***BY ORDER OF THE COMMANDER***
***62D AIRLIFT WING (AMC)***

***62D AIRLIFT WING INSTRUCTION***

***15-101***

***28 MARCH 2024***

***Weather***

***WEATHER SUPPORT***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 15-1, *Weather Operations*; Air Force Instruction (AFI) 15-128, *Weather Force Structure*; AFMAN 10-206, *Operational Reporting*; Department of the Air Force Instruction (DAFI) 10-2501, *Emergency Management Program*; Air Force Manual (AFMAN) 15-111, *Surface Weather Observations*; AFMAN 15-124, *Meteorological Codes*; Department of the Air Force Manual (DAFMAN 15-129), *Air and Space Weather Operations*; and Air Mobility Command Instruction (AMCI) 15-101, *Weather Operations and Support.* It establishes responsibilities, weather support procedures, and provides general information for weather services, including: weather observations and forecasts, weather warnings, watches, and advisories, information dissemination, and base-wide reciprocal support. It applies to 62d Airlift Wing (62 AW) and subordinate units; units assigned, attached, or associated with 62 AW; organizations supported by McChord Field, to include the 446th Airlift Wing (446 AW) Air Force Reserve Command. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Information System Records Disposition Schedule located at **https://afrims.cce.af.mil/**. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*.

***SUMMARY OF CHANGES***

This publication has been significantly revised. This rewrite of 62AWI 15-101 includes new roles and responsibilities for McChord Field Weather Flight with support changes across Air Force Weather. This document should be reviewed completely.

# Chapter 1

## ROLES & RESPONSIBILITIES

**1.1. General Information.** The 62d Operations Support Squadron Weather Flight (62 OSS/OSW, hereafter WF) is the lead weather unit that will provide or arrange weather services to the 62d Airlift Wing (62 AW), the 446th Airlift Wing (446 AW), subordinate units, and units assigned, attached, or supported by McChord Field, WA. Weather services and support across the broader Joint Base Lewis-McChord (JBLM), for units that fall under I CORPS, are provided by 1st Combat Weather Squadron (CWS).

**1.2. Mission Statement.** Mission accomplishment through accurate weather support. Give the aircrew the information they need to fly and fight! Resource protection through accurate and timely notification of senior leadership.

**1.3. Location and Hours of Operation.** The McChord Field Weather Station is located at One-Stop, Building 1159, Rm 107. WF hours of operation are published in the Flight Information Publication (FLIP) and/or the Notice to Airmen (NOTAM) for McChord Field. Typically, hours of operation mirror controlled airfield hours unless otherwise coordinated and approved by the 62 AW/CC (example: operating hours waived due to limited personnel).

1.3.1. WF personnel will be on duty when the airfield is open and no automated observing system capability exists, during significant weather events, and on-call for any emerging requirements, recallable by 62 AW Command Post (62 AW/CP, hereafter CP) and 62 OSS Air Traffic Control (62 OSS/OSAB, hereafter ATC). Recall procedures are defined in **Para 2.7.3**. Recall Requirements.

1.3.2. The WF will notify CP, ATC, McChord Field Airfield Management (62 OSS/OSAA, hereafter OSAA), and Gray Army Airfield (KGRF) Weather Station when opening and closing the station during limited-duty hours.

**1.4. Weather Unit Contact Information.**

1.4.1. McChord Field (KTCM) - Weather Station.

1.4.1.1. Phone. Commercial (253) 982-3434/2112

1.4.1.2. Phone. DSN 382-3434/2112

1.4.1.3. Email. **62OSS.OSW@us.af.mil**

1.4.1.4. Pilot-to-Metro Service. 342.3 MHz

1.4.2. 618 Air Operations Center/XOW - Mission Weather Services.

1.4.2.1. Phone. Commercial (618) 229-0353/0308

1.4.2.2. Phone. DSN 779-0353/0308

1.4.3. 25 Operational Weather Squadron - Briefing Cell.

1.4.3.1. Phone. Commercial (520) 228-6598/6599

1.4.3.2. Phone. DSN 228-6598/6599

1.4.4. Gray AAF (KGRF) - Weather Station. Operated by 1 Combat Weather Squadron.

1.4.4.1. Phone. Commercial (253) 967-7061

1.4.4.2. Phone. DSN 357-7061

**1.5. Concept of Operations.** The WF provides weather services to McChord Field via three overarching functions: airfield services, mission integration, and staff weather integration.

**1.6. Duty Priorities.** To ensure higher priority duties are accomplished during periods of increased operations tempo, WF personnel will follow established duty priorities based on sound judgement and Operational Risk Management principles. Duty Priorities are listed in **Table 1.1**.

**Table 1.1. Duty Priorities.**

| | |
|---|---|
| 1 | Execute wartime duties and orders |
| 2 | Emergency Actions / Evacuation / Continuity of Operations Plan |
| 3 | Respond To Aircraft/Ground Emergencies (Mishap) |
| 4 | Disseminate Weather Watches, Warnings & Advisories (WWA) |
| 5 | Respond to Pilot-to-Metro Service & phone patch calls (PMSV) |
| 6 | Augment observations (METAR/SPECI) |
| 7 | Disseminate Pilot Reports (PIREP) |
| 8 | Publish airfield forecasts (TAF) |
| 9 | Provide or Arrange Flight Weather products (MEF, 175-1, etc.) |
| 10 | Provide support for Crisis Action Team (CAT) |
| 11 | Provide Staff Briefings & Weather Protocol (5-DAY, SWAP) |
| 12 | Respond to Requests for Information |
| 13 | Produce and Disseminate Mission Planning Products (MPB) |
| 14 | Accomplish administrative weather tasks |
| 15 | Accomplish administrative non-weather tasks |

**1.7. Assumptions, Shortfalls, and Limitations.** The WF relies heavily on network communication systems. Interruption in network service severely degrades WF capabilities to provide accurate and timely weather services.

1.7.1. Assumptions. Weather support can only be provided if the appropriate facilities, funding, communications, personnel, and indigenous support (e.g., power, water, etc.) are available. This includes forecasting tools provided by Air Force Weather.

1.7.2. Shortfalls. Some services may not always be available due to station evacuation or other higher priority missions or duties.

1.7.3. Limitations. When augmenting, surface weather observing has buildings obstructing the view of the horizon to the west for 180 degrees (north to south).

**1.8. Weather Equipment.** The WF uses meteorological equipment as the primary means of meteorological interpretation and analysis.

1.8.1. Primary Observing Equipment. The primary observation system is the Automatic Meteorological Station (AN/FMQ-19) to determine the current state of the atmosphere. This system provides aircrew and tower controllers with timely and accurate surface observations for the McChord Field Aerodrome. The FMQ-19 samples, measures, and reports: temperature, dew point, wind speed and direction, visibility, RVR when applicable, cloud base height and amount of coverage, pressure, lightning, liquid equivalent precipitation accumulation, and ice

accretion during freezing precipitation. These measurements are fully automated observations that comply with applicable reporting standards and protocols defined in the Federal Meteorological Handbook, the World Meteorological Organization, the Federal Aviation Administration, National Weather Service, and military reporting standards.

1.8.2. Backup Observing Equipment. The backup to the FMQ-19 is the Tactical Meteorological Observing System (AN/TMQ-53), a deployable version of the FMQ-19 that is primarily used to support austere locations with a full observation suite. An alternate short-term sensor that can be used for limited observations is the Advanced Micro Weather Station (AMWS).

**1.9. Communications Equipment.** The WF uses communications and network equipment as the primary means of forecasting, product generation, and dissemination. The Pilot-to-Metro Service (PMSV) Radio 342.3 MHz allows the WF to communicate with aircrews, both on the ground and flying, as well as tower personnel. Data is transmitted from the FMQ-19 to the Perl device into the Sensor Collection Appliance (SCA) before being transmitted to viewable windows for Weather Forecasters and Tower Controllers.

**1.10. Maintenance.** Organizations providing preventive maintenance and repair of weather and communications equipment are listed in **Table 1.2**. Radar, Airfield and Weather Systems (RAWS) restoration priorities and response times for critical systems are also outlined in the RAWS Memorandum of Agreement in the event of natural disasters or any anomaly that simultaneously impacts systems base-wide.

**Table 1.2. Equipment Maintenance List.**

| Equipment | Organization | Impact | RAWS Priority |
|---|---|---|---|
| AN/FMQ-19 | RAWS | Automated fixed base weather observing system. Any outage removes instantaneous Meteorological Watch of airfield conditions. | Duty hours: 30 minutes Non-duty hours: Dependent on which piece of equipment, 1 hour to next duty day |
| AN/TMQ-53 | RAWS | Deployable weather observing system. | Duty hours: 30 minutes Non-duty hours: Next duty day |
| PMSV Radio | RAWS | Primary means to contact and relay time-critical weather information to aircraft. | Duty hours: 30 minutes Non-duty hours: Next duty day |
| Perl Device | RAWS | Hardware to disseminate sensor data. | Duty hours: 30 minutes Non-duty hours: 1 hour |
| Sensor Collection Appliance (SCA) | JET Helpdesk | Software to disseminate sensor data, observations, forecasts, WWAs, and PIREPs | |
| NIPRNet | 62 OG/IT and 627 CS | Primary means to gather and interrogate weather information and disseminate tailored weather products. | |

| | | | |
|---|---|---|---|
| VoIP Phones | JBLM Network Enterprise Center | Primary means to receive flight weather requests from aircrew and coordinate weather support with outside agencies. | |

**1.11. Alternate Operating Location (AOL).** In the event the primary weather station is unusable (e.g., fire, commercial power, or network interruptions, etc.) the WF will evacuate to Hangar 4, Room 4-206 to continue operational support.

## Chapter 2

## AIRFIELD SERVICES

**2.1. General.** The WF is responsible for airfield observations, forecasts, resource protection, and on-the-spot updates via radio and phone calls. These products and services ensure pilots and commanders are equipped with relevant weather data to execute the mission.

**2.2. Surface Weather Observations.** Observations for McChord Field are taken by the WF and disseminated via International Civil Aviation Organization (ICAO) airport code KTCM. This is mostly done automatically by the fixed meteorological sensor and backed up by certified weather personnel. The WF will take and disseminate Aviation Routine Weather Reports (METAR) hourly at the top of each hour. Additionally, the WF will take and disseminate Aviation Selected Special Weather Reports (SPECI) and Aviation Selected Local Weather Reports (LOCAL) when specified criteria occur. SPECI and LOCAL criteria specific to McChord Field is listed in **Table 2.1**.

**Table 2.1. Observation SPECI Criteria.**

| Visibility (SM) | Runway Visual Range (ft) | Ceilings (100 ft) |
|---|---|---|
| 1/4 | 0600 | 001 |
| 1/2 | 1000 | 002 |
| 3/4 | 1200 | 003 |
| **7/8** | 1600 | 005 |
| 1 | **1800** | **006** |
| **1 1/4** | 2000 | 007 |
| **1 3/8** | 2400 | 008 |
| 1 1/2 | 4000 | 010 |
| **1 5/8** | **4500** | 015 |
| **1 3/4** | 5000 | 020 |
| 2 | **5500** | 030 |
| **2 1/2** | 6000 | |
| 3 | | |
| Note: Items **bolded** indicate specific criteria to KTCM in the FLIP. | | |

2.2.1. Automated Sensor. The FMQ-19 primary sensor is located on Runway 16 (KTCM FPRI RNWY 16), the discontinuity sensor is on Runway 34 (KTCM FDIS RNWY 34), and the midfield sensor (KTCM FMID 16/34) is at the runway midpoint.

2.2.2. Manual Observations. The manual observation site for the WF is approximately 600 feet away from the north side of building 1159, through the gate next to building 1182 on the grass marked by the backup rain gauge, see **Figure 2.1**. The official observing point for the AOL approximately 50 feet southeast (SE) of the base of the air traffic control tower (marked by a concrete pad with four (4) flag poles). Access to the observation point will be through the gate on the northwest (NW) side of the ATC tower, see **Figure 2.2**.

**Figure 2.1. Official Observation Site.**

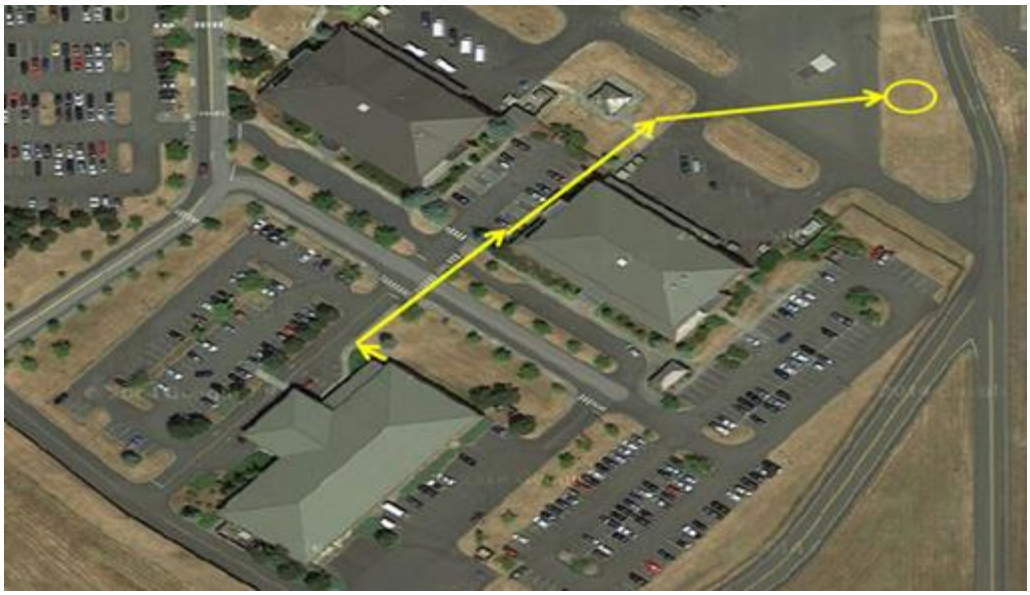
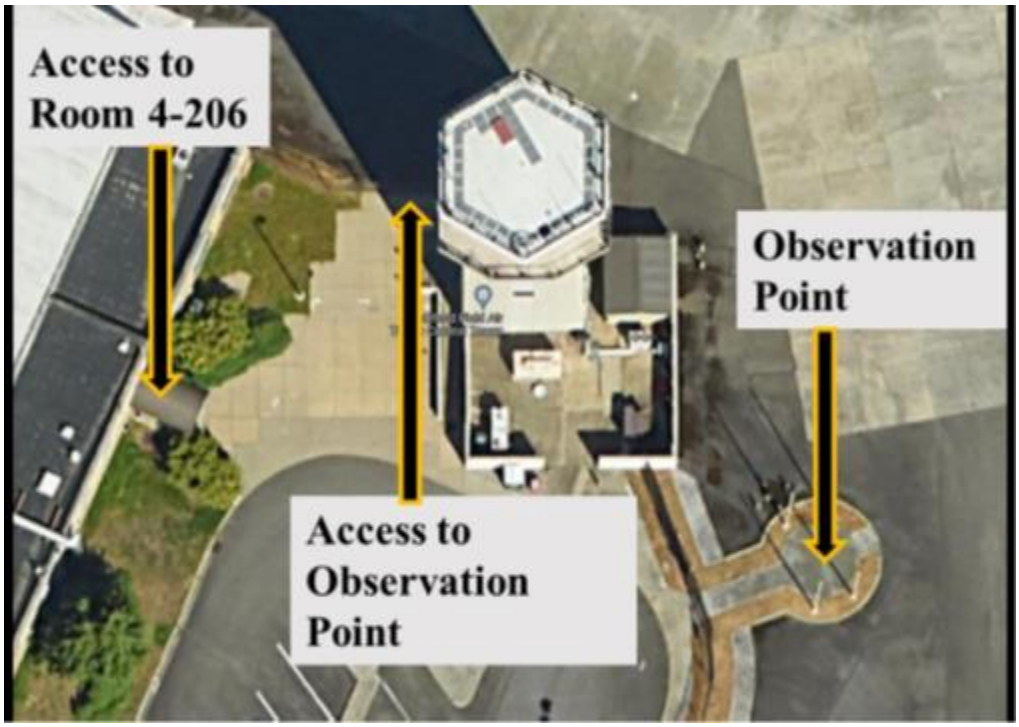


**Figure 2.2. Official AOL Observation Site.**




2.2.3. Observing Point Limitations. Observations taken at the primary augmentation site (Building 1159) and the AOL (Hangar 4) are degraded based on buildings blocking portions of the horizon and visibility markers. The south end of the runway is not visible from the observation point. When fog and/or low clouds are present over the approach end of Runway 34 (south of the field), conditions reported from the observation point may not be representative.

2.2.4. Cooperative Weather Watch (CWW). The WF and ATC have established a Memorandum of Understanding/Agreement outlining each unit's responsibilities when specific meteorological phenomena are observed. The 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. For specific support, see **Chapter 5**.

**2.3. Terminal Aerodrome Forecasts (TAF).** Forecasts for McChord Field are produced and disseminated by the WF. TAFs are valid for 30 hours, apply to the area within the 5NM area of the McChord airfield complex, and will be issued at 0500Z, 1300Z, and 2100Z unless otherwise coordinated with 62 AW/CC (e.g., operating hours waived due to limited personnel). Standard forecast specification and amendment criteria listed in DAFMAN 15-129 apply in addition to the McChord Field criteria listed in **Table 2.2**.

**Table 2.2. TAF Specification/Amendment Criteria.**

| Ceiling | Visibility | Category |
|---|---|---|
| ≥ 2000 FT | ≥ 3 SM (4800 M) | E |
| < 2000 FT but ≥ 1000 FT | < 3 SM (4800 M) but ≥ 2 SM (3200 M) | D |
| < 1000 FT but ≥ 700 FT | < 3 SM (4800 M) but ≥ 2 SM (3200 M) | C |
| < 700 FT but ≥ 200 FT | < 2 SM (3200 M) but ≥ 3/8 SM (0600 M) | B |
| < 200 FT | < 3/8 SM (0600 M) | A |

**2.4. Pilot-to-Metro Service (PMSV).** WF personnel will monitor ultra-high frequency (UHF) 342.3 MHz during WF hours of operation to assist aircrews. Range is approximately 200 nautical miles (NM) at normal operating altitudes. When the weather station is closed or operating out of the AOL, this frequency is monitored by Air Traffic Control Tower and/or Command Post.

**2.5. Pilot Reports (PIREP).** The WF can receive PIREPs via PMSV, phone patch, or relayed from air traffic controllers. Aircrews are encouraged to provide a PIREP when observing meteorological elements that may be of operational significance to other aircraft.

**2.6. Resource Protection.** Weather watches, warnings, and advisories (WWA) for McChord Field are issued by the WF to mitigate the hazardous effects of weather on personnel, property, and operations. See **Table 2.3** for WWA criteria specific to McChord Field. These notifications are disseminated to specific agencies listed on the McChord Field Data Page located on the WF SharePoint under the Site Content Documents.

**Table 2.3. WWA Criteria.**

| Weather Watch Criteria | Desired Lead Time (DLT) |
|---|---|
| Potential for Lightning within 5 nautical miles | 30 minutes |
| Potential for Freezing Precipitation | As potential warrants |
| Potential for Tornado exists | As potential warrants |
| Potential for Severe Hail >= ¾ inches | As potential warrants |
| Potential for Damaging Winds >= 50 knots | As potential warrants |

| | |
|---|---|
| Potential for Heavy Snow Accumulation >= 2 inches in 12 hours | As potential warrants |
| **Weather Warning Criteria:** | **DLT** |
| Observed Lightning within 5 nautical miles | Observed |
| Forecasted Freezing Precipitation | 1 Hour |
| Forecasted Tornado | 15 Minutes |
| Forecasted Severe Hail >= ¾ inches | 1 Hour |
| Forecasted Damaging Winds >= 50 knots | 1 Hour |
| Forecasted Heavy Snow Accumulation >= 2 inches within 12 hours | 1 Hour |
| Forecasted Strong Winds >= 30 knots but >50 knots | 1 Hour |
| Forecasted Heavy Rain >= 2 inches within 12 hours | 1 Hour |
| **Weather Advisory Criteria** | **DLT** |
| Forecasted Frost | 5 Hours |
| Forecasted Snow Accumulation < 2 inches within 12 hours | 1 Hour |
| Observed Ice FOD (Temperature <= 7°C & dew point depression <= 5°C) **(Note 1)** | Observed |
| Observed Runway crosswinds > 25 knots **(Note 2)** | Observed |
| Observed Runway crosswinds > 30 knots **(Note 2)** | Observed |
| Observed Low Level Wind Shear below 2,000 feet AGL | Observed |
| Observed Moderate or greater icing below 10,000 feet AGL | Observed |
| Observed Severe or greater turbulence below 10,000 feet AGL | Observed |
| Observed Surface winds >= 20 knots **(Note 3)** | Observed |
| Observed Surface winds >= 25 knots **(Note 3)** | Observed |
| Observed Surface winds >= 40 knots **(Note 3)** | Observed |
| Observed Surface winds >= 60 knots **(Note 3)** | Observed |
| **Note 1:** Issued only in the event WADS aircraft are positioned at McChord Field.<br>**Note 2:** Crosswinds are calculated based on the maximum observed wind speed and worst case observed MAGNETIC direction including variability.<br>**Note 3:** Issued on first occurrence. Cancelled after 30 minutes of non-occurrence | |

## 2.7. Emergency Action Response.

2.7.1. Aircraft Mishap. When notified of an aircraft mishap, the WF will initiate a data save of applicable weather products and will provide this data to investigating agencies upon request. The WF will coordinate with other units (KGRF, 25 OWS, 618 AOC/XOW) to ensure required data is saved.

2.7.2. Severe Weather Action Plan (SWAP). The WF will initiate SWAP in accordance with criteria listed in **Table 2.4**. SWAP ensures sufficient manpower is available to meet the increased demand for weather information during significant weather events. It is imperative that timely and accurate WWAs are disseminated to all agencies to ensure the protection of personnel and resources.

**Table 2.4. Conditions Requiring SWAP.**

| Weather Condition | Desired Lead Time |
|---|---|
| Tornado | 15 minutes |

| | |
|---|---|
| Winds >= 50 knots | 1 Hour |
| Hail >= ¾ inches diameter | 1 Hour |
| Snow >= 2 inches in < 12 hours | 1 Hour |
| Freezing precipitation | 1 Hour |

2.7.3. Recall Requirements. The WF standby forecaster will be notified/recalled under the following circumstances:

2.7.3.1. ATC will recall the standby forecaster when automated weather sensor display data is unavailable or is not representative of current conditions that are impacting flight safety.

2.7.3.2. CP will recall the standby forecaster immediately following an aircraft mishap/accident or for significant events such as CAT activation or Alert Mission.

2.7.3.3. The standby weather forecaster will return to the weather station within 1 hour of being recalled or 1 hour prior to the start of any severe weather events (see **Table 2.4**.). When significant weather occurs that is not listed in **Table 2.4** (e.g., fog, low ceilings), WF Leadership will use operational risk management to determine if the standby forecaster needs to be present for mission impacts and flight safety.

2.7.4. Chemical, Biological, Radiological, and Nuclear (CBRN). When requested, the WF provides weather information needed to run CBRN models. Specific messages are available upon request: Chemical Downwind Message (CDM), Effective Downwind Message (EDM), and Basic Wind Message (BWM).

2.7.5. Operational Reporting (OPREP). The WF will assist 62 AW/CP with weather related OPREP reports and provide pertinent weather information as requested.

## Chapter 3

## MISSION SERVICES

**3.1. General.** This chapter identifies the flying and non-flying missions and the weather support provided by the WF.

**3.2. Mission Weather Products (MWP).** MWPs fuse theater scale products with local mission requirements enabling the direct inject of weather impacts into warfighter planning and/or execution. The result is a product designed to provide timely, accurate, and relevant environmental information for planning and execution. GDSS is the primary Command and Control (C2) system used for AMC missions.

3.2.1. Mission Execution Forecast (MEF). The WF publishes a MEF to the WF SharePoint during days that supported aircrews are scheduled to conduct local flying, according to the Team McChord Daily Flying Schedule and the Air Movement Table (AMT). The MEF is published at 1300Z and 2100Z depending on when local flights are scheduled to takeoff. The MEF will not be published if no supported missions are identified. Transient units operating locally will need to coordinate with the WF before using the MEF as it is tailored for 62 AW and 446 AW units.

3.2.2. Flight Weather Brief (FWB). The WF provides DD Form 175-1 for aircraft on non-IFM missions, upon request. A verbal brief can be used in lieu of DD Form 175-1 when requested by the aircrew, however, the MEF is recommended for local missions. FWBs are disseminated via requested media (i.e., email, print-out) and published to the WF SharePoint.

3.2.3. Mission Planning Brief (MPB). The MPB is a weather planning product disseminated the duty day prior to the scheduled mission (e.g. MPB for mission on Tuesday is disseminated on Monday and a MPB for Monday is disseminated on a Friday), according to the AMT and flying schedule. The MPB will be published to the WF SharePoint no later than 0830L.

**3.3. MISSIONWATCH.** The WF performs MISSIONWATCH on all WF briefed missions. During rapidly changing weather, the WF will amend/update MWPs as necessary. In addition, when previously unforecast weather conditions develop that place a mission at risk, the WF will contact 62 AW/CP with updates to relay to the aircrew.

**3.4. Post-Mission Analysis/Feedback.** Aircrews should contact the WF with post-mission information and/or follow-up support. The WF will utilize customer feedback to improve internal processes and enhance training, forecast proficiency, and product accuracy.

**3.5. Transient Aircrew Support.** The WF will provide or arrange for FWBs and updates to transient aircrews. Transient aircrew not assigned to McChord Field will have support arranged from 25 OWS Briefing Cell when the WF is occupied with higher duty priorities (see **Table 1.1**.).

**3.6. Request for Information.** The WF supports various non-flying events (e.g., Wing Run, unit picnics, change of command ceremonies, Morale Welfare and Recreation, etc.) as requested based on operations tempo and WF availability.

## Chapter 4

## STAFF SERVICES

**4.1. General.** Staff services include briefings for commanders and cultivating relationships with base agencies to ensure WF support is optimal. Staff weather integration aids 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. 62 AW Staff Briefings.** Staff weather briefings for 62 AW (Wing Stand Up) will include the McChord Field 5-day weather outlook with a stoplight chart that focuses on Wing mission impacts. A briefer will be present for the Wing Stand up when requested. Additional information can be included in the staff weather slides when requested. For example, a hurricane or volcano is impacting 62 AW missions within 72 hours, a slide can be added with storm graphics.

**4.3. Five-Day Forecast.** The McChord Field Five-Day Forecast provides personnel a general outlook of the weather conditions expected at the airfield over the next five days and may be used as a planning product. The 5-Day forecast is included in the wing standup slides (on the SharePoint) Monday through Friday NLT 0800L. The 5-Day forecast is also published to the WF SharePoint.

**4.4. Crisis Action Team (CAT) Briefings.** The WF will provide weather support as requested for CAT briefings. This includes real-world emergency, exercise, and deployment briefings. Briefing will be tailored to provide the appropriate weather information.

**4.5. Weather Protocol.** The WF will recommend Weather Protocol initiation to CP for forecast snowfall or freezing precipitation, at least 36 hours in advance of event. CP will coordinate meetings and initiate a conference at 62 AW/CC's direction.

**4.6. Pre-deployment Planning Briefings.** The WF will provide pre-deployment weather briefings for 62 AW as requested. Briefing content will be tailored to meet mission requirements.

**4.7. 62 AW, 627 ABG, and 446 AW CC's (XP).** The WF will assist in exercises tailored to upcoming seasonal weather or other environmental concerns and will educate base agencies on the purpose and applicability of weather for decision makers.

**4.8. 62 OSS/OSAA (Airfield Management).** WF Leadership will participate as a member of the quarterly Airfield Operations Board (AOB) or when conferences are held by Airfield Management.

4.8.1. The WF will review updates to the McChord Field FLIP within 10 days of receipt for changes to airfield take-off, landing, and radar instrument approach minima.

4.8.2. The WF will review NOTAMs and other key items that may drive support changes.

**4.9. 62 OSS/OSAB (Air Traffic Control).** The WF will:

4.9.1. Provide Air Traffic Controllers training material and a certification process for ATC weather training.

4.9.2. Assist with selecting suitable tower visibility markers and creating and annually validating tower visibility charts.

4.9.3. Record, encode, and disseminate PIREPS.

**4.10. Base Agencies Not Listed.** The WF will:

4.10.1. Support requests for information to 62 AW and aligned units when tasks do not conflict with duty priorities.

4.10.2. JBLM infrastructure is primarily supported by the Army, with 1 Combat Weather Squadron identified as the lead weather unit in support of the joint base garrison for army support.

## Chapter 5

## RECIPROCAL SUPPORT

**5.1. Weather Flight Coordination.** 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.

**5.2. 618 AOC/XOW (Air Operations Center/Mission Weather Services).** 618 AOC/XOW will provide flight weather briefings and operational weather support for 62 AW and the 446 AW Integrated Flight Management (IFM) sorties. Support is in accordance with AMCI15-101.

**5.3. 25 OWS (Operational Weather Squadron).** 25 OWS will provide flight weather briefings for units without a designated or aligned weather support organization. 25 OWS will also provide regional capabilities and numerical weather prediction products and modelling. Support is in accordance with DAFMAN15-129.

**5.4. 62 AW/CP (Command Post).** 62 AW/CP will:

5.4.1. Recall the WF standby forecaster during limited-duty hours immediately following an Aircraft Mishap and for significant event such as CAT activation or Alert Mission recall.

5.4.2. Run applicable Quick Reference Checklists (QRC) and OPREP-3 procedures notifying wing leadership and various base agencies of severe weather when notified by the WF.

5.4.3. Coordinate implementation of Weather Protocol when notified by the WF.

5.4.4. Notify the WF of any delays or cancellations for that day's scheduled missions.

5.4.5. Provide Ultra High Frequency phone patches for aircrews to the WF.

**5.5. 62 OSS/OSAA (Airfield Management).** 62 OSS/OSAA will:

5.5.1. Notify the WF of in-flight/ground emergencies or mishaps via the secondary crash network.

5.5.2. Provide notice of runway closures.

5.5.3. Publish WF hours and pertinent operational information in the Flight Information Publication (FLIP) IR Supplement and/or Notice to Airman (NOTAM).

**5.6. 62 OSS/OSAB (Air Traffic Control).** ATC will:

5.6.1. Participate in Cooperative Weather Watch (CWW).

5.6.2. Notify the WF of changes to the active runway.

5.6.3. Relay pilot weather reports (PIREPs) to the WF.

5.6.4. Provide ATC tower orientation training for weather personnel.

5.6.5. Initiate radio checks to ensure PMSV functionality. If WF PMSV radio is not working, monitor PMSV frequency 342.3 MHz.

5.6.6. Recall the WF standby forecaster during limited-duty hours if KTCM weather data becomes unavailable or is not representative of current conditions.

5.6.7. Notify the WF for any power or communications outages in the tower, airfield weather sensor equipment is staged in the tower due to available backup power and priority.

**5.7. 62 OSS/OSAM (Radar, Airfield & Weather Systems-RAWS).** 62 OSS/OSAM will:

5.7.1. Record and document equipment malfunctions of WF equipment.

5.7.2. Accomplish Restoral and Preventative Maintenance Inspections (PMI) on equipment relating to the fixed meteorological sensor (FMQ-19), the Pilot-to-Metro UHF radio, and tactical meteorological observing system (TMQ-53).

5.7.3. Coordinate and schedule equipment downtime, when possible, at least 24 hours prior to projected maintenance.

**5.8. 62 OSS/OSO (Current Ops).** 62 OSS/OSO will:

5.8.1. Provide the Daily Flying Schedule to the WF via OSO SharePoint and email.

5.8.2. Provide the Air Movement Table to the WF via OSO SharePoint and email.

DAVID J. MORALES, Colonel, USAF
Commander, 62d Airlift Wing

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

***References***

AFPD 15-1, *Weather Operations*, 14 November 2019

AFI 11-418, *Operations Supervision,* 22 December 2021

AFI 15-127, *Weather Training*, 27 January 2021

AFI 15-128, *Weather Force Structure*, 21 June 2019

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020, Incorporating Change 1, 28 July 2021

DAFMAN 13-217, *Drop Zone, Landing Zone, and Helicopter Landing Zone Operations*, 21 April 2021

DAFMAN 15-129, *Air and Space Weather Operations,* 7 September 2023

AFMAN 10-206, *Operational Reporting (OPREP),* 18 June 2018, Incorporating Change 1, September 2020

AFMAN 10-206_AMCSUP, *Operational Reporting (OPREP), AMC Supplement*, 4 November 2021

AFMAN 11-2 C-17 V3, *C-17 Operations Procedures*, 30 July 2019

AFMAN 11-202 V3, *Flight Operations,* 10 January 2022

AFMAN 11-210, *Instrument Refresher Program (IRP),* 21 December 2021

AFMAN 13-204 V3, *Air Traffic Control,* 22 July 2020

AFMAN 13-204 V3_AMCSUP, *Air Traffic Control, AMC Supplement*, 10 March 2021

AFMAN 15-111, *Surface Weather Observations*, 12 March 2019

AFMAN 15-124, *Meteorological Codes,* 16 January 2019

AMCI 15-101, *Weather Operations and Support,* 29 December 2023

ARMY REG 115-10, *Weather Support for the U.S. Army,* 2 September 2021

DESR6055.09_AFMAN91-201, *Explosive Safety Standards*, 6 June 2020

McChord Field Data Page, **https://usaf.dps.mil/sites/62oss/OSW1/Shared%20Documents/Forms/AllItems.aspx** , 15 December 2023

***Prescribed Forms***

DAF Form 847, *Recommendation for Change of Publication*

***Adopted Forms***

DD Form 175-1, *Flight Weather Briefing*

***Abbreviations and Acronyms***

**AAF**—Army Airfield

**AGL**—Above Ground Level

**AOC**—Air Operations Center

**AOL**—Alternate Operating Location

**ATC**—Air Traffic Control

**CAT**—Crisis Action Team

**COOP**—Continuity of Operations Plan

**CP**—Command Post

**CWW**—Cooperative Weather Watch

**DLT**—Desired Lead Time

**DSN**—Defense Switched Network

**FLIP**—Flight Information Publication

**FMQ**—Fixed Meteorological Equipment

**GDSS**—Global Decision Support System

**ICAO**—International Civil Aviation Organization

**IFM**—Integrated Flight Management

**IT**—Information Technology

**IWWC**—Integrated Weather Warnings Capability

**JBLM**—Joint Base Lewis-McChord Field

**JET**—Joint Environmental Toolkit

**KGRF**—Gray Army Airfield

**KTCM**—McChord Field

**LOCAL**—Aviation Selected Local Weather Report

**MEF**—Mission Execution Forecast

**METAR**—Aviation Routine Weather Report

**MHz**—Megahertz

**MPB**—Mission Planning Brief

**MWP**—Mission Weather Product

**NM**—Nautical Miles

**NOTAM**—Notice to Airmen

**NWS**—National Weather Service

**OPREP**—Operational Report

**OSAA**—Airfield Management Office Symbol

**OSAB**—Air Traffic Control Tower Office Symbol

**OSAM**—Radar, Airfield & Weather Systems Office Symbol

**OSS**—Operations Support Squadron

**OWS**—Operational Weather Squadron

**PIREP**—Pilot Report

**PMSV**—Pilot-to-Metro Service

**QRC**—Quick Reference Checklist

**RAWS**—Radar, Airfield & Weather Systems

**RP**—Resource Protection

**RSC**—Runway Surface Condition

**RVR**—Runway Visual Range

**SCA**—Sensor Collection Appliance

**SM**—Statute Miles

**SPECI**—Aviation Selected Special Weather Report

**SWAP**—Severe Weather Action Plan

**TAF**—Terminal Aerodrome Forecast

**TMQ**—Tactical Meteorological Sensor

**UHF**—Ultra High Frequency

**VoIP**—Voice Over Internet Protocol

**WADS**—Western Area Defense Sector

**WF**—Weather Flight

**WWA**—Weather Watches, Warnings, and Advisories

**XOW**—Mission Weather Services Office Symbol

## Attachment 2

## FLYING UNITS SUPPORTED & MISSION LIMITING WEATHER CONDITIONS

**A2.1. Mission Limiting Thresholds.** The tables listed in **Attachment 2** provide the general airframe weather limitations based on AFMAN 11-202V3, *Flight Operations,* limitations from aircraft specific based on AFMAN 11-2C-17V3, *C-17 Operations Procedures*, and the limitations for airdrops based on DAFMAN 13-217, *Drop Zone, Landing Zone, and Helicopter Landing Zone Operations.*

**Table A2.1. Aircrew Weather Support.**

| Organization | Mission | MWP Provider |
|---|---|---|
| Mobility Air Force (MAF) | Integrated Flight Management (IFM) Missions | 618 AOC/XOW |
| Units assigned to McChord Field | Local | WF |
| Units assigned to McChord Field | Transient | WF |
| Units not-assigned to McChord Field | Transient | 25 OWS |

**Table A2.2. USAF General Flight Rules Weather Limitations (Ref: AFMAN 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 above the lowest compatible approach minima/ 2 SM or published visibility minima whichever is greater | Terminal not suitable for alternate | Select another alternate |

**Table A2.3. C-17A Program's Sensitivities (Ref: AFMAN 11-2C-17V3).**

| Category | Criteria |
|---|---|
| Takeoff / Landing | 200 and 1/2sm or published minimum (whichever is higher) Max Cross Wind = 30 knots (25 knots for touch and go training) (OG/CC can waive NVG requirements from 20 to 30 knots for runways wider than 120ft) |
| RVR for Takeoff | Operational: RVR > 1000. When RVR < 1600, but RVR > 1000, the crew may take off provided the runway has dual RVR readouts and displays (min RVR 1000 on both) and Runway Centerline Lighting is operational. For takeoff with RVR < 1600, crew must be fully qualified. |
| RVRNO (RVR Non-Operational or available) | Vis > 1/2sm mile |

| | |
|---|---|
| No Takeoff | Freezing Rain or Drizzle (for freezing drizzle; except when aircraft has been properly de-iced/anti-iced); T-Storms within 5NM |
| Touch and Go Landings | Cig < 300 Feet or RVR 4000 (Vis < 3/4sm) Max cross wind = 25 knots<br>(Pilot ratings may change limitations per crew) |
| Thunderstorms | Avoid > 2,000 Ft above in the vertical FL < 23K Ft = Avoid by 10NM<br>FL > 23K Ft = Avoid by 20NM<br>Tactical low-level ops = Avoid by 5NM provided the outside air temp > 0°C at flight altitude |
| Departure Alternate<br>1. Within 30 min Flying Time OR | > Published minimums and forecast to remain so until 1 hour after takeoff (No Lower than 200 and 1/2sm (RVR |
| 2. Within 2 hours Flying Time | > 500 and 1sm above minimums (No Lower than 600 and 2sm for precision approach or 800 and 2sm for non-precision) and forecast to remain so until 1 hour after ETA |
| Heavy Rain shower | Avoid by 5NM |
| High lightning potential | Avoid clouds w/in +/- 5Kft of freezing level or +/- 8°C of the freezing level |
| Forecast moderate or greater mountain wave turbulence | Do not fly into area |
| Severe Turbulence | All flight into areas of forecast or reported is prohibited |
| Severe Icing | All flight into areas of forecast or reported is prohibited |
| Volcanic Dust Precautions | Prohibited - avoid volcanic activity by at least 20NM |

**Table A2.4. Air Refueling Weather Limitations for C-17A (Ref: AFMAN 11-2C-17V3).**

| Category | Criteria |
|---|---|
| Turbulence | Do not plan AAR if severe turbulence is forecast on the refueling track. Terminate refueling if moderate turbulence is encountered. |
| Visibility | Do not close from 1 NM range (2 NM for receiver or tanker formations) unless you have visual contact with the tankers. Discontinue refueling if in-flight visibility is insufficient to continue safe refueling operations. |

**Table A2.5. Airdrop Weather Limits Summary (Ref: DAFMAN 13-217).**

| Type CDS/Equipment Drop SURFACE WIND | Surface Wind Limitations (knots) |
|---|---|
| USAF Equipment | 17 |
| USAF CDS and High Altitude Airdrop Resupply System II using LCADS-LV or G-12 parachutes | 13 |
| USAF CDS using G-13 parachutes | 20 |
| HV CDS, HSLLADS, or LCADS-HV | No Restriction |

| | |
|---|---|
| LCLA | Per MAJCOM directive(e.g., Flight Crew Information File or Guidance supplement |
| CDS/Equipment using JPADS | 17 |
| SATB | 25 |
| Rescue Air-deployable Maritime Boat/Advanced Rescue Craft/Combat Expendable Platform Bundles | 25 |
| Non-USAF Equipment | Discretion of supported force DZSO |
| USAF Static Line Land/Intentional Tree | 13/17 |
| USAF Static Line Water | 25 |
| USAF MFF/DBSL Land/Intentional Tree | 18/22 |
| USAF MFF/DBSL Water | 25 |
| USAF Tandem | 18 |
| Non-USAF Personnel | In accordance with supported unit DZSO |

**A2.2. Training Missions, Operating Areas, and Weather Sensitivities.** Airlift missions operate across the globe, there are very few instances when weather will make an operating area completely unusable. Pilot discretion is used to determine mission go/no-go regardless of the weather phenomena listed in the MWP or briefed.

**Table A2.6. McChord Field 5-Day Mission Impacts.**

| Operation | Favorable | Marginal | Unfavorable |
|---|---|---|---|
| **AIRLIFT (C-17)** | | | TSTMS WITHIN 5 SM |
| | XWIND < 15KTS | XWIND 15-25 KTS | XWIND > 25KTS |
| | CIG > 500 FT | CIG 500-300 FT | CIG < 300 FT |
| | VIS > 4800 METERS | VIS 4800-1200 METERS | VIS < 1200 METERS |
| TURB FOR CAT 3 ACFT ONLY | NONE OR LGT TURB/ICG | MDT TURB/ICG | SVR TURB/ICG |
| (SFC TO 10,000 FT) | NONE OR LGT PRECIP | MDT PRECIP | HVY PRECIP |
| | -- | -- | ANY FREEZING PRECIP |
| **MAINTENANCE** | WIND < 20 KTS | WIND 20-29 KTS | WIND >= 30 KTS |
| | NO TSTMS | ISOLD TSTMS | FEW-NMRS – SVR TSTMS |
| | NO PRECIP | LGT OR MDT PRECIP | HVY PRECIP |
| | NO FROST | FROST | |
| | TEMP 40-80 F | TEMP 81-90 F TEMP 33-39 F | TEMP > 90 F TEMP < 33 F |
| **DROPS** | WIND < 12 KTS | WIND 12-17 KTS | WIND > 17 KTS |
| | CIG > 2000 FT | CIG 2000-1000 FT | CIG < 1000 FT |
| | NO PRECIP | LGT OR MDT PRECIP | HVY PRECIP |
| | VIS >4800 METERS | VIS 4800-1600 METERS | VIS < 1600 METERS |
| | NO TSTMS | ISOLD TSTMS | FEW-NMRS – SVR TSTMS |