSW oversees the Scott AFB Limited Observation Training Program. ATC personnel requiring training should contact the WF chief at DSN 576-4149/Commercial (618) 256-4149 to schedule an appointment. To satisfy Limited Observation Training requirements, personnel are required to pass a written exam and receive an orientation of the weather facilities.

2.7. PMSV Support. Weather information is available via PMSV on frequency 239.8 MHz. The duty forecaster will monitor PMSV traffic for all aircraft contacts. For aircraft outside the range of our PMSV system, the Scott WF or 15 OWS can provide PMSV support through a phone patch to the 375 AMW/CP (DSN 576-5891/Commercial (618) 256-5891). PMSV outages are discussed in paragraph 5.3.2.

2.8. Emergency Action(s) Response.

2.8.1. Aircraft Mishap. When notified on an aircraft mishap, the WF will initiate a save of applicable data used in the development of any weather products provided and provide this data to investigating agencies upon request.

2.8.1.1. If the WF provided the MWP, the WF will notify the 15 OWS Operations Floor Production Supervisor of all aircraft mishaps as soon as possible after notification of the event. The WF will coordinate with 15 OWS to save all applicable data and products. If products from other OWS' were used, the WF will coordinate with all applicable OWS' to ensure data is saved. Enough data covering weather conditions before and after the mishap will be saved to fully reconstruct environmental conditions.

2.8.1.2. If an OWS, 618 AOC/XOW, or another WF provided the MWP, they will conduct the data save in coordination with any other Air Force Weather units involved.

2.8.2. SWAP. The WF will initiate SWAP in accordance with criteria listed in [Table 2.6](#) SWAP ensures sufficient manpower is available to meet the increased demand for timely weather information from its supported unit(s) during significant weather events. It is imperative that timely and accurate weather watches, warnings, and advisories are disseminated to all agencies to ensure personnel and RP. The WF will initiate a heightened METWATCH. The WF forecaster will notify the WF Chief of SWAP activation.

Table 2.6. Conditions Requiring SWAP Activation.

SWAP ACTIVATION Criteria
1. One of the following is issued by the 15 OWS:
Tornado Watch
Tornado Warning
Hail \geq 3/4 inch Warning
Winds \geq 50 kts Warning
Heavy Snow Warning
Freezing Precipitation Warning
Ice Pellets Observed or Forecast Within 1 Hour

2.8.3. Chemical, Biological, Radiological, Nuclear, and High-yield Explosive (CBRNE) Response.

2.8.3.1. If surface observations or alphanumeric forecasts are requested, make sure that observations and forecasts provided are representative of the location/time of the CBRN event.

2.8.3.2. Work closely with Emergency Management or other functions to ensure the supported commander gets a consistent picture.

2.8.3.3. Upon request from Emergency Management or any other agency, obtain/provide Chemical Downwind Messages from the servicing CU.

Chapter 3

MISSION SERVICES

3.1. General. The WF, 15 OWS, and 618 AOC/XOW support the Scott AFB flying and non-flying missions. This chapter identifies the flying and non-flying missions and the weather support provided.

3.2. Flying Missions. The WF and the 618 AOC/XOW provide weather support to the flying units listed in **Attachment 6**.

3.3. MWP. MWPs fuse theater scale products with local mission requirements enabling the direct inject of weather impacts into war fighter planning and/or execution. The result is a product designed to provide timely, accurate, and relevant environmental information for planning and execution. The MWPs must be horizontally consistent with (but not necessarily mirror) products issued by any OWS and 557th Weather Wing (557 WW).

3.3.1. Flight Weather MWPs. GDSS is the primary command and control (C2) system used to request and receive weather briefings to AMC-owned/gained flying units. GDSS provides a unique product that incorporates the requirements of all Scott-based flying units into a common format (see **Attachment 8** and **13** for sample products). Updates can be obtained by calling 618 AOC/XOW at DSN 576-0353/Commercial (618) 229-0353, or by contacting the WF at DSN 576-5905/Commercial (618) 256-5905.

3.3.2. The 458 AS FTU Support. The 458 AS' FTU conducts training for initial qualification and instructor candidates in the C-21A. FTU training sorties normally take place at Scott AFB or at other regional airfields. Due to the stringent weather requirements for simulated emergency procedures and visual flight rules (VFR) pattern training, the 458 AS FTU requires a tailored weather product that provides students and instructors the flexibility to choose the airfield, which best supports training during the specified training period (see **Attachment 9** for sample product). Due to these unique mission requirements, the WF has obtained an AMC-approved waiver to provide all weather briefing support to the 458 AS IAW the WF duty priorities listed in **Table 1.1**.

3.3.3. The 458 AS Take Off and Landing Data (TOLD) Product. The TOLD is 24-hour tailored product used for Flight Training Unit planning purposes. The TOLD product is divided into 2-hour blocks of expected conditions. It also includes local area TAFs commonly used by the C-21 crews. Solar/Lunar data, flight hazards, and flight level winds are also included (see **Attachment 9** for sample product). The 458 AS TOLD product will be prepared by the WF daily and posted at <https://eim.amc.af.mil/org/375oss/OSW/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2F375oss%2FOSW%2FShared%20Documents%2FUsed%20Daily%2FFTU%20TOLD%20Daily>

3.4. MISSIONWATCH. This is a deliberate process for monitoring terrestrial weather and/or the space environment for specific mission-limiting environmental factors.

3.4.1. WF Briefed Sorties. It is through MISSIONWATCH that MWP amendments/updates are accomplished. During rapidly changing weather, the WF will inform the 15 OWS when weather products issued by the 15 OWS do not accurately reflect observed conditions and

impact flight safety. The WF will amend/update the MWP as necessary. In addition, when previously unforecasted weather conditions develop that place a mission at risk, the WF will contact the 375 AMW/CP with updates. The 375 AMW/CP will pass this information to the aircrew. MISSIONWATCH will be conducted and logged.

3.4.2. 618 AOC/XOW Briefed Sorties. The 618 AOC/XOW will MISSIONWATCH for all sorties they support. If significant changes to weather occur, the 618 AOC/XOW will update the Weather Threat Assessment (WTA). IAW AMCI 15-101, the 375 AMW/CP subscribes to WTAs to receive MISSIONWATCH alerts. The 375 AMW/CP will pass WTA information to the aircrew. The following link can be used to subscribe to alerts or view WTA information: <https://tacc.scott.af.mil/?action=WTAMain>.

3.4.2.1. The WF will:

3.4.2.1.1. Actively MISSIONWATCH all non-IFM Scott AFB sorties. MISSIONWATCH will be conducted and logged.

3.4.2.1.2. Review weather packages in GDSS and backup the 618 AOC/XOW IAW paragraph 1.6.3.

3.4.2.1.3. Coordinate with the 618 AOC/XOW if weather deviates from the published WTA.

3.5. Post-Mission Analysis/Feedback. Aircrews should contact 618 AOC/XOW or the WF with post-mission information and/or follow-up support. The 618 AOC/XOW and the WF will utilize customer feedback to improve internal processes and enhance training, forecast proficiency, and product accuracy. Formal/informal feedback methods include:

3.5.1. Completion of 375 OSS/OSW feedback worksheet or 618 AOC/XOW feedback solicitation email.

3.5.2. Phone call or an e-mail to the 618 AOC/XOW or the WF.

3.5.3. Face-to-face feedback after briefing and/or mission completion.

3.6. Transient Aircrew Support. 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 (175-1s), and/or updates to aircrews. Weather technicians may arrange for weather support from the 15 OWS briefing cell when greater duty priorities take precedence. The 15 OWS briefing cell can be reached at DSN 576-9755/9702, commercial (618) 256-9755/9702, or via web access from the aircrew briefing terminal located in the flight planning room.

https://ows.scott.af.mil/wx_brief/index.cfm?UID=&BW=H&UF=O&AOR=1&USEHF=1.

3.7. Non-Flying Missions. The WF and 15 OWS support various non-flying missions (e.g., wing picnic, change of command ceremonies, Morale Welfare and Recreation) through RP (WWAs). Specific support to non-flying missions is identified in **Chapter 4**. Specialized weather information can be provided to support any non-flying mission upon request. Non-governmental agencies should request weather information and support through 375 AMW Public Affairs (PA).

3.8. Space Weather Impacts. Scott's missions have a wide-variety of parameters affected by various space-weather conditions (High Frequency and Ultra High Frequency communication,

radar, Global Positioning System communications, etc.). The WF and 618 AOC/XOW provide space impacts on their MWP. Products that are more detailed are available at https://ows.scott.af.mil/by_type/space/index.cfm. An example of the daily discussion is provided in **Attachment 10**.

Chapter 4

STAFF SERVICES

4.1. General. Staff services are typically accomplished by WF leadership and include meteorological functions (briefings), ensuring the WF is trained and equipped for day-to-day operations, and cultivating relationships with base agencies to ensure WF support is optimal.

4.2. Staff Meteorological Functions. Staff meteorological functions aid leadership in identifying and understanding specific weather and environmental impacts. The WF is available to assist commanders in determining weather support requirements and impacts to operations. Examples of staff meteorological functions provided are:

4.2.1. The 375 AMW Staff Briefings. Staff weather briefings for 375 AMW (wing stand up) will be provided as required. Standard information includes satellite picture, radar imagery, daily weather story, and a 5-day Scott AFB weather outlook with a focus on any affected wing events. A daily weather slide presentation will be provided to the 375th Operations Group (OG). Standard information includes a 3-day Scott AFB weather outlook and Geographically Separated Unit 3-day weather outlook stoplight chart.

4.2.2. Crisis Action Team (CAT) Briefings. The WF will provide weather support as required for CAT briefings. This includes real-world emergency, exercise, and deployment briefings. Taylor each briefing to provide the appropriate weather intelligence required by the 375 AMW, the 932 AW, and/or the 126 ARW leadership.

4.2.3. Instrument Refresher Course (IRC) Briefings. In accordance with AFMAN 11-210, *Instrument Refresher Course (IRC) Program*, computer based training is available for the weather portion of the briefing. If requested, the WF can provide a briefer to discuss more detailed local weather effects and impacts. This briefing will include airfield and mission services, WF capabilities, RP, seasonal/regional weather and space weather impacts (when applicable).

4.2.4. Predeployment Planning Briefings. The WF will provide predeployment weather briefings as requested. Briefing content will be tailored to meet customer requirements. For example, an aviation unit will receive weather impacts at the deployed location on their flying mission, in addition to the standard surface weather information usually presented to ground units. A ground-based unit will receive a briefing on surface temperatures, wind speed, potential for blowing sand and dust, and precipitation.

4.2.5. Climatology Services. WF will provide climatology information when requested, for example end of month climatology or historical climatology.

4.3. Staff Integration Functions. WF leadership will ensure their unit is adequately resourced to meet both operational and staff requirements. In addition to leadership and management of unit activities, these unit members will also function as a direct interface with the supported unit commander and staff, and provide direct support to command, control, and planning functions. Specific integration with base agencies is outlined below.

4.3.1. The 375 AMW, 126 ARW, and 932 AW CCs (IG). The WF will assist in periodic exercises tailored to upcoming seasonal weather or other environmental concerns and will

educate base agencies on the purpose and applicability of weather watches, warnings and advisories.

4.3.2. The 375 AMW, 126 ARW, and 932 AW CPs. The WF will notify the CPs whenever the base weather station is evacuated and/or the AOL is activated.

4.3.3. The 375 AMW/PA. The WF provides tours of the base weather station for community groups and others when coordinated by wing PA.

4.3.4. The 375 OSS/OSAA. The 15 OWS or WF provides notification of all forecasted weather watches, warnings, and advisories via Integrated Weather Warnings Capability (IWWC), telephone, e-mail, or in-person during airfield hours of operations.

4.3.4.1. The WF will notify the OSAA whenever the base weather station is evacuated and/or the AOL is activated.

4.3.4.2. WF leadership will participate as a member of the Airfield Operations Board (AOB) as directed in AFI 13-204V3, *Airfield Operations Procedures and Programs*.

4.3.5. The 375 OSS/OSAB.

4.3.5.1. The WF provides notification of all-weather watches, warnings, and advisories via IWWC/telephone/or e-mail.

4.3.5.2. The WF will notify the OSAB whenever the base weather station is evacuated and/or the AOL is activated.

4.3.6. The 375th Civil Engineer Squadron (CES). The WF will provide a monthly climatology report.

4.3.7. All supported flying units (458 AS, 54 AS, 126 ARW, and 932 AW). The WF will provide services as outlined throughout this publication.

4.4. Reciprocal Support.

4.4.1. The 375 AMW, 126 ARW, and 932 AW CPs.

4.4.1.1. Ensure dissemination of weather watches, warnings, and advisories as outlined in **Chapter 2** of this instruction.

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

4.4.1.3. Subscribe to and monitor the Weather Threat Assessment notifications for 375 AMW missions.

4.4.1.4. The 375 AMW/CP will run applicable Quick Reaction Checklists (QRCs) to notify wing leadership and various base agencies of severe weather when notified by the 15 OWS or the WF.

4.4.2. The 375 AMW/CP. Activate sirens for a tornado when a tornado WARNING is issued.

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

4.4.4. The 375 OSS/OSAA.

- 4.4.4.1. Notify WF personnel of in-flight, ground emergencies, or mishaps and termination via the secondary crash network.
- 4.4.4.2. Activate sirens when a Tornado WARNING is issued and the 375 AMW/CP does not have the capability to issue.
- 4.4.4.3. Ensure dissemination of weather warnings and advisories as outlined in **Chapter 2** of this instruction.
- 4.4.5. The 375 OSS/OSAB.
 - 4.4.5.1. Participate in CWW.
 - 4.4.5.2. Notify the WF of all changes in active runway.
 - 4.4.5.3. Notify the WF of any light setting changes on the high-intensity runway lights.
 - 4.4.5.4. Relay pilot weather reports to weather personnel not later than 5 minutes after receipt, as other duties permit.
 - 4.4.5.5. Provide control tower orientation training for weather personnel.
 - 4.4.5.6. Initiate radio checks to ensure proper PMSV operation.
 - 4.4.5.7. Notify the weather forecaster if surface visibility or tower visibility is below 4 statute miles and tower visibility differs from surface visibility.
- 4.4.6. The 375 AMW Safety Office (SE). Request a Scott AFB WF briefer for seasonal weather briefings and provide 2 weeks advance notice when possible.
- 4.4.7. The 375 OSS Airfield Systems (OSAM).
 - 4.4.7.1. 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).
 - 4.4.7.2. 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.
 - 4.4.7.3. Utilize the restoration priorities for weather communications and meteorological sensing equipment outlined in this document.
 - 4.4.7.4. Notify the responsible service agents for weather communications and meteorological sensing equipment outages.
 - 4.4.7.5. Coordinate with off-base agencies to repair off base lines.
 - 4.4.7.6. Perform necessary follow-up actions as required until full service is restored.
 - 4.4.7.7. Ensure weather data and telephone circuits are assigned repair priorities.
 - 4.4.7.8. Ensure established maintenance response times are met.
 - 4.4.7.9. Ensure a 24-hour point of contact for reporting outages and assigning job control numbers is available.
 - 4.4.7.10. Coordinate with WF shift supervisor prior to taking any equipment down for maintenance.

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

4.4.9. The 375th Security Forces Squadron (SFS). Promptly inform the WF of any hazardous weather reported by security forces personnel (tornado, hail, etc.).

4.4.10. All Supported Flying Units (457 AS, 458 AS, 54 AS, 906 ARS, 126 ARW, and 932 AW).

4.4.10.1. 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.).

4.4.10.2. 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.

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

4.4.10.4. Provide PIREPS either directly to the WF or through the PMSV, tower, or Airfield Management.

4.4.10.5. Provide feedback on all weather briefings via e-mail or survey to the WF or 618 AOC/XOW.

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

4.4.11. Airfield Management Flight Information Publication (FLIP) Manager. The FLIP manager will submit FLIP updates provided by the WF to Air Force Flight Standards Agency/Operating Location-D /OL-D.

4.4.12. The 375th Aerospace Medicine Squadron Bioenvironmental Flight (AMDS/SGPB). Provide the base populace with the Wet Bulb Globe Temperature (WBGT) as required.

4.4.13. All weather support recipients.

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

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

Chapter 5

WEATHER EQUIPMENT

5.1. General. This chapter provides a brief description of the meteorological and communications equipment used by the WF. Additionally, it provides information on backup systems, maintenance, and restoring priorities.

5.2. Meteorological Equipment. The WF uses the FMQ-19 and Weather Surveillance Radar, 1988 Doppler (WSR-88D) weather radar to determine the current state of the atmosphere. These critical systems provide customers the most timely, accurate, and relevant weather intelligence possible. **Note:** TMQ-53 is a tactical automated observing system that is used by the WF during contingency and exercise operations. The TMQ-53 provides a capability that is very similar to the FMQ-19.

5.2.1. FMQ-19. The FMQ-19 samples, measures, and reports: temperature, wind speed and direction, visibility, cloud base height and amount of coverage, pressure, liquid equivalent precipitation accumulation, and ice accretion during freezing precipitation. These measurements are processed to create properly formatted, fully automated observations that comply with applicable various reporting standards and protocols defined in the Federal Meteorological Handbook (FMH-1), the World Meteorological Organization (WMO), the Federal Aviation Administration (FAA), National Weather Service, and military reporting standards.

5.2.2. WSR-88D. The WF utilizes the WSR-88D as its primary source of radar data. Weather technicians make use of Gibson Ridge radar software to analyze complex radar signatures and obtain detailed information on storm intensity, movement, internal circulation, and general wind flow. Weather technicians will routinely incorporate the latest radar information into all mission execution forecasts and RP products.

5.3. Communications Equipment. The following systems are the backbone of the WF communications network:

5.3.1. JET. As discussed in paragraph 2.5 of this instruction, JET is the primary system for disseminating forecast, observations, warnings, watches, and advisories. Telephones are used as a backup for key aircraft controlling agencies.

5.3.2. PMSV Radio. The PMSV Radio (239.8 MHz) allows the WF to communicate with aircrews, both on the ground and flying, as well as tower personnel. If the PMSV is out-of-service, aircrews can contact Little Rock AFB Weather at 239.8 MHz, 618 AOC/XOW or the 15 OWS via phone patch (where possible) to get weather data.

5.3.3. Phones/Hotlines. Phones and hotlines serve primarily for rapidly passing along critical, time-sensitive information, as well as to serve for backup services.

5.3.4. Local Area Network (LAN). The WF relies heavily on the LAN to improve the timeliness and accuracy of weather intelligence to our customers.

5.4. Maintenance. Table 5.1 identifies which organizations provide preventive maintenance and repair weather and communications equipment.

Table 5.1. Equipment Maintenance List.

Organization	Equipment
375 OSS/OSAM (Airfield Systems)	FMQ-19, GRT-22, GRR-24
557 WW Fielded Systems	JET
375 CS/SCOIV (Telephone Systems)	Phones/Hotlines
375 CS/SCOIN (Network Maintenance)	LAN/Internet Connectivity

5.4.1. Restoral Priorities. Priorities for restoring critical systems exist in the event natural disasters or any other anomaly, simultaneously impacting systems base wide. Significant indicates a situation where the equipment is completely inoperative, while minimal means the equipment is in limited operation. The priorities for weather equipment are listed in **Table 5.2** below (priorities may be adjusted based on forecasted weather):

Table 5.2. Equipment Restoral Priorities.

Equipment	Organization	Response Times Significant/Minimal
PMSV Radio	375 OSS/OSAM	Immediate/24 hours
FMQ-19	375 OSS/OSAM	Immediate/24 hours
LAN/Internet Connectivity	375 CS/SCOIN	Immediate/12 hours
Phones/Hotlines	375 CS/SCOIV	Immediate/12 hours

5.5. Building Power. In the event of a commercial power interruption, building 433 will automatically switch to a backup generator.

LAURA L. LENDERMAN, Colonel, USAF
Commander

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

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Adopted Forms

DD Form 175-1, *Flight Weather Briefing*

Abbreviations and Acronyms

AGL—Above Ground Level

AMC—Air Mobility Command

AMCI—Air Mobility Command Instruction

AMDS—Aerospace Medicine Squadron

AMOS—Automated Observing System

AMW—Air Mobility Wing

AOB—Airfield Operations Board

AOC—Air and Space Operations Center

AOL—Alternate Operating Location

ARW—Air Refueling Wing

AS—Airlift Squadron

ATC—Air Traffic Control

AW—Airlift Wing

CAT—Crisis Action Team

CBRNE—Chemical, Biological, Radiological, Nuclear, and High-yield Explosive

CES—Civil Engineer Squadron

COOP—Continuity of Operations Plan

CP—Command Post

CS—Communications Squadron

CU—Characterization Unit

CVAM—Special Air Missions Division, Office of Assistant Vice Chief of Staff

CWW—Cooperative Weather Watch

FLIP—Flight Information Publication

FTU—Formal Training Unit

GDSS—Global Decision Support System

GTE—Greater Than or Equal to

FAA—Federal Aviation Administration

FMH-1—Federal Meteorological Handbook

ICAO—International Civil Aviation Organization

IFM—Integrated Flight Management

IG—Inspector General

IRC—Instrument Refresher Course
IWWC—Integrated Weather Warnings Capability
JET—Joint Environmental Toolkit
KT—Knots
LAN—Local Area Network
LOCAL—Local Weather Report
METAR—Meteorological Terminal Aviation Routine Report
METWATCH—Meteorological Watch
MWP—Mission Weather Product
NM—Nautical Miles
OG—Operations Group
OL-D—Operating Location-D
OPR—Office of Primary Responsibility
OSA/OSAA—Airfield Management
OSAB—Tower
OSAM—Airfield Systems
OSS—Operations Support Squadron
OSW—375th Operations Support Squadron Weather Flight
OWS—Operational Weather Squadron
PA—Public Affairs
PIREP—Pilot Report
PMSV—Pilot-to-Metro Service
QRC—Quick Reaction Checklists
RP—Resource Protection
RVR—Runway Visual Range
SCOIV—Telephone Systems
SCOIN—Network Maintenance
SE—Safety
SFS—Security Forces Squadron
SGPB—Bioenvironmental Flight
SM—Statute Mile
SPECI—Special

SWAP—Severe Weather Action Procedures

SWS—Special Weather Statements

618 AOC—Tanker Airlift Control Center

TAF—Terminal Aerodrome Forecast

TOLD—Take Off and Landing Data

UFN—Until Further Notice

VFR—Visual Flight Rules

WF—Weather Flight

WGBT—Take Off and Landing Data

WMO—World Meteorological Organization

WTA—Weather Threat Assessment

WSR-88D—Weather Surveillance Radar, 1988 Doppler

WWA—Warning, Watches, and Advisories

XOW—618th Air and Space Operations Center (618 AOC) Weather Flight

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.

Visibility (Statute Miles)	3	<u>2</u> <u>3/4</u>	<u>2</u> <u>1/2</u>	<u>2</u> <u>1/4</u>	2	<u>1</u> <u>7/8</u>	<u>1</u> <u>3/4</u>	<u>1</u> <u>1/2</u>	<u>1</u> <u>3/8</u>	<u>1</u> <u>1/4</u>	<u>1</u> <u>1/8</u>	<u>1</u>	<u>3/4</u>	<u>5/8</u>	<u>1/2</u>	<u>1/4</u>
Note: Items in bold/underline 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.

Height (feet)	2,000	1,500	1,000	<u>800</u>	<u>700</u>	<u>600</u>	<u>500</u>	<u>400</u>	<u>300</u>	<u>200</u>
Note: Items in bold/underlined 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).

A2.1.8.1. Tornado, funnel cloud, or waterspout. Only a single-element special observation is needed.

A2.1.8.1.1. Observed and/or disappears from sight.

A2.1.9. Runway Visual Range (RVR). WF will provide RVR output according to the specifications listed in **Table A2.3**.

Table A2.3. RVR Reporting.

Runway Visual Range (RVR)
- 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: <ul style="list-style-type: none"> - 6,000 feet (P1500 meters) - 5,000 feet (1500 meters) - 2,400 feet (0750 meters) - 2,000 feet (0600 meters) - 1,600 feet (0500 meters) - 1,000 feet (0300 meters)
- 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 back-up mode WF will immediately take a SPECI observation IAW AFI 15-111.

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

Attachment 3

FORECAST SPECIFICATION AND AMENDMENT CRITERIA

A3.1. Specification Criteria. The TAF will specify the time of occurrence, duration, and the intensity (if applicable) of expected weather conditions. The following weather criteria will be specified in TAFs if expected to occur during the forecast period:

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
≥ 1,000 FT	≥ 2 SM (3,200 M)	D
≥ 700 FT	≥ 2 SM (3,200 M)	C
≥ 200 FT	≥ 1/2 SM (800 M)	B
< 200 FT	< 1/2 SM (800 M)	A

A3.1.2. Wind:

A3.1.2.1. A change in wind speed of 10 knots or more

A3.1.2.2. An onset, duration, and intensity of wind gusts by 10 knots or more.

A3.1.2.3. A change in prevailing wind direction of more than 30 degrees when the predominant wind speed or gusts are expected to be more than 15 knots.

A3.1.3. Icing, not associated with thunderstorms, from the surface to 10,000 feet Above Ground Level (AGL).

A3.1.4. Turbulence (for Cat II aircraft), not associated with thunderstorms, from the surface to 10,000 feet AGL.

A3.1.5. Non-convective low-level wind shear.

A3.1.6. Any weather warning criteria (that can be specified in the TAF), including non-convective low-level wind shear that occurs, or is expected to occur, during the forecast period.

A3.1.7. Altimeter Setting. The onset of altimeter settings meeting or exceeding 31.00 INS or altimeter settings 28.00 INS or less. If less than the threshold specify when altimeter settings equal or exceed the thresholds, if greater than, specify when altimeter settings will decrease to equal or less than the thresholds.

A3.1.8. Forecast Weather Advisory Criteria (issued for TAF amendable criteria), including non-convective low-level wind shear that occurs, or is expected to occur, during the forecast period.

A3.1.9. Precipitation.

A3.1.10. Thunderstorms.

A3.1.11. TAF Amendments. Forecasters will ensure the TAF is representative of expected or actual conditions. Forecasters will amend the TAF:

A3.1.11.1. Temporary Conditions:

A3.1.11.1.1. Amend if temporary conditions become predominant.

A3.1.11.1.2. Amend if temporary conditions do not occur as forecast.

A3.1.11.1.3. Amend if temporary conditions are no longer expected to occur.

A3.1.11.2. Changes to Predominant Conditions. Amend if forecast changes conditions occur before the specified period of change, do not occur, or are no longer expected to occur.

A3.1.12. Representative Conditions. Amend if 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.

A3.2. Amendment Criteria.

A3.2.1. TAF Amendments. Forecasters will ensure the TAF is representative of expected or actual conditions. Forecasters will amend the TAF.

A3.2.1.1. Temporary Conditions.

A3.2.1.1.1. Amend if temporary conditions become predominant.

A3.2.1.1.2. Amend if temporary conditions do not occur as forecast.

A3.2.1.1.3. Amend if temporary conditions are no longer expected to occur.

A3.2.1.2. Changes to Predominant Conditions. Amend if forecast changes conditions occur before the specified period of change, do not occur, or are no longer expected to occur.

A3.2.2. Representative Conditions. Amend if 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.

A3.2.2.1. 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 A4.1](#) and was not specified in the TAF.

A3.2.2.2. Winds.

A3.2.2.2.1. If the difference between the predominant wind speed (or gust) and the forecast wind speed (or gust) is 10 knots or more.

A3.2.2.2.2. If wind gust speed is in error by 10 knots or more.

A3.2.2.2.3. If prevailing wind speed is in error by more than 30 degrees AND winds are more than 15 knots.

A3.2.2.3. Icing, if beginning or ending of icing meets, exceeds, or decreases to less than moderate (or greater) intensity and was improperly specified in the forecast.

A3.2.2.4. Turbulence, if the beginning or ending of turbulence meets, exceeds, or decreases to less than moderate (or greater) intensity and was improperly specified in the forecast.

A3.2.2.5. 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.

A3.2.2.6. Weather Warning Criteria.

A3.2.2.6.1. If weather warning criteria occurs, or is expected to occur, during the forecast period, but was not specified in the forecast.

A3.2.2.6.2. Was specified in the forecast, but is no longer occurring or expected to occur during the forecast period.

A3.2.2.7. Altimeter Setting. If the altimeter setting meets, or is expected to meet the threshold and was not specified in forecast.

A3.2.2.8. 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.

A3.2.2.9. Precipitation:

A3.2.2.9.1. If unforecasted freezing precipitation begins or ends.

A3.2.2.9.2. If the beginning or ending of precipitation causes local weather warnings or advisories specified in the TAF to be issued, canceled, or amended.

A3.2.2.9.3. If the occurrence or nonoccurrence is considered operationally significant.

A3.2.2.10. Thunderstorms. If the start or end time of the thunderstorm is incorrectly specified.

A3.2.2.11. Temporary Conditions.

A3.2.2.11.1. If temporary conditions become predominant.

A3.2.2.11.2. If temporary conditions do not occur as forecast.

A3.2.2.11.3. If temporary conditions are no longer expected to occur.

A3.2.2.12. Changes to Predominant Conditions. If forecast changes conditions occur before the specified period of change, do not occur, or are no longer expected to occur.

A3.2.2.13. Representative Conditions. If 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.

Attachment 4

**SAMPLE WEATHER PRODUCT DISSEMINATION FORMAT/INTERPRETATION
OBSERVATION/TAF/WWAS**

A4.1. Type of Report. METAR or SPECI.**Table A4.1. Sample Weather Observations.**

1	2	3	4	5	6	7	8	9	10
SPECI KBLV 1506Z AUTO 17013G22KT 2 1/2 RVRNO TSRA BKN015CB OVC030 76/75									
ALSTG 29.99 RMK AO2 TS OHD MOV NE									
11 12									
Body of Report - Consists of 11 Groups									
Group		Reference		Brief Description					
Type of Report		A5.1.		Indicates type of report.					
Station Identifier		A5.2.		A four-character group used to identify the observing location.					
Date and Time of Report		A5.3.		Date and time of the report.					
Report Modifier		A5.4.		A report modifier (COR) identifying report as a correction, or AUTO indicating the weather observation is a fully automated report with no human intervention. Gusts are appended if available.					
Wind		A5.5.		Indicates wind direction and speed.					
Visibility		A5.6.		Provides prevailing visibility from the designated point of observation in statute miles or meters.					
Runway Visual Range		A5.7.		10-minute RVR or varying RVR in hundreds of feet or meters.					
Present Weather		A5.8.		Any weather occurring at the observing location, obscurations to vision, or other phenomena.					
Sky Condition		A5.9.		State of the sky in terms of sky cover, layers and heights, ceilings and obscurations.					
Temperature and Dew Point		A5.10.		Measure of hotness/coldness of ambient air. Dew point measures saturation point temperature.					
Altimeter		A5.11.		Indicates altitude above MSL of an aircraft on the ground.					
Remarks		A5.12.		Remarks generally elaborate on parameters reported in the body of the report, and will be included in all METAR and SPECI observations.					

A4.2. Station identifier, also called the International Civil Aviation Organization (ICAO). This code identifies the location of the observation (in this case Scott AFB).

A4.3. Date and Time of Report. This is in Zulu (GMT) of the last element of the observation.

A4.4. Report Modifier. The report modifier can be either of the following two elements:

A4.4.1. COR is entered into the report modifier group when a corrected METAR or SPECI is transmitted.

A4.4.2. AUTO identifies the report as a fully automated report with no human intervention.

A4.4.2.1. AUTO is automatically included in reports when the weather technician signs off the AMOS indicating the observations are no longer being augmented.

A4.4.2.2. AUTO and COR will not be seen in the same observation. If the term COR is used, the observation cannot be reported as AUTO, since a weather technician is manually correcting the observation.

A4.5. Wind. The true direction the wind is blowing from is encoded in tens of degrees using three figures. Directions less than 100 degrees are preceded with a "0." The wind speed is entered as a two- or three-digit group immediately following the wind direction.

A4.5.1. Gust. The wind gust is encoded in two or three digits immediately following the wind speed. The wind gust is encoded in whole knots using the units and tens digits and, if required, the hundreds digit.

A4.5.2. Variable Wind Direction (speeds 6 knots or less). Variable wind direction with wind speed 6 knots or less may be encoded as VRB in place of the direction.

A4.5.3. Variable Wind Direction (speeds greater than 6 knots). Wind direction varying 60 degrees or more with wind speed greater than 6 knots will be encoded. The variable wind direction group will immediately follow the wind group. The directional variability will be encoded in a clockwise direction. For example, if the wind is variable from 180 degrees to 240 degrees at 10 knots, it would be encoded 21010KT 180V240.

A4.5.4. Calm Wind. Calm wind is encoded as 00000KT.

A4.6. Visibility. The furthest predominant distance (at least 50% of the aerodrome) seen from the airfield reported in statute miles. The most common visibility reported is 7 miles.

A4.7. Runway Visual Range.

A4.8. Present weather. Any weather phenomenon occurring on the airfield. This is mandatory anytime the visibility is less than seven miles. [Table A5.2](#) lists the present weather codes:

Table A4.2. Weather Phenomena Codes.

Qualifier Intensity Or Proximity	Weather Phenomena			
	Descriptor	Precipitation	Obscuration	Other
- Light	MI (Shallow)	DZ (Drizzle)	BR (Mist)	PO (Developed Dust/Sand Whirls)
Moderate	PR (Partial)	RA (Rain)	FG (Fog)	SQ (Squall)
+ Heavy	BC (Patches)	SN (Snow)	FU (Smoke)	FC (Funnel Cloud, Tornado, or Water Spout)
VC (Vicinity)	DR (Low Drifting)	SG (Snow Grains)	VA (Volcanic Ash)	SS (Sandstorm)
	BL (Blowing)	IC (Ice Crystals)	DU (Dust)	DS (Dust Storm)
	SH (Showers)	PL (Ice Pellets)	SA (Sand)	
	TS (Thunderstorms)	GR (Hail)	HZ (Haze)	
	FZ (Freezing)	GS (Small Hail or Snow Pellets)	PY (Spray)	
		UP (Unknown Precip)		

A4.9. Sky Condition and Cloud Height. Describes the amount of clouds present at the airfield and the base of each cloud deck. They fall into the following categories:

A4.9.1. SKC—Sky Clear.

A4.9.2. FEW—1/8 to 2/8 coverage.

A4.9.3. SCT—Scattered; 3/8 to 4/8 coverage.

A4.9.4. BKN—Broken; 5/8 to 7/8 coverage.

A4.9.5. OVC—Overcast; 8/8 coverage.

A4.9.6. VV—Vertical visibility; normally used during heavy fog, indicates how far up into the fog can be seen.

A4.9.7. FEW000—Surface-based obscuration.

A4.9.8. Cloud Height. Three-digit number provides the height of the base of the cloud in hundreds of feet (e.g., 015 equals 1,500 feet). The Cumulonimbus and Towering Cumulus (TCU) descriptors may be appended to the cloud height to indicate the cloud is a cumulonimbus or towering cumulus.

A4.10. Temperature and Dew Point (i. e., can be in degrees, either Fahrenheit or Celsius.

A4.11. Altimeter Setting. The current value aircraft altimeters must be set at to read an elevation of zero. The altimeter is measured in inches (INS) of mercury.

A4.12. Remarks. **Table A5.3** contains some of the most commonly seen remarks in observations:

Table A4.3. Remarks Listing.

AO2—Automated sensor indicator
CB—Cumulonimbus
DSNT—Distant
ESTMD—Estimated
FROPA—Frontal Passage
LTG—Lightening
LWR—Lower
MOV—Moving
MOVD—Moved
OHD—Overhead
PK WND—Peak Wind
PRESFR—Pressure Falling Rapidly
PRESRR—Pressure Rapidly Rising
RWY—Runway
TCU—Towering Cumulus
TWR—Tower
UNKN—Unknown
VIS—Visibility
WSHFT—Wind Shift
PA—Pressure Altitude
DA—Density Altitude

A4.13. TAF.

Table A4.4. Sample TAF.

KBLV 0108-0214 31005KT 7 SCT015 SCT250 ALSTG30.15INS
BECMG 17-18 12010KT 4 SHRA SCT010 BKN025 OVC080 ALSTG30.05INS
TEMPO 19-22 VRB10G20KT 1/2 TSRA SCT008 BKN015CB OVC030 T24/20Z T10/10Z

A4.13.1. The forecast follows the same general format as the observation with the following exceptions noted:

A4.13.1.1. Valid Date/Time. Forecasts are valid for a 30-hour period. In this example, the forecast is valid from the first at 0800Z until the second at 1400Z.

A4.13.1.2. BECMG—This is a code to indicate the predominant conditions will change to (or become) the conditions listed in the line of the forecast. The conditions will change during the time period follows the BECMG code (1700 to 1800Z in the example above).

A4.13.1.3. TEMPO—is code means the conditions listed on the line may occur for periods of an hour or less (1 hour and 15 minutes or less for thunderstorms) anytime between the time frame following the TEMPO code (1900Z to 2200Z in this example).

A4.13.1.4. Max Temp/Min Temp. T24 indicates a maximum temperature in Celsius to occur at 20Z. T10 indicates a minimum temperature of 10 Celsius to occur at 10Z (**Note:** M indicates a minus sign in front of the number: M05 = -5 C).

A4.14. Weather Warnings, Watches, and Advisories.

Table A4.5. Observed Weather Warning.

<p>SCOTT AFB WEATHER WARNING 05-001 VALID 17/1921Z (17/1321L) TO UFN LIGHTNING IS OBSERVED WITHIN 5NM 08/RS</p> <p>1. FORECAST WEATHER WARNING. SCOTT AFB WEATHER WARNING 11-051 VALID 10/1500Z(10/0900L) TO 10/2200Z(10/1600L) WINDS ASSOCIATED WITH MODERATE THUNDERSTORMS ARE FORECAST TO BE 35-49 KNOTS AT SCOTT AFB. MAXIMUM GUST EXPECTED: 41 KNOTS 18/THB</p> <p>2. WEATHER WATCH. SCOTT AFB WEATHER WATCH 05-215 VALID 15/1858Z (15/1358L) TO 15/2100Z (15/1600L) A LIGHTNING WATCH IS NOW IN EFFECT FOR SCOTT AFB UNTIL 1600L. A WARNING WILL BE ISSUED LATER IF REQUIRED. 58/GO</p> <p>3. OBSERVED WEATHER ADVISORY. SCOTT AFB WEATHER ADVISORY 09-134 VALID 08/1408Z (080908L) TO UFN CROSSWINDS OBSERVED TO BE EQUAL TO OR GREATER THAN 25KTS 44/ST</p>
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Attachment 5

CUSTOMER RESPONSE MATRIX

Table A5.1. Customer Response Matrix.

Weather Phenomena	Lead Time	Impact	Customer Action
Tornado	15 min	Personal injury/death Equipment damage	Seek shelter
Hail (3/4" or more)	60 min	Personal injury/death Equipment damage	Seek shelter; hangar or divert aircraft
Freezing Precipitation	60 min	Delay or cease operations	Cease flying; hangar or protect aircraft
Surface winds ≥ 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	Observed	Personal injury/death Delay operations	Cease flight-line work; clear pool/golf course
Crosswinds ≥ 25 knots	Observed	Flight hazard	Cease/delay take-off for C-21A and KC-135E/R
Crosswinds ≥ 15 knots but < 25 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 GTE 2" in 6 hours	60 min	Delay operations	Prepare water pumps for building flooding
Snow accumulation GTE 2" in 6 hours	60 min	Delay operations	Activate snow removal plan Hangar aircraft
Equivalent Wind Chill Temp -20 to -29 F	Observed	Personal injury Slow/delay outside work	Work 45 minutes; Rest 15 minutes in heated area
Equivalent Wind Chill Temp -30 to -39 F	Observed	Personal injury/death Slow/delay outside work	Work 30 minutes; Rest 30 minutes in heated area
Equivalent Wind Chill Temp -40 to -49 F	Observed	Personal injury/death Slow/delay outside work	Work 15 minutes; Rest 45 minutes in heated area
Equivalent Wind Chill Temp -50 F or colder	Observed	Personal injury/death Stop outside work	Stay indoors
Ice Pellets	Observed	Reduces de-icing effectiveness	Evaluate de-icing effectiveness

Attachment 6

**FLYING UNITS SUPPORTED & MISSION LIMITING ENVIRONMENTAL
CONDITIONS**

Table A6.1. Flying Units Supported.

Organization	Mission	MWP Provider
375 AMW (C-21A)	Provides operational support for airlift and aeromedical evacuation during war, peacetime, and contingency operations.	WF
932 AW (C-40) 54 AS (C-40)	Provides worldwide airlift for distinguished visitors and their staffs.	WF
126 ARW (KC-135E/R)	Provides air-refueling services for war, peacetime, and contingency operations.	618 AOC/XOW

A6.1. Mission Limiting Thresholds.

A6.1.1. Airframe-Specific Weather Limitations. **Table A6.2— A6.10** provide the general airframe weather limitations based on AFI 11-202V3, *General Flight Rules*, and the limitations from aircraft specific AFI 11-2.

Table A6.2. USAF General Flight Rules Weather Limitations.

(Ref: AFI 11-202V3)		
Weather Condition	Impact	Customer Action
Cig/Vis < 2,000 / 3	Alternate required	Add fuel to allow divert
Cig/Vis < 1,000/ 2, if MAJCOM approved	Alternate required	Add fuel to allow divert
Cig/Vis < 500 / 2	Terminal not suitable for alternate	Select another alternate

Table A6.3. C21A Weather Sensitivities.

Condition	Limit	Response Action
Dry Crosswind Landing	greater than 25KT	Delay or proceed to ALT
Dry Crosswind (Training Sortie)	greater than 25KT	Delay or proceed to ALT
Mountain Wave Turbulence	Observed or Forecast Moderate	Avoid
RVR	1000 (Dual RVR & Centerline Lighting) or 1600, 1/2 mile (800 meters) if no RVR	No takeoffs

Table A6.4. C-21A Training Maneuver Restrictions.

(Ref: AFI 11-2C-21, Volume 3, <i>C-21 Operations Procedures</i> , Table 9.1.)	
Maneuver	Altitude Restriction
Actual engine shutdown (Note: perform only for FCF (actual or training))	5K foot AGL (min)
Any simulated on takeoff or approach	Initiate above 500-foot AGL
Low approaches with personnel and equipment on runway	Initiate at or above 500-foot AGL
Instrument missed approach	Initiate at or above mins for the approach flown
Planned VFR go-arounds w/simulated emergencies other than engine-out	Initiate at or above 100-foot AGL

Table A6.5. KC-135 Weather Sensitivities.

Condition	Limit	Response Action
Dry Crosswind Landing	greater than 25KT	Delay or proceed to ALT
Dry Crosswind (Training Sortie)	greater than 25KT	Delay or proceed to ALT
Mountain Wave Turbulence	Observed or Forecast Moderate	Avoid
RVR	1000	No takeoffs

Table A6.6. KC-135 Training Maneuver Restrictions.

(Ref: AFI 11-2KC-135, Volume 3, <i>KC-135 Operations Procedures</i>)		
Maneuver	Ceiling/Visibility Minimums	Other Restriction
Touch-and-go landings (Paragraph 9.3.)	1. Minimum ceiling of 1,000 AGL and visibility of 2 SM for A/Cs. 2. Minimum ceiling of 300 AGL and RVR 4000 (3/4 SM visibility with direct IP supervision.	1. RCR measured 9 or greater 2. Max crosswind 15 knots (10 kts for Advisory Circulars (ACs)) 3. Not accomplished on slush-covered runways.
Engine out simulations (Paragraph 9.5.2.4.)	Day: Circling mins for approach being flown (<600/2 if none published. Night: <1,000/2 or circling mins (higher of the 2)	Maximum crosswind is 15 knots.

Attachment 8

TOLD PLANNING PRODUCT EXAMPLE

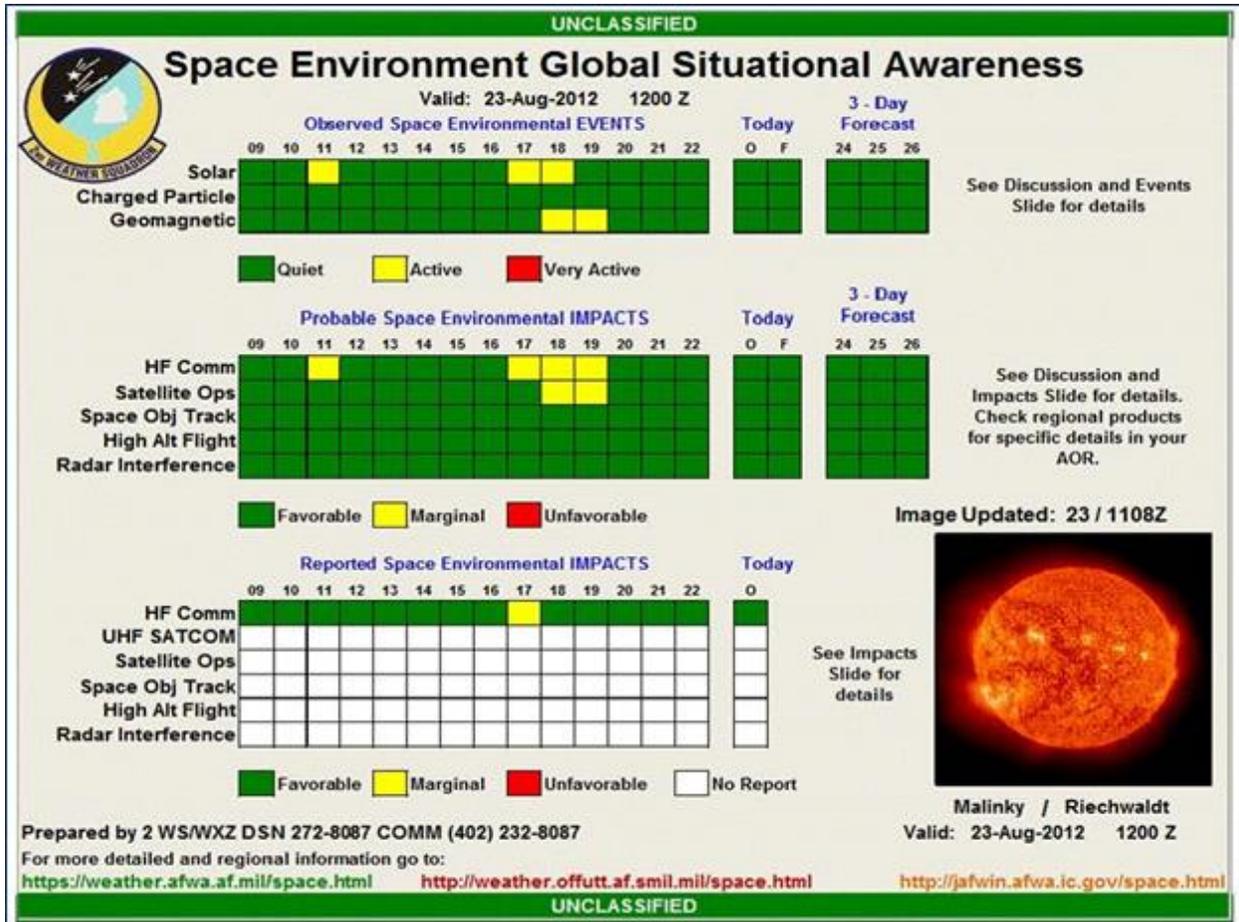
Figure A8.1. TOLD Planning Product Example.

DATE		10-Sep-12		SCOTT AFB LOCAL PLANNING FORECAST								
TIME (L)	TIME (Z)	CIG	VIS (SM)	WEATHER	WINDS (KT)	X-WIND (KT)	TEMP C	TEMP F	ALSTG	PA		
15	17	20	22	None	7	NONE	VRB04	N/A	22	72	29.83	549
17	19	22	00	None	7	NONE	14009	0	24	75	29.81	569
19	21	00	02	None	7	NONE	14009	0	28	82	29.79	589
21	23	02	04	None	7	NONE	14009	0	31	88	29.77	609
23	01	04	06	None	7	NONE	14009	0	34	93	29.76	619
01	03	06	08	None	7	NONE	14009	0	36	97	29.75	629
03	05	08	10	None	7	NONE	14009	0	33	91	29.74	639
05	07	10	12	060	5	SHRA	20009	8	30	86	29.75	629
07	09	12	14	060	1/2	+TSRA	29035G50	25	27	81	29.77	609
09	11	14	16	060	1/2	+TSRA	29035G50	25	25	77	29.79	589
11	13	16	18	None	7	NONE	33009	1	24	75	29.80	579
13	15	18	20	None	7	NONE	33009	1	22	72	29.82	559
AIRFIELD HAZARDS		TURBULENCE		ICING		THUNDERSTORMS		SPACE WEATHER IMPACTS				
		NONE		NONE		ISOLATED		12-00z	00-24HR	UHF	HF	GPS
CLIMB WINDS 020		23010	TEMP 020	24	MOONRISE (L):	0102	SUNRISE (L):	0637	CIVIL (BEGIN)	0610	FRZ LVL	
CLIMB WINDS 050		28010	TEMP 050	20	MOONSET (L):	1542	SUNSET (L):	1915	CIVIL (END)	1942		145
CLIMB WINDS 100		27010	TEMP 100	10	% ILLUM:	34.50%	ALL TIMES LOCAL DAY					
[KSTL] LAMBERT-ST. LOUIS INTERNATIONAL, MISSOURI						[KSPI] SPRINGFIELD, ILLINOIS						
TAF KSTL 101720Z 1018/1124 13006KT P6SM SKC						TAF KSPI 101720Z 1018/1118 17004KT P6SM FEW250						
FM111500 18010KT P6SM SKC=						FM111500 19010KT P6SM SKC=						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
[KXNA] NORTHWEST ARKANSAS REGIONAL						[KHUF] TERRE HAUTE INTERNATIONAL - HULMAN FIELD, INDIANA						
TAF KXNA 101724Z 101818 15006KT P6SM SKC						TAF KHUF 101720Z 1018/1118 VRB03KT P6SM SKC						
FM1600 19008KT P6SM SKC AFWA CONVERTED=						FM110000 VRB02KT P6SM SKC						
0						FM111500 18007KT P6SM SKC=						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
[KFOE] FORBES FIELD, KANSAS						[KHOP] FORT CAMPBELL ARMY AIR FIELD, KENTUCKY						
TAF KFOE 101720Z 1018/1118 17012G19KT P6SM SKC						TAF KHOP 101600Z 1016/1122 05009KT 9999 FEW050 QNH3012INS TX29/1121Z						
FM111500 19015G25KT P6SM SKC=						TN13/1111Z=						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
[KCOU] COLUMBIA REGIONAL, MISSOURI						[KSGF] SPRINGFIELD BRANSON NATIONAL, MISSOURI						
TAF KCOU 101720Z 1018/1118 16008KT P6SM SKC						TAF KSGF 101720Z 1018/1118 15008KT P6SM SKC=						
FM111500 19012KT P6SM SKC=						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
[KTYS] MC GHEE TYSON, TENNESSEE						[KCGI] CAPE GIRARDEAU REGIONAL, MISSOURI						
TAF KTYS 101726Z 1018/1118 03005KT P6SM SCT050						TAF KCGI 101734Z 1018/1118 06004KT P6SM SKC						
FM110200 04003KT P6SM SKC						FM110600 00000KT 3SM BR SKC						
FM111500 36005KT P6SM FEW050=						TEMPO 1108/1112 1/4SM FG						
0						FM111500 16007KT P6SM SKC=						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
0						0						
FOR UPDATES PLEASE CALL THE LOCAL WEATHER FLIGHT AT DSN 576-5905 COM (618) 256-5905												

Attachment 9

SPACE WEATHER IMPACTS EXAMPLE

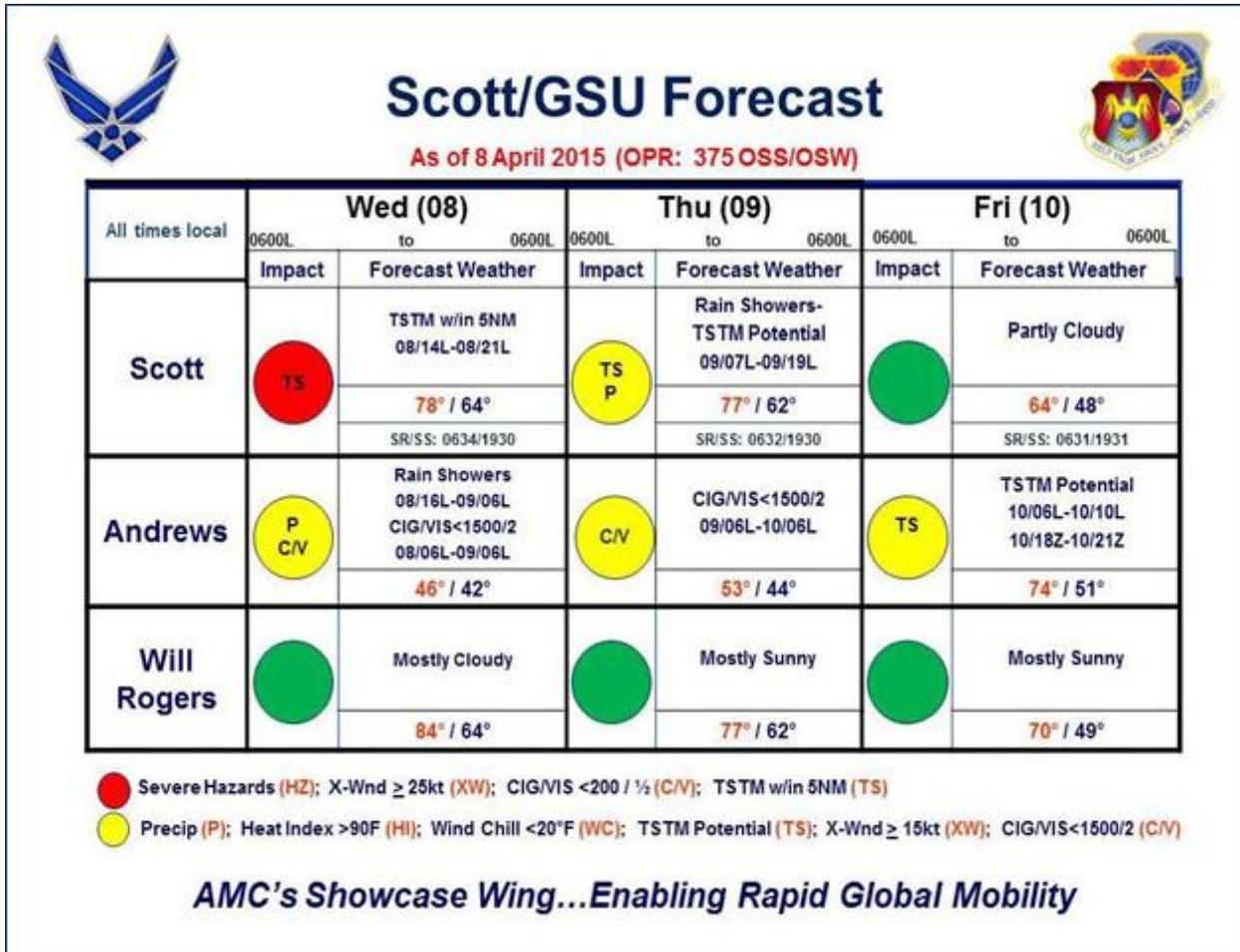
Figure A9.1. Space Weather Impacts Example.



Attachment 10

DAILY WEATHER SLIDE EXAMPLE

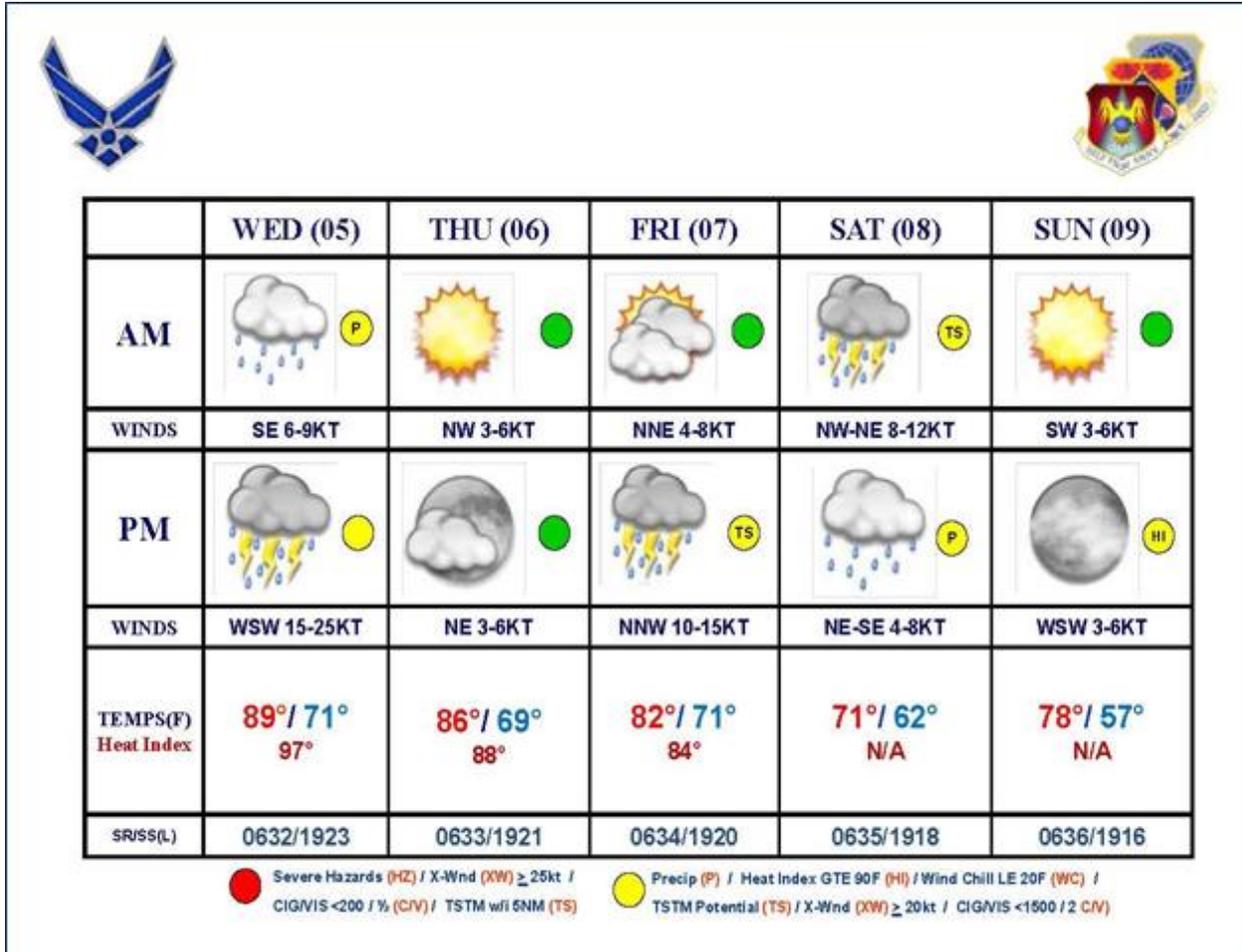
Figure A10.1. Daily Weather Slide Example.



Attachment 11

WING STANDUP SLIDE EXAMPLE

Figure A11.1. Wing Standup Slide Example.



Attachment 12

GDSS WEATHER PACKAGE EXAMPLE

Figure A12.1. GDSS Weather Package Example.

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MSN 9FFG23686255 - KBLV 09/11/2012 18:45 - KRND 09/11/2012 20:45

Takeoff Weather			
KBLV 11/1845Z	17012KT 9999 (7SM) FEW100	T: 26C/78F PA: 289 ft	ALSTG: 30.09 ins
Remarks			
Dest Weather			
KRND 11/2045Z VT: 19:45-21:45	11012KT 9999 (7SM) SCT060	T: 33C/91F PA: 681 ft	ALSTG: 30.00 ins