BY ORDER OF THE COMMANDER
EIELSON AIR FORCE BASE (PACAF)

EIELSON AIR FORCE BASE
INSTRUCTION 15-101

10 APRIL 2024

Weather

WEATHER SUPPORT

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This instruction implements DAFMAN 15-129, *Air and Space Weather Operations*, AFMAN 15-111, *Surface Observations*, and PACAFI 15-101, *Weather Support for PACAF*. This instruction establishes responsibilities and procedures for providing and using meteorological services at Eielson Air Force Base (EAFB or PAEI), Alaska. It applies to all personnel assigned to the Weather Flight who provide meteorological services and to all agencies on EAFB, including Air National Guard and other tenant units that receive meteorological services from the Weather Flight (WF). Ensure that all records created, as a result of processes prescribed in this publication, are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/**. This publication may not be supplemented or further implemented/extended. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication;* route AF Form 847 from the field through the appropriate functional's chain of command. *See* **Attachment 1** *for a glossary of references and supporting information.* The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been revised and should be completely reviewed. Changes include language governing the responsibility of terminal aerodrome forecasts and watches, warnings, and

advisories (WWAs) in line with DAFMAN 15-129, *Air and Space Weather Operations*, new F-35 support and terminology, Pilot-to-Metro Service support changes, flood WWAs, and procedural updates.

Chapter 1

GENERAL INFORMATION

1.1. General Services. The 354 OSS/OSW provides or arranges for weather support to the 354th Fighter Wing (354 FW) and tenant units assigned to EAFB when in garrison or deployed/repositioned worldwide. Weather products are tailored to meet criteria important to flying operations, base support agencies, and maintenance operations. This instruction establishes local weather support requirements and procedures. Agencies requiring routine weather support not included herein should contact the 354 OSS/OSW to arrange for and document routine weather support requirements. The remainder of this document refers to the 354 OSS/OSW as the "Weather Flight (WF)".

1.2. Location and Hours of Operation. The WF is located at 2827 Flightline Avenue and provides or arranges for weather support 24 hours per day, 7 days a week. Any modification or alteration to these hours or provided support will be annotated in a Notice to Airmen (NOTAM). The WF may initiate standby operations and suspend local weather services during airfield closure periods. **Chapter 4** of this document contains recall procedures in response to severe weather threats during standby hours.

Table 1.1. WF Contacts and Links.

WF CONTACTS AND LINKS	
Weather Flight Commander	DSN: 317-377-3371
Weather Flight Chief	DSN: 317-377-5005
Airfield Support/Mission Integration NCOIC	DSN: 317-377-5900/3590
Duty Forecaster	DSN: 317-377-1160/3140
Alternate Operating Location (AOL)	DSN: 317-377-1802/1808
Weather Flight Email	weather.flight@us.af.mil
Sharepoint	https://usaf.dps.mil/sites/eielson/354OG/354OSS/OSW/SitePages/Home.aspx
Note: For Commercial calls, dial area code 907 followed by the 7 digit telephone number. The most effective way of contacting the WF is by phone. Avoid contacting the WF via Secure Internet Protocol Routing Network (SIPRnet) if possible, as it is not regularly monitored. If information must be sent via SIPRnet, the WF must be notified immediately to retrieve the	

information in a timely manner.

1.3. Concept of Operations and Routine Support. The WF provides weather information to all supported agencies for operational and decision-making purposes, as well as for the protection of base resources. The WF tailors weather information to the specific mission requirements of supported agencies. The WF provides weather services for military or military-related use only. This support mainly consists of:

1.3.1. TAF and weather observations, made and transmitted for local and worldwide use.

1.3.2. Aircrew weather briefings (DD Form 175-1) to support local and transient aircrews.

1.3.3. WWAs.

1.3.4. Regularly scheduled staff weather briefing slides, and in-person staff briefings upon request.

1.3.5. Non-routine support including climatology briefings and special mission briefings.

1.3.6. Instrument Refresher Course (IRC) briefings, upon advance coordination by local flying units. Quarterly flight safety meeting briefings, upon request by 354 FW/SEF. Other special briefings and data required by supported units upon request, as manning allows.

1.4. Weather Flight (WF) Duty Priorities. Due to limited resources and manning, the WF must prioritize duties. The WF will take risk management (RM) principles into consideration when complying with the priorities in **Table 1.2.**, *WF Duty Priorities*, especially when there is imminent danger to life and/or property.

Table 1.2. WF Duty Priorities.

Priority	***Duty***
1	Perform Emergency War Order Tasks (e.g., Deploy Personnel)
2	Execute Evacuation/Continuity of Operations Plan
3	Respond to aircraft/ground emergencies or mishaps
4	Issue/Disseminate Imminent Hazardous Weather Warnings
5	Provide Supervisor of Flying (SOF) support
6	Issue/Disseminate Imminent Weather Advisories and Watches
7	Search and Rescue (SAR) Mission Weather Support
8	Respond to Phone Patches/Control Tower Requests/Airborne Aircrews
9	Alert Weather Support
10	Mandatory Supplementation/Backup Procedures
11	Publish and Disseminate Weather Observations
12	Disseminate Urgent Upper Air (UUA) Pilot Reports (PIREPs)/Special Aircraft Reports (AIREPs)
13	Generate and publish airfield forecasts/Disseminate Terminal Aerodrome Forecasts
14	Complete and Disseminate Mission Execution Forecast Process products

15	Provide Flight Weather Briefings
16	Collaborate Weather Products with Supported Units
17	Perform MISSIONWATCH/Meteorological Watch (METWATCH) Amend Weather Products/Briefs
18	Provide Staff Briefings/Non-Standard Weather Products
19	Respond to Requests for Information
20	Conduct Weather Functional Training
21	Accomplish Administrative Tasks

1.5. Limitations. The WF requires access to communications systems to receive and transmit data. Current weather systems that rely on base communications systems include: Joint Environmental Toolkit (JET), local area networks (LAN) at EAFB and Joint Base Pearl Harbor-Hickam (JBPHH), meteorological satellite and radar, various internet and telephone services including the Defense Switching Network (DSN), Secure Internet Protocol Routing Network (SIPRnet), and Non-secure Internet Protocol Routing Network (NIPRnet). Weather observing equipment also has limitations on data acquisition and reliability, especially when not augmented by a certified weather observer.

1.5.1. LAN Interruptions. The LAN provides internet connectivity (NIPRnet/SIPRnet), which enables the WF to access meteorological products, tools, and services. It also provides connectivity between the WF and local units, using JET for WWA notification and EAFB observations and forecasts. Lastly, the LAN provides the WF access to meteorological radar, satellite, local share drives, and other data essential to weather operations. The LAN is vital to the timely execution of mission weather support and airfield resource protection to EAFB. Interruption of LAN service to the WF severely degrades the WF's ability to support wing operations including but not limited to: aircrew mission weather briefings, WWA dissemination to wing agencies, Air Traffic Control (ATC)/SOF support, and all lightning data.

1.5.2. Backup Capability. WF capability is diminished by communication system failures. Backup procedures utilize tactical meteorological and communications equipment, relaying information by phone or by runners, and any other methods available for access to required resources.

1.5.3. Equipment Limitations. *See* **Paragraph 2.6.**

1.5.4. Observing Limitations. *See* **Paragraph 2.5.**

1.6. Release of Weather Information, Civilian Contractors, and Legal Claims. Support to non-DOD agencies and the general public will be provided after the 354 FW Public Affairs office has granted permission or a letter of agreement (LOA) is in effect. Deviations are authorized only in the event of imminent danger to life and/or property. The local National Weather Service office is responsible for service to civilians and non-military agencies. The WF may provide military support to civil authorities only after proper coordination.

1.7. Evacuation and Relocation. In the event of an evacuation of the WF from Building 1215, WF personnel will take appropriate measures to establish alternate airfield weather services. The minimum requirements for any alternate site are availability of power, a Class A telephone, a Personal Computer (PC), a data/modem connection with Class A or base LAN connectivity, and a view of the airfield. *See* **Paragraph 2.8.** *for details regarding the WF's relocation site.* The WF may be evacuated due to a real-world disaster, bomb threat, fire, etc.

1.8. Changes to this Base Instruction. To request changes to this base instruction, contact the WF.

Chapter 2

AIRFIELD SUPPORT

2.1. General Airfield Support. Trained and certified weather forecasters monitor weather conditions and augment automated observations when specific regulatory and locally established thresholds are met. Weather forecasters augment observations in accordance with (IAW) AFMAN 15-111 and DAFMAN 15-129 when mission requirements dictate.

2.2. Weather Observations. All aspects of observing weather are governed by AFMAN 15-111 and DAFMAN 15-129. Observations will be taken (via automated weather sensor or certified observer) and disseminated over JET hourly and when special criteria dictate.

2.2.1. Hourly Aviation Routine Weather Reports (METARs) are taken 15 minutes before each hour and transmitted locally 1 to 5 minutes before that hour.

2.2.2. Aviation Selected Special Weather Report (SPECI) Observations are unscheduled observations completed and transmitted when any of the criteria listed in **Table 2.1** have been observed or sensed. These observations will be prepared and transmitted as soon as possible after the relevant criteria are observed.

Table 2.1. Aviation Selected Special Weather Report (SPECI) Criteria.

Ceiling (ft above ground level (AGL))	Visibility (Statute Mile (SM))	RVR (ft)
7,000*	7*	Prevailing vis first observed < or = to 1SM
5,000	5	
3,000	3	
2,000	2 1/2	
1,500	2 1/4	If below 1SM, vis increases to exceed 1SM
1,100	2	6000
1,000	1 1/2	5500
1,100	1 3/8	5000
900	1 1/4	4000
800	1 1/8	3500
700	1	2400
500	3/4	2000
400	5/8	1600
300	1/2	1200
200	1/4	1000
100		600
PRESENT WEATHER		
Precipitation begins, ends, or changes intensity (any type)	Thunderstorm begins or ends	Tornado, Funnel Cloud, Water Spout
OTHER		
Winds $\geq$ 10kt shift 45 degrees or more in < 15 minutes	Volcanic eruption with ash cloud visible from runway	When an aircraft mishap occurs
Only used during Major Flying Exercises (MFEs) / Large Force Engagements (LFEs)		
Note: SPECI criteria are subject to change – refer to the latest FLIPs, In-Flight Guides (IFGs), AFMAN 11-202V3, EAFBI 13-204, & AFMAN 15-111 guidance		

2.2.3. Local Observations (LOCAL) is an unscheduled observation, reported to the nearest minute, not meeting SPECI criteria but is considered significant to current operations. LOCALs will only be taken during the back-up of Automated Meteorological Observing System (AMOS) pressure sensors. Local Observations altimeter setting observations are taken at an interval not to exceed 35 minutes when there has been a change of 0.01 inch Hg (0.3 hPa) or more since the last Altimeter Setting (ALSTG) value. A METAR or SPECI taken within the established time interval will meet this requirement. All LOCAL altimeter setting reports will be prepared and disseminated as soon as possible after the relevant altimeter setting change is observed.

2.3. Official Observation Site. Weather observation data from the FMQ-19 is collected from sensors on the runway (*see* **Attachment 2** *for location map)*. When augmentation is required, the official observation site becomes the intersection of the sidewalk and the aircraft parking ramp on the west side of building 1215.

2.4. Basic Weather Watch (BWW). Weather forecasters will perform a BWW by rechecking weather conditions at intervals not to exceed 20 minutes to determine the need for FMQ-19 augmentation (*see* **Paragraph 2.5**). This ensures situational awareness and representative FMQ-19 automated/augmented observations.

2.5. Eielson Air Force Base (EAFB) Observation Augmentation Policy. The FMQ-19 is satisfactory in providing weather observing services for most weather elements. However, due to system limitations, some conditions may not be accurately observed by the FMQ-19 at EAFB. Therefore, certified weather forecasters will augment FMQ-19 observations to mitigate mission impacts due to inaccurate automated weather sensing. As with all other day-to-day weather operations, RM principles and processes will be applied. For daily operations, augmentation can be done at any time.

2.5.1. The FMQ-19 is known to incorrectly report freezing precipitation while snow or freezing fog is actually occurring. If it is determined during BWW that it is incorrectly reporting present weather, the forecaster will begin augmentation in order to correct the observation.

2.5.2. When augmenting the FMQ-19, certified weather forecasters will use experience and available meteorological tools to observe weather elements. Cooperative Weather Watch with ATC and PIREPs will be considered; however, only a certified weather forecaster has the authority to take official observations.

2.5.3. Weather Flight leadership will use sound RM practices to develop/document those operationally significant weather thresholds (normally provided by a fully operational AMOS) to report while operating in back-up mode.

2.6. Observing Limitations (Primary Location).

2.6.1. Due to the proximity of the FMQ-19 sensor array to the active runway, persistent snow removal efforts can cause false low visibility/ceiling readings to occur.

2.6.2. The base power plant smog will temporarily lower the visibility/ceiling at times due to the proximity of the observation site. The power plant is 1 mile to the northeast.

2.6.3. In the event a weather sensor malfunctions during hazardous weather, airfield systems personnel will assess weather and safety concerns along with current flying operations before attempting repair actions. This may result in significant delays in the repair actions and impact the accuracy of weather products, which depend on that equipment. *See* **Attachment 4** *for equipment maintenance priorities.* Weather personnel will utilize tactical systems and manual data collection to continue to provide weather observations.

2.7. Terminal Aerodrome Forecast (TAF). A TAF contains several elements and applies to the area within a 5 statute mile (SM) radius of the runway complex. The WF issues a TAF every 8 hours and is valid for a 30-hour period. The TAFs are disseminated over JET at 0600Z, 1400Z, and 2200Z. Guidance for this is specified in AFMAN 15-124, DAFMAN 15-129, and AFI 15-128. TAFs are amended as conditions warrant IAW **Table 2.2**.

Table 2.2. TAF Ceiling and Visibility Specification and Amendment Criteria.

TAF Category	Ceiling	Visibility
E	GTE 2,000 ft	GTE 3SM
D	LT 2,000 ft but GTE 1,000 ft	LT 3SM but GTE 2SM
C	LT 1,000 ft but GTE 700 ft	
B	LT 700 ft but GTE 200 ft	LT 2SM but GTE 1/2SM
A	LT 200 ft	LT 1/2SM

2.8. Alternate Operating Location (AOL). During an evacuation of the WF, the weather forecaster will relocate to the 353 CTS building (Bldg #1151) and can be reached at DSN: 317-377-1802.

2.8.1. The forecaster will contact the offices listed below upon relocation to the AOL: Tower/SOF, Command Post, 18 FIS, 355 FS, 356 FS, 168 WG, 210 RQS, Airfield Management, Eielson Range Control, Fairbanks Tower, Joint Base Elmendorf-Richardson (JBER) Base Weather, Fort Wainwright Base Weather, and WF leadership.

2.8.2. If primary observation data sources are not available or access to those sources is not available, observations will be taken and disseminated using backup procedures.

2.8.3. Adequate space and communications capabilities exist at the primary AOL to sustain operations with virtually no impact to the mission integration function after evacuation.

2.9. Cooperative Weather Watch (CWW). Qualified non-weather personnel assist weather technicians in monitoring the weather conditions at EAFB by using a CWW. This process assists in the reporting of weather conditions that could affect flight safety or are critical to the safety or efficiency of other local air and ground operations. EAFB Tower personnel participate in the CWW IAW AFMAN 13-204v3, *Air Traffic Control*, and the WF provides initial weather training to all EAFB tower controllers in support of the program.

2.9.1. Weather technicians reevaluate the weather conditions whenever a reliable source (i.e. EAFB tower, pilots, etc.) reports weather conditions different from the last disseminated observation (i.e. different ceiling height, visibility, present weather). Based on reevaluation of the different weather conditions reported and local policy, weather personnel will:

2.9.1.1. Generate a SPECI observation if the conditions warrant immediate dissemination.

2.9.1.2. Include the differing conditions in the next required METAR or SPECI observation if the conditions alone do not warrant immediate dissemination.

2.9.2. EAFB tower personnel will pass any PIREPs that are relayed to them to the on-duty weather observer/forecaster no later than 5 minutes after receipt.

2.9.3. CWW Importance. Tower controllers have a complete 360-degree view of the airfield complex; a CWW agreement exists between EAFB tower and the WF to train tower personnel and outline the technical requirements of the program. Controller assistance is provided IAW AFMAN 13-204v3, AFMAN 15-111, and FAA Order JO 7110.65, *Air Traffic Control*.

2.10. Pilot-to-Metro Service (PMSV). The WF does not currently have PMSV capabilities. However, Command Post phone patch may be possible using DSN: 317-377-1500. Command Post and ATC personnel will relay all PIREPs to the weather forecasters for dissemination. Any changes to the WF's PMSV status will be updated in applicable Flight Information Publications (FLIPs) and/or NOTAMs.

2.11. Chemical, Biological, Rediological, Neclear, and High-Yield Explosive (CBRNE) Weather Support. The Weather Flight will serve as the weather subject matter expert (SME) for CBRNE operations IAW DAFI 10-2501, *Emergency Management Program*. In this capacity, the WF will:

2.11.1. Partner with 354 CES/CEXM, Emergency Management (EM); 354 OMRS/SGXB, BE; and 354 CES/CEF, Fire Emergency Services (FES) as the weather SME to optimize weather input into Emergency Operations Center (EOC), CBRNE Cell, and incident site operations.

2.11.2. Be familiar with CBRNE plume models, primarily the Area Locations of Hazardous Atmospheres (ALOHA) and Joint Effects Model (JEM). Advise users employing CBRNE hazard prediction models on the proper type of weather data to use for each model and each situation.

2.11.3. Provide any Chemical Downwind Messages (CDMs) and Effective Downwind Messages (EDMs) upon request.

Chapter 3

WEATHER WATCHES, WARNINGS, AND ADVISORIES (WWAS)

3.1. General. The WF issues WWAs for EAFB when conditions warrant. The term "base" is generally defined as an area 5 nautical miles in radius centered on the EAFB runway complex. Weather WWAs for the base will be issued 24 hours a day, 7 days a week. *See* **Chapter 4**. When the airfield is closed and the WF has initiated standby procedures, only WWAs with SWAP criteria will be issued. The WF will coordinate all requirements for, and ensure timely issuance of, WWAs in accordance with DAFMAN 15-129.

3.2. Weather Advisories. See **Table 3.1** for a list of EAFB weather advisories.

Table 3.1. EAFB Weather Advisory Criteria.

Weather Criteria	Desired Lead Time
Surface winds greater than or equal to (GTE) 25 kts but less than (LT) 35 kts	60 Minutes
Cross-winds 20 kts or greater	Observed
Cross-winds 25 kts or greater	Observed
Induction Icing conditions exist (Ice Foreign Objects/Debris (FOD)) for F-16s and F-35s	Observed
Induction Icing conditions exist (Ice FOD) for KC-135s	Observed
Equivalent Chill Temp (ECT) of -20°F to -29°F	15 Minutes
Equivalent Chill Temp (ECT) of -30°F to -39°F	15 Minutes
Lightning w/in 10 NM of Birch Lake Rec Area	Observed

3.3. EAFB Weather Watch and Warning Criteria. Table 3.2. and **Table 3.3** outline watches and warnings issued by the WF for EAFB. Weather watches advise of the potential for adverse weather effects, while warnings are notice of a threat that is occurring or is imminent. Each agency relaying warnings and/or using JET should read and repeat each warning carefully for its effect, if any, on previous warnings.

Table 3.2. EAFB Weather Watch Criteria.

Weather Criteria	Desired Lead-Time
Lightning within 5 NM	30 minutes
Tornado	75 minutes
Damaging winds GTE 50 kts	150 minutes
Strong winds GTE 35 kts but LT 50 kts	120 minutes
Severe thunderstorm (damaging hail GTE 3/4" and/or damaging wind GTE 50 kts)	150 minutes
Moderate thunderstorm (large hail GTE 1/4" but LT 3/4" and/or high wind GTE 35 kts but LT 50 kts)	120 minutes
Heavy snow GTE 4" in 12 hours	150 minutes
Blizzard (Surface visibility less than or equal to (LTE) 1/4 SM, considerable falling/blowing snow, wind GTE 30 kts, duration 3 hours or more)	150 minutes
Freezing precipitation (any intensity)	150 minutes
Equivalent Chill Temperature (ECT) of -40°F to -49°F	150 minutes
Equivalent Chill Temperature (ECT) of -50°F or colder	150 minutes

Table 3.3. EAFB Weather Warning Criteria.

Weather Criteria	Desired Lead-Time	Impacts To Customers
Tornado	15 minutes	Potential damage to wing resources. Possible threat to life on installation.
Lightning within 5 NM	Observed	Cease outdoor flightline operations and all outdoor activities.
Damaging winds GTE 50 kts	90 minutes	Damage to aircraft/buildings/vehicles. Possible injury to personnel outside.
Strong winds GTE 35 kts but LT 50 kts	60 minutes	Damage to aircraft/buildings/vehicles. Possible injury to personnel outside.
Severe thunderstorm (damaging hail GTE 3/4" and/or damaging wind GTE 50 kts)	90 minutes	Damage to aircraft/buildings/vehicles. Possible injury or loss of life.
Moderate thunderstorm (large hail GTE 1/4" but LT 3/4" and/or high wind GTE 35 kts but LT 50 kts)	60 minutes	Damage to aircraft/buildings/vehicles. Possible injury or loss of life.
Heavy snow GTE 4" in 12 hours	90 minutes	Potential damage to wing resources. Possible delayed reporting for duty or early release.

Blizzard (Surface visibility LTE 1/4 SM, considerable falling/blowing snow, wind GTE 30 kts, duration 3 hours or more)	90 minutes	Potential damage to wing resources. Possible delayed reporting for duty or early release. Possible injury to personnel outside.
Freezing precipitation (any intensity)	90 minutes	Potential damage to wing resources. Possible delayed reporting for duty or early release.
Equivalent Chill Temperature (ECT) of -40°F to -49°F	90 minutes	Potential damage to wing resources. Possible delayed reporting for duty or early release. Possible injury or loss of life.
Equivalent Chill Temperature (ECT) of -50°F or colder	90 minutes	Potential damage to wing resources. Possible delayed reporting for duty or early release. Possible injury or loss of life.
Ambient Temperature of -40°F to -49°F	Observed	Potential damage to wing resources. Possible delayed reporting for duty or early release. Possible injury or loss of life.
Ambient Temperature of -50°F or colder	Observed	Potential damage to wing resources. Possible delayed reporting for duty or early release. Possible injury or loss of life.

3.4. National Weather Service (NWS) WWAs. The WF will issue NWS WWAs that pertain to EAFB. The WWAs are listed in **Table 3.4**., **Table 3.5**, and **Table 3.6**.

Table 3.4. NWS Advisories.

Weather Criteria	Desired Lead Time	Operational Impact
Dense Smoke	N/A	Danger to Personnel
Volcanic Ash Fall	N/A	Danger to Personnel

Table 3.5. NWS Watches.

Weather Criteria	Desired Lead Time	Operational Impact
Flash Flood	N/A	Danger to Personnel
River Flood	N/A	Danger to Personnel

Table 3.6. NWS Warnings.

Weather Criteria	Desired Lead Time	Operational Impact
Flash Flood	N/A	Danger to Personnel

River Flood	N/A	Danger to Personnel

3.5. Distribution of WWAs. The WF disseminates all WWAs. The primary mode of dissemination from the WF to key disseminating agencies is JET, followed by confirming receipt by telephone or in-person with ATC, Airfield Management, Command Post, and any outside weather briefing cells or TDY flying units on base for all issued WWAs. *See* **Attachment 3** *for the notification diagram*.

3.6. Backup distribution of Weather WWAs. If JET is inoperative or not available, then dissemination will be done by phone to the following agencies and annotated in the Local Dissemination Log:

Table 3.7. Local Dissemination Log.

Tower	DSN: 317-377-4368
Command Post	DSN: 317-377-1500
SOF	DSN: 317-377-2256
18 FIS Ops Desk	DSN: 317-377-6164
355 FS Ops Desk	DSN: 317-377-7625
356 FS Ops Desk	DSN: 317-377-0356
168 ARS Ops Desk	DSN: 317-377-8866/8813
Airfield Operations	DSN: 317-377-1861
RED FLAG-Alaska Briefing Cell	DSN: 317-377-1808/1802

Chapter 4

SEVERE WEATHER ACTION PROCEDURES

4.1. Severe Weather Action Procedures (SWAP). The WF will initiate and maintain a heightened meteorological watch (METWATCH) and implement SWAP IAW DAFMAN 15-129.

4.1.1. The WF staff will review and test recall procedures on an annual basis (at a minimum, a real-world severe weather event can be documented instead of the review exercise.)

4.1.2. Upon implementation of SWAP, the WF forecaster on duty will contact a member of WF leadership whenever one or more conditions in **Table 4.1** are met. If deemed necessary, the WF leadership will arrange for additional manpower to support operations.

Table 4.1. SWAP Criteria (Watch and Warning).

SWAP Criteria (Watch and Warning)	
Tornado	Freezing Precipitation
Damaging Winds GTE 50 kts	Heavy Snow (4” in 12 hrs)
Strong Winds GTE 35 kts but LT 50 kts	Blizzard Conditions (Wind GTE 30 kts, visibility LTE 1/4 SM, blowing snow for GTE 3 hrs)
Moderate or Severe Thunderstorm (Winds GTE 35 kts and/or hail GTE 1/4”)	Any local condition the forecaster feels will require additional personnel

4.1.3. The on duty forecaster will perform expanded METWATCH, enhanced MISSIONWATCH, if necessary, and any needed observation augmentation.

4.1.4. If Operational Report (OPREP)-3 criteria are observed, then WF leadership will follow the Beeline process to create a report for senior leadership.

4.1.5. Weather support during periods of severe weather will be limited to mission-essential support only to ensure critical weather information is relayed in a timely manner to those controlling flying, as well as for resource protection.

4.1.6. Severe Weather Action Team (SWAT) members will act as the severe weather liaison to 354 FW leadership. Depending on the situation, additional notification, to include telephone calls, email, and in-person briefings may need to occur. The senior SWAT member on duty is responsible to coordinate these activities with the 354 OSS/DO, 354 OSS/CC, 354 OG/CD, 354 OG/CC, 354 FW/CP, 354 FW/CD, and 354 FW/CC, as applicable.

4.2. Fort Wainwright Continuity of Operations (COOP). The 354 OSS/OSW and Det 3, 1st Weather Squadron (WS) will maintain mutual support to allow for continuity of operations during significant outages.

4.2.1. Upon notification of an emergency outage or significant mission degradation from the supported unit:

4.2.1.1. The WF will assume responsibility for the Fort Wainwright (FWW) TAF, SWAP level WWAs, and completion of any DD Form 175-1 Flight Weather Briefings.

4.2.1.2. Det 3, 1st Weather Squadron will assume responsibility for the EAFB TAF, SWAP level WWAs, and completion of any DD Form 175-1 Flight Weather Briefings.

4.2.2. To facilitate the requirements of COOP support, individuals from each unit will undergo immersion training to consist of work center orientation, local WWAs, airframe sensitivities and missions, and local specific weather phenomena.

4.2.3. This support will not constitute the assumption of full mission capabilities by the other unit or sustained support beyond a timeframe of 4 hours.

Chapter 5

ROUTINE MISSION INTEGRATION

5.1. General. The WF provides mission-tailored integration and MISSIONWATCH for all EAFB agencies, including both flying and non-flying units. The WF provides Mission Execution Forecasts (MEF), Flight Weather Briefings, Alert Weather Packages (AWP), and tailored briefings for customer needs. The WF serves as the subject matter expert for weather impacts to CBRNE and emergency response planning and execution. All agencies on EAFB receiving routine mission weather support will be contacted at least once annually by the WF to review customer support requirements and customer satisfaction with services provided.

5.2. Routine Mission Execution Forecasts (MEFs). A MEF is a mission-specific forecast that is developed using a process outlined in DAFMAN 15-129 and may be provided by several methods (web-based, verbally, person-to-person, etc.). During this process, the WF will fuse and tailor products created by strategic and theater weather centers, as well as information supplied by local units (e.g., flying schedule) and agencies. The result is a product with information designed to provide timely, accurate, and relevant weather intelligence to various customers by whatever means proves most effective. The MEFs must be horizontally consistent with (but not necessarily mirror) products issued by the 557 WW, 3 OSS, and other Air Force Weather agencies. However, during rapidly changing conditions, emergencies, or when conditions threaten resource protection, the WF will amend the MEF to accurately reflect conditions and back brief the affected weather agencies for consistency when time permits.

5.2.1. MEF production. As WF manning permits, a forecaster will be assigned to 354 FW flying squadrons to perform in-person planning and flight briefings IAW DAFMAN 15-129. The MEF will be used to support the 18 FIS, 356 FS, and 355 FS.

5.2.2. EAFB MEF. The MEF determines the critical Go or No-Go information for each phase of flight for supported flying squadrons. Weather thresholds are defined by the flying customers and incorporate aircraft, aircrew, mission tactics, and operating location limitations. The MEF will fuse together 557 WW products (analyses, forecasts, and model products) with locally analyzed surface, Meteorological Satellite (METSAT), and radar imagery to produce a tailored forecast valid for each squadrons flying window. The MEF applies to the area within a 5-NM radius of the EAFB airfield complex and any applicable Mission Operating Area (MOA). The MEF will be prepared and transmitted locally over the base LAN. If the LAN is down, the MEF will be produced offline, printed, and distributed by hard copy during the mass brief (if applicable). Specific information on the contents of the MEF are located in local standard operating procedures (SOPs).

5.2.2.1. Issue Times. The MEF is issued based on the flying schedule and will be available no later than 1 hour prior to the earliest brief time, and will be valid for one hour prior to the first take off time through one hour after the last recovery time.

5.2.2.2. Specification Criteria. Specification criteria are threshold values the WF operators use to determine when a change in expected weather conditions must be included in the MEF. Each MEF (original or amended) will specify the time of occurrence to the nearest hour, the duration, and intensity (where applicable), when any of the weather elements in **Table 5.1** are expected to occur within 5 NM of the center of the EAFB airfield complex. **Note: PACAF Pilot Categories from AFMAN 11-202V3 PACAF SUP,** Attachment 9.

5.2.2.3. Amendment Criteria. Amendment criteria are threshold values that weather technicians use to determine when the current MEF must be changed (amended) to be representative of expected or actual conditions. Any MEF amendments are disseminated via telephone or in person to the SOF and Top 3. Amendment criteria are listed in **Table 5.1**.

Table 5.1. MEF Launch/Recovery Specification & Amendment Criteria.

Forecast Element/Occurrence	Specification/Amendment Criteria
Ceiling observed or later expected to decrease to less than, or if below, increase to equal or exceed (AGL):	7,000 ft* (RF-A In Flight Guide (IFG)) 5,000 ft** (354 FW IFG, RF-A IFG) 3,500 ft (Local agreement) 3,000 ft** (Local agreement) 1,500 ft (Local agreement) 700 ft (PACAF Pilot Cat 4) 500 ft (PACAF Pilot Cat 3) 300 ft (PACAF Pilot Cat 2) 200 ft (EAFB Approach Mins/PACAF Pilot Cat 1)
Prevailing visibility observed or later expected to decrease to less than, or if below, increase to equal or exceed:	7 miles* (RF-A IFG) 5 miles (354 FW IFG) 3 miles (Local agreement) 2 miles (PACAF Pilot Cat 4) 1 ½ miles (PACAF Pilot Cat 3) 1 mile (PACAF Pilot Cat 2) ½ mile (EAFB Approach Mins/PACAF Pilot Cat 1)
Wind	The difference between the predominant wind speed (or gust) and the forecasted wind speed (or gust) is 10 kts or more. Direction change of more than 30 degrees when the predominant wind speed (including gusts) is expected to be 15 kts or more.
Icing not associated with thunderstorms, from the surface to 10,000 ft AGL	The beginning or ending of icing first meets, exceeds, or decreases below light or greater thresholds and was not specified in the forecast.
Turbulence not associated with thunderstorms, from the surface to 10,000 ft AGL	The beginning or ending of turbulence first meets, exceeds, or decreases below moderate or greater thresholds (for CAT II aircraft) and was not specified in the forecast.

Weather warning criteria and/or forecasted weather advisory criteria that can be specified in the MEF	Occur, or are expected to occur during the forecast period, but were not specified in the forecast. Specified in the forecast, but are no longer expected to occur during the forecast period.
Altimeter Setting	Meets or exceeds 31.00 inHG; or if above, drops below 31.00 inches of mercury (inHG) and was not specified in the forecast. Drops below 28.00 inHG; or if below, increases to equal or exceed 28.00 inHG and was not specified in the forecast.
Thunderstorms	Incorrect forecasted start or end time.
*Specification criteria only for specification during Major Flying Exercises ** Specification for both MFEs and Simulated Flameouts (SFOs)	

5.2.3. Military Operating Area (MOA) and Range forecasts. The MEF will contain a collection of weather data significant to local flying operations and any applicable MOA or range operations. *See* **Attachment 6** *of this document for a map of the MOAs/ranges.* Specific information on the contents of the MOA/range forecasts is located in local SOPs.

5.2.3.1. Specification Criteria. Specification criteria for the Range MEF are based on mission limiting thresholds for missions using that airspace. The Range MEF will reflect all of the criteria listed in **Table 5.2** if present in any or all active Ranges/MOAs.

5.2.3.2. Amendment Criteria. The Range MEF METWATCH will be continuously verified and amended based on **Table 5.2** to reflect the most accurate mission forecast product possible during each Range/MOA time over/on target (TOT) within the local flying window. Range MEF amendments are disseminated via telephone or in person to the SOF and Top 3.

Table 5.2. Range/Military Operating Area (MOA) Specification & Amendment Criteria.

Forecast Element/Occurrence	Standard Specification Criteria
Ceiling decreases to less than, or if below, increases to equal or exceed (AGL):	35,000 ft 30,000 ft 25,000 ft 20,000 ft 15,000 ft 10,000 ft 5,000 ft 3,000 ft* 2,000 ft* 1,500 ft* 500 ft **
Prevailing visibility decreases to less than, or if below, increases to equal or exceed (SM):	5 SM* 3 SM*
Wind	Wind speed equaling or exceeding 35 kts (sustained or gusts) or if at 35 kts or above decreasing to less than 35 kts.* Easterly winds greater than 20 kts at any flight level (for chaff restriction IAW 354 FW IFG).
Precipitation	Begins or ends.*
Thunderstorm	Begins or ends to include area coverage and max tops.
Icing of any intensity, not associated with thunderstorms, from the surface to 10,000 ft Mean Sea Level (MSL)	Begins or ends.
Turbulence of any intensity (for Cat II aircraft), not associated with thunderstorms, from the surface to 40,000 ft MSL	Begins or ends.
Temperature or ECT (lowest)	32°F, 0°F, -20°F, -40°F, and -50°F***
* Only during MFEs or during low altitude (LOWAT) missions ** Not needed for Range MEF unless there is a special request by 210 RQS *** If -50°F (ambient) is forecasted in a Range or MOA the forecaster will notify 354 OG/CC NLT three hours prior to any scheduled flying in that airspace.	

5.3. Mission-Scale Meteorological Watch (MISSIONWATCH). Providing up-to-date information is critical for mission success and safety. Each function of the WF has specific areas to ensure mission success. The Airfield Weather Operations (AWO) function will ensure the SOF is kept up to date of weather elements impacting EAFB and alternate airfields. The Mission Weather Operations (MWO) function will ensure the fighter squadrons' Top 3s are kept up to date of weather impacts to the mission. If a weather forecaster is not located at the squadrons, the responsibility will shift to the AWO, who will keep the Top 3 updated via phone. The WF conducts MISSIONWATCH from the beginning to the end of every customer's mission IAW DAFMAN 15-129.

5.4. Weather Briefings and Instructional Briefings. The WF provides many routine weather briefings, both in and out of the weather station, to support both flying and non-flying missions. An IRC briefing is one example of what is provided. The WF will provide a metrics summary during the IRC brief and solicit improvements for the MEF as well. Non-routine briefings such as mobility concept, special missions, pre-deployment, climatological, and Crisis Action Team (CAT) briefings are coordinated by the requesting agency. These briefings provide commanders and staff, operations, and aircrew personnel with valuable weather information for planning and decision making. More details on staff weather briefings can be found in **Chapter 7** of this document.

5.5. Non-Routine Briefing Request Procedures. A requesting agency will provide the WF information on the time, location, and required content of the briefing with a minimum of 48 hours notice when possible.

5.6. 354 FW In-garrison Support. Weather support is primarily delivered to the 18 FIS, 356 FS, and 355 FS via mass briefings on location. Mass weather briefings are provided for daily operations, during contingencies, and upon request. The fighter squadrons will coordinate with the WF 24 to 72 hours in advance of any special request briefings, if possible. They will also provide the following information to the WF: date, time, and place of the briefing, takeoff time, destination, arrival time, flight level, and specific product requests such as sea surface data. The weather briefer is fully embedded in the squadrons producing the MEF year-round. In the event WF manning does not allow for availability of an in-person briefer, the WF will utilize a non-embedded approach and the briefer will prepare the brief and remain in place at the weather station. The briefer will then call the respective squadron's operations desk 15-30 minutes prior to the mass brief and deliver a verbal brief to the Top 3. Following the mass brief, the briefer will remain available to the Top 3 for telephone updates through step briefings.

5.7. 354 FW Deployment Support. During the deployment of one or more fighter squadrons, the WF will provide or arrange for weather support at the deployed location IAW DAFMAN 15-129. The preferred method of providing support is to have one or more individuals from the WF deploy with the squadrons. However, if this option is not feasible, support will be arranged with the host unit prior to the squadron's arrival on station. If the host unit is unable to provide support, reach-back support will be provided.

5.8. 168 WG and 210 RQS Weather Support. The WF provides operational flight weather briefing support to the 168 WG and 210 RQS, specifically the 168 ARS and Det 1, 210 RQS. Briefing support is accomplished by providing a DD Form 175-1 upon request or via Global Decision Support Software (GDSS). Weather briefings will not be considered **official** until the briefing is annotated with a brief time and the initials of the briefer.

5.8.1. Briefing updates may be obtained via telephone or in person at the base weather station.

5.8.2. Alert Weather Packages. Alert weather packages will be provided to the 168 ARS and 210 RQS three times per day at 0600L, 1400L, and 2200L on weekdays. They will be provided twice daily on weekends at 1000L and 2200L. This is subject to change, as 168 ARS/ 210 RQS requirements and weather forecast production change.

5.8.3. Delivery method. Due to constantly changing communications on EAFB, the alert package will be delivered electronically by whatever means possible. The primary delivery method will be via email.

5.8.4. **Attachment 5** lists all of the mission weather sensitivities and Go/No-Go thresholds for the 168 WG and 210 RQS.

5.9. Follow-up Support. Aircrews can contact the WF (DSN: 377-3140/1160) for any post-mission information and/or follow-up support.

Chapter 6

SPECIAL MISSION REQUIREMENTS

6.1. General. This chapter contains all of the specific local requirements submitted by various organizations throughout EAFB and verified by the WF leadership. If routine weather support does not cover a specific local weather requirement, extra effort will be made (time permitting) to contact the individual unit to advise of the condition. In turn, the unit is responsible for contacting the WF should the requirements change.

6.2. 353 CTS. The 353 CTS is responsible for sponsoring training and experimentation in the Joint Pacific Alaska Range Complex (JPARC – see **Attachment 6**). In this capacity, the squadron hosts the Pacific Air Forces (PACAF) RF-A exercises, and Alaska Command's NORTHERN EDGE exercises.

6.2.1. Weather support for exercises is conducted by a RF-A weather team consisting of personnel deployed to EAFB. The EAFB WF acts as an oversight/quality control and training agency for RF-A weather teams. The WF will provide personnel to directly support RF-A only when there is a shortfall of deployed personnel, or when the 354 FW is designated as the Lead Wing for the exercise.

6.2.2. In support of the 353 CTS, the 354 OSS/OSW will:

6.2.2.1. Serve as the Lead Weather Unit (LWU) for RF-A exercises when the 354 FW is the Lead Wing. The WF will assist with and support all RF-A exercises to the extent that 354 FW mission requirements allow.

6.2.2.2. Provide or arrange for reception, employment, and redeployment weather support for exercise participants in conjunction with exercise weather Officers in Charge (OICs)/Noncommissioned Officers in Charge (NCOICs). The WF will provide training and assistance to weather personnel deployed to EAFB.

6.2.2.3. Attend Exercise RF-A planning conferences when requested or when necessary. The WF will ensure deploying units understand existing support limitations for RF-A exercises. The WF is also responsible for planning/coordinating weather support in advance of RF-A exercises and is also responsible for maintaining a forecaster/briefer computer at the 353 CTS.

6.2.2.4. Host, train, and certify all exercise weather forecasters.

6.2.2.5. Provide a MEF template to be used as the controlling MEF (CMEF) for the exercise. The format will be similar to that of the EAFB MEF and will be tailored to each exercise as needed. Common additions to the standard MEF include tactical decision aid (TDA) data and launch/recovery weather for JBER. See current *RF-A In-Flight Guide Supplement* for arrival/recovery weather minima and list of weather-driven war calls.

6.2.3. Distant Frontier (DF). This is generally when visiting units conduct training based out of EAFB either before or after a RF-A exercise. These units may stay for various lengths of time. A unit visiting EAFB for DF has a host weather unit at home station that is responsible for providing or arranging weather support for the supported unit's stay at EAFB.

6.2.3.1. If a visiting unit provides a weather forecaster, then the deployed forecaster will be responsible for producing the MEF. This MEF will reflect conditions for all flying units at EAFB.

6.2.3.2. If the unit's home WF is not able to provide personnel due to manning issues, the EAFB WF will provide weather support. The unit's home WF will provide sufficient notice and support requirements to the EAFB WF prior to the unit's arrival IAW the DAFMAN 15-129.

6.2.3.3. Support provided by the WF will consist of an electronically delivered briefing identical to that briefed to the EAFB fighter squadrons. The WF will not provide personnel for a briefing in-person unless manning allows. Personnel will be available for updates over the phone.

6.2.3.4. The WF will deliver the briefing to email addresses provided by the visiting unit upon arrival. Delivery time to the visiting unit will be identical to the EAFB fighter squadron's brief time and forecasts within the brief will be tailored to the fighter squadrons flying window. If the visiting unit needs the time(s) altered, they must coordinate with the WF at least 24 hours in advance.

6.2.3.5. Any content in addition to what is already provided to the EAFB fighter squadrons must be requested and coordinated by the home station WF at least 48 hours in advance.

6.3. Units Operationally deployed to EAFB. While deployed to EAFB on a valid Operations/Task Order, units with those mission characterizations are treated as a local FW agency and receive regular weather support from the WF as such. For briefing purposes, these units are no longer considered local agencies when scheduling arrival and departure sorties.

6.3.1. The WF will provide a DD Form 175-1 to deployed aircrews as requested. The WF will also provide a slide show presentation in conjunction with the DD Form 175-1 if needed. The slideshow is delivered by whatever means possible.

6.3.2. The WF will provide a briefer in-person when requested and if available. Otherwise, support will be delivered via email or phone.

6.4. Electro-Optical Mission Execution Forecast Data. Electro-optic (E-O) support will be provided to the 353 CTS for Exercise RF-A and during DF as requested by supported units. During Exercise RF-A, E-O data will be provided at each mass brief. During Exercise RF-A, forecasts are produced by the Exercise RF-A weather team, not by the EAFB WF. In the event a non-Exercise RF-A unit should need E-O data, the unit must coordinate with the WF 24 to 72 hours in advance, on any pertinent target information such as time over target, type of target, and active range to be used (R2202, R2205, R2211). Association of specific weapon systems with TDAs is classified.

6.4.1. Feedback from pilots is essential to fine tuning of E-O support. Local flying units should designate a pilot to debrief weather personnel on quality and relevance of weather support.

6.4.2. 354 OSS/OSW will request a debriefing from each squadron and should also be given access to view gun camera tapes to verify their briefing, as required.

6.5. 354 CES.

6.5.1. Central Heat and Power Plant (CHPP). The WF will provide monthly and annual climatology statistics as needed to the Superintendent of the CHPP. Data are commonly used in heating and cooling degree day computations.

6.5.2. 354 CES Readiness and Emergency Management Flight (354 CES/CEXM). Advise on the proper type of weather data to use for each CBRNE plume model and provide CDMs and EDMs upon request. *See* **Paragraph 2.11.**

6.6. 168 CES. The WF will provide monthly and annual climatology statistics as needed to CE. Data are commonly used in heating and cooling degree day computations.

6.7. 354 MDG Bioenvironmental Engineering (BE) Flight. The WF will provide ambient temperature and wind speed information when requested. Assist with determination of ECT and/or frostbite risk level (FRL) for cold weather injury prevention plan as necessary. Share Air Quality Index (AQI) data from sensors on the installation.

6.8. 354 RANS. The WF will provide ambient temperature and wind speed information when requested.

Chapter 7

ROUTINE STAFF INTEGRATION

7.1. General. In order to ensure effective base weather support, WF leaders function as a direct interface with supported unit commanders and staff, and provide direct support to command, control and planning functions.

7.2. Wing Stand-up (WSU) Briefings. This brief is a synchronization of operations and maintenance personnel who provide briefings to the 354 FW/CC or the senior officer at the meeting. The weather is typically the first item briefed in the production slides.

7.2.1. Frequency and attendance. These briefings are dependent on the 354 FW/CC. A weather briefer will attend the in-person briefings whenever possible. Weather slides will be produced for each WSU, regardless of whether a forecaster attends in-person or not.

7.3. Wing Staff Briefings. The wing staff meeting, or Commander Update Brief (CUB) is chaired by the 354 FW/CC and consists of his staff of commanders and key agency leaders in the wing. Weather will generally brief a forecast for Eielson for the next 7 days, plus a forecast for any upcoming deployments, exercises, or other major events. Changes to provided support are at the discretion of the 354 FW/CC.

7.3.1. 7-Day Forecast. In addition to the CUB, the EAFB 7-day forecast will be uploaded to the WF SharePoint site Monday through Friday, except for holidays and scheduled down days. This product is for planning purposes only and available for all organizations with access to the WF SharePoint.

7.4. Emergency Operations Center (EOC) / Wing Operations Center (WOC) Briefings. There are generally two types of weather briefings to support EOC/WOC requirements: the quick-look brief, which is given after a Warning Order (WARNORD) is issued; and a situational briefing (SITBRIEF), which is given after the Prepare to Deploy Order (PTDO) and/or Deploy Order (DEPORD) have been issued.

7.4.1. Quick-Look Brief. The quick-look brief provides the 354 FW/CC and his staff with situational awareness shortly after he is notified of potential for contingency or crisis action response. The weather portion of the briefing provides primarily climatological information for operations planning. Quick-look briefs are typically short-notice briefing requests that weather personnel must respond to immediately. The WF is a key member of Eielson's Disaster Response Force (DRF) and will be recalled as needed IAW EAFB Installation Emergency Plan (IEMP) 10-2.

7.4.2. SITBRIEF. The SITBRIEF provides the 354 FW/CC and his staff with ongoing, continuous situational awareness following the initial phases of contingency or crisis action response. It provides both short-term and long-term weather information for operations planning and execution. A regular schedule of recurring briefings is normally established after the initial phases of contingency or crisis action response.

7.5. Deployment/Mobility Concept Briefings. After a WARNORD is issued, the Installation Deployment Office (IDO) will host a deployment briefing as a part of the quick-look briefings, which is also known as a mobility concept briefing. This briefing provides the 354 FW/CC and his staff with important information pertaining to the deployment. The weather portion gives these personnel an idea of what kind of weather to expect at each of the deployed locations in order to ensure optimal deployment planning. These briefings are scheduled after the PTDO has been issued. Deployed locations will be coordinated between the WF and the IDO prior to the briefing. A weather briefer is always required to attend.

Chapter 8

RECIPROCAL SUPPORT

8.1. General. For effective weather support, the WF requires reciprocal support from several key agencies and individuals on base. Supported agencies will establish all weather support requirements with the WF with sufficient advance notice to allow for any necessary scheduling adjustments.

8.2. Command Post (354 FW/CP) will:

8.2.1. Disseminate to base agencies and general base populace all WWAs to include amendments, corrections, extensions, or cancellations issued for EAFB IAW AFMAN 10-206, *Operational Reporting (OPREP).* Language shall be read verbatim from JET or an automated email that is generated by the same system. If JET is inoperable, CP personnel will use the exact language as given to them by the weather technician over the phone.

8.2.2. Pass to weather technicians all PIREPs received from airborne aircraft or aircraft that have recently landed. *See* **Paragraph 3.1** *and* **Attachment 3 Table A3.1.**

8.2.3. Prior to submitting the OPREP-3 report IAW AFMAN 10-206, contact the WF in the event of severe weather that causes damage at EAFB to obtain the related information for the occurrence that happened. Controllers will not delay or wait on WF for exact information for initial OPREPs. Follow-up Reports will be submitted to ensure accurate information is provided to Higher Headquarters (HHQ) once available from the WF. Weather related OPREP-3 once submitted will be forwarded to the WF.

8.2.4. Communicate mission-critical forecast changes via Ultra High Frequency (UHF) radio or other available means to any transient aircraft outside radio range of ATC. *See* **Paragraph 2.10.**

8.3. Wing Safety Office (354 FW/SE) will:

8.3.1. Inform the WF when accidents (ground, weapons, and flight) involve adverse weather.

8.3.2. Provide the WF, at a minimum, 48-hours advance notification of any requirement to present a climatology briefing or any other seasonal weather topics of interest for flight safety meetings.

8.4. Airfield Operations (354 OSS/OSAA) will:

8.4.1. Report overall runway surface condition and runway condition readings (RCRs) to the weather technician.

8.4.2. Disseminate WWAs IAW **Attachment 3** of this document.

8.4.3. List contact and WF hours of operation in the FLIP, Alaska Supplement.

8.4.4. Notify WF Commander or Flight Chief of all changes to published approach minimums at EAFB (Terminal FLIP). The WF will provide amendments/updates to this document and update all internal SOPs based upon changes in the FLIP.

8.4.5. Provide access to current FLIPs and update with any pertinent WF service information.

8.4.6. Allow access to the crash net during outages of JET and telephones enabling WF to relay pertinent weather data.

8.4.7. Notify WF of any aircraft mishaps, in-flight emergencies (IFEs), major accidents, inbound Very Important Persons (VIPs)/Distinguished Visitors (DVs), and VIP/DV diverts.

8.4.8. Notify WF of any exercise/alert messages.

8.4.9. Notify WF of planned power switches (i.e., backup generator tests) so appropriate actions can be taken.

8.5. Control Tower (354 OSS/OSAT) will:

8.5.1. Solicit for and pass PIREPs relayed to the tower.

8.5.2. Comply with **Paragraph 2.9** of this instruction (CWW).

8.5.3. Pass EAFB weather forecasts, observations, and WWAs IAW **Attachment 3**.

8.5.4. Notify WF of changes in active runway.

8.5.5. Notify WF via phone when the conditions in **Paragraph 2.9** *(CWW criteria)* occur and are not in the latest observation, or when such conditions dissipate.

8.5.6. Describe radar-detected weather echoes within 40 miles of airfield to WF or permit a weather representative to view displays directly, workload permitting. This will be coordinated with the watch supervisor, used only when normal weather radar is unavailable, and recorded as an additional service IAW FAAH 7110.65, *Air Traffic Control*.

8.5.7. Relay weather WWAs and mission-critical weather forecast/observation changes verbatim to any aircraft under their control.

8.5.8. Upon request, provide tower indoctrination training to weather personnel.

8.6. Radar, Airfield, Weather Systems Flight (354 OSS/OSAM) will:

8.6.1. Provide support to the WF as directed within coordinated LOAs.

8.6.2. Maintain applicable weather equipment technical orders (TOs) in the Radar, Airfield, Weather Systems (RAWS) section and upon request to the appropriate elements, make them available to WF personnel for technical support.

8.6.3. Maintain all weather equipment, radio equipment, and communications circuitry. Use pre-established Defense Information System Agency (DISA) Restoral Priorities (RP) to determine precedence of restoring DISA circuitry or cables used by the WF.

8.6.4. Weather equipment restoral priorities will be IAW the RAWS LOA and 354 OSS Maintenance Operating Instructions (MOI). When restoral priorities are revised, 354 OSS/OSAM will ensure that the revision is coordinated with the WF. *See* **Attachment 4** *for restoral priorities and response times.*

8.6.5. Conduct an annual inspection of all meteorological equipment with WF leadership.

8.6.6. Conduct a semi-annual pressure sensor calibration on the WF's TMQ-53, Tactical Meteorological Observing System (TMOS).

8.6.7. Provide high-priority maintenance and repair service if LAN connectivity is disrupted. *See* **Paragraph 1.5.** Respond as soon as possible to WF personnel attempts to contact communications focal point administrators directly when a network/server outage impacts mission-critical systems.

8.7. Supported Flying Customers (18 FIS, 210 RQS, 168 ARS, 355 FS, 356 FS) will:

8.7.1. Provide PIREPs via PMSV phone patch, the 354 FW/CP, or ATC. *See* **Paragraph 2.10.**

8.7.2. Provide post-mission weather debriefings to the WF to the maximum extent possible.

8.7.3. Supply a daily flying schedule, including range and weapons data, during exercises and daily flying operations.

8.7.4. Designate a pilot to debrief target/range area weather information and electro-optical information when practical.

8.7.5. Provide weather personnel access to gun camera tapes and pilot debriefings when practical.

8.7.6. Provide weather personnel with adequate workspace and administrative resources during exercises and daily operations, as applicable.

8.7.7. Accept requests for orientation flights by weather personnel, and support these requests on a non-interference basis, when mission requirements allow.

8.8. 354 CES will:

8.8.1. Maintain electrical generators for WF. 354 CES will maintain real property generators only. No equipment generators will be maintained.

8.8.2. Complete civil engineering work orders supporting the installation of meteorological equipment. Work is to be done on a low priority/routine basis. Recommend team contract out all non-real property equipment installation to ensure timely work.

8.8.3. Include a WF point of contact (POC) in early coordination of base plans pertaining to situations affected by weather conditions that reference this document, or establish tasks for WF personnel.

8.9. 353 CTS will:

8.9.1. Supply a daily flying schedule, including range and weapons data, during exercises and daily flying operations.

8.9.2. Allow weather technicians to solicit debriefs from aircrew, when practical, during exercises and daily flying operations.

8.9.3. Provide weather personnel with adequate workspace and administrative resources during exercises and daily operations, as applicable.

8.9.4. Provide a list of all units and aircraft participating in each RF-A exercise and any other exercises sponsored or hosted by 353 CTS.

8.9.5. Inform WF leadership of planning conference dates, and allow weather representative to attend if necessary.

8.9.6. Inform WF leadership of any changes to the RF-A IFG Supplement.

8.10. Installation Deployment Office (354 LRS/LGRDX) will: Coordinate all deployed locations with the WF for contingency, crisis action planning and deployment weather briefings (*see* **Paragraph 7.4.** and **paragraph 7.5.**).

8.11. 354 RANS will: Operate and maintain the Automated Surface Observing Systems (ASOS) within MOAs R-2205 and R-2211.

PAUL P. TOWNSEND, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

FAA JO 71110.65U, *Air Traffic Organization Policy,* 9 February 2012

DAFMAN 10-2501, *Emergency Management Program,* 15 October 2023

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AFMAN 15-111, *Surface Weather Observations,* 11 March 2019

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AFMAN 11-214, *Air Operations Rules and Procedures,* 28 November 2022

354 FW IFG, *354th Fighter Wing Inflight Guide,* 22 April 2020

354 FWI 13-204, *Airfield Operations Instruction & Local Flying Procedures,* 23 June 2020

354 OSS/OSW-15 OWS IDP, *Installation Data Page,* 31 May 2023

RF-A IFG SUP, *RED FLAG-Alaska Inflight Guide Supplement,* 24 January 2024

Adopted Forms

Air Force Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFMAN—- Air Force Manual

AGL—- Above Ground Level

ALSTG—- Altimeter Setting

AMOS—- Automated Meteorological Observing System

AOL—- Alternate Operating Location

ARS—- Air Refueling Squadron

ATC—- Air Traffic Control

BE—- Bioenvironmental Engineering

BKN—- Broken

BWW—- Basic Weather Watch

C—- Celsius

CAT—- Crisis Action Team

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

CDM—- Chemical Downwind Message

CHPP—- Central Heat and Power Plant

CIG—- Ceiling

CLR—- Sky condition clear

COOP—- Continuity of Operations

CP—- Command Post

CS—- Communications Squadron

CTS—- Combat Training Squadron

CWW—- Cooperative Weather Watch

DAFMAN—Department of the Air Force Manual

DF—- Distant Frontier

DRF—- Disaster Response Force

DSN—- Defense Switching Network

DV—- Distinguished Visitor

EAFB—- Eielson Air Force Base

ECT—- Equivalent Chill Temperature (i.e. Wind Chill Temperature (WCT))

EDM—- Effective Downwind Message

EOC—- Emergency Operations Center

E-O—- Electro-Optical

F—- Fahrenheit

FAAH—- Federal Aviation Administration Handbook

FIS—Fighter-Interceptor Squadron

FLIP—- Flight Information Publication

GDSS—- Global Decision Support Software

IAW—- In Accordance With

IDO—- Installation Deployment Officer

IDP—- Installation Data Page

IEMP—- Installation Emergency Management Plan

IFG—- In-Flight Guide

IR—- Infrared

IRC—- Instrument Refresher Course

JBER—- Joint Base Elmendorf-Richardson

JBPHH—- Joint Base Pearl Harbor-Hickam

JET—- Joint Environmental Toolkit

LAN—- Local Area Network

LOA—- Letter of Agreement

LOWAT—- Low Altitude

LWU—- Lead Weather Unit

M—- Minus

MEF—- Mission Execution Forecast

METAR—- Aviation Routine Weather Report

METWATCH—- Meteorological Watch

MSL—- Mean Sea Level

MOA—- Memorandum of Agreement/Military Operating Area

NIPRNET—- Non-Secure Internet Protocol Routing Network

NM—- Nautical Mile

NOTAM—- Notice to Airmen

NVG—- Night Vision Goggle

OPR—- Office of Primary Responsibility

OPREP—- Operational Report

OVC—- Overcast

OWS—- Operational Weather Squadron

PAEI—- International Civil Aviation Organization (ICAO) Identifier for EAFB.

PIREP—- Pilot Report

PMSV—- Pilot-To-Metro Service

PTDO—- Prepare to Deploy Order

RANS—Range Squadron

RAWS—- Radar, Airfield, Weather Systems

RF-A -- RED FLAG—Alaska

RM—- Risk Management

RQS—- Rescue Squadron

RVR—- Runway Visual Range

SAR—- Search and Rescue

SCT—- Scattered

SIPRNET—- Secure Internet Protocol Routing Network

SIT—- Situational

SM—- Statute Miles

SOF—- Supervisor of Flying

SOP—- Standard Operating Procedure

SPECI—- Aviation Selected Special Weather Report

SWAP—- Severe Weather Action Procedures

SWAT—- Severe Weather Action Team

TAF—- Terminal Aerodrome Forecast

TDA—- Tactical Decision Aid

TEMPO—- Temporary

TS—- Thunderstorms

VIP—- Very Important Person

WF—- Weather Flight

WOC—- Wing Operations Center

WWA—- Watches, Warnings, and Advisories

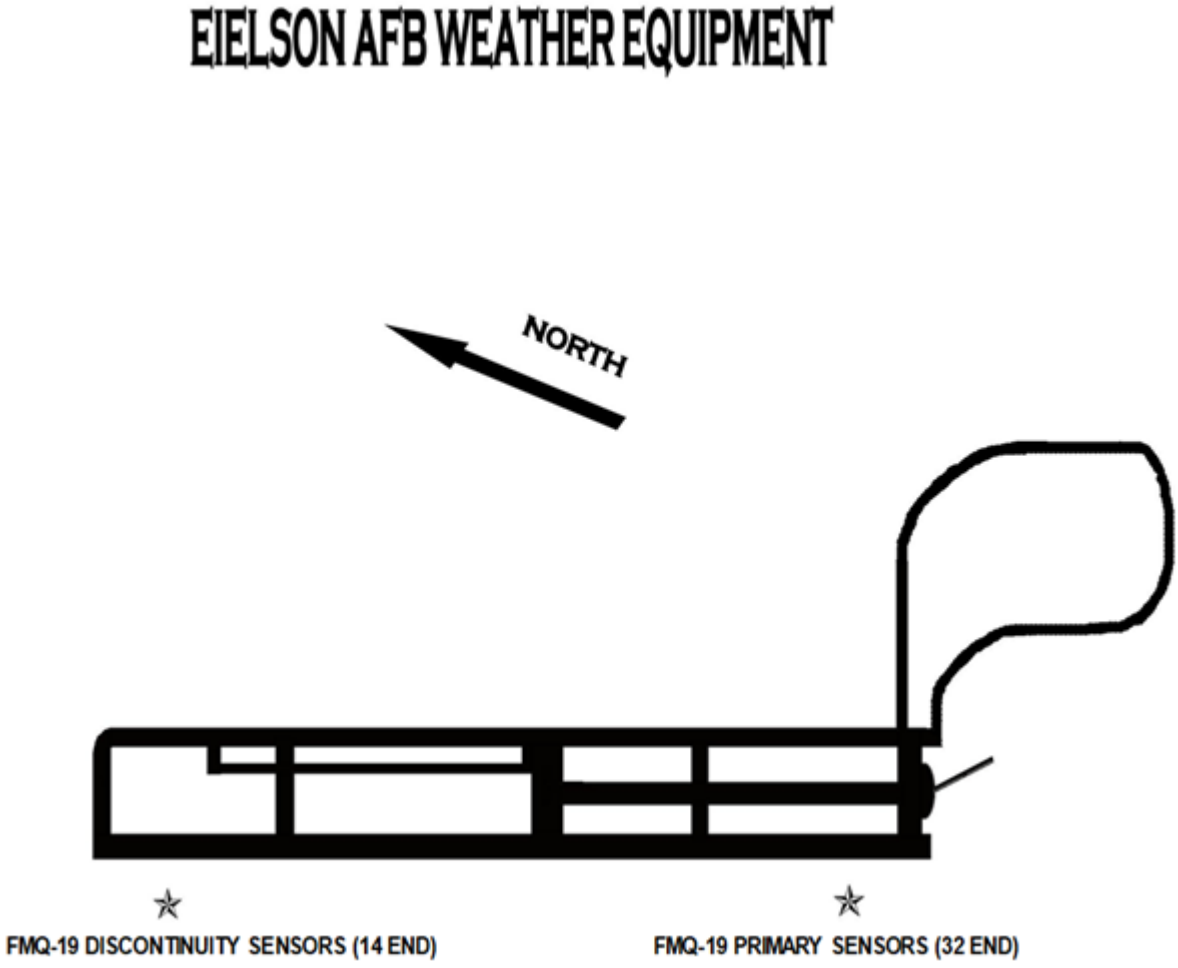
Terms

Refer to DAFMAN 15—129 *for a list of weather terms*.

Attachment 2

AIRFIELD METEOROLOGICAL EQUIPMENT

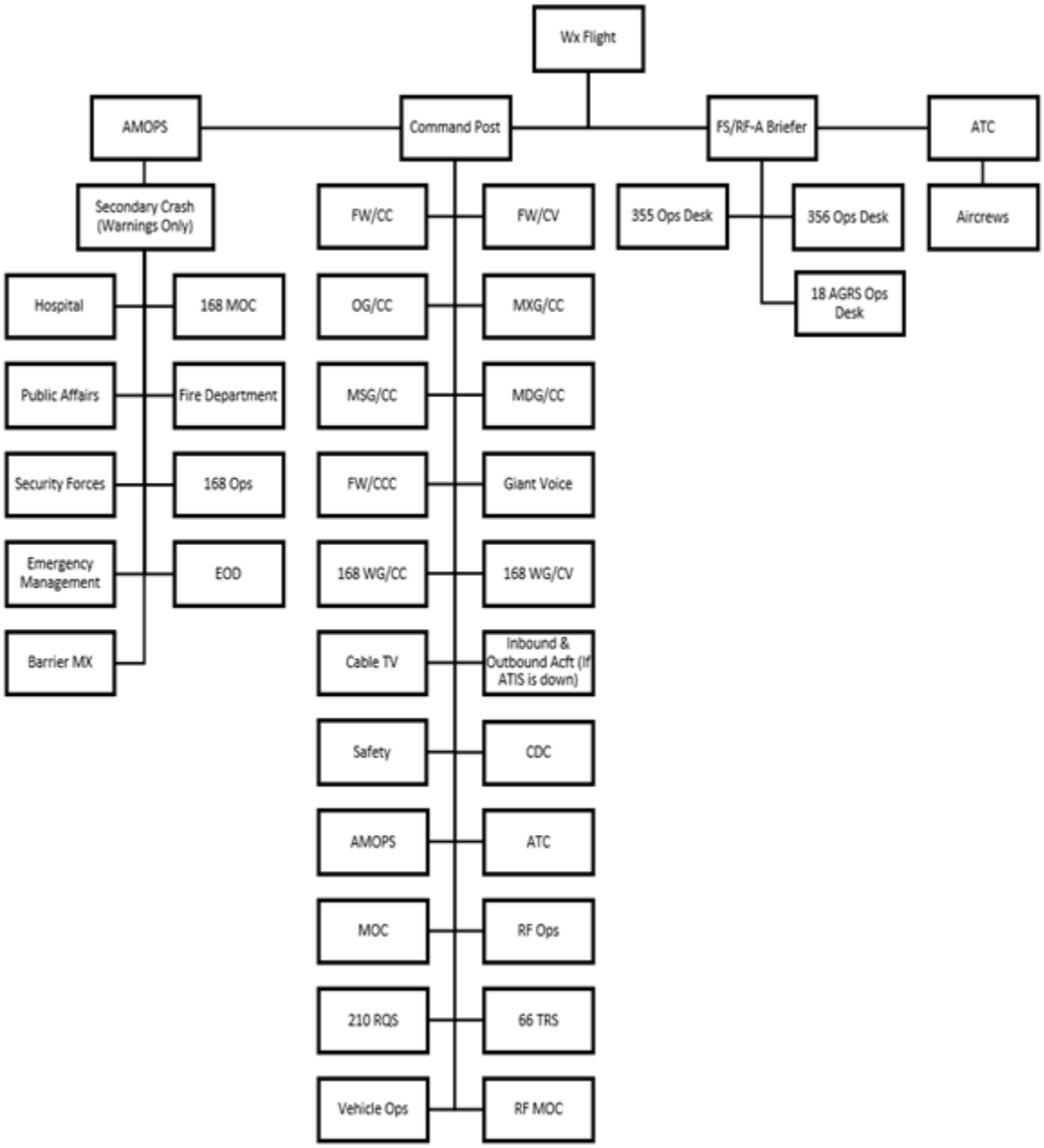
Figure A2.1. Airfield Meteorological Equipment.



Attachment 3

WEATHER WATCH/WARNING/ADVISORY NOTIFICATION DIAGRAMS

Figure A3.1. Notification During Weather Flight Open Hours.



Attachment 4

WEATHER EQUIPMENT RESTORAL

Table A4.1. Weather Equipment Restoral Priorities/Multiple System Response Priorities.

SYSTEM	MISSION IMPACT	OPR	RESPONSE TIMES (SIGNIFICANT*/ MINIMAL**)
LAN/Internet Connectivity	Weather data transmission and dissemination efficiency severely impacted. Timeliness of weather briefings severely impacted. Access to important weather information is degraded and/or not possible.	354 CS/SCO	Immediate/12 hours
JET (communications problems)	Weather data are not passed to ATC (tower) systems, and WWAs are not disseminated to base agencies as timely as possible. May directly impact flight safety and/or base resources & personnel.	354 CS/SCO &/or JET Help Desk	Immediate/24 hours
FMQ-19 (Automatic Meteorological Station)	Automated weather data are not collected. If certain sensors are inoperable, this may directly impact flight safety (see RAWS Ops Letter).	354 OSS/OSAM (Airfield Systems)	Priority One Sensors (wind/ceiling/visibility/RVR and pressure sensors) = immediate Priority Two Sensors (all others) = immediately after priority one (See RAWS Ops Agreement)
***SIGNIFICANT:** Equipment totally unusable ****MINIMAL:** Equipment is in limited operation			

Attachment 5

GO/NO-GO THRESHOLDS AND WEATHER SENSITIVITIES

A5.1. Go/No-Go Thresholds and Weather Sensitivities for Supported Flying Units (By Airframe & Unit).

Table A5.1. Go/No-Go Thresholds and Weather Sensitivities for Supported Flying Units (By Airframe & Unit).

Unit	Airframe	Category	Sensitivity	NO GO
18 FIS 168 WG 355 FS 356 FS (fixed wing)	F-16 KC-135 (fixed wing) F-35	Landing: ceiling (CIG) (alternate required)	General Flight Rules: Designate an alternate landing site because ceiling is below 2,000 ft AGL for landing. Alternate landing site required.	
		Landing: VIS (alternate required)	General Flight Rules: Designate an alternate landing site because surface visibility is less than 3 miles (4800 meters) for landing. Alternate landing site required.	
		Landing: Low CIG (choosing alternate)	General Flight Rules: Cannot use alternate landing site in areas where ceiling is less than 1000 ft AGL or 500 ft above the lowest compatible approach minima for landing. Alternate landing site below minimums. Exception: TEMPO condition due to thunderstorm or rain/snow shower.	
		Landing: Low VIS (choosing alternate)	General Flight Rules: Cannot use alternate landing site in areas where surface visibility is less than 2 miles (3200 meters) or 1 mile above the lowest compatible approach minima for landing. Alternate landing site below minimums. Exception: TEMPO condition due to thunderstorm or rain/snow shower.	
18 FIS 168 WG 210 RQS 356 FS 355 FS	F-16 KC-135 HH-60 F-35	Takeoff/Landing: Thunderstorm/Hail	General Flight Rules: Pilots will not takeoff or land if a thunderstorm is producing hail at the airfield.	X
		Takeoff/Landing: Thunderstorm/ Heavy Rain	General Flight Rules: Pilots will not takeoff or land if a thunderstorm is producing heavy rain at the airfield.	X
		Takeoff/Landing: Thunderstorm/ Lightning	General Flight Rules: Pilots will not takeoff or land if a thunderstorm is producing lightning at the airfield.	X

		Takeoff/Landing: Thunderstorm/ Gusts Exceed 35kts	**General Flight Rules: Pilots will not takeoff or land if a thunderstorm is producing strong surface wind gusts at the airfield.**	**X**
		Takeoff/Landing: Thunderstorm/ Wind shear	**General Flight Rules: Pilots will not takeoff or land if a thunderstorm is producing wind shear conditions at the airfield.**	**X**
		Takeoff: Freezing Rain	**General Flight Rules: Pilots will not takeoff with ice on the aircraft. Deicing is required before takeoff.**	**X**
		Takeoff: Snow Cover on Aircraft	**General Flight Rules: Pilots will not takeoff with snow on the aircraft. Deicing is required before takeoff.**	**X**
		In-flight: Thunderstorm	**General Flight Rules: Pilots shall not intentionally operate into a thunderstorm.**	**X**
		In-flight: Volcanic Activity	**General Flight Rules: Pilots will not fly in the region of known or reported volcanic activity.**	**X**
18 FIS 356 FS 355 FS	**F-16 F-35**	**Takeoff/Landing: Cross Winds**	**Surface crosswinds > 25 kts exceed maximum limits for takeoffs and landings.**	**X**
		Take Off: Cross Wind > 15kts	**Do not takeoff in formation with surface crosswinds > 15 kts.**	
		In-flight Refueling: VIS < 1610 meters	**Exceeds minimum visibility limit for in-flight air refueling.**	**X**
		In-flight: Heavy Rain	**Heavy rain significantly degrades the pilot's visual and IR ranges. Pilot's visual range is greatly reduced.**	**X**
		In-flight: Heavy Snow	**Heavy intensity snow degrades the pilot's visual and IR detection ranges.**	**X**
		In-flight: Moderate Rain	**Moderate intensity rain may degrade the pilot's visual and IR detection ranges.**	
		In-flight: Moderate Snow	**Moderate intensity snow degrades the pilot's visual and IR detection ranges.**	
		In-flight: Severe/Extreme Turbulence	**Severe or extreme turbulence degrades pilot performance.**	**X**
		In-flight: Icing	**Flight in areas of icing should be avoided whenever possible. Aircraft should minimize duration of time in icing conditions.**	
		In-Flight: Moderate Turbulence	**Aircraft should avoid areas of moderate or greater intensity turbulence. Turbulence may degrade aircraft and mission.**	

		Space Weather	**Aurora intensity may impact night flying illumination. No other space weather information is required.**	
		Simulated Flame Out (SFO)	**Not allowed when there is a ceiling below 5,000 ft AGL.**	**X**
168 WG	**KC-135**	**Takeoff/Landing: Slush on RWY**	**Aircraft cannot takeoff or land with > 0.5 inches of slush on the runway.**	**X**
		Takeoff/Landing: ½ inch standing water on RWY	**Aircraft cannot takeoff or land with > 0.5 inches of water on the runway.**	**X**
		Takeoff/Landing: Cross Winds (Dry Runway)	**Surface crosswinds > 25 kts exceed maximum limit for takeoffs and landings.**	**X**
		Takeoff/Landing: Cross Winds (Wet Runway)	**Surface crosswinds > 20 kts exceed maximum limit for takeoffs and landings with an RCR ≥ 6. For an RCR of 4-5, a waiver is required from the 168 OG/CC**	**X**
		Touch-and-go Landing: Cross Winds, and Simulated Engine Out	**Surface crosswinds > 15 kts exceed maximum limit for landings. Surface crosswinds > 10 kts exceed limit for touch-and-go for non-instructors (no direct IP supervision)**	**X**
		In-flight: Moderate Icing	**Aircraft may operate for up to 10 minutes in moderate intensity icing.**	
		In-flight: Severe Icing	**Aircraft should never operate in known severe or forecast severe intensity icing.**	**X**
		In-flight: Turbulence	**Flight into areas of forecast or reported severe (moderate for mountain wave) turbulence is prohibited. Air Refueling cannot be conducted in areas of reported moderate turbulence.**	**X**
		In-flight: Thunderstorms within 10NM (below FL230)	**Impacts safety of flight and can result in possible damage to aircraft (for flight level < 23000 ft MSL).**	
		In-flight: Thunderstorms within 20NM (above FL230)	**Impacts safety of flight and can result in possible damage to the aircraft (for flight level >= 23000 ft MSL).**	
		Space Weather – HF/UHF SATCOM	**Marginal and severe degradation may impact communications equipment. No local threshold – based on 557 WW-derived thresholds.**	

		Space Weather – GPS	**15-50m deviation defined as marginal impact and 50m+ deviation defined as high impact.**	
		Space Weather – Radiation	**10.0-99.9 mrem/hr defined as marginal impact and 100.0 or more is severe.**	
210 RQS	**HH-60**	**Landing: CIG (alternate required)**	**General Flight Rules: Designate an alternate landing site because ceiling is below 1,000 ft AGL (or 400 ft above lowest compatible approach mins, whichever is higher) for landing. Alternate landing site required. The airfield's lowest compatible approach weather minimums**	
			are greater than or equal to a 1,500 ft. ceiling.	
		Landing: VIS (alternate required)	**General Flight Rules: Designate an alternate landing site because surface visibility is less than 2 miles (3200 meters) for landing. Alternate landing site required. The airfield's lowest compatible approach weather minimums are greater than or equal to 3 SM visibility.**	
		Landing: Low CIG (choosing alternate)	**General Flight Rules: Cannot use alternate landing site in areas where ceiling is less than 200 ft AGL above the lowest compatible approach mins for landing. Alternate landing site below minimums. Exception: TEMPO condition due to thunderstorm or rain/snow shower.**	
		Landing: Low VIS (choosing alternate)	**General Flight Rules: Cannot use alternate landing site in areas where surface visibility is less than 1 mile (3200 meters) above the lowest compatible approach mins for landing. Alternate landing site below minimums. Exception: TEMPO condition due to thunderstorm or rain/snow shower.**	
		Takeoff/Landing: Cross Wind >15kts	**Affects the selection of the direction of takeoff and landing.**	
		Takeoff/Landing: Tail Wind > 5kts	**Affects the selection of the direction of takeoff and landing.**	
		Operation: Severe Icing	**Do not operate in any forecast or actual severe condition (e.g. severe icing, turbulence)**	**X**

		Operation: Severe or Extreme Turbulence	**Do not operate in any forecast or actual severe condition (e.g. severe icing, turbulence)**	**X**
		Operation: Moderate Turbulence	**Flight into moderate turbulence will reduce airspeed and delay mission completion. The aircraft can be operated in light or moderate turbulence.**	
		Operation: Hovering in Cross Winds > 45kts	**Hovering in crosswinds > 45 kts exceeds operating limits and is prohibited. Hovering in crosswinds is limited by directional control.**	**X**
		Operation: In Thunderstorms	**Intentional flight into thunderstorms is prohibited. Therefore a delay in mission completion may result.**	**X**
		Operation: In temps < -29°F	**Without special service, surface temperature < -29°F adversely affects the**	
			airframe & reduces number of personnel carried because of weight and bulk of cold protection gear. Increases maintenance time and requirements. Surface temperatures < -29°F exceed the operating limits with normal service; expectation is that cold weather operations servicing is available. The basic helicopter with normal servicing can operate at temperatures down to -29°F.	
		Operation: In Temperatures > 90F	**Surface temperature > 90°F reduces aircraft lift capability, overall performance, and number of personnel carried on aircraft.**	
		In-flight with Sling Load: Light Turbulence	**Intentional flight Into any turbulence with a sling load attached and an inoperative collective friction control is prohibited.**	**X**
		In-flight without Anti Ice/de-ice Systems: > or = trace icing	**Flight into conditions of icing >= trace intensity is prohibited unless aircraft is equipped with de-ice and anti-ice systems. With inoperative blade de-ice, flight into moderate icing is prohibited.**	**X**
		Space Weather – HF/UHF SATCOM	**Marginal and severe degradation may impact communications equipment. No local threshold – based on 557 WW-derived thresholds.**	
		Space Weather – GPS	**15-50m deviation defined as marginal impact and 50m+ deviation defined as high impact.**	

A5.2. Go/No-Go Thresholds and Weather Sensitivities for Flying Missions.

Table A5.2. 18FIS Mission Profile Weather Sensitivities.

Mission Type	Significant Risk - Red	Marginal Risk – Amber	No Risk - Green	Reference
Basic Fight Maneuvers (BFM)	TS > 25% coverage Solid BKN-OVC from FL 050-200 (need 10KFT of useable airspace)	TS 1-25% coverage SCT or LYRD BKN from FL 050-200 (need 10KFT of useable airspace)	No TS CLR-FEW from FL 050-200 (need 10KFT of useable airspace)	AFI 11-214, Local Agreement
Air Combat Maneuvers (ACM)				
Tactical Intercepts (TI)	TS > 25% coverage Solid BKN-OVC from FL 050-350 (need 10KFT of useable airspace) See above	TS 1-25% coverage SCT or LYRD BKN from FL 050-350 (need 10KFT of useable airspace) See above	No TS CLR-FEW from FL 050-350 (need 10KFT of useable airspace) See above	
Air Combat Tactics (ACT) – combo of above profiles				
Instrument Sortie (INST)/Local Area Orientation (LAO)				
Night Sortie/NVGs	TS > 25% coverage Solid BKN-OVC from FL 050-350 (need 10KFT of useable airspace) CIG<1,000ft AGL (for HI, non terrain following/avoidance) CIG < MSA* (LI)	TS 1-25% coverage SCT or LYRD BKN from FL 050-350 (need 10KFT of useable airspace) Illumination < 2.2 mililux (LI- Low Illumination)	No TS CLR-FEW from FL 050-350 (need 10KFT of useable airspace) Illumination 2.2 mililux or greater (HI- High Illumination)	AFI 11-214, Local Agreement

Low Altitude Training (LOWAT)	**TS > 25% coverage CIG < 5,000ft AGL**	**TS 1-25% coverage FEW-SCT below 5,000ft AGL**	**No TS CLR below 5,000ft AGL**	**AFI 11-214, Local Agreement**
***Min Safe Altitude (MSA, ref. 354 FW In-Flight Guide)**				

A5.3. Other Mission Types.

Table A5.3. Other Mission Types.

Mission	Unit	Category	Sensitivity	NO GO
All	**18 FIS 356 FS 355 FS**	**ECT ≤ -40°F**	**Possible loss of life if pilot was required to abandon aircraft. Requires OG/CC & MXG/CC approval.**	**X**
All	**18 FIS 356 FS 355 FS**	**ECT ≤ -50°F**	**Possible loss of life if pilot was required to abandon aircraft. Possible injury to maintenance personnel. All Ranges and MOAs with ambient temperature ≤ -50°F are closed to flying. Aircraft are also grounded if those conditions persist at EAFB. Requires 354 FW/CC approval.**	**X**
Training Missions	**210 RQS**	**ECT ≤ -50°F**	**Possible loss of life if pilot was required to abandon aircraft. All Ranges and MOAs with ambient temperature ≤ -50°F are closed to flying. Aircraft are also grounded for training missions if those conditions persist at EAFB.**	**X**
SAR	**210 RQS**	**ECT ≤ -50°F**	**Possible loss of life to pilot if aircraft were to go down. For a SAR 210 RQS will try to fly in almost any condition depending on how critical the situation.**	
Training Missions	**168 ARS**	**ECT ≤ -40°F**	**Possible loss of life if pilot was required to abandon aircraft.**	**X**
Priority or Hangar Launch	**168 ARS**	**ECT ≤ -40°F**	**Possible loss of life if pilot was required to abandon aircraft. Requires 354 OG/CC & 168 OG/CC approval.**	

Training Missions	**168 ARS**	**ECT ≤ -50°F**	**Possible loss of life if pilot was required to abandon aircraft. Possible injury to maintenance personnel. All ranges and MOAs with ambient temperature ≤ -50°F are closed to flying. Aircraft are also grounded if those conditions persist at EAFB.**	**X**
Priority or Hangar Launch	**168 ARS**	**ECT ≤ -50°F**	**Possible loss of life if pilot was required to abandon aircraft. Requires 354 FW/CC and 168 WG/CC approval.**	
Air Refueling (AR)	**168 ARS**	**Light Turbulence**	**Not a significant impact to AR missions.**	
AR	**168 ARS**	**Moderate Turbulence or greater**	**Will cancel that AR track and aircrew will work with WF for a possible alternate AR location.**	**X**
AR	**168 ARS**	**Light icing**	**No Significant impacts.**	
AR	**168 ARS**	**Moderate icing or greater**	**Will cancel AR track and aircrew will work with WF personnel for a possible alternate AR location.**	**X**
AR	**168 ARS**	**Visibility <1 mile at flight level**	**Aircrew will cancel AR if they cannot find visibility greater than 1 mile due to clouds at flight level.**	**X**

A5.4. Range/Low-Level Mission-Limiting Go/No-Go Weather Thresholds.

Table A5.4. Range/Low-Level Mission-Limiting Go/No-Go Weather Thresholds.

Unit	Category	Sensitivity	NO GO
18 FIS 356 FS 355 FS	**CIG/VIS ≤ 1500/3**	**For low-level VFR route missions, anything below VFR becomes a No-Go for that particular mission.**	**X**
210 RQS	**VIS ≤ ½ (Day) or 1 (Night)***	**The 210 RQS minima for low-level flight in the ranges must be 1/2SM visibility during the day and 1SM at night.**	**X**
***210 RQS does not have a CIG requirement, however helicopters may operate as long as they are clear of clouds and if operated at a speed that allows the pilot adequate opportunity to see any air traffic or obstructions in time to avoid a collision.**			

A5.5. Non-Flying Mission-Limiting Thresholds.

Table A5.5. 354CES Mission-Limiting Weather Thresholds.

CRITERIA	MINIMUM LEAD TIME	MISSION IMPACT	ACTION
SURFACE WINDS			
>= 35 kts	1 hr	Increased unscheduled maintenance; damage to trees, buildings, power lines.	Remove fallen trees, repair buildings and power lines.
Direction Change / Runway Change	Observed	Delayed/Rescheduled routine work.	Lower barriers on inactive runway and raise barriers on active runway as required.
LIGHTNING			
Lightning within 5 NM	Observed	Hazard to flight line operations and possible power outages.	Do not respond to barrier changes without direct instructions from Command Post.
TORNADOS			
Tornados	15 min	Threat to life and property.	Take shelter.
SNOWFALL			
>= 4 inches in 12 hrs	90 min	Roadways dangerous.	1. Plan alternate response routes. 2. Decrease response speeds. 3. Prepare snow removal equipment, maintain radio contact at all times.
FREEZING PRECIPITATION			
Freezing precipitation	90 min	1. Roadways dangerous. 2. Power lines at risk of being pulled down.	1. Plan alternate response routes. 2. Sand roads. 3. Decrease response speeds. 4. Prioritize responses to alarms. 5. Put sodium acetate on runway.

AMBIENT TEMPERATURE & EQUIVALENT CHILL TEMPERATURE (ECT)			
ECT <= -20º F	15 min	Personnel in danger of freezing.	1. Advise personnel of the potential for freezing. 2. Use the buddy system for snow removal. 3. Take breaks for equipment rest.
ECT <= -30º F	15 min		
ECT <= -40º F	90 min		
ECT <= -50º F	90 min		
Ambient <= -40º F	Observed	Facilities, vehicles, & equipment in danger of freezing.	
Ambient <= -50º F	Observed		

A5.6. 354 SFS.

Table A5.6. 354SFS.

CRITERIA	MINIMUM LEAD TIME	MISSION IMPACT	ACTION
VISIBILITIES			
<=1/8 SM	Observed	1. Restricted visibility may require increased mobile patrol presence. 2. May cause hazardous driving conditions.	1. Flight Chiefs may direct increased patrols around Protection level (PL) assets.
SURFACE WINDS			
>= 25 kts	60 min	Loose objects may be carried by wind.	Command Post will be notified if patrolmen observe potential FOD.
>= 35 kts	90 min		
LIGHTNING			
Lightning within 5 NM	Observed	Hazard to flight line operations.	1. If observed, personnel will be advised to seek shelter. 2. Patrols will dismount vehicles only in emergency situations.
TORNADOS			
Tornados	15 min	Threat to life and property.	Take shelter.
SNOWFALL			
>= 4 inches in 12 hrs	90 min	1. May affect access to controlled and restricted areas. 2. Abandoned/illegally parked vehicles may disrupt parking and traffic flow.	1. Coordinate entry/exit procedures with the snow control center for snow removal. Ensure ropes and cones are removed and replaced as needed on PL assets and posted TCPs if applicable. 2. Assist CES if vehicles impede snow removal.

			3. Advise command post of adverse road conditions.
AMBIENT TEMPERATURE & EQUIVALENT CHILL TEMPERATURE (ECT)			
ECT <= -20º F	15 min	Personnel in danger of freezing.	1. Advise personnel of the potential for freezing if observed. 2. Continue mounted patrols, limit foot patrols as weather dictates.
ECT <= -30º F	15 min		
ECT <= -40º F	90 min		
ECT <= -50º F	90 min		
Ambient <= -40º F	Observed	Facilities, vehicles, & equipment in danger of freezing.	
Ambient <= -50º F	Observed		

A5.7. 354MXG (References 354 MXG Procedures, LCL-354MXG-01-1).

Table A5.7. 354MXG.

CRITERIA	MINIMUM LEAD TIME	MISSION IMPACT	ACTION
SURFACE WINDS			
Surface winds >=25 kts but < 35 kts	60 min	1. May cause damage to open canopies. 2. Affects jacking operations. 3. May cause damage to loose panels and radomes. 4. May cause damage to Aerospace Ground Equipment (AGE) and Alternate Mission Equipment (AME). 5. External fuel tanks may incur damage.	1. Notify all personnel within work center. 2. Close canopies on aircraft not in work. Only open canopies as needed to access the cockpit (> 30 kts). 3. Do not jack aircraft (> 30 kts). Remove jacks from under all aircraft that are outside. Aircraft that cannot be lowered need to be tied down. 4. Secure all radomes and large panels on aircraft not in work. Limit removal of large panels from the aircraft, heavy equipment from cockpit and avionics bays. 5. Ensure brakes set on AGE. Remove from flight line and secure AGE equipment, AME, and munitions trailers not in use. 6. Secure all tanks in tank farm (on dollies). 7. Consider fueling aircraft to fullest capacity. Consider hangaring F-16 aircraft with engines removed and those that cannot be refueled. 8. Ensure all loose items within area of responsibility are secured.

			9. Ensure fire bottles are secured to prevent damage to aircraft, equipment, and personnel. 10. Remove all non-essential equipment from flight line. 11. Ensure that all aircraft on the flight line, trim pad, and wash rack are properly secured.
>= 35 kts	90 min	1. Aircraft may fall from jacks. 2. May cause injury to aircraft/munitions/ equipment.	1. Notify all personnel within work center. 2. Cease bomb/missile loading/downloading operations on the open ramp (>= 35 kts). 3. Remove all AGE from flight line. Remove all aircraft from jacks. 4. Use two people to open the radome (>40 and <57 kts). Do not open radome above 57 kts. 5. Be prepared to hangar or disperse aircraft at the discretion of the Wing Commander.
LIGHTNING			
Lightning within 5 NM (Watch)	30 min	Threat to personnel.	1. Notify all personnel within work center. 2. Operations may continue, but be prepared to cease operations if observed within 5NM.
Lightning within 5 NM (Warning)	Observed	Threat to personnel.	1. Notify all personnel within work center. 2. Discontinue all outside activities and take appropriate shelter (As directed by Pro Super). 3. Stop all aircraft fuel systems maintenance, all fueling operations, munitions uploading and downloading, munitions operations. 4. Stop Liquid aviators breathing Oxygen (LOX) servicing; return vehicle containing explosives to dispatch or storage area.

TORNADOS			
Tornado (warning)	15 min	Threat to life and property.	Take shelter.
HAIL (MODERATE OR SEVERE THUNDERSTORM)			
>=1/4 inch	60 min	Damage to aircraft and injury to personnel.	Hangar aircraft, evacuate personnel from flight line before hail starts.
SNOWFALL			
>= 4 inches in 12 hrs	90 min	Ice/snow on aircraft.	De-ice aircraft.
FREEZING PRECIPITATION			
Any intensity	90 min	Ice on aircraft.	De-ice aircraft.
AMBIENT TEMPERATURE & EQUIVALENT CHILL TEMPERATURE			
ECT <= -20º F	15 min	None.	1. Terminate non-key outdoor activities. 2. Limit outside activities to aircraft identified in the weekly schedule.
ECT<= -30º F	15 min	None.	1. Disseminate temperature status upon upgrade or downgrade of temperature conditions and at every shift change.
ECT <= -40º F	90 min	Mission essential work only.	1. All normal outdoor training canceled. 2. All outdoor ancillary training, Aircraft Maintenance Qualification Program courses, and Field Training Detachment courses canceled. 3. Priority maintenance only. De-arm crews and personnel working outside to recover aircraft will employ a 30 minute work/30 minute warm cycle.
ECT <= -50º F	90 min	Emergency work only.	1. Outside maintenance activities restricted to national emergencies and peacetime contingencies only. 2. Approve dispatch of AGE heaters off of the flight line to support all possible organizational

			requests, ensuring enough assets are maintained available to support flight line operations. Approval will be coordinated through the 354 MXS Maintenance Operations Officer or 354 MXS Superintendent.
ICE FOD			
Conditions exist for ice FOD development for F-16s/F-35s (advisory)	Observed	Ice FOD in engines.	Check for ice FOD in engines.

Attachment 6

JOINT PACIFIC ALASKA RANGE COMPLEX (JPARC)

Figure A6.1. JOINT Pacific Alaska Range Complex (JPARC).