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Weather

AMC WEATHER OPERATIONS

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This instruction establishes requirements and responsibilities for weather support to Air Mobility Command (AMC) and AMC-gained forces and operations. It implements Air Force Policy Directive (AFPD) 15-1, *Atmospheric and Space Environmental Support*. This instruction applies to all AMC organizations. This instruction does not apply to the Air National Guard (ANG) or the United States Air Force Reserve (USAFR).

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This revision updates Air Mobility Command Instruction (AMCI) 15-101, 15 June 2000; incorporates information previously contained in AMCI 15-102, *AMC Weather Mobility Training Requirements*; and removes guidance subsequently included as parts of Air Force Instruction (AFI) 15-114, *Functional Resource and Weather Technical Performance Evaluation*; AFI 15-128, *Aerospace Weather Operations--Roles and Responsibilities*; Air Force Manual (AFMAN) 15-129, *Aerospace Weather Operations--Processes and Procedures*; and AFMAN 15-135, *Combat Weather Team (CWT) Operations*. This instruction revises AMC weather support organization and responsibilities and changes reporting procedures for Air Force weather (AFW) standard system management. It also implements responsibilities for integrated flight management (IFM) and revises mobility readiness requirements.

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Chapter 1

INTRODUCTION

1.1. Purpose. This instruction, in conjunction with AFW publications, other AMC publications, and appropriate supplements, establishes requirements and responsibilities for all AMC organizations providing operational and staff weather support.

1.2. 21st Century AMC Weather Operations. When AFW Reengineering reached full operational capability (FOC), three levels of weather operations were established with specific roles and responsibilities: Strategic centers provide weather data at the strategic level, operational weather squadrons (OWSs) produce fine-scale operational weather products, and CWTs focus on tactical level operations by producing mission execution forecasts (MEFs). Since then, AMC has embarked on a comprehensive plan to improve global reach mission effectiveness. The initiative is called Mobility for the 21st Century (M21). Three factors of M21 impact AMC weather operations: seamless processes, where IFM is the core, moving from a “management by exception” operation to “dynamic proactive mission management” / “near real-time command and control (C2)”; seamless systems to provide “information at the fingertip” of the decision maker; and assured connectivity, where M21’s goal is to have global connectivity to all Mobility Air Forces’ (MAF) aircraft. Each of these demands weather process changes beyond the scope of AFW Reengineering.

1.2.1. Seamless Processes. IFM is the cornerstone of M21 process improvements. It is the set of integrated C2 processes producing seamless planning and execution of air mobility sorties. IFM is patterned on the airline industry best practice of flight dispatch. Federal Aviation Administration and air mobility-trained and certificated flight managers (FMs), operating from the C2 center, support aircrews as virtual crewmembers from preflight to sortie completion. FMs determine the optimum flight profile, submit the flight plan to air traffic services for acceptance, and provide the aircrew with “departure papers” consisting of the filed flight plan, computer flight plan, notices to airmen (NOTAMs), payload information, sortie weather data, and other applicable information--all in one package prior to the crew’s arrival to begin departure duties. The aircrew retrieves the package from the designated agency (normally the local command post, airfield operations, or weather) and conducts a voice review with FM. Obviously, a robust MEF cell must coexist with the FMs to ensure IFM is effective.

1.2.2. Seamless Systems. The challenges caused by the tremendous growth in air traffic are significantly changing the air traffic system and require the capability to quickly amend flight profiles (routings and altitudes) through dynamic adjustment in both the planning and execution portions of sorties. Route weather intelligence must be collocated with decision makers to enhance dynamic routing capabilities.

1.2.3. Assured Connectivity. The modernization of airborne communication equipment will provide the capability for global data transfer between the Tanker Airlift Control Center (TACC) and AMC aircraft including automatic weather data exchange. Mission execution weather information must exist at TACC to facilitate a rapid transfer of weather intelligence to the cockpit.

1.3. Global Mobility Concept of Operations (CONOPS). The Global Mobility CONOPS revolutionized AMC’s global mobility mission to ensure AMC maintained mobility superiority. The CONOPS gives AMC the mission of accelerating the deployment of air power to any theater by rapidly assessing and opening contingency airbases for full spectrum flight operations. Tanker Airlift Control Elements (TAL-

CEs) will deploy with little notice to bare-base locations where a fixed AMC C2 and support structure is limited or nonexistent. TALCE is responsible for providing on-site management of AMC airfield operations elements needed to ensure safe and efficient tanker and airlift operations until aerospace expeditionary forces (AEFs) replace the opening force. Weather is among the core mission support elements of TALCE. Highly qualified weather craftsmen must be assigned to Air Mobility Squadrons (AMSs) so TALCEs can leverage the full capabilities of AMC weather services.

1.4. Roles and Responsibilities . AMC weather units are assigned responsibilities commensurate with the roles established under AFW Reengineering with variations to support the evolving AMC mission and internal process changes involving support of MAF. HQ AMC/DOW remains the functional manager for all AMC weather services.

1.4.1. 15 OWS is the center of meteorological expertise for the Northeast (NE) Continental United States (CONUS) and TACC's worldwide mission. Its Global Mobility Weather Flight (15 OWS/WXM) is assigned the responsibility to conduct weather operations to support IFM at TACC. 15 OWS/WXM functions similar to a CWT but at a C2 level. As such, 15 OWS/WXM provides weather intelligence for mission planning and mission execution to TACC senior leadership and FMs. 15 OWS/WXM will support all operational airlift and refueling missions when IFM reaches mature state.

1.4.2. CWTs. CWTs in AMC are primarily assigned to operations support squadrons (OSSs) as weather flights (WFs). Small CWTs also exist in AMSs at Travis Air Force Base (AFB) and McGuire AFB to conduct weather operations with TALCEs.

1.4.2.1. OSS WFs. OSS WFs provide or arrange weather support for customers residing on the AMC installation and home-station forces deployed off-station. Since 15 OWS/WXM will gradually assume MEF responsibility for operational missions, AMC WFs will focus their MEF process on their customers' training missions--emphasizing the weather impacts on wartime tactics, techniques, and procedures. The "eyes forward" responsibility will expand to include collaboration with 15 OWS/WXM on IFM missions when appropriate. WFs will also provide weather intelligence for operational, logistical, and force protection such as weather impacts to air defense, support to security forces, and effects of weather conditions on personnel. At times, one person will be required to perform both airfield services and mission services responsibilities. WF will make every effort to integrate readiness training into routine processes to create in-garrison operations that mirror wartime operations as closely as possible.

1.4.2.2. AMS CWT. AMS CWTs conduct weather operations as a member of a TALCE. The primary role of AMS CWT is to deploy with TALCE, often on short notice, to locations where indigenous weather operations are inadequate or nonexistent. The deployed AMS CWT's immediate responsibility is to provide airfield services including disseminating routine weather observations as soon as possible. Mission services are provided as needed. Since the TALCE deployed footprint must be small, AMS CWTs will be required to assist with non-weather related functions while deployed. In garrison, AMS CWTs will conduct training to prepare for deployments, maintain weather career field core task qualification, and acquire and maintain cross-functional task qualifications (e.g., pallet building).

1.5. Technical Health and Compliance Assessments. AMC weather unit assessments will be accomplished using several methods.

1.5.1. CWTs will establish and maintain a unit self-inspection kit in accordance with (IAW) AMCI 15-103, *Inspection Programs*.

1.5.2. HQ AMC/DOW will provide a Staff Assistance Visit (SAV) approximately every 18 months. When possible, a SAV to 15 OWS will be conducted approximately 6 months before an Air Force Weather Standardization and Evaluation Program (AFWSEP) visit. CWT SAVs will be conducted following guidance in AMCI 15-103.

1.5.3. AFWSEP visits will be conducted IAW AFI 15-180, *AFW Standardization and Evaluation Program*.

1.5.4. Units will develop a metrics program and report the previous month's statistical data to HQ AMC/DOW by the 10th of each month unless directed otherwise in AFI 15-114 or AFMAN 15-129.

Chapter 2

IFM

2.1. General. M21, previously known as Mobility 2000 (M2K), is a comprehensive effort to integrate and modernize AMC C2 and related processes. M21's IFM is the core process designed to provide dynamic, proactive mission management, and near real-time C2. FMs act as virtual crewmembers making use of electronic flight planning/filing, flight following, maintenance, transportation, and weather resources to centrally plan and aid aircrews in the execution of air mobility sorties. Fused flight management information, shared situational awareness, collaborative decision making, and dynamic replanning/adjustment enable FMs to act as the primary, proactive points of contact for real-time support to aircrews.

2.1.1. 15 OWS/WXM is the lead CWT for TACC IFM missions. They work with FMs to highlight mission-limiting weather, develop courses of action, mitigate the effects of weather on AMC operations, and provide a full spectrum of weather services to include flight weather briefings and pilot-to-metro service (PMSV).

2.1.2. When fully implemented, IFM will encompass all AMC operational sorties and those training flights designated by the owning unit leadership. Until full implementation, there will be a mix of IFM and non-IFM missions. Providing or arranging weather support for non-IFM missions remains the responsibility of the owning unit.

2.2. Responsibilities.

2.2.1. As lead weather unit (LWU) for weather integration into AMC flight operations, 15 OWS/WXM will:

2.2.1.1. Provide 24-hour global surveillance to determine strategic, operational, and tactical weather threats to AMC assets. Threats affecting operations will be highlighted to the TACC Director of Operations, FMs, and/or other appropriate level(s) where decisions can be made to maximize the safety and efficiency of the air mobility system.

2.2.1.2. Integrate weather into IFM processes. Weather information is used by FMs to refine routes, select alternates, optimize fuel and cargo, enhance maintenance, and launch preparation activities.

2.2.1.3. Continuously monitor worldwide weather conditions and space environmental hazards for mission-impacting events.

2.2.1.4. Evaluate mission-specific weather for pre-mission planning points.

2.2.1.5. Provide weather information for flight planning, mission/sortie execution, and mission/sortie watch processes for all TACC-controlled missions.

2.2.1.6. Develop and implement operational risk management (ORM) procedures to identify at-risk missions based upon weather impacts or mission priority, assign risk factors, recommend courses of action, and assist in the decision-making process to mitigate weather threats. The Director of Operations and aircraft commanders retain final decision authority for all issues related to safe and prudent sortie conduct and aircraft/flight operations.

2.2.1.6.1. ORM procedures will occur throughout the life cycle of the mission.

2.2.1.6.2. Missions will be considered “at-risk” when the conditions listed in **Table 2.1.** will adversely impact launch, recovery, and/or routing. Risk criteria may vary for individual missions based on cargo, location, aircraft configuration, etc.

Table 2.1. At-Risk Weather Conditions.

Ceiling/Visibility less than or equal to 200ft/1/2sm (or other published airfield limitations)
Dry crosswind (predominant wind) 25kts or greater
Wet crosswind (predominant wind) 20kts or greater
Winds 50kts or greater
Observed Low Level Wind Shear (LLWS)
Predominant thunderstorms on station
Freezing precipitation
Severe icing
Severe turbulence
Moderate turbulence/icing in air refueling track
Thunderstorm in air refueling track
Visibility less than 1nm in air refueling track
Non-navigable thunderstorms en route
Volcanic ash
Tropical storm

2.2.1.7. Alert the senior duty controller, duty controllers, FMs, planners, etc., either verbally, electronically, or by hard copy when mission-impacting weather occurs or is forecast to occur. If requested, ensure that information passed via electronic means can be supported in person.

2.2.1.8. Develop a process to maintain/update, at least annually, the list of mission-impacting weather criteria affecting AMC assets. Weather operators will understand the affects of weather on AMC weapon systems.

2.2.1.9. Participate in meteorological discussions with other military and civilian weather agencies to ensure timely, accurate weather information is integrated in planning, execution, and mission-watch.

2.2.1.10. Create/Verify the controlling mission execution forecast (CMEF) portion of the crew papers for IFM missions.

2.2.1.11. Support PMSV contacts with AMC aircraft. PMSV includes phone patches; L-Band; satellite communications; and Aircraft Communication, Addressing, and Reporting System (ACARS).

2.2.2. The integrated management tool, the primary tool used by FMs, uses data from the Air Force Weather Agency (AFWA) and 15 OWS to automatically compile the weather portion of the crew papers. 15 OWS/WXM will establish processes to:

- 2.2.2.1. Review all packages for “at-risk” missions and post them to the crew papers.
- 2.2.2.2. Complete all packages containing incomplete information and post them to the crew papers.
- 2.2.2.3. Periodically scan no-risk mission packages for completeness/accuracy.

2.2.3. The CMEF portion of the crew papers will contain (as a minimum):

- 2.2.3.1. Weather data listed in **Table 2.2**.
- 2.2.3.2. Mission tailored planning/execution weather graphics that are intended only for IFM missions/sorties.
 - 2.2.3.2.1. Graphics will be time-tailored to the mission/sortie. This means the weather phenomena will be depicted along the route where and when the aircraft is projected to encounter it.
 - 2.2.3.2.2. Graphics will be continuously evaluated and updated.
 - 2.2.3.2.3. Weather data from OWSs and other sources will be leveraged to develop and update weather graphics.

Table 2.2. Crew Paper Weather Minimums.

Takeoff data – winds, temperature, pressure altitude, remarks
Weather for destination and alternates – cloud layers, visibility, winds, altimeter
Hazards for climb, descent, and en route
Flight level winds
Significant Meteorological Advisories (SIGMETs)
Takeoff alternate weather if required
Other forecasts as required (air refueling, airdrop, etc.)

2.2.4. Resolve differences between 15 OWS/WXM forecasts and OWS products following Air Force (AF)-level guidance and when thresholds in **Table 2.1** are crossed.

2.2.5. 15 OWS/WXM will act as the final arbiter on weather issues involving TACC-controlled AMC assets.

2.2.6. 15 OWS NE CONUS operations will:

- 2.2.6.1. Provide weather briefings for non-IFM AMC missions when the owning AMC CWT is unable to provide mission services due to higher-priority airfield services. This is limited to those rare circumstances when airfield services is overwhelmed with “eyes forward” responsibilities and mission services personnel are not available (typically nights and weekends).
- 2.2.6.2. Coordinate requirements in a memorandum of agreement (MOA) submitted by AMC CWTs detailing how and when mission services assistance will be provided.

2.2.6.3. Notify 15 OWS/WXM when they depict severe icing/turbulence areas in their area of responsibility (AOR) graphics.

2.2.7. AMC CWTs will:

2.2.7.1. Provide or arrange weather support for their wing's non-IFM missions/sorties.

2.2.7.1.1. Coordinate with HQ AMC/DOW to arrange mission services assistance with 15 OWS when the airfield services element cannot provide MEFs due to "eyes forward" requirements and other airfield services responsibilities.

2.2.7.1.2. Establish an MOA with 15 OWS detailing how and when mission services assistance will be rendered as mentioned in paragraph [2.2.7.1.1](#).

2.2.7.1.2.1. 15 OWS mission services assistance must be used judiciously (i.e., intense FMQ-19 augmentation and around-the-clock training missions).

2.2.7.1.2.2. Notify 15 OWS when mission services responsibilities are relinquished to them and when returned to CWT.

2.2.7.2. Act as "eyes forward" for weather conditions at their airfield for IFM missions/sorties.

2.2.7.3. As needed, update takeoff weather on IFM CMEF.

2.2.7.4. Notify 15 OWS/WXM if the takeoff update includes any of the criteria listed in [Table 2.3](#).

2.2.7.5. Consult/Coordinate with 15 OWS/WXM as required to resolve any aircrew concerns/issues with IFM CMEF. Facilitate discussions between aircrew members and 15 OWS/WXM to elaborate on weather impacts and/or answer aircrew questions. 15 OWS/WXM is the final arbiter for weather issues involving IFM missions.

2.2.7.6. Contact 15 OWS/WXM to discuss unusual aircraft/mission sensitivities or any other issues they may be unaware of.

Table 2.3. Weather Criteria Requiring Notification to 15 OWS/WXM.

Ceiling/Visibility less than or equal to 200ft/1/2sm (or other published airfield limitations)
Dry runway crosswind (predominant wind) 25kts or greater
Wet runway crosswind (predominant wind) 20kts or greater
Forecast LLWS for KC-10 operations
Observed LLWS for all AMC aircraft
Predominant thunderstorms on station
Freezing precipitation
Moderate (or greater severity) turbulence/icing
Forecast or observed volcanic ash on takeoff

Chapter 3

COORDINATED MULTI-SHIP MISSION SUPPORT

3.1. General. Many tanker/airlift/airdrop operations involve aircraft supported by two or more units. Missions can also involve personnel from other services. In both cases, coordination between the involved weather units is essential. The level of coordination among weather units is proportional to the complexity and number of units involved. A simple two-ship operation may only require telephone coordination. Larger missions may require detailed preplanning and coordination with multiple agencies.

3.2. LWU Designation.

3.2.1. LWU will generally be the unit supporting the C2 element responsible for mission execution of the lead operational unit. The weather unit supporting the lead operational unit will provide or arrange for CMEF. Detailed instructions for determining and prioritizing LWU are contained in AFMAN 15-129. Missions involving AMC units are listed below:

3.2.2. Air Refueling.

3.2.2.1. Echelons above wing (TACC, Air and Space Operations Centers [AOCs], etc.) often direct Global Reach, Global Mobility Task Force missions, and expeditionary airlift squadron deployments involving strategic air refueling. For these missions, when the aircraft receiving fuel is an AMC aircraft, 15 OWS/WXM will serve as the LWU. When AMC tankers are used to support CORONET and GLOBAL POWER missions involving Air Combat Command (ACC), ANG, or Air Force Reserve Command (AFRC) forces, ACC Air Operations Squadron will serve as the LWU.

3.2.2.2. Training Missions. In support of training and flying hour programs, wings often schedule/coordinate air refueling missions directly with other wings. For such missions, the lead flying unit owns the aircraft receiving fuel, and LWU is the unit responsible for providing CMEF to the lead flying unit. LWU will contact all weather units supporting the given mission to coordinate weather support and ensure CMEF is used. All supporting units will provide the LWU required mission and CMEF information to include critical weather thresholds and weather product requirements. These units will produce MEFs using CMEF/CMEF products and brief these MEFs to and perform mission watch for supported flying units.

3.2.3. Airlift/Airdrop.

3.2.3.1. Higher Headquarters. Echelons above wing often direct exercises that involve airdrops. For these missions, the weather unit supporting the exercise headquarters will serve as the LWU.

3.2.3.2. Training Missions. In support of training and flying hour programs, wings often schedule/coordinate airlift or airdrop missions directly with other wings. A mission commander is designated for these missions, and LWU is the unit responsible for providing CMEF to the mission commander. LWU will contact all weather units supporting the given mission to coordinate weather support and ensure CMEF is used. All supporting units will provide the LWU required mission and CMEF information to include critical weather thresholds and weather product requirements. These units will produce MEFs using CMEF/CMEF products and brief these MEFs to and perform mission watch for supported flying units.

Chapter 4

DEPLOYMENTS AND EXERCISES

4.1. General. Deployments and exercises include AEF operations, TALCE, Air Mobility Division (AMD) operations, general contingencies, exercises, and Expeditionary Operational Readiness Inspections (EORIs). Weather planning and coordination among participating weather units are crucial to successful weather support during contingencies, exercises, or EORIs. The single scheduling/execution agency within AMC is TACC located at Scott AFB IL. Relationships, CONOPS, etc., can be found in AMC 10-series instructions.

4.2. Responsibilities.

4.2.1. HQ AMC/DOWX will:

4.2.1.1. Coordinate AMC weather unit personnel and equipment taskings in support of AEF, TALCE, AMD, contingency operations, higher headquarters-directed exercises, and EORIs.

4.2.1.2. Develop or provide input to the CONOPS, letter of instruction (LOI), or weather annex for weather support to specific AMC operations. In the event a CONOPS, LOI, or weather annex is developed by another command, HQ AMC/DOWX will provide input and coordinate the use of AMC weather resources.

4.2.1.3. Act as the single point of contact for resolving AMC weather personnel and equipment shortfalls.

4.2.2. AMC weather units will:

4.2.2.1. Ensure personnel are trained and ready to support deployment operations. This instruction provides guidance on training requirements. Ensure tactical meteorological equipment (TACMET) is operational and ready to support operations. Ensure aerospace expeditionary force reporting tool (ART) and Status of Resources and Training System (SORTS) are current and accurate.

4.2.2.2. Complete After Action Reports (AARs). AMC weather personnel participating in Chairman, Joint Chiefs of Staff exercises, AF designated exercises, AMC exercises, and real-world operations will submit AARs to HQ AMC/DOW. Provide AARs no later than (NLT) the 25th day after the end of the aforementioned exercises or operations. See [Attachment 2](#) for suggested format. A copy of an AAR required by a non-AMC command or the weather portion of the TALCE AAR will meet this requirement.

4.2.2.3. Provide Personnel Availability Rosters (PARs). PAR is a for official use only (FOUO) report indicating personnel available for deployment. Each AMC weather unit will e-mail the PAR to HQ AMC/DOW NLT the 5th of each month, using the electronic spreadsheet provided by HQ AMC/DOWX. Required information describes projected manning to include personnel arrival/departure dates and nonavailability due to temporary duties (TDYs), medical profile, scheduled training, etc., for the next 12 months (see [Attachment 3](#)).

4.3. AEF Deployments, Contingencies, and Exercises. Operations range from the deployment of small support teams to general war operations that require a majority of AMC's assets.

4.3.1. CONOPS. Individual AMC CWTs will normally provide weather support to their C2 agencies or elements. Depending on requirements, individual missions may be supported by deployed weather personnel, in-place weather resources at the operating location, and/or by an OWS. It may be necessary to request additional manpower and equipment from HQ AMC/DOWX when deployment requirements exceed assigned resources.

4.3.2. Weather support to the AMC en route structure will take maximum advantage of the indigenous, staged military weather forces, OWS of the transited theater, or reach-back to 15 OWS/WXM.

4.3.3. AMC weather personnel deployed to the theater of operations will coordinate weather support requirements and conduct operations as directed by the applicable CONOPS, Operations Order, LOI, etc., and the operational commander.

4.4. TALCE Deployments.

4.4.1. CONOPS. TALCE deployments are short notice, first-in operations, often at bare-base locations, and may require one or two forecasters for weather support. HQ AMC/DOWX, TALCE planners, and TACC/XOPM determine weather requirements. HQ AMC/DOWX will determine the availability and quality of indigenous weather support and recommend the number of weather personnel needed based upon hours of flying operations and expected length of the deployment. HQ AMC/DOWX will arrange for additional personnel and/or equipment if augmentation is required for extended operations.

4.4.2. TALCE weather personnel must be surface weather observation qualified and capable of deploying within 12-24 hours of notification. As members of TALCE, they will deploy and redeploy with TALCE unless released earlier by the TALCE commander. They will not be assigned to a sustaining force weather team unless specifically tasked by HQ AMC/DOW through TACC/XOPM. As directed by TALCE leadership, duties may extend beyond normal weather operations in order to support the total operation of the TALCE team. TALCE remains under the operational control of TACC.

4.4.3. Weather personnel, as a minimum, will deploy with a laptop computer with Tactical Forecast System (TFS) software capability (unit type code XWTFS) and a Meteorological Observing System (MOS) kit (unit type code XW0BS). Optional but desired equipment will be a laser range finder (LRF) and an Iridium phone. Larger, more robust observing systems may be provided by any sustaining force weather team, normally expected to arrive during the subsequent 10-20 days.

4.4.4. Communications will normally be provided through TALCE secure phone lines or Iridium phones. Unless otherwise directed by TALCE leadership, immediately begin a basic weather watch and construct an observation site. Following an initial observation to establish reporting status, weather personnel will establish a reporting routine focused on aircraft recovery/generation, force protection, and terminal aerodrome forecast (TAF)/warning support. Provide all observational data to 15 OWS/WXM by any means possible to enhance the safety/efficiency of AMC resources. Input observation data into Secure Joint Air Force and Army Weather Information Network (JAAWIN-S) when possible. 15 OWS/WXM will input observations when necessary. TALCE personnel will facilitate reach-back MEF support between departing aircrew and 15 OWS/WXM for IFM and other AMC-controlled missions and the theater OWS for all others. Limit on-the-spot MEF updates to your location's take-off and landing weather when reach-back is available for all other information.

4.4.5. Deployment kits (forecasting, observing) will be stocked with a minimum 30-day supply of expendables. The deployed weather teams must coordinate with the supported TALCE commander to

establish supply requirements for expendables. The supported unit will provide additional supplies. Shortfalls in equipment, personnel, or supplies will be reported in the deployed commander's situation report (SITREP). TALCE will provide all administrative support and arrange for transportation and living accommodations for weather personnel.

4.5. AMD Deployments.

4.5.1. CONOPS. AMD plans, coordinates, tasks, and executes the theater air mobility mission. As one of the five divisions of AOC that reports to the AOC Director, the AMD mission is to provide for integration and support of all air mobility missions. The Director of Mobility Forces (DIRMOBFOR) is responsible for integrating the total air mobility effort for the Commander, AF Forces or Joint Forces Air Component Commander and, in this capacity, provides direction to AMD to execute the air mobility mission. The Chief of AMD ensures AMD works as an effective division of AOC in the aerospace planning and execution process. Under the direction of DIRMOBFOR, AMD coordinates with the Joint Forces Commander movement requirements and control authority (e.g., Joint Movement Center), the theater Air Mobility Operations Control Center (AMOCC) (if established), and TACC. AMD will task intratheater air mobility forces through wing and unit command posts when those forces operate from permanent home bases and will maintain an acute awareness of the ongoing operations of the Air Expeditionary Wing (AEW), Aerospace Expeditionary Group, or Wing Operations Center.

4.5.2. Staff Weather Officers (SWOs) assigned to support DIRMOBFOR will, prior to deployment, contact 15 OWS/WXM to review operating characteristics of AMC aircraft and other AMC operations including TALCEs, in-theater airfields used by AMC, and intertheater operations including air refueling. Recommend SWO coordinate these issues by phone, electronically, or personal visit to 15 OWS/WXM, if possible.

4.5.3. AMC SWOs, assigned to AMD, will coordinate with the AOC weather unit and advise DIRMOBFOR of weather factors affecting all mobility operations. For intertheater operations or other AMC-unique operations, SWO will coordinate with 15 OWS/WXM.

4.6. EORIs. HQ AMC, as prescribed by AMCI 90-201, *The Inspection System*; and Air Mobility Command Pamphlet (AMCPAM) 90-202, *Operational Readiness Inspection Guide*; conducts EORIs of AMC active and AMC-gained ANG and AFRC units. AMC units will coordinate any additional EORI weather support requirements with the supporting OWS. CWTs will implement weather support using concepts IAW this instruction.

4.7. Large Package Week (LPW). LPW is an Army battalion-size airborne training operation that occurs at Pope AFB, usually every 6 weeks. It serves as training to both United States (US) Army airborne soldiers and AF aviation units. Although the aircraft units vary from LPW to LPW, typically, the same five bases participate in every LPW: Charleston AFB (437 AW/315 AW), Dyess AFB (317 AG), Little Rock AFB (463 AG), McChord AFB (62 AW), and Pope AFB (43 AW). On occasion, Guard or Reserve bases will supply the aircraft units. If a Guard or Reserve unit does not bring their own weather support, Pope AFB CWT will provide weather support for them.

4.7.1. Weather briefing and product suites that weather units use to support LPW aircraft will be standardized (including ACC-owned weather units). Pope AFB CWT is designated as LWU for LPW and will develop a standardized CMEF package that all other CWTs will use when participating in LPW.

The standardized CMEF will include: Drop zone (DZ) forecasts, blocks for D-Value (used for all high altitude airdrops, most commonly high altitude low open [HALO] jumps), freezing level, and solar/lunar data.

4.7.2. Pope AFB CWT will also develop standardized forecast briefing presentations (such as Power-Point) that all LPW-participating units will utilize. At a minimum, these mission briefings will use a satellite image, Doppler radar image, flight level winds forecast, take-off weather, air refueling forecasts (if applicable), DZ weather, and recovery weather. At the discretion of the LPW forecaster, different products may be used when mission or customer needs require it. The emphasis must be on providing the most complete and accurate presentation possible.

4.7.3. Pope AFB CWT will develop procedures to ensure 15 OWS/WXM receives a courtesy copy of all forecast briefing presentations and CMEFs generated for LPW. 15 OWS/WXM will use these courtesy copies to provide LPW weather briefings to TACC leadership. This will ensure all agencies involved with LPW are briefing the same weather information.

Chapter 5

WEATHER EQUIPMENT AND COMMUNICATIONS

5.1. General. HQ AMC/DOW, the functional manager for weather communications and sensing equipment assigned to AMC weather units, routinely assists those units with weather equipment problems that cannot be resolved locally. This is accomplished by either identifying the problem to other HQ AMC offices, AFWA, or arranging an assistance visit to provide equipment-specific training.

5.2. Weather Unit Responsibilities. Weather units will:

5.2.1. Work with the local communications squadron to resolve maintenance or equipment supply problems through active involvement of the local chain of command.

5.2.2. Ensure maintenance support responsibilities are documented in the local weather support document. This will include the agency the weather unit calls to report weather sensing or communication equipment outages or problems, restoral priorities (for fixed and tactical systems), and response times.

5.2.3. Document all communication and equipment outages including regularly scheduled maintenance.

5.2.4. Contact HQ AMC/DOW when any occurrence or set of occurrences involving weather equipment does not allow the unit to meet its operational mission. Include current and historical outage information.

5.2.5. When designated to provide “departure papers” to IFM aircrews, budget for and ensure sufficient resources (fax machines, printers, paper, toner/ink, etc.) to accommodate requirements.

5.3. Meteorological Equipment Outages.

5.3.1. AMC weather units will use an AF general-purpose form or a locally developed form to record outages of weather-sensing equipment and data-dissemination systems. As a minimum, log:

5.3.1.1. Date/Time of the outage.

5.3.1.2. Date/Time maintenance agency was notified and the maintenance outage number.

5.3.1.3. Date/Time the equipment was restored to operational condition. Equipment is considered restored when the weather unit determines the equipment meets operational needs.

5.3.1.4. Sufficient remarks to briefly describe the reason or cause of the outage. In addition, weather units should note all follow-up actions in the remarks section to provide documentation if historical data or contractor response information is needed to resolve unique problems.

5.3.2. Weather units will maintain a separate outage log for each piece of equipment.

5.3.3. For user-maintained systems, such as the TMQ-53 and the AN/TMQ/43, you must report outages in the Core Automated Maintenance System (CAMS). For outages reported in CAMS, also document them as directed in paragraph **5.3.1.** for quick reference.

5.4. New-Tactical Forecast System (N-TFS). N-TFS hardware and software are maintained by the contractor/manufacturer. For any outage, AMC weather units will notify the AFWA Operations Center at DSN (312) 271-2586 or 1-800-250-1750: Option “1” will connect you to the Operations Center Officer or

Operations Noncommissioned Officer (NCOIC). Option “2” will connect you to the Customer Service Center for outages or technical questions on N-TFS, tactical very small aperture terminal (T-VSAT), Tactical Meteorological Observing System (TMOS), and other fielded weather equipment. Normally, if the AFWA Operations Center cannot resolve the problem, they will notify the appropriate manufacturer or contractor to begin repair efforts.

5.4.1. The weather unit is the on-site quality assurance evaluator for contract maintenance. After the repair is complete to weather unit’s satisfaction, the weather unit will contact the AFWA Operations Center to close the outage ticket.

Chapter 6

AMC READINESS TRAINING

6.1. General. This chapter implements AFPD 10-2, *Readiness*, and establishes requirements and responsibilities for AMC weather mobility training.

6.2. Concept of Training. The objective of weather mobility training is to attain and maintain the highest standard of readiness skills necessary to support contingency and wartime operations. Mobility training must meet standards that ensure units and personnel maintain their capability for immediate and effective mission accomplishment. Each individual who supports contingency and wartime operations will train to the highest state of personal readiness commensurate with such duties.

6.3. Unit Responsibilities.

6.3.1. Unit Mobility Program. AMC weather units will establish a unit mobility program to train personnel to support their required wartime, contingency, and AEF tasking. Units will follow all training requirements outlined in paragraph 6.4.

6.3.2. Documentation. Unit personnel will accomplish wartime proficiency training documentation IAW AFI 10-403, *Deployment Planning and Execution*; AFMAN 15-135, this chapter; and local policies. Units will track the training and document completion on appropriate forms (i.e., AF Form 797, **Job Qualification Standard Continuation/Command JQS**; AF Form 1098, **Special Task Certification and Recurring Training**) or any other appropriate format if an electronic form/database is not in use. Training files will be reviewed semiannually (or more frequently) to schedule training as required.

6.3.2.1. Personnel Readiness Folders (PRFs). Generally, units will have a Unit Deployment Manager (UDM) at the OSS level that will maintain PRFs for flights, including the WF/CWT, under the squadron command. However, in cases such as for an OWS or CWTs where a weather team member is the squadron UDM, follow the guidance in AFI 10-403, Chapter 1, Subsection 6, and as supplemented in this chapter. Information in PRFs will be safeguarded in a folder and stored in a secure area (e.g., locked file cabinet). PRFs are subject to the Privacy Act of 1974 and items will not be removed without permission of the individual. Some items included in the folder are listed below. Other items or documentation as listed in AFI 10-403 can be included as well.

6.3.2.1.1. AF Form 4005, **Individual Deployment Requirements**. Use AF Form 4005 or an automated form specifying the same requirements will be used to document completion of deployment requirements. Complete all items within 60 days of assignment into the deployment position, unless the unit commander extends the completion date due to extenuating circumstances. Initial and date the appropriate column upon completion of each item.

6.3.2.1.2. AF Form 357, **Family Care Certification**. If the member is required to maintain an AF Form 357 IAW AFI 36-2908, *Family Care Plans*, it is normally maintained in the unit orderly room. If this is the case, enter "On File in Orderly Room" in the requirements column of the AF Form 4005. Alternate option is to file a copy of the AF Form 357 in the PRF.

6.3.2.1.3. AF Form 522, **United States Air Force (USAF) Ground Weapons Training Data**. Detach the small portion of the form and place in the PRF.

6.3.2.1.4. Department of Defense (DD) Form 2, **Armed Forces of the US - Geneva Conventions Identification (ID) Card**. Ensure person has current and valid ID card, then enter "On Person" in the requirements column of the AF Form 4005.

6.3.2.1.5. AF Form 2583, **Request for Personnel Security Action** (if applicable). Use for North Atlantic Treaty Organization clearance and maintain in the PRF.

6.3.2.1.6. DD Form 93, **Record of Emergency Data**. Can be updated on-line through the AF Personnel Center web site. Place a copy of the form in the PRF.

6.3.2.1.7. DD Form 771, **Eyewear Prescription**. Maintain a copy of the individual's current prescription in the PRF.

6.3.2.1.8. PHS-731, **International Certificate of Vaccination**. Check quarterly to ensure currency. Individuals report to the Immunization Clinic for new and booster shots.

6.3.2.1.9. AF Form 1297, **Temporary Issue Receipt**. Maintain in the PRF.

6.3.2.1.10. Government Drivers License. If individual hand carries the item everyday in performance of duties, enter "On Person" in the requirements column of the AF Form 4005.

6.3.2.1.11. ID Tags and Chain. Individual maintains two ID tags and a chain. Ensure "AF" is stamped on the tags (especially if issued at an Army post). If the individual keeps the ID tags on their person, enter "On Person" in the requirements column of the AF Form 4005.

6.3.2.1.12. Passports. Passports are not issued solely for deployment purposes. If personnel already possess a government passport, maintain in the PRF.

6.3.2.1.13. Prescription Glasses. If required to wear glasses, the individual must maintain two pair, and the person may carry them. If so, enter "On Person" in the requirements column of the AF Form 4005.

6.3.2.1.14. Gas Mask Spectacle Inserts. If required, maintain the inserts in personal mobility gear and enter "With mobility gear" in the requirements column of the AF Form 4005.

6.3.2.1.15. Prescription Medication. Brief the individual to bring a 90-day supply of medication if under medical treatment. Annotate the completion date for this briefing on the AF Form 4005.

6.3.2.2. PRF Maintenance. Maintain PRFs at the unit commander's discretion. At a minimum, the UDM will complete a semiannual review of all PRFs. Document findings and require individuals to correct any deficiencies within 30 days. Individuals and UDMs will follow the disposition instructions in AFMAN 37-139, *Records Disposition Schedule*, Table 36-12, Rule 8.

6.3.3. Deployment Availability. Graduates of the Forecaster Apprentice (FA) Initial Skills Course who are assigned directly to field units are not available for deployment. However, at the home-station commander's discretion, 5-level FAs may fill deployed augmentation requirements via PALACE BLITZ.

6.3.4. Appointment. The commander will appoint all personnel assigned to a deployment position by letter. Personnel assigned to deployment positions will endorse the commander's letter acknowledging placement in a position, and the letter will be filed in the individual's PRF. A sample deployment assignment memorandum can be found at [Attachment 4](#).

6.3.4.1. Introductory Briefing. Addresses individual responsibilities in becoming a fully deployable asset. As a minimum, address the following: job title, duties and responsibilities, wartime mission and role in accomplishing the mission, and the local wartime training program (i.e., initial training program, recurring training program, timelines to complete required training, proficiency expected for phase/task qualification training, family care responsibilities, and PRF maintenance and location).

6.4. Training Requirements. There are three types of mobility training requirements: general (PHASE I), technical (PHASE II), and theater or mission-unique (PHASE III) requirements.

6.4.1. General Requirements (PHASE I). General requirements include all administrative actions and training required to achieve deployable status and ensure personnel are provided with the basic wartime skills and knowledge needed to function in any environment. Weather personnel must be totally integrated with the deploying forces and understand how they are to be equipped, resupplied, and otherwise supported within the deployed chain of command. General requirements are determined by and accomplished through the local base IAW AMCPAM 36-4, *Air Base Operability Training*. These include: supply training, first aid/self-aid buddy care training, chemical warfare defense training, ability to survive and operate, small arms training, force structure and roles familiarization training, participation in local exercises, and safety. Some of this training will need to be accomplished initially to complete minimum training requirements. Recurring training is then used to requalify individuals on tasks. Accomplish recurring training IAW AF instructions, this chapter, and local policies.

6.4.1.1. Small Arms (Initial/Annual or Every 2 Years Recurring). Reference AFI 31-207, *Arming and Use of Force by AF Personnel*; and AFI 36-2226, *Combat Arms Program*.

6.4.1.2. Self-Aid and Buddy Care (Initial/Every 2 Years Recurring). Reference AFI 36-2238, *Self-Aid and Buddy Care Training*.

6.4.1.3. Nuclear, Biological, and Chemical (NBC) Defense Training (Initial/Annual Recurring). Reference AFMAN 10-100, *Airman's Manual*; AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards*; AFMAN 32-4005, *Personnel Protection and Attack Actions*; and Air Force Handbook (AFH) 32-4014 Volume 4, *USAF Ability to Survive and Operate Procedures in an NBC Environment*.

6.4.1.4. Law of Armed Conflict (Initial/Annual Recurring). Reference AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*.

6.4.1.5. Explosive Ordnance Recognition (Initial/Annual Recurring). Reference AFMAN 10-100 and AFH 32-4014, Vol 4.

6.4.1.6. Antiterrorism/Force Protection (Initial/Annual Recurring).

6.4.1.7. Pallet Build-Up/Cargo Preparation (Initial/Annual Recurring if Required). Reference AFI 10-403.

6.4.1.8. Hazardous Cargo Certification (Initial/Annual Recurring if Required). Reference AFI 10-403.

6.4.1.9. Local Deployment Procedures (Initial/Annual Recurring if Required). Reference AFI 10-403 and local deployment procedures. Local procedures enable members to direct or assist in the movement of personnel/equipment to a deployed location, use locally- or customer-devised

load plans and ensure unit equipment is included in loading/palletizing, and locate personnel loading and equipment storage areas and properly perform any required load-out procedures.

6.4.2. Technical Training Requirements (PHASE II). Reference AFI 36-2201 Volume 3, *AF Training Program on the Job Training Administration*; operator's manuals for respective TACMET; and respective Technical Orders (TOs) for TACMET. Phase II training provides the basic knowledge and skills needed to operate TACMET and communicate in a tactical environment. These requirements ensure personnel have the AF specialty code-related technical knowledge and skills needed to do their job effectively at deployed locations. As a minimum, mobility tasked weather personnel will be certified to perform airfield services (observing/"eyes forward") and mission support (staff, planning, and MEF) duties and be familiar with tactical communications (TACCOM) and TACMET. Tasked personnel, TACCOM, and TACMET are listed in each unit Designed Operational Capability statement. Units without (i.e., not tasked to provide or deploy with) listed TACMET are not required to find equipment nor train on it but instead will receive "just-in-time" training either en route or at the deployed location.

6.4.2.1. TACMET (Initial/Annual Recurring). Personnel must be able to properly use assigned TACMET to include set up, operation, troubleshooting, performing operator-level maintenance, packing/unpacking, and be knowledgeable of all safety hazards associated with equipment. In addition to the unit training requirements established by your host base mobility training plan, all personnel tasked to deploy must meet the following standards for using assigned TACMET while in mission oriented protective posture (MOPP) four. Conduct annual training on each of the following:

6.4.2.1.1. MOS. Personnel must be able to correctly use MOS equipment to obtain: temperature, dew point, wind speed/direction, cloud height readings, and altimeter. Personnel must also be able to determine their present latitude and longitude using the Global Positioning System. This must all be completed successfully within 10 minutes. This is a one-person task.

6.4.2.1.2. TMQ-53, TMOS. Personnel must be able to correctly use equipment to obtain pressure, wind speed and direction, temperature, dew point temperature, relative humidity, precipitation, surface visibility, cloud height, and lightning detection (direction and range). Personnel must be able to set up and obtain readings within 1 hour. This is a two-person task.

6.4.2.1.3. Generator. Personnel must be able to select the proper site to locate the generator, safely set up and power on the generator, perform user-level maintenance, and correctly use it to power the deployed site. They must also determine and establish fire points and properly store fuel cans. Reference users/owners manuals.

6.4.2.1.4. Backup/Outage Procedures. Reference AFMAN 15-129, local outage binder, system support plans, or maintenance agreements. Personnel will, if operator maintenance fails or is not possible, be able to (1) log out equipment, determine the impact of the outage, and report the outage to the responsible agency (as coordinated and arranged through local communications agency) and (2) institute backup procedures, where available, to maintain the operational status of the deployed weather team.

6.4.2.1.5. Electronic Staff Weather Officer Kit (ESK). Personnel will be trained on the use and care of ESK and have a working knowledge of all software applications. Personnel must be able to correctly set up and properly connect ESK to a telephone line or deployed communications systems within 30 minutes and be proficient with installed software. As a minimum, des-

igned individuals must be able to navigate and perform basic operations of the applications and be able to perform mission essential tasks using each application system. This is a one-person task.

6.4.2.2. TACCOM (Initial/Annual Recurring). In addition to the unit training standards established based on applicable TOs, operator manuals/handbooks, and the unit training plan, personnel tasked to deploy with or use applicable TACCOM must meet the standards listed below. Conduct annual training on each of the following:

6.4.2.2.1. N-TFS. AMC weather personnel who deploy with N-TFS client-server will have administrator privileges and be fluent in the setup, configuration, use, and troubleshooting of the system. Personnel will also be trained on how to properly load client software for the Local Weather Network System Local Operations Client, which provides observations, forecasts, messages, advisories, watches, warnings, etc., to computer terminals at the deployed location. Completion of N-TFS Version 3.1.1 Electronic Training Workbook and equipment certification checklist (located on the AFWA/DNT web site) along with periodic set up/teardown of the equipment will meet the intent of this requirement.

6.4.2.2.2. Very Small Aperture Terminal (VSAT)/T-VSAT. Reference AFMAN 15-129. CWTs are responsible for the operation, limited maintenance, basic configuration and administration of VSAT and T-VSAT ground stations. T-VSAT users will be required to set up the T-VSAT ground station and establish communication with the VSAT satellite. Users with a requirement to connect the T-VSAT ground station equipment with other networks will follow the procedures outlined in the users manual. These procedures include adding information to the VSAT or T-VSAT server to support delivery of products to this connected network. This is a two-person task.

6.4.2.2.3. Small Tactical Terminal (STT). Personnel must be able to correctly set up and operate all STT equipment within 2 hours. Personnel must properly load the most current ephemeris data, receive/display a copy of a satellite pass, and loop satellite pictures. Personnel must be able to perform operator maintenance IAW applicable operator manuals/TOs. This is a two-person task.

6.4.2.2.4. Joint Air Force and Army Weather Information Network (JAAWIN)/JAAWIN-S. Weather personnel with access to the Nonsecure Internet Protocol Router Network (NIPRNET)/Secure Internet Protocol Router Network (SIPRNET) must be able to use their ESK to access weather data/products and other information deemed relevant by unit leadership. Personnel must use JAAWIN to retrieve at least ten products. Of the ten products, the following must be downloaded and displayed, one product per type: observation, TAF, bulletin, specially produced bulletin, model graphic product, Relocatable Window Model product, and a satellite photo. Complete these tasks within 1 hour after establishing adequate communications. This is a one-person task.

6.4.2.2.5. Navy Joint Meteorological and Oceanographic Viewer (JMV). Personnel will train and become proficient in using JMV. Personnel must use JMV to retrieve at least one full upper air series, Skew-T, surface analysis, and prognosis. This must be accomplished within 2 hours after communications are established. This is a one-person task.

6.4.2.2.6. NIPRNET/SIPRNET. Reference AFI 33-103, *Requirements Development and Processing*, and Army FM 11-50, *Combat Communications Within the Division (Heavy and*

Light). Personnel will be familiar with requirements to gain network access. Units will require at least one NIPRNET connection, while SIPRNET access may be necessary depending on mission supported.

6.4.2.2.7. Phone Circuits. Reference AFI 33-103 and Army FM 11-50. Personnel will be familiar with requirements to obtain phone and modem circuits. Units will normally require at least one circuit for voice communication and, if network access is unavailable, one data quality circuit for modem connection.

6.4.2.2.8. Operate Assigned Communications Security (COMSEC) Equipment. Personnel must be able to power up, key, zeroize, safeguard, and set variables on the equipment. In addition, they must use the equipment to pass classified information with no risk of compromise. Equipment includes but is not limited to the KG-144, KY-57, KYX-15, KOI-18, KYK-13, and MYK7. Material may include key tapes.

6.4.2.2.9. Signal Operating Instruction (SOI). As determined by the commander, personnel will construct an SOI for each deployment and ensure all deployed personnel understand and use the procedures contained in the publication. Ensure security and safety are emphasized and all associated factors are addressed.

6.4.2.2.10. Backup/Outage Procedures. Reference AFMAN 15-129, local outage binder, system support plans, or maintenance agreements. If operator maintenance fails or is not possible, personnel will be able to: (1) log out equipment, determine the impact of the outage, and report the outage to the responsible agency (as coordinated and arranged through local communications agency) and (2) institute backup procedures, where available, to maintain the operational status of the deployed weather team.

6.4.3. Theater or Mission-Unique Training Requirements (PHASE III). Reference AFI 36-2201, Vol 3. Mobility personnel must be trained to meet theater or mission-unique requirements. This training includes area climatology, data sources, area forecast techniques, topography, etc. These unique requirements will be specified and handled by the local unit.

6.4.3.1. Weather-Unique and Tactical Weather Support Training (Initial/Recurring). Conduct annual training on each of the following tasks:

6.4.3.1.1. Observations. Evaluate meteorological conditions, encode, record, and disseminate observations in a deployed location/tactical environment using available tactical equipment. This task must be performed within 15 minutes with a maximum of one error. This is a one-person task.

6.4.3.1.2. Site Selection and Visibility Chart. Select a suitable observing point, determine location on maps, and construct a visibility chart. Personnel can use LRF binoculars, a topographic line map, and a magnetic compass to construct a visibility chart for a specified location within 30 minutes. This is a one-person task.

6.4.3.1.3. Chemical Downwind Messages (NBC). Personnel must encode/decode an effective chemical downwind message within 20 minutes with no errors. This is a one-person task.

6.4.3.1.4. Light, Solar/Lunar Data. All personnel must compute sunrise, sunset, moonrise, and moonset for a 1-month period for a given location within 10 minutes with no errors, using solar/lunar software. This is a one-person task.

6.4.3.1.5. Military Grid Reference System/WGS-84 Maps. Reference Army FM 21-26, *Map Reading and Land Navigation*. Personnel must be able to encode/decode using the reference system, locate their position on a map, and navigate to preselected coordinates. This is a one-person task.

6.4.3.1.6. Target Acquisition Weapons Software (TAWS). Personnel must be proficient in computing TAWS data for all sensor types (infrared [IR], television, and light amplification by stimulated emission of radiation [LASER], including night vision goggles). They must be able to demonstrate knowledge of the theory, application, and weather impacts on the weapons systems they routinely support. Personnel will be able to obtain the necessary targeting and profile information. They must be able to input this data and the proper weather information into the TAWS program. Personnel will be able to explain what the output means and determine whether the output is reasonable. This is a one-person task.

6.4.3.1.7. Mission and Aircrew Support. Personnel must be able to prepare MEFs and brief aircrews using all available meteorological products IAW AFMAN 15-129, AFMAN 15-135, and this publication. This is a one-person task.

6.4.3.1.8. "Eyes Forward." Personnel must be able to assess potential impact of current weather conditions on the local installation and demonstrate coordination with the applicable OWS regarding TAFs, advisories, warnings, and watches. Personnel must make initial contact and collaboration with the supported OWS within 2 hours of establishing weather communications. This is a one-person task.

6.4.3.1.9. Airfield Data. Personnel must be able to obtain airfield data. Given a Department of Defense (DOD) Flight Information Publication (FLIP) or Universal Transverse Mercator map, determine airfield latitude, longitude, magnetic declination, elevation, and runway orientation within 15 minutes with no errors. This is a one-person task.

6.4.3.1.10. First-in/OWS Backup Airfield Support. Personnel, using available climatological and topographical data, satellite imagery, and other meteorological information that would be available at a deployed site, must demonstrate the ability to make, encode, and disseminate a 24-hour forecast for the location within 1 hour. Personnel must also demonstrate the ability to issue, amend, verify, and cancel weather warnings and watches. This is a one-person task.

6.4.3.2. Familiarization Training (Initial/Recurring). In addition to equipment and technical training standards, personnel will be familiar with the following and conduct training on an annual basis:

6.4.3.2.1. Single-Station Analysis. Be knowledgeable of the techniques, diagrams, charts, and other information for performing single-station analysis and forecasting in the field. Use AFWA's Limited Data Forecasting Qualification Training Package available on the AFWA/DNT training web site.

6.4.3.2.2. Support Assistance Request (SAR). Personnel must be familiar with procedures for requesting deployment weather data support IAW AFMAN 15-129, Attachment 10.

6.4.3.2.3. Operations Plan/Deployment/Publications Briefing/Review (Initial/Recurring). Personnel must be knowledgeable of deployed operations, tasked theater(s), customer requirements, deployed responsibilities, weather force structure for the deployed area, and general movement operations and times. Personnel must also know OWS(s) responsible for AOR(s).

Ensure personnel know OWS phone numbers and NIPRNET/SIPRNET addresses. Coordinate site access (username and password) before deployment, if time allows. Structure training to establish the knowledge level required by duty position.

6.4.3.2.4. Deployment Area Climatology. Personnel must be familiar with supported unit requirements, theater weather support procedures, geography, and climatology.

6.4.3.2.5. Mission Execution Forecast Process (MEFP). Reference AFMAN 15-129. Develop and/or review tactical MEFP for AOR familiarization.

6.4.3.3. Theater Familiarization and General Information (Initial/Recurring). Personnel on deployment will be familiar with:

6.4.3.3.1. Frequency listings, as applicable (e.g., worldwide marine broadcast schedule), and local studies/terrain analyses.

6.4.3.3.2. The unique customs and courtesies of the nation(s) in AOR(s) to which they may deploy. Base level public affairs offices can provide literature regarding foreign customs and courtesies.

6.4.3.4. Deployment Kit Familiarization (Initial/Recurring). Personnel must be aware of material available in each applicable kit (MOS, ESK, etc.) to include contents, location, and usage of each. Personnel should perform an inventory to familiarize themselves with contents and the packing of a kit.

6.4.3.5. Site Selection and Deployed Operation Set Up (Initial/Recurring). Personnel must be able to determine a suitable location for weather operations. Although the weather unit is usually told where to set up, personnel should have the knowledge to determine if the site is unfavorable and then request another location or a slight adjustment of the assigned location. Determine if the site is defensible, free of hazards, and offers natural concealment. Ensure the site is not located in changeable terrain such as dry riverbeds that may flood or muddy inclines that may slide. Ensure the site is a safe distance away from other electronic emitters (e.g., defense radars) to prevent interference and/or possible destruction of electronic equipment (e.g., satellite receivers, weather radar, radios).

6.4.3.6. Safety (Initial/Recurring). Reference AFPD 91-2, *Safety Programs*; and AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*. Personnel will be aware of the hazards and unsafe conditions that are present in deploying to, operating in, and returning from a tactical situation. Review hazards inherent with the field site, its erection, and transportation (examples include tripping hazards at a mature site, the effects of fatigue and climatic injuries). Know preventative measures to remove or lessen the chance of personal injury.

6.4.3.7. Security (Initial/Recurring). Reference AFI 31-401, *Information Security Program Management*. Personnel will be familiar with:

6.4.3.7.1. General Knowledge. Be fully knowledgeable of the security program, how it's established, individual responsibilities, and any required actions.

6.4.3.7.2. Actions. Be able to safeguard, account for inventory, use, and destroy (both routine and emergency actions) classified material and controlled cryptographic items. These tasks are

applicable to all stages of the deployment (i.e., personnel must care for classified material from load-out, to set up, to return).

6.4.3.7.3. Operations. Be cognizant of enemy intercept capabilities and know what communication devices can be used and what information may be passed over them.

6.4.3.7.4. Essential Elements of Friendly Information (EEFI). Be knowledgeable of what constitutes EEFI and avoid “talking around” classified information, or establishing/using personal codes.

6.4.3.7.5. Local Procedures. Be aware of local security procedures such as sign/countersign/passwords, area entry procedures, and when classified or sensitive material may be displayed. Also, the unit must safeguard high-value equipment items and personal gear.

6.5. Personal Equipment. Personal equipment needs will vary depending on the type, length, or nature of the deployment. When deploying, AMC weather personnel will follow locally established personal equipment requirements.

6.6. Reporting Procedures. Units will report their training status via SORTS IAW AFI 10-201, AMC Supplement 1, *SORTS*.

6.7. Forms Referenced:

AF Form 357, **Family Care Certification**

AF Form 522, **USAF Ground Weapons Training Data**

AF Form 797, **Job Qualification Standard Continuation/Command JQS**

AF Form 1098, **Special Task Certification and Recurring Training**

AF Form 1297, **Temporary Issue Receipt**

AF Form 2583, **Request for Personnel Security Action**

AF Form 4005, **Individual Deployment Requirements**

DD Form 2, **Armed Forces of the US - Geneva Conventions ID Card**

DD Form 771, **Eyewear Prescription**

DD Form 93, **Record of Emergency Data**

PHS-731, **International Certificate of Vaccination**

ROGER A. BRADY, Maj Gen, USAF
Director of Operations

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

DOD *Flight Information Publication (FLIP)*

AFPD 10-2, *Readiness*

AFPD 15-1, *Atmospheric and Space Environmental Support*

AFPD 91-2, *Safety Programs*

AFH 32-4014 Volume 4, *United States Air Force (USAF) Ability to Survive and Operate Procedures in a Nuclear, Biological, and Chemical (NBC) Environment*

AFI 10-400, *Aerospace Expeditionary Force (AEF) Planning*

AFI 10-403, *Deployment Planning and Execution*

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

AFI 15-128, *Aerospace Weather Operations –Roles and Responsibilities*

AFI 15-180, *Air Force Weather (AFW) Standardization and Evaluation Program*

AFI 31-207, *Arming and Use of Force by Air Force (AF) Personnel*

AFI 31-401, *Information Security Program Management*

AFI 33-103, *Requirements Development and Processing*

AFI 36-2201, Vol 3, *AF Training Program on the Job Training Administration*

AFI 36-2226, *Combat Arms Program*

AFI 36-2238, *Self-Aid and Buddy Care Training*

AFI 36-2908, *Family Care Plans*

AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*

AFMAN 10-100, *Airman's Manual*

AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards*

AFMAN 15-129, *Aerospace Weather Operations–Processes and Procedures*

AFMAN 15-135, *Combat Weather Team (CWT) Operations*

AFMAN 32-4005, *Personnel Protection and Attack Actions*

AFMAN 37-139, *Records Disposition Schedule*

AFI 10-201, Air Mobility Command (AMC) Supplement 1, *Status of Resources and Training System (SORTS)*

AMCI 15-102 *AMC Weather Mobility Training Requirements*

AMCI 15-103, *Inspection Programs*

AMCI 90-201, *The Inspection System*

AMCPAM 36-4, *Air Base Operability Training*

AMCPAM 90-202, *Operational Readiness Inspection Guide*

Army FM 11-50, *Combat Communications Within the Division (Heavy and Light)*

Army FM 21-26, *Map Reading and Land Navigation*

Abbreviations and Acronyms

AAR—After Action Report

ACARS—Aircraft Communication, Addressing, and Reporting System

ACC—Air Combat Command

AEF—Aerospace Expeditionary Force

AEW—Air Expeditionary Wing

AF—Air Force

AFB—Air Force Base

AFH—Air Force Handbook

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFOSH—Air Force Occupational and Environmental Safety, Fire Protection, and Health

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFW—Air Force Weather

AFWA—Air Force Weather Agency

AFWSEP—Air Force Weather Standardization and Evaluation Program

AMC—Air Mobility Command

AMCI—Air Mobility Command Instruction

AMD—Air Mobility Division

AMOCC—Air Mobility Operations Control Center

AMCPAM—Air Mobility Command Pamphlet

AMS—Air Mobility Squadron

ANG—Air National Guard

AOCC—Air and Space Operations Center

AOR—Area of Responsibility
ART—Aerospace Expeditionary Force Reporting Tool
C2—Command and Control
CAMS—Core Automated Maintenance System
CMEF—Controlling Mission Execution Forecast
COMSEC—Communications Security
CONOPS—Concept of Operations
CONUS—Continental United States
CWT—Combat Weather Team
DD/DOD—Department of Defense
DIRMOBFOR—Director of Mobility Forces
DZ—Drop Zone
EEFI—Essential Elements of Friendly Information
EORI—Expeditionary Operational Readiness Inspection
ESK—Electronic Staff Weather Officer Kit
FA—Forecaster Apprentice
FLIP—Flight Information Publication
FM—Flight Manager
FOC—Full Operational Capability
FOUO—For Official Use Only
HALO—High Altitude Low Open
IAW—In Accordance With
ID—Identification
IFM—Integrated Flight Management
IG—Inspector General
IR—Infrared
JAAWIN—Joint Air Force and Army Weather Information Network
JAAWIN-S—Secure Joint Air Force and Army Weather Information Network
JMV—Joint Meteorological and Oceanographic Viewer
LASER—Light Amplification by Stimulated Emission of Radiation
LLWS—Low Level Wind Shear
LOI—Letter of Instruction

LPW—Large Package Week
LRF—Laser Range Finder
LWU—Lead Weather Unit
M21—Mobility for the 21st Century
M2K—Mobility 2000
MAF—Mobility Air Forces
MEF—Mission Execution Forecast
MEFP—Mission Execution Forecast Process
MOA—Memorandum of Agreement
MOPP—Mission Oriented Protective Posture
MOS—Meteorological Observing System
NBC—Nuclear, Biological, and Chemical
NBCC—Nuclear, Biological, Chemical, and Conventional
NCOIC—Noncommissioned Officer in Charge
NE—Northeast
NIPRNET—Nonsecure Internet Protocol Router Network
NLT—No Later Than
NOTAM—Notice to Airmen
N-TFS—New-Tactical Forecast System
OIC—Officer in Charge
ORM—Operational Risk Management
OSS—Operations Support Squadron
OWS—Operational Weather Squadron
PAR—Personnel Availability Roster
PMSV—Pilot-to-Metro Service
PRF—Personnel Readiness Folder
SAR—Support Assistance Request
SAV—Staff Assistance Visit
SIGMET—Significant Meteorological Advisory
SIPRNET—Secure Internet Protocol Router Network
SITREP—Situation Report
SOI—Signal Operating Instruction

SORTS—Status of Resources and Training System

STT—Small Tactical Terminal

SWO—Staff Weather Officer

TACC—Tanker Airlift Control Center

TACCOM—Tactical Communications

TACMET—Tactical Meteorological Equipment

TAF—Terminal Aerodrome Forecast

TALCE—Tanker Airlift Control Element

TAWS—Target Acquisition Weather Software

TDY—Temporary Duty

TFS—Tactical Forecast System

TMOS—Tactical Meteorological Observing System

TO—Technical Order

T-VSAT—Tactical Very Small Aperture Terminal

UDM—Unit Deployment Manager

US—United States

USAF—United States Air Force

USAFR—United States Air Force Reserve

VSAT—Very Small Aperture Terminal

WF—Weather Flight

Terms

Aerospace Expeditionary Force (AEF)—An organization comprised of aerospace capabilities that provides tailored force packages to meet theater combatant commanders' needs across the full spectrum of military operations.

Airfield Services—Core function within weather flights (WFs) where operational meteorologists and weather technicians provide direct support to air traffic control and flight operations for the airfield, landing zone, or assault strip.

Expeditionary Operational Readiness Inspection (EORI)—Air Mobility Command (AMC) concept for conducting assessments of command readiness using four inspection vehicles: real-world operations, planned deployments, exercises, and Inspector General (IG)-generated exercises.

Eyes Forward—Concept of operations (CONOPS) where a WF provides enhanced meteorological watch support to their servicing operational weather squadron (OWS). Constant, meaningful, and timely communications with the servicing OWS will fuse the meteorological watch with the mission metwatch to provide superior support to the installation.

Mission Services—Core function within a WF where operational meteorologists and weather technicians

provide mission execution forecasts (MEFs) for the operational decision cycle of their host or parent unit function as a mission weather element.

Attachment 2**AFTER ACTION REPORT (AAR) FORMAT**

A2.1. This is a guide for items to be included in AAR. The focus of AARs should be on providing useful information for future deployers and planners. It should include information on problems to be resolved and suggested improvements.

A2.2. Deployment. Did you receive a predeparture briefing? Was it adequate? Were travel orders received in time? Were there any unnecessary delays en route? How did the redeployment go?

A2.3. Position Held While Deployed. What duty position did you hold (forecaster, observer, officer in charge [OIC], noncommissioned officer in charge [NCOIC])?

A2.4. Support Provided. What kind of service(s) did you provide (aircrew briefings, terminal aerodrome forecast [TAF], observations, weather warnings, weather advisories, electro-optical tactical decision aid, climatology, or any other service that you consider to be pertinent)?

A2.5. Weather and Communication Equipment Used. What type of weather equipment did you use? Was your weather equipment adequate? What communications infrastructure was in place? How many phone lines were available, Internet capability, satellite communications, etc.? Was the available communications infrastructure adequate?

A2.6. Manning. What did your weather team consist of (example: 1/2/2, one officer, two forecasters, and two observers)? What hours did you work? How long was the temporary duty (TDY) (60, 90, 120 days)? Was the manning adequate?

A2.7. Facilities. Describe location and conditions of work, living, and dining facilities. Were facilities and conditions adequate?

A2.8. Host Nation Support Provided. What type of support did you receive from the host nation? Was it adequate?

A2.9. Support Provided by Centralized Facilities. What type of products did the operational weather squadron (OWS) or Air Force Weather Agency (AFWA) provide? Were they adequate?

A2.10. Lessons Learned/Problem Areas. Provide any lesson learned or problem area that you would like to see fixed/corrected. What would improve weather support?

Attachment 3

PERSONNEL ACTIVITY REPORT (FOR OFFICIAL USE ONLY [FOUO])
(Example)

Podunk AFB 271 OSS/OSW				DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	Comments
DAFSC	AFSC	AEF	NAME													
OFFICERS																
15W3	15W3	2	Maj Arterj	█	█	█										1
ENLISTED																
1W091A	1W071A	6	MSgt Toughou	█	█	█	█	█	█	█	█	█	█	█	█	2
1W071A	1W071A	2	TSgt Softee	█	█	█	█	█	█	█	█	█	█	█	█	3
			Mr. Retired	█	█	█	█	█	█	█	█	█	█	█	█	4
1W051A	1W051A	6	SSgt Early													5
1W051A	1W051A	6	SSgt Tardy	INBOUND	█	█	█	█	█							6
1W051A	1W051A		VACANT													7
1W051A	1W051A	2	SSgt Road													8
1W051A	1W051A	2	SrA Changer							█	█	█	█	█	█	9
1W051A	1W051A		VACANT													10
1W051A	1W051A	6	AIC Shocked													11
1W051A	1W051A	6	AIC Scooby	INBOUND	█	█	█	█	█							12
1W031A	1W031A	2	AIC Newby	█	█	█	█	█	█							13
1W031A	1W031A		DELETED													14
1W031A	1W031A		DELETED													15
				DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
				█												
				Current or programmed TDY		█		Ineligible for TDY		As of: 1 Dec 02						
COMMENTS																
1. TDY to Scott AFB Dec 12-16				5		9. Medical Waiver Jun -Dec 03		13. Will Complete CDCs Mar 03								
2. Upgrade to 1W091A E-8 Jul 03				6. Inbnd Dec 22, Trng til mid-Mar		10. No replacement inbound		14. Apr 03 - Position Deleted								
3				7. No replacement inbound		11		15. Apr 03 - Position Deleted								
4. Term hire until Jun 04				8		12. Inbound Jan 21, Trng til mid-Apr										

Attachment 4

SAMPLE DEPLOYMENT ASSIGNMENT MEMORANDUM

(Organizational Letterhead)

(Date)

MEMORANDUM FOR OFFICE SYMBOL

ATTN: SSGT JEFF JONES

FROM: XXX OSS/OSW

SUBJECT: Aerospace Expeditionary Force (AEF)/Air Expeditionary Wing (AEW)/Enabler Bin
Selection Notification

1. You are assigned to an AEF/AEW/Enabler Bin (*circle one*) deployment position for our unit. Being assigned to this position, you are responsible for accomplishing certain actions to ensure you are ready for your on-call timeline.
2. You are assigned to AEF _____/AEW _____/Enabler Bin (*circle one*).
3. Your on-call AEF/AEW/Enabler Bin (*circle one*) timeline is:
 - a. On-Call: FROM: _____ TO: _____
 - b. Stand down: FROM: _____ TO: _____
 - c. Normal training/exercise: FROM: _____ TO: _____
 - d. Spin-up/deployment preparation: FROM: _____ TO: _____
4. AFI 10-403, *Deployment Planning and Execution*, provides information on individual deployment training requirements, which must be current for the on-call time frame. It is critical that your training due dates align with AEF tasking timelines. Your 60-day spin-up/deployment preparation phase should concentrate on AEF deployment training. Coordinate this training with your Unit Deployment Manager (UDM) or training manager.
5. Leave Policy:
 - a. Normal training/exercise/stand down: Leave during this period is handled IAW squadron policy.
 - b. Spin-up/Deployment preparation: Leave will be authorized only on a case-by-case basis. Supervisors will not approve leave without commander approval.
 - c. On-call: Only emergency leave will be authorized.
 - d. En route to deployed location: Leave is authorized, requires commander approval.

6. AFI 10-400, *AEF Planning*, provides policy and guidance for AEFs. It is critical that you understand the AEF concept. You play a vital role in AEF. Your participation and full understanding of the policies, procedures, and requirements increases your ability to support the Air Force mission.

7. Upon acknowledging receipt of this letter, you are assigned to the unit deployment program. Contact the UDM, 1st Lt Smith, or NCO, TSgt Green, to start your deployment training program or to work on the package explaining why you are not eligible for deployment. You will acknowledge receipt of this letter within 5 duty days.

JOHN J. DOE, Capt, USAF

Unit Commander

1st Ind, Office Symbol

(Date)

MEMORANDUM FOR OFFICE SYMBOL OF UNIT CC

I acknowledge receipt of the AEF/AEW/Enabler Bin selection notification. I will comply with all required Unit/AFSC JQS/Deployment Readiness/AEF deployment location specific training requirements within the established time restrictions. I will educate myself on the required AEF guidelines and policies. I will address all questions in a timely manner to ensure I do not hinder my tasking requirement. If for any reason I become non-deployable, I will notify my UDM immediately.

MARY S. JONES, Amn, USAF

Weather Specialist