

**BY ORDER OF THE COMMANDER
RAF MILDENHALL (USAFE)**

RAF MILDENHALL INSTRUCTION 15-101

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Weather



WEATHER SUPPORT

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This instruction implements Air Force Policy Directive (AFPD) 15-1, *Air Force Weather Operations*; Air Force Instruction (AFI) 10-229, *Responding to Severe Weather Events*; AFI 15-114, *Functional Resource and Weather Technical Performance Evaluation*; AFI 15-128, *Air Force Weather Roles and Responsibilities*; Air Force Manual (AFMAN) 15-111, *Surface Weather Observations*; AFMAN 15-124, *Meteorological Codes*; AFMAN 15-129V1, *Air and Space Weather Operations – Characterization and AFMAN15-128V2, Air and Space Weather Operations - Exploitation*; and Federal Meteorological Handbook 1 (FCM-H1), *Surface Weather Observations and Reports* located at: <http://www.ofcm.gov/fmh-1/fmh1.htm>. It establishes the responsibilities and procedures for providing weather support and using weather services available for RAF Mildenhall. It applies to all Wing personnel. This publication may be supplemented at any level, but all supplements that directly implement this publication must be routed to 100 OG/CC for coordination prior to certification and approval. Approval authority for waiver of Tier 3 requirements with this supplement is 100 OG/CC. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Refer recommended changes and questions about this publication to the Office of Primary Responsibility 100 OSS/OSW, using the AF Form 847, Recommendation for Change of Publication; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air

Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS).

SUMMARY OF CHANGES

This document has been substantially rewritten and must be reviewed in its entirety. Air Force Weather AFMANs, AFIs, RAF Mildenhall Weather Limitations Data Sheet and RAF Mildenhall Resource Protection Datasheet have been updated and revised requiring local documentation to be significantly updated.

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1. General Information

1.1. Introduction. The 100th Operations Support Squadron Weather Flight (100 OSS/OSW) provides and/or arranges for weather support to enhance the 100th Air Refueling Wing’s (100 ARW) mission—Provide and Employ Global Air Refueling, Combat Support and Expeditionary Forces.

1.1.1. This instruction establishes the responsibilities and procedures for areas of weather support that must be coordinated at local levels to meet mission needs. Basic weather concepts and procedures to supported units are outlined in Air Force (AF) and Major Command directives.

1.1.2. This publication consolidates weather support requirements and procedures for peacetime operations. It does not cover weather support procedures for emergency war operations, other special operations or procedures. These are covered in applicable operations plans, regulations and locally developed procedures.

1.1.3. This publication and the supporting RAF Mildenhall Resource Protection Datasheet and RAF Mildenhall Weather Limitations Datasheet will be updated as mission changes require.

- 1.1.3.1. The 351st Air Refueling Squadron (351 ARS), the 95th Reconnaissance Squadron (95 RS), and any aircraft temporarily attached to the 100 ARW are designated as primary customers.
 - 1.1.3.2. The 352d Special Operations Group (352 SOG), Open Skies Missions, Night Watch Missions, transient aircraft support and installation resource protection are designated as secondary customers.
 - 1.1.3.3. All host and tenant units on RAF Mildenhall are supported for the purpose of resource protection.
- 1.2. Assumptions. RAF Mildenhall/USAFE communication networks will function and provide sufficient dataflow for the continuity of weather support.
- 1.2.1. 100 OSS/OSW Mission. Provide or arrange for timely, accurate and relevant weather support to maximize Team Mildenhall's operational capabilities.
- 1.3. Support. Weather support provided by 100 OSS/OSW is largely driven by the requirements of flying operations for, but not limited to, the 351 ARS, 95 RS and base agencies.
- 1.4. Duty Priorities. 100 OSS/OSW duty priorities are listed in attachment 2.
- 1.4.1. Release of Weather Information. Weather observations, forecasts, historical and climatologically data records will only be released to Department of Defense (DoD) agencies or contractors under contract to the United States Air Force (USAF).
 - 1.4.2. All other agencies and civilians will be referred to Public Affairs (100 ARW/PA) and/or the Base Freedom of Information Act Monitor (100 CS/SCOK) to obtain approval prior to the release of weather observation records.

2. 100 OSS/OSW Duty Positions

- 2.1. Combined Element (CE) section. Combines mission weather and airfield services into one duty position, the Combined Element Forecaster (CEF). The CEF:
- 2.1.1. Supports the primary customers listed above and all RAF Mildenhall units/personnel for the purpose of resource protection.
 - 2.1.2. Is responsible for producing tailored flight weather products, primarily the Mission Weather Product (MWP), for local flying units. The primary method of briefing 351 ARS is video teleconference; other local units receive flight weather briefings in the weather station, over the telephone, by email or designated secure means.
 - 2.1.3. As mission requirements allow, provides weather briefing support to transient aircraft or coordinate transient support.
 - 2.1.4. Conducts MISSIONWATCH and coordinates with squadron planners and/or directly with aircrews whenever weather may affect ongoing missions and is responsible for requesting feedback from returning aircraft.
 - 2.1.5. Will supplement and/or back-up the Automated Meteorological Observation System (AMOS) IAW AFMAN 15-111.

2.1.6. Is responsible for weather collaboration with 21 OWS and 352 SOSS/A3W on-duty forecaster.

2.2. 100 OSS/OSW Staff. The staff provides and/or arranges for operational weather products and services that support the 100 ARW staff, tenant units and transient units using 100 ARW facilities.

2.2.1. 100 OSS/OSW Flight Commander holds the position of command meteorologist and exploits knowledge of military meteorology and 100 ARW operations to make weather a force multiplier. He or she is responsible for managing 100 OSS/OSW and is the liaison to 100 ARW leadership.

2.2.2. 100 OSS/OSW Flight Chief provides technical leadership. The Flight Chief adapts resources to mission requirements, manages the CEF section, weather services and equipment. He or she is responsible for all training activities and the technical health of the unit.

3. Airfield Services

3.1. 100 OSS/OSW provides dedicated weather services for RAF Mildenhall.

3.1.1. Standard operating hours are Monday through Friday (excluding holidays and down days) from 0400L until the end of the duty day based on the local flying schedule. During weekends, holidays and down days, opening and closing times will be dictated by the local flying schedule. During standard operating hours 100 OSS/OSW can be contacted at DSN: 314-238-4502.

3.1.2. Limited Duty. The weather station is manned to provide weather support services 24-hours a day, 7 days a week and operates on a 'limited duty' schedule with personnel on telephone standby whenever the flying schedule has no posted flights for the day.

3.1.2.1. Information pertaining to standby support is outlined in the Weather Flight Standby memorandum. It will be e-mailed to the applicable squadron leadership of primary customers, base agencies and 21 OWS as required. This memo is produced monthly and posted on the 100 OSS/OSW ICE Page.

3.1.2.2. Deviations to operating hours can be made by the Weather Flight Commander, 100th Operations Support Squadron Commander (100 OSS/CC), 100th Operations Group Commander (100 OG/CC), or 100 ARW Commander (100 ARW/CC) as required to support mission needs.

3.1.2.3. The standby weather technician can be recalled by contacting the Wing Command Post (100 ARW/CP) via DSN 314-238-2121. Once the standby weather technician is contacted, he or she will report to open the weather station no later than one hour after being recalled.

3.1.2.4. Outside of normal duty hours, supported units will contact 21 OWS at DSN 314-489-2134 or access the OWS web page at <https://21ows.us.af.mil/> for weather services.

3.1.3. Weather observations are disseminated 24 hours a day.

3.1.4. Weather forecasts (to include resource protection) are provided for the local airfield and for missions launched from RAF Mildenhall.

3.1.4.1. 21 OWS is open 24 hours a day and issues all terminal aerodrome forecasts (TAFs) and Watches, Warnings and Advisories (WWAs) for RAF Mildenhall (including when the 100 OSS/OSW is closed).

3.2. Weather Observing

3.2.1. 100 OSS/OSW utilizes the FMQ-19 Automated Meteorological Observation System (AMOS) and the Joint Environmental Toolkit (JET) to make and disseminate automated observations. A certified observer continuously maintains situational awareness of current weather conditions and is available to augment the AMOS via the use of JET during standard operating hours and upon recall during standby hours.

3.2.2. Observation Sites. The primary AMOS observation sensors are located on both ends of the runway. When required, the AMOS will be augmented by a certified weather technician. The official augmentation observation location is the taxiway light located about 50m across from the weather station cipher lock door, bldg. 669.

3.2.3. Types of Observations

3.2.3.1. Aviation Routine Weather Reports (METAR) will be disseminated IAW AFMAN 15-111, Chapter 2, between 55 and 59 minutes after each hour.

3.2.3.2. Aviation Selected Special Weather Report (SPECI) is an unscheduled observation completed and transmitted when any mandated/coordinated special criteria (including augmentation of the AMOS) have been observed or detected.

3.2.3.2.1. SPECI Criteria for RAF Mildenhall has been derived from AFMAN 15-111, the terminal Flight Information Publications (FLIP), MILDI 13-204 and AFI 11-202, Vol. 3 *Flying Operations*. They have been consolidated for ease of use and are outlined in the 'Unique Cig & Vis Speci' tab of the RAF Mildenhall Resource Protection Datasheet.

3.2.3.2.2. A SPECI will contain all data elements found in a METAR plus any additional remark(s) that elaborate on special criteria in the body of the report.

3.2.4. Augmentation of Observations

3.2.4.1. Augmentation is the process of having position-qualified weather technicians manually add and/or edit data to an observation generated by a properly sited AMOS. There are two augmentation processes used by 100 OSS/OSW personnel: **supplementing** and **back-up**.

3.2.4.2. During local flying, whenever reported conditions are unrepresentative and significant to flight safety and/or operations, the weather technician will err on the side of caution and augment accordingly.

3.2.4.2.1. Supplementing is a method of manually adding meteorological information to an automated observation that is beyond the capabilities of the AMOS to detect and/or report. An observation will be supplemented when any phenomena IAW AFMAN 15-111 Table 3.1. Summary of Mandatory Supplementary Weather Conditions, Attachment 3 (of this document) occur.

3.2.4.2.2. Supplementing the AMOS by a certified weather technician is mandatory when the airfield is open and the weather conditions are observed.

Weather forecasters will be ready to supplement observations if conditions in Table 3.1 are forecast to occur within one hour.

3.2.4.2.3. There is no requirement to supplement the AMOS when the airfield is closed, unless tornadic activity is occurring or forecast to occur. Personnel are required to log on to JET and be prepared to supplement an observation whenever a watch or warning has been issued for tornadic activity.

3.2.4.2.4. Back-up is the method of manually providing meteorological data and/or dissemination of an AMOS observation when the primary automated method is not operational or unavailable due to sensor and/or communication failure. A certified weather technician is mandated to provide AMOS back-up when the airfield is open and weather conditions require back-up. An observation will be backed-up IAW AFMAN 15-111 attachments 2 and 3 and will take into account SPECI criteria as required IAW the 'Unique SPECI Criteria' tab in the RAF Mildenhall Resource Protection Datasheet.

3.2.4.2.4.1. Manual observing methods will be used when performing back-up operations.

3.2.5. Limitations to observing

3.2.5.1. The AMOS weather sensors are located in close proximity to both ends of the runway and provide accurate airfield weather observations.

3.2.5.2. When the AMOS is partially or completely inoperable and back-up weather observation equipment is used (i.e., AN/TMQ-53 or Kestrel 4000/4500NV), there will be degradation to some weather elements due to the equipment's location.

3.2.5.3. Wind and pressure values from any piece of back-up equipment (other than a properly sited and maintained AN/TMQ-53) will be estimated. IAW AFMAN 15-111 observations will include "WND DATA ESTMD" and "ALSTG/SLP ESTMD" as appropriate with respect to back-up for wind and pressure.

3.2.5.4. There is a clear view of the entire runway from the official augmentation observation location. Weather approaching from the north side of the airfield is obstructed by The RAF Mildenhall PAX Terminal, building 559, building 669 and the Air Traffic Control tower obstruct weather approaching from the north side of the airfield. Collaboration with tower personnel and an alternate observation site located on the roof of building 669 negate this limitation.

3.2.6. Alternate Operating Location (AOL)

3.2.6.1. The 100 OSS/OSW AOL is located in Building 778. Evacuation procedures, AOL operation procedures and contact information are outlined in local procedures.

3.2.6.2. If 100 OSS/OSW must evacuate to the AOL, the CEF will use the phone to communicate observations, augment AMOS observations, coordinate WWA dissemination with the 21 OWS, and relay time-critical data to the appropriate agencies as outlined in the 'Dissemination Tree' tab of the RAF Mildenhall Resource Protection Datasheet.

3.2.6.3. For the convenience of all agencies requiring contact with the weather station, the main DSN telephone number, 238-4502, is routed to the AOL.

3.3. Cooperative Weather Watch (CWW)

3.3.1. Duty and/or mission priorities may delay the CEF from detecting and immediately reporting weather changes as they occur. Air Traffic Control (100 OSS/OSAT) personnel are trained to assist 100 OSS/OSW personnel by way of Cooperative Weather Watch (CWW) to alert the CEF of significant weather changes that occur between scheduled observations.

3.3.1.1. The CEF will determine if the information should be included in the official observation.

3.3.1.2. Of primary concern is the report of lightning, reporting of a sector visibility, local PIREPS, and any occurrence of previously unreported weather conditions that could affect flight safety or local operations.

3.3.1.3. Weather technicians will re-evaluate weather conditions when 100 OSS/OSAT or reliable sources, such as pilots, local law enforcement, etc., report weather conditions different from the last disseminated observation. The CEF will generate a SPECI observation or include information in the next METAR observation, as required.

3.3.2. 100 OSS/OSW leadership will assist 100 OSS/OSAT personnel in creating appropriate guides to perform CWW. This will include day and night visibility marker guides as well as a listing of all SPECI observation criteria. This information will be reviewed annually by weather leadership or whenever significant changes occur.

3.4. Terminal Aerodrome Forecast (TAF)

3.4.1. The RAF Mildenhall (EGUN) TAF is a coded weather bulletin providing forecast information for the aerodrome complex to facilitate flight planning and command and control. TAFs are prepared and issued by 21 OWS and formatted IAW AFMAN 15-124 Chapter 1, Meteorological Codes, and amended IAW AFMAN 15-129, Vol. 1 Chapter 3, Air and Space Weather Operations-Characterization. The EGUN TAF is valid for areas within a 5 NM radius of the center of the aerodrome and is issued daily at 0400z, 1200z and 2000z.

3.4.2. The CEF collaborates with 21 OWS to provide feedback and coordinate changes to the TAF.

3.4.2.1. The CEF will alert 21 OWS of any developing situations not coded in meteorological reports that could drive amendments to forecast products from the 21 OWS or impact flight safety. TAFs will be amended according to the criteria outlined in the 'TAF Criteria' tab of the RAF Mildenhall Resource Protection Datasheet.

3.5. Limitations to forecasting services

3.5.1. Forecasting services are subject to prioritization of shift duties; therefore, some forecasting service requests may occasionally be provided by other weather units (i.e. 21 OWS). 100 OSS/OSW will attempt to notify affected agencies when this is likely to occur and arrange alternate support for services temporarily beyond its means.

3.6. Pilot-to-Metro Service (PMSV) radio

3.6.1. The PMSV is constantly monitored by the CEF during standard operating hours. 100 OSS/OSW's designated UHF frequency is 284.425 MHz with reception and transmission capabilities out to 170 NM.

3.6.2. 100 OSS/OSW operates this program IAW AFMAN 15-129 Vol. 2, and uses standard phraseology from the FAA JO 7110.10W Flight Services, Chapter 12. PMSV support information is also listed in the RAFM FLIP.

3.6.3. The CEF will respond to all PMSV contacts and solicit PIREPS to provide aircrews the most current weather information.

3.6.3.1. 48 OSS/OSW can respond to PMSV contacts when 100 OSS/OSW is not available and provides back-up service during outages.

3.7. Pilot Reports (PIREPS)

3.7.1. It is impossible for ground-based weather technicians to report the weather that aircrews see or experience while on a mission. Reports of weather as observed from airborne aircraft, especially reports of hazards to air operations, are therefore very beneficial to forecasters and other aircrews.

3.7.2. PIREPs will be transmitted locally and longline via JET.

3.8. Weather Watches, Warnings and Advisories (WWA)

3.8.1. Weather WWAs will be issued when any of the specific criteria listed on the 'Unique WWA Support' tab of the RAF Mildenhall Resource Protection Datasheet is occurring or is expected to occur within a 5 NM radius (unless otherwise specified) from the center of the RAF Mildenhall runway.

3.8.1.1. The computation point will remain the center of the RAF Mildenhall runway.

3.8.2. 100 OSS/OSW and 21 OWS will provide all resource protection products for RAF Mildenhall.

3.8.3. Definitions

3.8.4. A **Weather Advisory** is a special weather product to alert an end user of the occurrence or imminent occurrence of weather conditions impacting operations.

3.8.5. A **Weather Watch** is a special weather product to facilitate resource protection decisions. Weather Watches provide advance notice to designated agencies of the existence of a **potential for weather conditions** of such intensity as to pose a hazard to life or property for which the agency should consider taking protective measures. A watch will be upgraded to a warning when dangerous or mission limiting weather is expected to occur, or is occurring.

3.8.6. A **Weather Warning** is a special weather product to facilitate resource protection decisions. Weather Warnings alert designated agencies to the **imminent or actual occurrence of weather conditions** of such intensity as to pose a hazard to life or property for which the agency must take immediate protective actions.

3.8.7. Issuing and Canceling

- 3.8.7.1. The 21 OWS will issue all forecast WWAs and the 100 OSS/OSW will issue all observed WWAs during hours of operation.
- 3.8.7.1.1. The 21 OWS will issue Observed WWAs when the weather station is closed.
 - 3.8.7.1.2. The CEF will notify 21 OWS upon opening and closing of the duty section to coordinate the transfer of responsibility for Observed WWA support.
 - 3.8.7.1.3. 100 OSS/OSW will act as the “eyes forward” for the 21 OWS and will keep it apprised of local conditions. 100 OSS/OSW has the ability to issue WWAs if there is an immediate threat to life or property and there is no time to coordinate with 21 OWS (e.g. tornado) or if system outages at the 21 OWS require 100 OSS/OSW backup.
- 3.8.7.2. When a WWA is issued, Mildenhall Tower, Mildenhall Airfield Management, 100 ARW/CP (Command Post) and 352 SOSS/A3W (SOG Weather) will be notified immediately via phone dissemination through the Integrated Weather Warning Capability (IWWC) voice system administered by 21 OWS. The 100 ARW/CP will notify all appropriate base agencies of the WWA.
- 3.8.8. WWAs will consist of the type (watch, warning or advisory), sequential numbering for the WWA (two-digit month and three-digit number for that specific WWA - beginning with 001 at the start of a new month), location from RAFM, beginning and ending times (in Zulu), and reason the WWA was issued. Examples of each are:
- 3.8.8.1. Weather Advisory 06-006 for Mildenhall (EGUN) valid 7/1045Z (7/1145L) to UFN observed crosswinds greater than or equal to 25kts. Observed at 30 kts.
 - 3.8.8.2. Weather Watch 06-007 for Mildenhall (EGUN) valid 7/1100Z (7/1200L) to 7/2000Z (7/2100L) Potential for lightning exists within 5 NM.
 - 3.8.8.3. Weather Warning 06-003 for Mildenhall (EGUN) valid 7/1200Z (7/1300L) to 7/1600Z (7/1700L) high winds from 35 to 44 kts. Forecast value 37 kts are forecast.
- 3.8.9. All WWA criteria and respective lead times are outlined in the ‘Unique WWA Support’ tab of the RAF Mildenhall Resource Protection Datasheet.
- 3.9. Dissemination of weather data
- 3.9.1. JET is the primary system to disseminate weather observations, TAFs, PIREPs, and WWAs to agencies that control the local air traffic (i.e. 100 OSS/OSAT, Airfield Management (100 OSS/OSAA) and 100 ARW/CP).
 - 3.9.2. During JET outages or when data is unavailable via NIPR, telephones and hotlines are the secondary methods to disseminate weather data.
 - 3.9.2.1. 100 OSS/OSW will disseminate METAR, SPECI and LOCAL (as required) observations and WWAs to 100 OSS/OSAT, 100 OSS/OSAA and 100 ARW/CP first.
 - 3.9.2.2. Weather observations will, at a minimum (but not limited to), contain the following information: time of observation, wind direction and speed in knots,

visibility, current weather (as applicable), sky condition, temperature, dew point and pressure.

3.9.2.3. Any additional observation data will be provided as required IAW AFMAN 15-111.

3.9.3. E-mail via base Nonsecure Internet Protocol Router Network (NIPRNET) LAN will be used as a tertiary system.

3.9.4. 100 OSS/OSW will conduct back-up dissemination as the situation warrants.

3.9.5. All base agencies can display current weather observations and WWAs via the JET website.

3.10. Tropical Weather. 100 OSS/OSW will not deviate from current and forecasted information provided by the National Hurricane Center (NHC) and the 21 OWS as the situation applies to RAF Mildenhall and/or the flying mission.

3.10.1. 100 OSS/OSW will provide the necessary forecast services for the installation commanders to make mission execution decisions, such as evacuation and resource protection.

3.10.2. 100 OSS/OSW will follow installation public affairs policies and procedures regarding the release of tropical cyclone forecasts to the general public.

3.11. METWATCH and MISSIONWATCH

3.11.1. A METWATCH (meteorological watch) is a deliberate process for monitoring the terrestrial weather or space environment in an area or region. The purpose of METWATCH is to identify when and where observed conditions significantly diverge from forecast conditions and determine courses of action to update or amend a forecast product or group of products and notify designated agencies.

3.11.2. A MISSIONWATCH is a deliberate process of monitoring terrestrial weather or the space environment for specific mission-limiting environmental factors that may adversely impact missions in execution. The CEF will identify previously unidentified environmental threats and alert decision-makers at the operational unit and/or airborne mission commanders, enabling dynamic changes to mission profiles that may mitigate the environmental threat and optimize the chance of mission success.

3.12. Severe Weather Actions. 100 OSS/OSW is responsible for conducting semiannual exercises of the Severe Weather Action Plan (SWAP) IAW AFI 10-229. These exercises will be coordinated with 100 OSS/OSAT, 100 ARW/CP, RAPCON, 100 OSS/OSAA and the 21 OWS. Real-world events that require use of the SWAP will meet the requirement for semiannual training/exercises.

3.12.1. Severe Weather Recall Criteria

3.12.1.1. Prior to or during a severe weather event, additional 100 OSS/OSW personnel may be needed and can be recalled when any of the following severe weather events are observed or forecast to occur:

3.12.1.1.1. Tornadoic activity

3.12.1.1.2. Winds equal to or greater than 45 knots

- 3.12.1.1.3. Hail equal to or greater than 1/2 inches in diameter
- 3.12.1.1.4. Freezing precipitation
- 3.12.1.1.5. Rain/snow accumulation greater than 2 inches in 12 hours
- 3.12.1.1.6. A severe weather signature is detected on radar from any source.
- 3.12.1.2. Severe Weather Action Plan. During a severe weather event, 100 OSS/OSW will open the weather station, if closed, and implement the following:
 - 3.12.1.3. Expand our “eyes forward” role to ensure 21 OWS has the most accurate weather information possible for RAF Mildenhall.
 - 3.12.1.4. Augment automated weather observations, as required.
 - 3.12.1.5. Promptly notify 352 SOSS/A3W on-duty personnel or standby personnel as appropriate.
 - 3.12.1.6. Enhance MISSIONWATCH and METWATCH to ensure 351 ARS and 95 RS operators are informed with the most accurate and timely weather information and to meet resource protection needs for RAF Mildenhall.
 - 3.12.1.7. Collect severe weather reports not normally available through standard weather observations. These include reports from base personnel, local law enforcement and local news media. Severe weather reports can be relayed to 100 OSS/OSW by phone at DSN 238-4502.
 - 3.12.1.8. Pass all reliable severe weather reports to the 21 OWS via 100 OSS/OSW immediately or as soon as practical after fulfilling any local distribution requirements.
 - 3.12.1.9. Provide appropriate weather related information to the 100 ARW/CP for OPREP-3 reporting when significant weather occurs and results in Class A damage, base closure or mission degradation.
 - 3.12.1.10. During 100 OSS/OSW standby hours, a recall will be accomplished IAW the monthly OSW standby memorandum, which is distributed to key offices via email and posted on the 100 OSS/OSW ICE Page.

4. Operational Support

- 4.1. 100 OSS/OSW will produce a Mission Weather Product (MWP) as required per the 100 ARW and 95 RS flight schedules:
 - 4.1.1. The MWP consists of two parts, a planning document produced/updated daily to support local flying and a verbal briefing provided to each aircrew based on individual mission weather thresholds. These two parts combined are the equivalent to a DD Form 175-1, IAW AFMAN 15-129 V2.
 - 4.1.2. The MWP provides a 24-hour forecast that is broken down into two-hour increments. The product contains the forecasted surface, climb and flight level winds, surface temperature, surface visibility, ceiling heights, surface pressure, solar and lunar data, flight hazards, forecasted and active WWAs, forecasts for active air refueling (AR) tracks and landing forecasts for four alternate airfields.

4.1.3. The MWP is tailored to each mission, including scheduled AR tracks and any other active mission areas. Specific attention is given to mission-limiting weather parameters.

4.1.4. Area of Operation. Local flying areas are over England, Wales, Scotland, the North Sea, Scandinavia and mainland Europe.

4.1.5. The MWP is updated daily (when the weather station is open and flying requires) at 0400z, 1200z and 2000z.

4.1.5.1. The MWP will be amended:

4.1.5.1.1. When the TAF is amended or a WWA for RAF Mildenhall is issued, cancelled or amended.

4.1.5.1.2. When there is a Mission Limiting Criteria threshold (affecting the 351 ARS or 95 RS mission) that has or is expected to be crossed which had not been previously forecasted or briefed. These criteria are outlined in sections 4.2.3.3.3. and 4.2.3.4.3.

4.1.5.1.2.1. Aircrews will be specifically notified (if possible) whenever the MWP is amended for Mission Limiting Criteria.

4.1.5.1.2.2. 100 OSS/OSW will contact 100 ARW/CP to relay notification to aircrews of MWP amendments when direct contact cannot be established (example: thunderstorms in an AR track over Germany not previously forecast).

4.1.5.2. 95 RS MWPs are tailored to individual mission requirements as specified in a Nonsecure Internet Protocol Router (NIPR) or Secure Internet Protocol Router (SIPR) email request.

4.1.6. The current MWP is posted on the 100 OSS/OSW ICE Page for planning purposes only.

4.1.7. The 100 OSS/OSW Flight Commander or Flight Chief will coordinate proposed changes to content or format on the MWP with the 351 ARS/CC and 95 RS/CC.

4.1.8. 100 OSS/OSW standard briefing format is PowerPoint and/or paper hardcopies. Aircrews will receive the MWP along with a “package” consisting of:

4.1.8.1. The 21 OWS Meteorological Satellite analysis and prognosis charts valid for the mission time.

4.1.8.2. Flight hazard charts

4.1.8.2.1. Thunderstorm charts

4.1.8.2.2. Icing charts

4.1.8.2.3. Turbulence charts (upper and/or lower levels as required)

4.1.8.3. Flight level wind charts

4.1.8.4. Space weather information

4.1.8.4.1. Volcanic Ash coverage and concentration charts

4.1.8.5. Provided whenever Volcanic Ash is present in the EUCOM AOR or near the mission's planned route of flight.

4.1.8.6. Any other products pertinent to the mission, as required.

4.2. Flight Weather Briefings

4.2.1. Briefing Procedures. The Video Teleconference (VTC) is the primary means the CEF briefs the MWP's to the aircrew, and by telephone as back-up. Paper copies of the briefing will be printed, e-mailed, or faxed. The verbal briefing finalizes the flight brief prior to departure and will be documented by the duty forecaster.

4.2.1.1. 175-1 Briefings. The 21 OWS and 100 OSS/OSW will prepare a DD Form 175-1, Flight Weather Briefing, IAW AFMAN 15-129, Vol. 2 for aircrews departing RAF Mildenhall and terminating at another location. The 21 OWS prepares 175-1 weather briefings when 100 OSS/OSW requires backup.

4.2.1.2. 151 Briefings. The 100 OSS/OSW will prepare a Form 151, Flight Weather Briefing, IAW AFMAN 15-129, Vol. 2 for aircrews departing RAF Mildenhall that have an air refueling mission and then terminate at another location.

4.2.1.3. All of the charts listed in section 4.1.8. will accompany the form 175-1 and 151 briefings.

4.2.2. Unless stated otherwise in this instruction, the minimum notification time required to request briefing support is 24 hours. Short-notice requests will be fulfilled as duty priorities dictate and/or as weather personnel are available.

4.2.2.1. Local Flying. 351 ARS and/or transient aircrews performing local flying, defined as flights departing and returning to RAF Mildenhall, may obtain a flight weather briefing in person at the weather station or over the VTC using the local MWP.

4.2.2.2. Cross-Country/Trans-Atlantic Flights. 351 ARS and 95 RS aircrews departing RAF Mildenhall whose final destination is not RAF Mildenhall will contact 100 OSS/OSW to obtain the necessary weather briefing. 351 ARS and 95 RS aircrews departing another location may contact the 100 OSS/OSW, the 21 OWS or other pre-arranged weather sources (USN, AFCENT, ACC, etc.). Contact information for the 21 OWS flight weather briefing desk is DSN 489-2133/6145, e-mail at ows.briefings@us.af.mil or submitting a flight weather briefing request via the AF/Army Briefing Request link on the 21 OWS website: <https://21ow.us.af.mil>.

4.2.2.3. Transient Aircraft. 100 OSS/OSW will provide transient aircrews weather briefings via a DD Form 175-1 upon request when a CEF is on duty and time allows. When no CEF is on duty or when higher duty priorities preclude it, the 21 OWS will provide the flight weather briefings. Instructions on how to complete a request may be found on the 100 OSS/OSW ICE page.

4.2.2.4. Open Skies. Weather briefing requests pertaining to Open Skies flights are either submitted to 100 OSS/OSW or directly to the 21 OWS for production. The Form 175-1 will only be created by 100 OSS/OSW if the CEF can establish that there is sufficient time to complete the brief without interfering with support to primary customers. Weather planning briefs are submitted by the Open Skies POC to the 21

OWS for production and then forwarded to the 100 OSS/OSW for presentation on a scheduled date and time. 100 OSS/OSW will provide a point of contact for RAF Mildenhall and briefing support as required.

4.2.2.5. Coronet Briefings. 100 OSS/OSW provides support to all Coronet aircraft movements departing from RAF Mildenhall with planning and mission weather briefings if requested. 100 OSS/OSW will coordinate Coronet support with the lead weather unit (normally the ACC Air Ops Group Weather Element) as appropriate.

4.2.2.6. Operational Risk Management (ORM) will be utilized in METWATCH and MISSIONWATCH to complete the six-step process focused on Resource Protection and 100 ARW daily flying mission areas, IAW AFMAN 15-129 V1.

4.2.2.7. 100 OSS/OSW personnel will apply ORM principles and processes to daily weather operations. This aids in prioritization of missions and allocation of weather resources to better exploit environmental conditions, mitigate mission delays, and enhance the overall effectiveness of operations. Severe Weather Response Actions and Mission Limiting Environmental Condition Response Matrix for the 351 ARS, 95 RS, 100 MSG, 100 MXG and 727 AMS can be found within the RAF Mildenhall Weather Limitations Data Sheet.

4.2.2.8. 100 OSS/OSW will MISSIONWATCH for the entire duration of each primary customer mission.

4.2.2.8.1. Missions will be identified as “High,” “Some,” or “Low” risk based on the Mission Limiting Criteria. Those missions with routes of flight, operational areas, final destinations (primary and alternate), etc. that the CEF has considered to be “High” and/or “Some” risk will be continuously monitored for significant changes. The CEF will also spot check “Low” risk missions for situational awareness.

4.2.2.8.2. If the CEF determines the need to notify aircrew of weather changes discovered during MISSIONWATCH, they will immediately contact 100 ARW/CP and relay the pertinent information for possible relay to the aircrew(s).

4.2.2.9. 100 OSS/OSW will provide METWATCH/MISSIONWATCH for all weather briefs created by 100 OSS/OSW for the 351 ARS.

4.2.2.9.1. Aircrews will be notified via 351 ARS dispatch office phone, 100 OSS/OSAT, 100 ARW/CP or PMSV whenever Mission Limiting Criteria is forecast or observed and was not originally forecast during the briefing process.

4.2.2.9.2. The criteria that dictate amendments for the TAF are listed in the ‘TAF Criteria’ tab of the RAF Mildenhall Resource Protection Datasheet.

4.2.2.9.3. For the KC-135 airframe, the following constitute Go / No Go Mission Limiting Criteria and will be reviewed and updated at least once a year:

4.2.2.9.3.1. Tornadoes anywhere along route

4.2.2.9.3.2. Thunderstorms anywhere along route. Must be avoided by 10 NM below FL230 and 20 NM at or above FL230

- 4.2.2.9.3.3. Severe or Moderate icing at flight level anywhere along route
 - 4.2.2.9.3.4. Severe or Moderate turbulence anywhere along route
 - 4.2.2.9.3.5. CIG/VIS < 002'/0800m at destinations/alternates
 - 4.2.2.9.3.6. Freezing precipitation at destinations/alternates
 - 4.2.2.9.3.7. Snow > trace at destinations/alternates
 - 4.2.2.9.3.8. Volcanic ash anywhere along route
 - 4.2.2.9.3.9. Crosswinds > 15kts at destinations/alternates (For training considerations)
 - 4.2.2.9.3.10. Crosswinds > 25kts at destinations/alternates
 - 4.2.2.9.3.11. Wind shear conditions at destinations/alternates
 - 4.2.2.9.3.12. Light icing in AR track
 - 4.2.2.9.3.13. In-cloud visibility < 1600m in AR track
 - 4.2.2.9.3.14. Broken or greater cloud cover in AR track
 - 4.2.2.9.3.15. > 1/2 inch of slush or water on runway (patchy conditions cannot take off)
- 4.2.2.10. 100 OSS/OSW will provide METWATCH/MISSIONWATCH for all weather briefs created by 100 OSS/OSW for the 95 RS.
- 4.2.2.10.1. **Aircrews will be notified via 95 RS/DO, 100 OSS/OSAT, 100 ARW/CP or PMSV whenever Mission Limiting Criteria is forecast or observed and was not originally forecast during the briefing process.**
 - 4.2.2.10.2. The criteria that dictate amendments for the TAF are listed in the 'TAF Criteria' tab of the [RAF Mildenhall Resource Protection Datasheet](#).
 - 4.2.2.10.3. For the RC/OC/WC/TC-135 airframes, the following constitute Go/No-Go Mission Limiting Criteria and will be reviewed and updated at least once a year:
 - 4.2.2.10.3.1. Tornadoes anywhere along route
 - 4.2.2.10.3.2. Thunderstorms anywhere along route. Must be avoided by 10 NM below FL230 and 20 NM at or above FL230
 - 4.2.2.10.3.3. Severe or Moderate icing at flight level anywhere along route (can operate up to 10 min. in MDT icing)
 - 4.2.2.10.3.4. Severe or Moderate turbulence anywhere along route
 - 4.2.2.10.3.5. CIG/VIS < 002'/0800m at destinations/alternates
 - 4.2.2.10.3.6. Freezing precipitation at destinations/alternates
 - 4.2.2.10.3.7. Snow > trace at destinations/alternates (accumulation and snowfall event)
 - 4.2.2.10.3.8. Volcanic ash anywhere along route

4.2.2.10.3.9. Crosswind > 15kts at destinations/alternates (for training considerations)

4.2.2.10.3.10. Crosswind > 25kts at destinations/alternates

4.2.2.10.3.11. Wind shear conditions at destinations/alternates

4.2.2.10.3.12. mm> 1/2 inch of slush or water on runway (patchy conditions cannot take off)

4.3. Specialized Support

4.3.1. Pre-deployment/Deployment/Contingency Planning. 100 OSS/OSW can provide in-squadron briefings in support of deployments and/or contingency operations. General information required for briefing support is briefing time, take-off time, route, AR track (time and location) and destination.

4.3.2. Situation Briefings. Situation briefings are briefed upon request and may also be used for Pre-Deployment Planning purposes. Content varies depending upon the situation.

4.3.3. Climatological Support. Requests for climatological data and studies should be sent to the Weather Flight Commander.

4.3.4. Wing Standup. A 100 OSS/OSW representative will present a weather briefing at the weekly wing staff meeting. Briefings will consist of a satellite analysis, general operational forecast within the United Kingdom, and the 5-day outlook (and any applicable climatological data or additional information as needed or requested).

4.3.5. Instrument Refresher Course (IRC). Presented to aircrews when requested by the IRC instructor which includes UK weather related hazards, climatology, and weather services/operations.

4.3.6. Survival, Evasion, Resistance and Escape (SERE). Upon request, a three-day weather forecast product will be produced and disseminated to the requesting instructor.

4.3.7. Chemical Downwind Messages (CDM). 100 OSS/OSW will provide weather information for creation of CDMs upon request.

4.3.8. Extended Weather Outlook. The 21 OWS produces and updates 5-day outlook for RAF Mildenhall each day. Only the first 30 hours has a 'forecaster in the loop' (which means the forecaster adds input to the forecast instead of relying solely on model data). It contains graphics and text for a plain language weather forecast. This product provides planning weather and is not intended for operational use. 100 OSS/OSW provides a 5-day outlook specifically tailored for RAF Mildenhall which is included in all staff briefings and is available upon request. This product has a 'forecaster in the loop' for the entire 5-day outlook.

4.3.9. Solar/Lunar Data. 100 OSS/OSW provides detailed solar/lunar data via [100 OSS/OSW ICE Page](#). Data includes sunrise, sunset, moonrise, moonset, civil twilight, and nautical twilight.

4.3.10. Safety Investigation Support. 100 OSS/OSW will provide 100 ARW Safety Office (100 ARW/SE) weather information for safety or accident investigations and

reports IAW the local Mishap Response Plan 91-204. In addition, will provide 100 ARW/SE a representative, E-7 or higher, to serve as an advisor on safety investigation/accident boards as required.

4.3.11. 100 OSS/OSW attempts to satisfy all requirements. When requests for weather support exceed 100 OSS/OSW abilities, the CEF and/or flight leadership will strictly enforce the duty priorities. Prioritized duties are outlined in attachment 2 of this document. 100 OSS/OSW will seek back-up support from the 21 OWS or AFWA. Non-standard weather briefings or requests for weather information can be provided upon request and availability of personnel.

5. Limitations to Weather Services

5.1. Interruption of the normal receipt of alphanumeric and graphic data via JET, NIPRNET or Secret Internet Protocol Router Network (SIPRNET) can severely degrade forecasting capabilities.

5.2. The 100 OSS/OSW uses a combination of data from 100 OSS/OSAT personnel, radar and lightning products from the 21 OWS, and/or PIREPs to determine if precipitation and/or thunderstorms are within 5, 10, 15, and 25 nautical miles of the base.

5.3. Many flying areas are located over unpopulated or large water regions. The lack of weather data from such areas may limit the weather watch capabilities of the duty forecaster. PIREPS are extremely useful over data sparse areas.

5.4. Forecasts beyond 24 hours can quickly diminish in accuracy, and it is advisable to obtain updates whenever possible.

5.5. Due to local terrain and man-made features near the runway, sensor wind speeds between the 11 and 29 approach ends of the runway may differ by several knots. This is an acceptable variance and no corrective action is warranted.

5.6. Back-up Power Requirements:

5.6.1. Weather services are highly dependent upon data reception and transmission capabilities. Under wartime or other adverse conditions, communications may be severely limited, resulting in a degradation of capabilities.

5.6.2. All operational 100 OSS/OSW computers and communications equipment in building 669 are required to have uninterruptible power to prevent loss of critical operational weather data. The 100th Civil Engineer Squadron (100 CES) maintains emergency power with diesel back-up generators.

5.6.3. The AMOS is required to have internal battery back-up power for its Field Data Collection Units. These are serviced and maintained by the 100th Communications Squadron Airfield Systems shop (100 CS/SCOA).

6. Reciprocal Support:

6.1. In order for the 100 OSS/OSW to provide the best weather support possible, it is necessary to receive reciprocal support from various organizations.

6.2. Group commanders will:

6.2.1. Ensure their units are listed with appropriate priority and WWA criteria as outlined in the RAF Mildenhall Resource Protection Datasheet on the “Dissemination Tree” tab and 100 ARW CMEP 10-2.

6.2.2. Ensure adequate procedures exist for dissemination of appropriate WWAs to subordinate agencies and personnel within their organizations.

6.3. 100 ARW Command Post (100 ARW/CP) will:

6.3.1. Upon notification of a WWA issuance for RAF Mildenhall, will disseminate the WWA to applicable base agencies as listed in the “Dissemination Tree” tab of the RAF Mildenhall Resource Protection Datasheet. When the weather station is closed, questions or concerns about the weather should be directed to the 21 OWS duty forecaster at DSN 489-2134.

6.3.2. Recall 100 OSS/OSW personnel when requested by the 21 OWS, 100 OSS/CC, 100 OG/CC or 100 ARW/CC according to the criteria outlined by the 100 OSS/OSW Monthly Standby Memorandum. This memorandum will adjust as operations dictate.

6.3.3. Contact the stand-by weather technician upon notification of pending primary customer aircraft (351 ARS and 95 RS) arrivals and/or departures when the airfield is closed.

6.3.4. Ensure 100 OSS/OSW is promptly notified of all contingencies, alerts, exercises, deployments or emergency movement of aircraft that would require weather support.

6.3.5. Promptly notify 100 OSS/OSW of any aircraft incidents, mishaps or any weather-related property damage to the base IAW the local Mishap Response Plan 91-204. This ensures the on-duty forecaster saves any applicable weather data.

6.3.6. Notify the 100 OSS/OSW on all OPREP-3 messages on events or incidents that involve weather to ensure accurate weather data and information is contained in the OPREP-3 message.

6.4. 100 ARW Plans and Programs (100 ARW/XP) will:

6.4.1. Ensure 100 OSS/OSW is identified on the ICC recall checklist as a key member.

6.4.2. Ensure 100 OSS/OSW is notified of briefing requirements outside of normal ICC recalls.

6.4.3. Provide 100 OSS/OSW access to classified/unclassified plans, as required to ensure adequate support to the 100 ARW.

6.5. 100 ARW Safety Office (100 ARW/SE):

6.5.1. Notify 100 OSS/OSW commander or representative of investigations to assist with aircraft mishaps assigned to RAF Mildenhall or other military aircraft the 100 ARW investigates.

6.5.2. Notify 100 OSS/OSW commander or representative of investigations of ground accidents involving weather or weather services.

6.5.3. Coordinate with 100 OSS/OSW on any reports containing weather-related information prior to publication.

6.6. 100th Operations Group (100 OG) will:

6.6.1. Inform 100 OSS/OSW of any significant changes to operational weather support requirements.

6.7. 100th Mission Support Group (100 MSG) will:

6.7.1. Ensure response actions for severe weather events for MSG units are documented in the 100 ARW Plan 10-2 Comprehensive Emergency Management Plan (CEMP).

6.8. 100th Civil Engineer Squadron (100 CES) will:

6.8.1. Solicit weather data from 100 OSS/OSW for Chemical Downwind Messages and/or Effective Downwind Messages. Provide Chemical Downwind Messages (CDM) as required. 100 CES/CEX will solicit required weather data from 100 OSS/OSW.

6.8.2. Provide toxic corridors as required. 100 CES/CEX will solicit required weather data from 100 OSS/OSW.

6.8.3. Request points of contact and support from 100 OSS/OSW IAW 100 ARW Plan 32-69, Snow and Ice Control Plan, Annex H.

6.8.4. Solicit 100 OSS/OSW for current meteorological conditions and/or climatological information.

6.8.5. Ensure the 100 ARW Plan 10-2 CEMP and procedures that require weather support are coordinated with 100 OSS/OSW.

6.8.6. Ensure the 100 OSS/OSW Flight Commander or designated alternate attends the Emergency Management Working Group to address any issues regarding weather resource protection and weather info regarding CBRNE operations.

6.9. 100th Communications Squadron (100 CS) will:

6.9.1. Garner high priority response from the Central help desk for outages that impact NIPRNET and SIPRNET connectivity to all systems used to obtain weather data.

6.9.2. Perform preventive maintenance and prompt repair of Mildenhall weather equipment, associated circuits, and ancillary equipment located at RAF Mildenhall, and maintained by the 100 CS. Preventive maintenance or modifications that require equipment shutdown will be coordinated with 100 OSS/OSW flight leadership in advance.

6.9.3. Perform installation, maintenance, and sustainment to AN/FMQ-19 AMOS.

6.9.4. Perform installation, maintenance, and sustainment on JET Sensor Collection Appliance.

6.9.5. The following order of priority will apply to restoring communications:

6.9.5.1. NIPRNET/SIPRNET

6.9.5.2. PMSV Radio

6.9.5.3. Phone

6.9.6. Coordinate with 100 OSS/OSW at least 30 minutes prior to performing any maintenance on weather equipment.

6.9.7. Coordinate with 100 OSS/OSW when a system is expected to be inoperative to ensure that present operational commitments will not be affected.

6.9.8. Will ensure 100 CS/SCOI maintains telecommunications equipment (phones, local area network, internet, and intranet communications).

6.9.9. Upon request from 100 OSS/OSW leadership, arrange for designated weather personnel to view all airfield weather sensors.

6.10. 100th Security Forces Squadron (100 SFS) will:

6.10.1. Promptly inform 100 OSS/OSW of any hazardous weather reported by Security Forces personnel (tornado, hail, etc.).

6.10.2. Recommend road condition changes through Command Post.

6.11. 100 OSS Mission Development and 100 OSS Current Ops (100 OSS/OSX and 100 OSS/OSO) will:

6.11.1. Ensure that 100 OSS/OSW has access to the daily flying schedule.

6.11.2. Promptly notify 100 OSS/OSW of any changes to the flying itinerary.

6.11.3. Notify 100 ARW/CP of any changes to the flying itinerary during 100 OSS/OSW standby hours specified in the monthly OSW standby memo.

6.11.4. Notify 100 OSS/OSW of a fax number, printer and/or designated mailbox for remote flight weather briefings.

6.11.5. Keep 100 OSS/OSW informed of planned deployments.

6.11.6. Notify 100 OSS/OSW of any CORONET missions launching from RAF Mildenhall, whether or not 100 ARW assets are participating.

6.11.7. Establish weather support required prior to departing for any off-station flying.

6.11.8. Promptly notify 100 OSS/OSW of upcoming IRC or training briefings.

6.12. 100 OSS Airfield Operations, Control Tower (100 OSS/OSAT)

6.12.1. The reciprocal support agreement between 100 OSS/OSAT and 100 OSS/OSW is outlined in the local Cooperative Weather Watch memorandum (CWW), a separate memorandum of agreement.

6.13. 100 Public Affairs (100 ARW/PA) will:

6.13.1. Provide 100 OSS/OSW guidance on the releasability of weather information regarding tropical cyclone forecasts to the general public.

6.13.2. Disseminate weather information pertaining to tropical cyclone forecasts to the general public as necessary or as required.

6.13.3. Upon written request by 100 OSS/OSW, provide authorization, via the Photography Clearance Letter, to take photographs on and around the flight line to review and/or update visibility marker pictures.

6.14. 351st Air Refueling Squadron will:

- 6.14.1. Schedule all sorties through GDSSII.
- 6.14.2. Be prepared to receive the weather brief by 2:53 hours before takeoff for single ship flights and 3:08 hours before takeoff for formation flights, unless otherwise coordinated with 100 OSS/OSW leadership.
- 6.14.3. Notify either 100 ARW/CP or the 100 OSS/OSW standby forecaster when the weather station is closed that a weather brief will be required before the weather station is scheduled to reopen for duty.
- 6.14.4. Notify 100 OSS/OSW of any mission changes or cancellations.
- 6.14.5. Provide PIREPS to 100 OSS/OSW via 100 OSS/OSAT, directly by phone patch (DSN 238-4502, COMM 01638-544502), or through weather PMSV UHF 284.425.
- 6.14.6. Encourage aircrews to provide PIREPs to 100 OSS/OSW (PMSV) or for relay back to the CEF via 100 OSS/OSAT.
- 6.14.7. Encourage aircrews to provide positive and/or negative feedback on the quality of weather support to 100 OSS/OSW leadership through the tanker report or other feedback form, via phone (DSN 238-4264) or email to the 100 OSS/OSW OPS box.
 - 6.14.7.1. Report PIREPs as soon as possible after making the observation. PIREPs at any time are valuable, especially in poor flying weather.
 - 6.14.7.2. In-flight PIREPs may be passed to any USAFE Control Agency (Control Tower, Ground Radar Facility, etc.) or RAF Mildenhall PMSV.
 - 6.14.7.3. Post-flight PIREPs may be passed directly to weather personnel or by phone. PIREPs passed to any USAFE Air Traffic Control Agency at RAF Mildenhall will be relayed to the CEF as soon as possible.
- 6.14.8. When relaying a PIREP, aircrew must make every effort to report the following information:
 - 6.14.8.1. Time, location, altitude, and aircraft type.
 - 6.14.8.2. Clouds (bases, amount (FEW, SCT, BKN, OVC), tops) on takeoff, en-route, and arrival.
 - 6.14.8.3. Hazards: icing, turbulence, hail, lightning, etc. Be sure to specify intensity, location, proximity to clouds, altitude, and time.
 - 6.14.8.4. Significant deviations from forecast weather, winds, clouds, etc.
 - 6.14.8.5. Wind shear whenever encountered.
- 6.14.9. Ensure coordination with 100 OSS/OSW for any specialized weather briefing support.
- 6.14.10. Display 100 OSS/OSW duty priorities in tanker dispatch office.
- 6.14.11. Coordinate with 100 OSS/OSW in advance of any changes to dispatch printer settings (IP address, etc.) or video teleconference system settings.

6.15. 95th Reconnaissance Squadron will:

6.15.1. Send weather briefing requests via e-mail to the 100 OSS/OSW box (SIPR) for classified missions and 100 OSS/OSW OPS (NIPR) for unclassified missions, at least 12 hours prior to the aircrew's brief time. Verify by telephone or e-mail with 100 OSS/OSW that the weather briefing request has been received.

6.15.2. Notify either 100 ARW/CP or the 100 OSS/OSW standby forecaster, when the weather station is closed, that a weather brief request has been submitted and will be required before the weather station is scheduled to reopen for duty IAW the monthly standby memo.

6.15.3. Contact 100 OSS/OSW of any mission changes or cancellations.

6.15.4. Inform 100 OSS/OSW of a fax number, printer and/or designated e-mail address to be used for remote flight weather briefings.

6.15.5. Provide PIREPS to 100 OSS/OSW through weather PMSV UHF 284.425, directly by phone patch (DSN 238-4502, COMM 01638-544502) or via 100 OSS/OSAT.

6.15.6. Encourage aircrews to provide positive and/or negative feedback on the quality of weather support to 100 OSS/OSW leadership via phone (DSN 238-4264) or email to the 100 OSS/OSW OPS box (NIPR) or the 100 OSS/OSW box (SIPR).

6.16. 352d Special Operations Support Squadron Weather Flight (352 SOSS/A3W)

6.16.1. Will notify 100 OSS/OSW when flight members observe:

6.16.1.1. Prevailing/sector visibility fall below or increase to equal or exceed 6,000 meters (and not reflected in current observation and/or TAF).

6.16.1.2. Prevailing/sector visibility, rapidly increasing or decreasing, thunderstorms and/or lightning, tornadoes, fog banks or low clouds approaching the airfield, or any other changing weather conditions that significantly differ from the current observation and/or TAF.

6.16.1.3. Will provide a back-up "Eyes Forward" role when weather conditions warrant additional support to the 21 OWS.

6.16.1.4. Will provide a working NIPR and SIPR computer with secure room to be used as the 100 OSS/OSW Alternate Operating Location.

6.16.1.5. Will, in the event that the 352 SOSS/A3W's NIPR/SIPR computers are not operational, open a ticket through the USAFE help desk at 478-HELP (4351) and notify the 100 OSS/OSW leadership immediately so back-up accommodations can be made.

6.16.2. 100 OSS/OSW responsibilities:

6.16.2.1. Notify 352 SOSS/A3W prior to evacuation (if time permitting) and upon arrival at the alternate observing location (Bldg. 599).

6.16.2.2. When the 352 SOSS/A3W needs to evacuate their normal operating location, the 100 OSS/OSW will provide the following:

6.16.2.2.1. Access to the weather station, bldg. 669. (Request 100 ARW/CP

recall standby personnel if building/office is locked).

6.16.2.2.2. Access to a NIPRNET and SIPRNET computers and printers. In the event that the 100 OSS/OSW's NIPR or SIPR computers are not operational, the 100 OSS/OSW will open a ticket through the USAFE help desk at 478-HELP (4351) and notify the 352 SOSS/ A3W's leadership immediately, so back-up accommodations can be made.

6.16.2.2.3. Access to a DSN telephone.

6.16.2.2.4. Locker space, if available, to store materials and equipment necessary for operations.

6.16.2.2.5. Use of additional equipment and resources at owner's discretion.

6.16.2.2.6. Provide Pilot-to-Metro Service (PMSV) to all 352 SOG aircraft on UHF 284.425 MHz (receive and transmit capabilities out to approximately 170 NM from RAF Mildenhall).

6.16.2.2.7. Relay all significant PIREP data (regardless of source/aircraft type) to 352 OSS/A3W as mission load permits.

6.16.2.3. Disseminate the following 352 SOG customer specific observed weather advisories:

6.16.2.3.1. Crosswinds of greater than or equal to 23kts on a wet runway

6.16.2.3.2. Crosswinds of greater than or equal to 35kts

6.16.3. Mission Limiting Environmental Condition Response Matrix for the MC-130E/H Combat Talon and MC-130P Combat Shadow airframes can be found within the RAF Mildenhall Resource Protection Datasheet.

6.17. **Waiver Authority:**

6.17.1. Should any portion of this plan require a waiver the 100th Operations Group Commander is the waiver authority.

KENNETH T. BIBB JR., Colonel, USAF
Commander, 100th Air Refueling Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 15-1, *Air Force Weather Operations*, 19 Feb 2010

AFI 13-204V3, *Airfield Operations Procedures and Programs*, 1 Sept 2010

AFI 10-229, *Responding to Severe Weather Events*, 15 October 2003

AFI 11-202, Vol. 3, *General Flight Rules*, 22 Oct 2010

AFI 15-128, *Air Force Weather Roles and Responsibilities*, 7 Feb 2011

AFI 15-114, *Functional Resource and Weather Technical Performance Evaluation*, 7 Dec 2011

AFI 21-101, AMCSUP MILDENHALSUP Attachment 21, 9 Aug 2012

AFMAN 15-111, *Surface Weather Observations*, 27 Feb 2013

AFMAN 15-124, *Meteorological Codes*, 28 Feb 2013

AFMAN 15-129 Vol. 1, *Air and Space Weather Operations – Characterization*, 6 Dec 2011

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AFOSHSTD 91-100, *Aircraft Flight Line – Ground Operations and Activities*, 9 Sept 2009

100 ARW Plan 10-2, *Comprehensive Emergency Management*, 8 March 2011

100 ARW Plan 32-96, *Snow and Ice Control Plan*, 1 Nov 2011

100 ARW Integrated Defense Plan (IDP), 2 May 2011

FCM-H1, *Federal Meteorological Handbook 1—Surface Weather Observations and Reports*, 1 Sept 2005

Prescribed Forms

N/A

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ADS—Automated Dissemination System

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFW—Air Force Weather

AMOPS—Airfield Management Operations

AOL—Alternate Operating Location

AMOS—AN/FMQ-19 Automated Meteorological Observation System
ARS—Air Refueling Squadron
ARW—Air Refueling Wing
CDM—Chemical Downwind Message
CEF—Combined Element Forecaster
DoD—Department of Defense
FLIP—Flight Information Publication
ICC—Installation Control Center
IWWC—Integrated Weather Warning Capability
JET—Joint Environmental Toolkit (ADS)
MWP—Mission Weather Product (formerly known as Mission Execution Forecast)
NM—Nautical Miles
OWS—Operational Weather Squadron
PIREP—Pilot Report
PMSV—Pilot to Metro Service
RVR—Runway Visual Range
RWY—Runway
SPECI—Special Weather Observation
TAF—Terminal Aerodrome Forecast
WWA—Weather Watches, Warnings and Advisories
WX—Weather

Terms

Area Meteorological Watch—The monitoring of weather for a designated military operating area and informing supported agencies when certain weather conditions could affect operations.

Blizzard Conditions—Duration of > 3 hours, sustained winds or gusts > 30 knots, considerable falling and/or blowing snow, with prevailing visibility frequently < ¼ mile/0400 meters.

Desired Lead Time—The amount of advance notice a supported agency desires prior to onset of a particular weather phenomenon.

Issue Time—The time when an agency is notified of a WA, WWTCH, or WW. When more than one agency is notified, the issue time is the time the last agency is notified. Follow up notifications are not considered when determining issue time. For RAF Lakenheath, the issue time is the time the WA, WWTCH, or WW was transmitted on JET.

Limited Duty Station—A weather station that provides less than 24-hour a day forecast service.

Meteorological Watch (METWATCH)—Monitoring the weather for an area and advising concerned organizations when hazardous conditions that could affect their operation or pose a hazard to life or property are observed or forecast to occur.

MISSIONWATCH—Monitoring the weather for a route, sortie, or training area and advising concerned organizations when forecast conditions change past operational thresholds or hazardous weather conditions that could effort operations or pose a threat to life or property are observed or forecast to occur.

Operational Weather Squadron—An organization with regional forecast responsibility. The organization is comprised of the assigned management, staff, and technical personnel and its assigned resources. Their mission is to produce fine-scale tailored weather forecast products and services to customers within their area of responsibility.

Severe Thunderstorm—A thunderstorm that produces a tornado, hail greater than or equal to ½ inch diameter or surface wind greater than or equal to 45 knots.

Severe Weather—Any weather condition that poses a hazard to property or life.

Weather Advisory—Notice provided to a supported agency when an established weather condition that could affect its operation is occurring.

Weather Warning—Notice provided to a supported agency when an established weather condition of such intensity as to affect operations, pose a hazard to life or property, and requiring protective action, is occurring or expected to occur.

Weather Watch—A special notice of forecast weather phenomena that alerts supported agencies to the potential for mission impacting weather conditions.

Weather Flight SharePoint Page:—

Useful Links

<https://ice.usafe.af.mil/sites/100OG/oss/OSW/default.aspx>

21 OWS Tailored Page for RAF Mildenhall:

https://ows.sembach.af.mil/Tailored_Met/index.cfm?fuseaction=showunit&UID=&BW=H&UF=M&AOR=1&unit=132

RAF Mildenhall Resource Protection Support Datasheet & RAF Mildenhall Weather Limitations Datasheet

<https://ice.usafe.af.mil/sites/100OG/oss/OSW/Shared%20Documents/Forms/AllItems.aspx>

Attachment 2
DUTY PRIORITIES

Figure A2.1. 100 OSW/OSS Duty Priorities in order of precedence.

1. Execute Weather Flight/Station Evacuation.
2. Perform Weather Flight Emergency War Order (EWO) Taskings
3. Respond to Aircraft/Ground Emergencies (including Hotel Conference Calls).
4. Respond to Pilot-to-Metro Service (PMSV) contacts.
5. Augment FMQ-19 Observations for Mandatory Elements
6. Take/disseminate weather observations locally.
7. Perform coordinated METWATCH support (WWAs).
8. Severe Weather Action Process (SWAP) Operations.
9. Produce and Disseminate Mission Weather Products (MWP and Flight Weather Briefings) for primary customers.
10. Provide "Eyes Forward" support/collaboration with the 21 OWS.
11. Disseminate urgent PIREPS and special AIREPS and relay to the 21 OWS.
12. Disseminate routine PIREPS/AIREPS.
13. Transmit surface observations longline.
14. Perform MISSIONWATCH.
15. Provide other briefing support.
16. Weather function training.
17. Accomplish administrative tasks.

Attachment 3

LOCAL WEATHER CONDITIONS

AFMAN 15-111 Table 3.1 (With local modifications). Summary of Mandatory Supplementary Weather Conditions.

<i>Mandatory Supplementary Weather Conditions – Body of Report (Note 1.)</i>
Tornado (+FC) (Note 2) (Note 3)
Funnel Cloud (FC) (Note 2) (Note 3)
Waterspout (+FC) (Note 2) (Note 3)
Hail (GR) (Only when size is greater than or equal to 1/4" IAW local warning criteria)
Volcanic Ash (VA)
Sandstorms (SS) or Duststorms (DS) (NO LOCAL WARNING REQUIRED, DO SUPPLEMENT for SS or DS at RAF)
Visibility < 400 meters (Locally required to meet requirements in MILDI 13-201)
Mandatory Supplementary Weather Conditions- Remarks Section of Report (Note 1.)
Funnel Cloud (Tornadic Activity _B/E(hh)mm_LOC/DIR_(MOV)) (Note 2)
Snow Depth (Note 4) (only during airfield operating hours and if heavy snow warning has been issued and snowfall is occurring)
NOTES:
1. References for coding of augmentable weather conditions are located in Chapter 13.
2. The immediate reporting of funnel clouds takes precedent over any other phenomena.
3. Log on to AMOS and be prepared to supplement for tornadic activity anytime a weather watch or warning has been issued for the phenomena.
4. All Remarks and Additive Data references are provided in Attachment 3.