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439TH AIRLIFT WING

439TH AIRLIFT WING INSTRUCTION
15-101

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Weather

WEATHER SUPPORT

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This instruction implements Air Force Policy Directive (AFPD) 15-1, *Weather Operations,* 14 November 2019; Air Force Manual (AFMAN) 10-206, *Operational Reporting (OPREP)*, 18 June 2018, Air Force Instruction (AFI) 15-128, *Weather Force Structure, 21 June 2019*; Department of the Air Force Instruction (DAFI) 10-2501, *Emergency Management Program*, 16 October 2023; AFMAN 15-111, *Surface Weather Observations*, 12 March 2019; AFMAN 15-124, *Meteorological Codes*,16 January 2019; Department of the Air Force Manual (DAFMAN) 15-129, *Air and Space Weather Operations*, 7 September 2023. This instruction establishes responsibilities and weather support requirements during daily operations. It also provides general information for weather services including weather observations, forecasts, warnings, watches, advisories, space weather data, information dissemination, and base-wide reciprocal support. It applies to units assigned or attached to Westover Air Reserve Base (WARB). Ensure that all records created because of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, 28 July 2021, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This publication has been revised. Updates to **Chapter 1**, General Information; **Chapter 2**, Airfield Services; **Chapter 2**.2. Surface Weather Observations; **Chapter 3**, Mission Services; **Chapter 6**.2. WARB WF Support; 6.3. Severe Weather Action Plan Procedures; **Chapter 7**, Reciprocal Support and Attachments **1**, **2**, **3** and **5**. Update Automated Meteorological Observing

System (AMOS) to Automated Meteorological Station (AMS) and the Weather Station Manager to the Weather Flight Chief.

Chapter 1

GENERAL INFORMATION

1.1. General. The 439th Operations Support Squadron (439 OSS) Weather Flight (WF) provides and/or arranges for weather support to the 439th Airlift Wing (439 AW) and other units assigned to WARB. The WF will also provide or arrange for day-to-day weather support to Department of Defense (DoD) civilian and contractors who request weather information to support government-funded, on-base projects.

1.1.1. The WF is a DoD civilian government operation.

1.1.2. The WF is the focal point for all weather services. This instruction will be reviewed annually and updated as required.

1.1.3. During WF closure periods, the 15th Operational Weather Squadron (15 OWS) at Scott AFB, IL, monitors WARB for unplanned weather watches, warnings, and advisories and recalls an on-call WARB Meteorological Technician when required.

1.2. Background.

1.2.1. The 15 OWS provides the regional operational-level weather products and information to Air Force and Army units in the northeast region of the Continental United States (CONUS).

1.2.2. The WF produces and issues local forecasts products based on airfield and customer support.

1.3. Responsibilities. The WF produces and issues the following weather products in support of WARB operations.

1.3.1. The airfield Terminal Aerodrome Forecast (TAF) and provides amendments in accordance with DAFMAN 15-129.

1.3.2. All forecast and observed weather watches, warnings and advisories (WWA).

1.3.3. Augments and provides back-up to the airfield weather observations provided by the AMS during controlled airfield hours in accordance with AFMAN 15-111 and local policy.

1.3.4. Tailored Mission Execution Forecasts (MEF) for all WARB C5 missions and training missions.

1.3.5. Weather briefing support to transient aircraft upon request.

1.3.6. Other tailored forecast and briefing support for WARB customers and leadership.

1.3.7. The 15 OWS will take over TAF and WWA responsibilities in the event a major communication outage prevents the WF from monitoring, accurately producing, and issuing the products. Aircraft mission weather briefing support may also be requested. Specifics on Continuity of Operations (COOP) are outlined in the 15 OWS and WARB Installation Datasheet Page (IDP) hosted on the 15 OWS website at **https://15ows.us.af.mil/tech_ref/idp/index.cfm?icao=KCEF**

1.4. Duty Priorities.

1.4.1. WF duty priorities are listed in **Table 1.1**. WF Meteorological Technicians will use good judgment and Operational Risk Management (ORM) in complying with these duty priorities, especially when there is imminent danger to life and/or property.

Table 1.1. WARB Weather Station Duty Priority Listing.

WARB Weather Station Duty Priority Listing	
Please understand mission critical information involving safety and resource protection may be a higher priority that your immediate request.	
Priority	**Duties**
1	Perform Emergency War Order (EWO) Taskings
2	Respond to Aircraft and Ground Emergencies
3	Issue/Disseminate Tornado Warnings
4	Issue/Disseminate Observed Lightning Warnings
5	Respond to Urgent CBRNE Weather Support
6	Respond to Pilot-to Metro Service (PMSV) Radio Call
7	Augment/Backup AMS per AFMAN 15-111 and Local Policy (SOP AOS-01)
WARB Weather Station Duty Priority Listing Continued	
Priority	**Duties**
8	Relay Urgent PIREPs and AIREPs
9	Issue/Disseminate other Warnings, Advisories, and Lightning Watches
10	Conduct Severe Weather Action Plan (SWAP) Operations
11	Issue/Disseminate TAF and TAF Amendments
12	Disseminate PIREPs and AIREPs
13	Issue/Disseminate Watches
14	Provide MEFs and Other Flight Weather Briefings, Including Transient Aircrew Briefs
15	Provide METWATCH (monitor weather conditions and provide updates as required)
16	Provide MISSIONWATCH (monitor mission weather conditions and provide updates) for WARB based missions
17	Provide non-mission essential weather support for WARB agencies and Department of Defense contractors

1.5. Operational Hours. A Meteorological Technician will be on duty whenever the airfield is controlled by the WARB Air Traffic Control Tower (TWR) (i.e., controlled airfield hours) per AFMAN 15-111.

1.5.1. Customer services are normally provided from 0600 to 2300 Local (L) Monday through Friday, 0600 to 1700L Saturdays, and 1000 to 2100L Sundays except 0600 to 2100L Unit Training Assembly (UTA) Sundays. Closed holidays.

1.5.2. A Meteorological Technician will be on duty for required WWAs outside of normal hours for safety and resource protection.

1.5.3. Meteorological Technicians performing these services can be contacted at DSN 589-2879 or Commercial (413) 557-2879.

1.5.4. Pilot weather services outside of normal operating hours are provided by the 15 OWS, DSN 576-9755 or Commercial (618) 256-9755. Requests for locally provided pilot services outside normal hours forwarded to the Weather Flight Chief as far in advance as possible.

1.6. Assumptions, Shortfalls and Limitations.

1.6.1. Assumptions. Weather support can only be provided if the appropriate facilities, funding, communications, personnel, and indigenous support (e.g. power, water, etc.) are available.

1.6.2. Shortfalls. Some services may not always be available due to station evacuation or other higher priority missions or duties (e.g., out of station briefings).

1.6.3. Limitations. When augmenting, surface weather observing has buildings obstructing the view of the horizon from south through southwest and to some extent west through north.

1.7. Meteorological Equipment. Meteorological Technicians must have computer and Local Area Network (LAN) access to view all meteorological observing equipment and forecast tools (i.e., observing sensors, radar, satellite, etc.).

1.7.1. The primary sensor group is located on the approach end of Runway 23, approximately 1097’ from the threshold and 513’ off the runway.

1.7.1.1. The 23 end primary sensors include wind, ice accretion, cloud height, visibility/runway visual range (RVR), precipitation identification, temperature/relative humidity, ambient light, rain bucket (tipping bucket), lightning detection, and pressure.

1.7.2. The discontinuity sensor group is located on the approach end of Runway 05, approximately 2130’ from the displaced threshold and 87’ off the runway.

1.7.2.1. The 05 end discontinuity sensor includes wind, cloud height and visibility/runway visual range (RVR).

1.7.3. Another discontinuity sensor group is located on the approach end of Runway 33, approximately 1033’ from the threshold and 572’ off the runway.

1.7.3.1. The 33 end discontinuity sensor includes wind and visibility/RVR.

1.7.4. Runway 15 does not have any weather sensors.

1.8. Communications Equipment. Just as vital as meteorological equipment, communications equipment allows the WF to view the meteorological equipment and pass on information to the customers. The following systems are the backbone of the WF communications network.

1.8.1. Local Area Network (LAN). The WF relies heavily on the LAN to receive all forecast tools and to operate all weather systems. This improves the timeliness and accuracy of weather intelligence to our customers in addition to safety and resource protection.

1.8.2. Joint Environmental Toolkit (JET). This is the primary system for disseminating weather forecasts, observations, warnings, watches, and advisories. This system relies on the LAN, the local JET Sensor Collection Appliance (SCA), and the 15 OWS JET server to function properly.

1.8.3. Pilot-to-Metro Service (PMSV) Radio. The PMSV Ultra High Frequency (UHF) radio at 274.75 Megahertz (MHz) allows the WF to communicate with aircrews and tower personnel.

1.8.4. Phones/Hotlines. Phones and hotlines primarily serve as a back-up system for disseminating critical, time-sensitive information rapidly. The phones/hotlines also rely on the LAN.

1.8.5. Cell Phone and Hot Spot. It is vital that the WF have a cell phone for back-up to communicate with customers and to be able to reach out to the 15 OWS to assist with weather information during major network/phone outages. Weather operations must continue despite outages for safety and resource protection in addition to the fact that airfield and aircraft operations will continue. A hot spot will allow for some weather information to be available and allow the WF to connect to critical weather systems.

1.9. Alternate (Back-up) Operating Location (AOL). In the event of a building evacuation, the WF will move to building 7073, Hangar 5, room 108 to continue operational support. If Hangar 5, Room 108 is not available or unsuitable for use, the WARB Fire Station, building 7084, or the Air Traffic Control Tower may be used as alternate locations. WF Meteorological Technicians will resume operations at the AOL using Standard Operating Procedures (SOPs) and back-up equipment, as required. An observation will be disseminated within 15 minutes of relocating to the AOL if augmenting. Weather services from the AOL may be limited.

1.9.1. If electrical power/LAN communications are still available, weather sensor information will be accessible. If electrical power/LAN communications are impacted/disrupted, back-up equipment will be used as needed. The wind and pressure element of the observation will be estimated whenever back-up equipment is in use.

1.9.2. The WF will not have access to their local Doppler/WSR-88D radar software, Gibson Ridge, for storm interrogation and PMSV radio services will not be available.

1.9.3. Dissemination of longline observations will be through Joint Environmental Toolkit (JET). If unable to upload through JET, Air Force Weather Web Services (AFW-WEBS) will be used as the primary back-up.

1.9.4. Local dissemination of observations, watches, warnings, and advisories will be done via telephone if normal dissemination through JET is unavailable.

1.10. The National Weather Service (NWS). The National Weather Service (NWS) is the agency with the primary responsibility for providing government weather services to non-Department of Defense agencies and the general public. Any inquiries to gather weather information will be forwarded to the local NWS office or to 439th Airlift Wing, Public Affairs (439 AW/PA) for review and approval.

1.11. Aircraft or Ground Mishaps. The WF has a role when advised of an emergency or mishap. The WF will ensure applicable weather data used in the development of any product and/or service provided is saved for an investigation (e.g., Weather Products (WP), MEF, space weather products, radar, briefing slides, etc.) The WF will save data to fully reconstruct the environmental conditions involved. These steps include:

1.11.1. Follow local data save procedures using JET.

1.11.2. Save radar imagery.

1.11.3. Complete a data save using the 15 OWS website to include all forecast products and model data.

1.11.4. If the WF used products from other OWSs to support the mission involved, the WF must coordinate with all applicable OWSs to initiate a data save.

1.11.5. Coordinate with the 557 WW at DSN 271-2586 to save any applicable data and products not available locally or on the 15 OWS website data save.

1.11.6. If an aircraft mishap is involved, ensure all the procedures of DAFMAN 15-129 are followed.

1.11.7. Provide all necessary assistance as required by 439 AW Mishap Investigation Plan.

1.11.8. Complete a “save” of the FMQ-19/JET one-minute observations.

Chapter 2

AIRFIELD SERVICES

2.1. General. Airfield services include those actions that affect the WARB aerodrome (defined as within 5 nautical miles (NM) of the center of the airfield). Examples include surface weather observations, TAF and resource protection (weather watches, warnings, and advisories). Resource protection will be addressed separately in **Chapter 6**.

2.2. Surface Weather Observations. Surface weather observations are taken, encoded, recorded, and disseminated in accordance with AFMAN 15-111 and local policy established in this publication.

2.2.1. Automated Meteorological Station (AMS). WARB is an automated weather observing station equipped with an AMS. The AMS in use is the Air Force's FMQ-19 system.

2.2.2. Official Observing Site. The official observing site is the sensor group and will be determined by the active runway in use. When augmenting, the official observing site is located on the northeast corner of building 1610 by the manual rain gauge.

2.2.3. Types of Surface Weather Observations.

2.2.3.1. Aviation Routine Weather Report (METAR) observations are taken and disseminated every hour between 55 and 59 minutes after the hour.

2.2.3.2. Aviation Selected Special Weather Report (SPECI) observations are taken whenever certain specified criteria are observed per the AFMAN 15-111. Additional SPECI criteria for ceiling, visibility, and runway visual range (RVR) are determined specifically for WARB based on flying information published in the Flight Information Publication (FLIP), Notice to Airmen (NOTAM), and in AFMAN 11-2C-5V3_439AWSUP, *C-5 Operations Procedures*, 17 April 2020. See **Attachment 2** for WARB SPECI criteria. **Note:** While **Attachment 2** lists WARB SPECI criteria at the time of publishing this instruction, SPECI criteria is subject to change. Contact the WF for the current SPECI criteria.

2.2.4. Augmentation. Augmentation is the process of having position qualified, certified Meteorological Technicians manually add or edit data to an observation generated by a properly sited AMS. Meteorological Technicians will perform augmentation in accordance with the AFMAN 15-111 and local supplementing criteria outlined in this publication. The two augmentation processes used are "supplementing" and "back-up".

2.2.4.1. Local Supplementing Procedures. Local supplementing procedures will ensure observations are monitored for the mandatory and local supplementing criteria and Meteorological Technicians are prepared to supplement when these conditions occur during controlled airfield hours. This will result in more accurate and timely observations that will enhance mission safety and success.

2.2.4.1.1. When two Meteorological Technicians are on duty, all observations will be supplemented to ensure accuracy of all elements unless the workload does not allow enough time and the AMS is handling the situation adequately. Supplementation will always occur for the mandatory and/or local supplementing criteria listed below in paragraphs **2.2.4.2** and **2.2.4.3**. A Basic Weather Watch (BWW) will be provided.

2.2.4.1.2. When one Meteorological Technician is on duty, all observations will be supplemented for accuracy unless the workload does not allow enough time and the AMS is handling the situation adequately. At a minimum, supplementation and a BWW will still occur for all the mandatory and/or applicable local supplementing criteria listed below in 2.2.4.2 and

2.2.4.2. Mandatory Supplementing. Manually adding meteorological information to an automated observation that is beyond the capabilities of the AMS to detect and/or report. The criteria below will be supplemented during controlled airfield hours. However, supplementation for tornadic activity (tornado, funnel cloud, waterspout) will also occur during non-controlled airfield hours. Per the AFMAN 15-111, Meteorological Technicians will supplement for the following and provide a BWW when the following conditions are forecast to occur within one hour:

2.2.4.2.1. Tornado, Funnel Cloud, Waterspout

2.2.4.2.2. Hail

2.2.4.2.3. Volcanic Ash

2.2.4.2.4. Ice Pellets

2.2.4.2.5. Freezing Precipitation

2.2.4.2.6. Tower Visibility During Controlled Airfield Hours

2.2.4.2.7. Mitigate False Freezing Precipitation Reports During Non-controlled Hours. Due to deficiency reports on false freezing precipitation, AFMAN 15-111 dictates that false or the potential of false freezing precipitation reports will be mitigated during non-controlled airfield hours when the temperature is, or is forecast, to be between 0C and 3C.

2.2.4.2.7.1. The WF will coordinate the disabling of the FMQ-19's ice accretion (freezing precipitation) sensor with the 15 OWS prior to closing. This will be done for situations in which false freezing precipitation is occurring or is anticipated to occur during the WF closure period and the risk is acceptably low that freezing precipitation will occur.

2.2.4.2.7.2. If the sensor cannot be disabled or the risk is too high to disable it, the WF will back-up the freezing precipitation sensor during non-controlled hours to prevent false freezing precipitation reports from being disseminated, per AFMAN 15-111. WF personnel may be recalled in to mitigate suspected false freezing precipitation reports.

2.2.4.3. Local Supplementing Criteria. Based on ORM and known local weather situations particular to WARB, the following are limitations of the automated equipment to accurately report and will be supplemented during controlled airfield hours unless otherwise noted. These situations could adversely impact flight/ground operations, safety, or pose a threat to mission success.

2.2.4.3.1. Shallow Fog (MIFG)/Fog Patches (BCFG). This is a frequent occurrence near the Runway 23 sensor group and on occasion can affect the Runway 05 and 33 sensor groups. This will cause the sensor to falsely report the prevailing visibility

below 3 SM and, on occasion, below 1 SM when the actual prevailing visibility is +7 SM. Note: RVR in these situations will continue to be reported despite supplementation of the visibility. RVR is not an augmentable parameter per AFMAN 15-111.

2.2.4.3.2. Sector Visibility/Visibility Lower. The vegetation near the north through east areas of the airfield can create fog or fog banks that are not handled correctly by AMS. The fog can either go unreported or may affect the Runway 23 sensor group and drastically misrepresent the prevailing visibility. Note: RVR in this situation will be reported despite supplementation of the visibility. RVR is not an augmentable parameter per AFMAN 15-111.

2.2.4.3.3. Thunderstorms. Due to limitations of AMS's lightning detection system, thunderstorms and, therefore, lightning could be occurring and not detected or reported by AMS. For safety, supplementation will occur when Meteorological Technicians are issuing Observed Lightning Warnings for within 5 NM and 10 NM of WARB when observing thunderstorms via manual methods and/or lightning is being detected on other lightning detection systems. Supplementation for thunderstorms will occur whenever a Meteorological Technician is on duty during controlled and non-controlled airfield hours.

2.2.4.3.4. Significant Cloud Types - Cumulonimbus (CB). Encoding CB is operationally significant to local flying operations, especially when local training missions are in the pattern. They will be reported when thunderstorms are not already being reported per AFMAN 15-111. This will be supplemented for unless the workload does not allow enough time to monitor for this remark.

2.2.4.3.5. Drizzle. Drizzle is not always detected by AMS and could have an impact on the visibility, which can also go undetected, as well as the runway condition.

2.2.4.3.6. Correct Precipitation Type or Mixed Precipitation. There are situations, especially in the winter, where AMS will not report the correct type of precipitation that is occurring and is not capable of reporting mixed precipitation. This often occurs when the temperature is around 32F. This may be significant to operations and forecasts (i.e., icing forecasts, warnings, snow/ice removal, etc.).

2.2.4.3.7. Clouds and Visibility. Due to some limitations on cloud and visibility sensing with AMS, certain situations may require supplementation when flight safety and mission impact are at risk, especially when conditions are below 3000 FT and 3 SM. WARB SPECI criteria will be considered when augmenting for clouds and visibility.

2.2.4.3.8. Rapidly Changing Conditions. Due to AMS's time averaging methods, rapidly changing conditions are not handled well, and a significant reporting delay occurs. This could adversely impact flight operations.

2.2.4.3.9. Unknown Precipitation (UP). Due to the frequency that AMS reports UP, especially in the winter, supplementation will occur to report the actual precipitation that is occurring for operational and forecasting purposes.

2.2.4.3.10. False Precipitation Reports Due to Bugs/Bees. This is a frequent occurrence spring through fall. Bugs/bees will cause false reports of drizzle, rain, or UP to occur and will be supplemented for operational and forecasting purposes.

2.2.4.3.11. Hail During Non-Controlled Airfield Hours. The WF will supplement for hail during non-controlled airfield hours when on duty for the Severe Weather Action Plan (SWAP) procedures. This will ensure documentation and accurate verification for any hail related damage sustained by WARB.

2.2.4.3.12. Precipitation Amounts. The WF will supplement liquid precipitation amounts when AMS values are unrepresentative due to its limitations. This can occur during windy conditions, isolated local events, winter precipitation, and when false reports of precipitation occur. This will ensure accuracy of local climatological records that are used by various base agencies.

2.2.4.3.13. Snow Increasing Rapidly (SNINCR). SNINCR reporting is significant for airfield operations, WARB local Snow and Ice Plan Forecasts, and heavy snow warning potential. This will be supplemented for unless workload does not allow enough time to monitor for this condition.

2.2.4.3.14. Partial Obscuration. Due to unusual fog situations, a partial obscuration may more accurately describe the situation. It may also be used to report smoke surface based or aloft.

2.2.4.3.15. Anything else in the Meteorological Technician's opinion that may affect flight/ground operations, safety, and/or any mission.

2.2.4.4. Back-up. A method of manually providing meteorological data and/or dissemination to an AMS observation when the primary, automated method is not operational or unavailable due to sensor and/or communication failure. The WF will provide the same reporting capability as that provided by the AMS using back-up equipment and manual observing methods when applicable. Meteorological Technicians must maintain situational awareness of current weather conditions and AMS observations.

2.2.5. Cooperative Weather Watch. A process is in place to allow WARB TWR personnel and flying units to report changes in weather conditions or significant meteorological phenomena to the Meteorological Technician at DSN 589-2879 or Commercial (413) 557-2879. See **Chapter 7** for details.

2.3. Terminal Aerodrome Forecasts. WARB TAFs are produced and disseminated by the WARB WF. TAFs are valid for 30 hours and apply to the area within 5 NM of the center of the WARB aerodrome. Individual elements in the TAF will be forecast, as possible.

2.3.1. TAF specification and amendment criteria are listed in DAFMAN 15-129, Table 5.1 and Table 5.3. Ceiling and visibility TAF amendment criteria specific to WARB are listed below in Tables **2.1** and **2.2**.

Table 2.1. WARB Ceiling and Visibility Amendment Criteria.

WARB Ceiling and Visibility Amendment Criteria
Ceiling or Visibility observed or expected to decrease to less than, or if below, increase to equal or exceed:

Ceiling (Feet)	Visibility	Amendment Category
GTE 2000 FT	GTE 3 SM (4800 Meters)	E
GTE 1000 FT	GTE 2 SM (3200 Meters)	D
GTE 700 FT	GTE 2 SM (3200 Meters)	C
WARB Ceiling and Visibility Amendment Criteria Continued		
GTE 200 FT	GTE 1/2 SM (800 Meters)	B
LT 200 FT	LT 1/2 SM (800 Meters)	A

Table 2.2. WARB TAF Issue Times.

WARB TAF Issue Times in Zulu (Z)	
During Daylight Savings Time (DST)	00Z, 12Z, 17Z
During Eastern Standard Time (EST)	01Z, 13Z, 18Z

2.4. Pilot to Metro Service (PMSV) Support. The WF operates a PMSV on the UHF frequency of 274.75 MHz. It is the primary means of disseminating weather information to airborne aircraft. A daily radio check will be performed no later than 0800L. Back-up for this system is via the WARB TWR.

2.5. Emergency Management Support. The WF will provide climatological data and specialized support to WARB Emergency Management (CEX) to include Chemical Downwind Messages (CDM) and/or Effective Downwind Messages (EDM) or any weather data necessary to calculate toxic corridors. See **Chapter 6** for more details.

Chapter 3

MISSION SERVICES

3.1. General. Mission services are those products providing weather input affecting each customer's daily mission. The primary products for accomplishing this are Weather Products (WP). WPs fuse theater scale products with local mission requirements enabling the direct inject of weather impacts into warfighter planning and execution.

3.2. Weather Products. WPs are essentially mission-specific forecasts provided by several methods such as verbal briefs, mass briefings, electronic briefs, etc.

3.2.1. The WF will generate a WP by utilizing theater products produced by the 557WW and tailor them to WARB and/or the mission.

3.2.2. The end result is a product/information designed to provide tailored, timely, accurate, and relevant weather intelligence to various customers and their requirements by whatever means proves most effective. WPs are provided for either flying or non-flying missions as required by the specific unit mission/activity.

3.3. The 337th Airlift Squadron (337 AS) Flight Mission Execution Forecast (MEF). A Flight MEF is a WP that is developed from mission information provided by the Global Decision Support System (GDSS) and the Wing Operations Plan (WOP).

3.3.1. The WF will provide a flight MEF for all 337 AS, non-IFM (Integrated Flight Mission), missions departing WARB.

3.3.2. Support for 337 AS, non-IFM, missions departing from other locations will be provided by the WF during duty hours. Based on information provided in GDSS, the WF will prepare the MEF and will await dissemination instructions from the crew. The WF can be contacted at DSN 589-2879 or Commercial (413) 557-2879 to provide weather support or assist in arranging it.

3.3.2.1. It will be up to the aircraft commander to keep the WF up to date on any changes or mission delays so they can evaluate the MEF for potential updates. They will also provide contact information and the preferred means of delivering any updated MEFs.

3.3.2.2. Tables **3.1** and **3.2** outline future brief instructions and contact information for the WARB WF and OWSs. This information will be provided at the end of all 337 AS, non-IFM, MEFs departing WARB so future contact information is available for the mission:

Table 3.1. Non-IFM Legs of Your Mission:

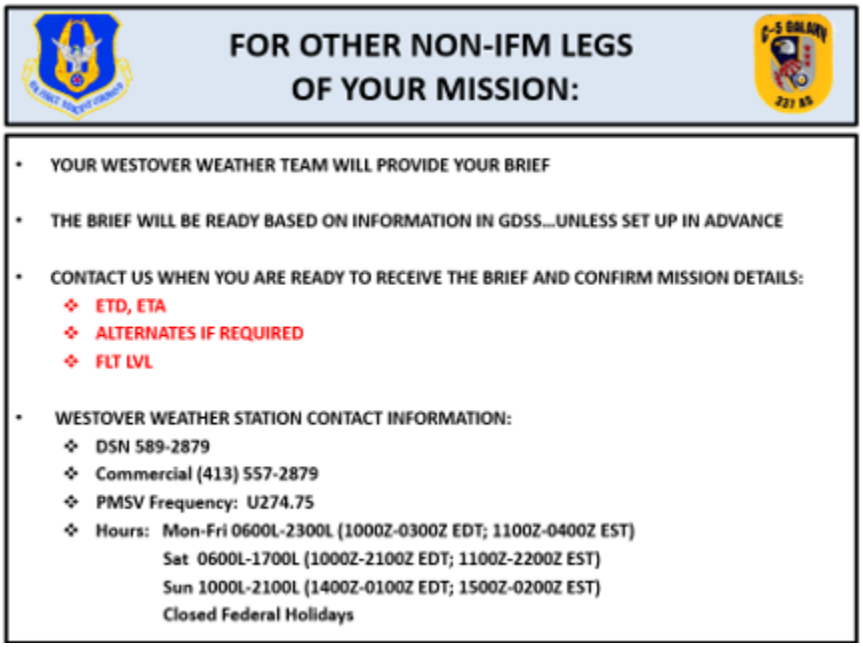
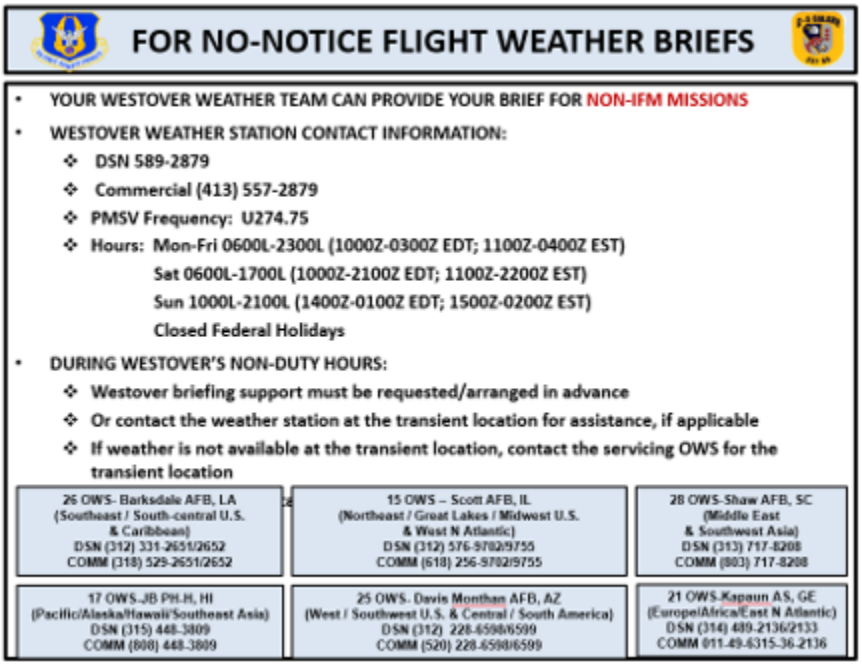


Table 3.2. For No-Notice Flight Weather Briefs:



3.3.3. Weather support for IFM missions is provided by the 618th Air Operations Center (618 AOC), Tanker Airlift Control Center (TACC) at Scott AFB, IL who will provide the official weather brief.

3.3.3.1. For IFM missions departing WARB, the WF will post a basic slide consisting of the current WARB TAF and the TAF for the first destination. See **Attachment 3** for an example.

3.3.3.2. The WF can also provide current satellite and radar imagery at the Weather Station upon request.

3.3.4. Flight MEFs provided by the WF will be posted to the base Y:drive at: Y:\OG\337\ALL\Flying Briefs\WX Briefs.

3.3.5. Flight MEFs will be posted 4 hours 15 minutes prior to the departure time when possible but, at a minimum, will be posted 3 hours 15 minutes prior to meet the aircrew briefing time.

3.3.5.1. Any briefings that would need to be posted during the normal WF closure periods to meet the minimum 3 hours 15-minute posting will be coordinated with the Weather Flight Chief. Please note a minimum of 1 hour is needed to prepare a flight MEF.

3.3.5.2. A copy of a flight MEF and current satellite and radar imagery can be obtained at the Weather Station upon request.

3.3.5.3. Any questions related to the MEF can be addressed to the Meteorological Technician at the Weather Station.

3.3.6. MEFs include all pertinent weather information affecting the flying missions. Example flight MEFs are given in **Attachment 3**.

3.3.7. Aircrew members may receive a verbal briefing relative to a specific WF flight MEF at the weather station or by the calling the Meteorological Technician at Commercial (413) 557-2879 or DSN 589-2879.

3.3.8. For any exercises that will take place away from WARB, the Weather Flight Chief will coordinate the weather support for crews to reach back to the WARB WF.

3.4. Sensitivities and Limitations Employed in the Development of WPs. Several sources will be used by the Meteorological Technicians when developing WPs to focus efforts on known weather sensitivities and limitations that may have a "go/no go" impact on the mission.

3.4.1. Airframe-Specific Weather Limitations. The WF will coordinate annually, or whenever needed, with the 337 AS regarding weather limitations for C-5 operations so these limitations can be tailored into local MEF and MISSIONWATCH (i.e., mission watching) process.

3.4.2. Flight Mission Weather Limitations/Restrictions. Weather thresholds for flight MEFs and MISSIONWATCH will be considered and are in accordance with AFMAN 11-202V3, *Flight Operations*, 20 January 2022 and AFMAN 11-2C-5V3_439AWSUP, 17 April 2020.

3.4.3. The base weather limitations that have an impact on various operations at WARB are outlined below in **Table 3.3**.

Table 3.3. WARB Base Weather Limitations.

WARB Base Weather Limitations
Tornado
Hail GTE 1/2 inch
Wind GTE 50 KT (Convective and/or Non-Convective)
Wind GTE 35 KT but LT 50 KT
Wind GTE 25 KT but LT 35 KT
Freezing Precipitation (Any Intensity)

Heavy Snow (GTE 6 inch accumulation in 12 hours)
Blizzard
Lightning within 5 NM
Lightning within 10 NM

3.5. Space Weather. Space weather products are primarily provided by utilizing information available on AFW-WEBS at: https://weather.af.mil/confluence/display/AFWWEBSTBT/Space+Weather+Main+Page.

3.6. Updates. Flight MEFs will be updated whenever forecast weather crosses amendment and "go/no go" thresholds. The WF will notify 439th Airlift Wing, Command Post (439 AW/CP) of any updated MEFs who will contact the crew and/or the acting Operations Supervisor (OPSUP) if one is available. If updates are significant and mission limiting, the WF will contact the crew or OPSUP directly if feasible.

3.7. Mission Watch. MISSIONWATCH provides an organized approach for Meteorological Technicians to continuously monitor routes, areas, and installations for significant changes to weather products.

3.7.1. MISSIONWATCH will focus on mission-limiting thresholds for the specific mission or associated units and notify customers when parameters cross these thresholds.

3.7.2. Meteorological Technicians will provide alternatives to mission weather and update environmental information through a continuous Mission Execution Forecast Process (MEFP).

3.7.3. All on-site meteorological data sources will be used to accomplish MISSIONWATCH. Airfield Management Operations (AMOPS) will notify the WF when missions depart and arrive. The WF will be given access to GDSS for awareness and MISSIONWATCH.

3.8. Transient Aircraft Weather Briefings. WARB WF Meteorological Technicians will provide transient aircrews traditional flight weather briefings, for non-IFM missions, utilizing the DD Form 175-1, *Flight Weather Briefing*, or local verbal briefing procedures. Updates to an existing flight weather briefing will be provided upon request.

3.8.1. Transient briefings will be made available in the Weather Station or via phone.

3.8.2. Updates to an existing IFM supported mission will be coordinated with the 618 AOC/TACC weather unit at DSN 779-0353 or Commercial (618) 229-0353 when significant changes have occurred.

3.8.3. If the WF cannot support a transient aircrew due to hours of operation, briefings can be requested through the 15 OWS by calling DSN 576-9755 or Commercial (618) 256-9755. A JET account is required to submit a request using the web page.

3.8.4. The WF will support Air Combat Command Air Operations Squadron (ACC/AOS) controlled missions, which included CORONET movements, with launch, alternate, abort, and destination base forecasts but must use the ACC AOS weather unit's Control Weather Product (CWP) for the enroute and air refueling track portion of the brief. Any briefing support needed outside of WF hours of operation will be coordinated with the Weather Flight Chief as soon as possible.

3.9. Non-Flight WP. Non-flight WPs are developed in response to any non-flying operational mission being conducted. The scope, format, and delivery method will be determined in coordination with the requestor.

3.10. WARB Snow and Ice Plan Forecast. Snow and ice removal crews are normally not scheduled outside of normal duty hours, Monday-Friday. The WF will therefore send a Snow and Ice Plan Forecast for weather events requiring snow and/or ice removal of trace amounts or more from the runway/base so crews, equipment, and the possible use of chemicals can be planned and staged in advance.

3.10.1. Snow and Ice Plan Forecast Issuance.

3.10.1.1. Issued around 1300L or earlier, pending other duty priorities, one duty day (Monday-Friday) prior to the event whenever the potential exists for a trace or more of snow and/or ice to affect WARB.

3.10.1.2. For events that are expected to occur on a Sunday, Monday, holiday, or the day after a holiday, updates should be expected over the weekend and leading up to the day of the event. The weather situation may have changed (i.e., change in storm track, change in precipitation type, change in storm timing, etc.) and adjustments may be needed to the detailed forecast provided that far in advance.

3.10.1.3. For unanticipated/unpredictable weather events that may produce a trace or more of snow or ice, a Snow and Ice Plan Notification will be issued as soon as possible.

3.10.1.4. Snow and Ice Plan Forecasts will be updated, when needed, for adjustments to timing, precipitation type, and amounts based on local criteria provided by Real Property Maintenance (RPM) and their snow and ice removal operation.

3.10.1.5. For events or situations in which agencies may need more time to prepare, the Weather Flight Chief will coordinate with appropriate agencies in advance to see if an earlier issuance is needed.

3.10.2. Snow and Ice Plan Forecast. See **Attachment 4** for an example.

3.10.2.1. The Snow and Ice Plan Forecast will be filled out and contain, at a minimum, information on precipitation type, timing, amounts, temperature, wind, drifting/blowing snow, and temperature rises above and below freezing. It may also contain any remarks that may be pertinent to snow and ice removal and an outlook for 12 to 24 hours after the event.

3.10.2.2. The Snow and Ice Plan Forecast will be emailed to any base organization or personnel requesting email notification. Requests to be added or removed from the email notification list should be addressed to the Weather Flight Chief.

3.10.2.3. Those organizations and their contacts listed on the Snow and Ice Plan Notification Checklist will be the only organizations/personnel called by the WF to verify receipt of Snow and Ice Plans.

3.10.3. Snow and Ice Plan Forecast Coordination. The Weather Flight Chief will coordinate criteria for snow and ice plan issuance and contact information for the Snow and Ice Plan Notification Checklist and the email notification annually. This will occur by October 1st to

ensure local criteria, email addresses, and contact information is up to date prior to the start of the season.

3.10.3.1. Coordination will take place with the RPM manager, Base Civil Engineering, the Airfield Operations Manager, and the Airfield Manager for criteria and notification information on the Snow and Ice Plan Notification Checklist.

3.10.3.2. The agencies listed above will notify the Weather Flight Chief with any changes to criteria or contacts when they occur.

3.11. WARB Five Day Outlook. A general weather five-day outlook will be provided daily for any base agency to use for planning purposes only. It will include some general climatology for the month. This forecast is specific to WARB and may not be representative of surrounding areas. See **Attachment 5** for examples.

3.11.1. The WARB Five Day Outlook will be posted on SharePoint, C2IMERA, and to the following location on the base "Y" drive by 0900L or as workload and duty priorities permit: Y:\OG\337\ALL\Flying Briefs\WX Briefs.

3.11.2. A "Wind Outlook" of forecast of speed is given based on pertinent wind speed categories in addition to wind direction.

3.11.3. During the fall/winter months, a "Snow Outlook" and a "Freezing Precipitation Outlook" will be provided in which forecast amounts will be given by category.

3.11.4. During the spring/summer months, a "Thunderstorm Outlook" will be provided in which thunderstorm intensity will be forecast.

3.11.5. A "Ceiling/Visibility Outlook" is also given based on pertinent categories for flying operations.

3.12. Fitness Center 1.5-Mile Run and 1.0-Mile Walk Forecast. Upon request from fitness center personnel, the WF will provide a forecast for the 1.5-mile run and 1.0-mile walk. See **Attachment 6** for an example. A forecast worksheet will be filled out for record and verbally passed on to fitness center personnel. Forecasts will be based on the following criteria per DAFMAN 36-2905, *Air Force Physical Fitness Program*, 21 April 2022.

3.12.1. The air temperature must be $\geq$ 20 Fahrenheit (F).

3.12.2. There can be "no significant rain".

3.12.3. If it is a wet day (i.e., rain, mist, or heavy dew), the temperature, with the wind chill, must be > 34F.

3.12.4. Sustain wind must be $\leq$ 15 miles per hour (MPH).

3.12.5. Gusts must be $\leq$ 20 MPH.

3.12.6. There can be no snow/ice accumulating on the running surface.

3.12.7. There can be no lightning within 5 NM and must wait at least 30 min after the last observed lightning.

3.12.8. There can be no hail forecast or reported within 25 miles.

3.12.9. Wet Bulb Globe Temperature (WBGT) must be $\leq$ 86F at the start of the run/walk.

3.13. Wet Bulb Globe Temperature (WBGT). The responsibility of the Heat Stress Program and WBGT lies with Bioenvironmental. However, as part of WARB Heat Alert Working Group and due to operating hours, the WF will take the WBGT readings and complete the notifications.

3.13.1. WBGT readings will be taken Mon-Fri 0700L-2300L and on UTA weekends 0700L-1700L. Readings are not required on non-UTA weekends and holidays unless there are special operations taking place and the WF has been notified.

3.13.2. Notifications will be emailed and called out to specific customers when flag conditions exceed White Flag and whenever flag conditions listed in **Table 3.4** change.

Table 3.4. WARB WBGT Flag Conditions.

WBGT (F) FLAG CONDITIONS				
WHITE	GREEN	YELLOW	RED	BLACK
78 – 81.9	82 – 84.9	85 – 87.9	88 – 89.0	> 90

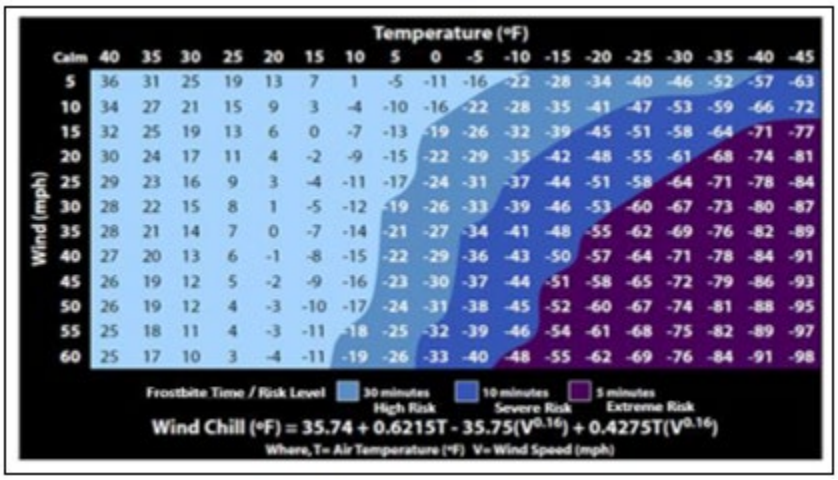
3.13.3. Specific questions regarding the WBGT and the Heat Stress Program should be addressed to Bioenvironmental at DSN 589-2523 or Commercial (413) 557-2523. Unit supervisors make the decision of what actions to take when Bioenvironmental is not available based on DAFI 48-151, *Thermal Stress Program*, 2 May 2022.

3.14. Cold Stress. The responsibility of the Cold Stress Program lies with 439th Mission Support Group, Bioenvironmental (439 MSG/SGPB). However, as part of Westover's Cold Stress Working Group and due to operating hours, the WF will monitor the cold stress criteria and notify customers of conditions when they occur.

3.14.1. Cold Stress readings will be taken Mon-Fri 0700L-2300L and on UTA weekends 0700L-1700L. Readings are not required on non-UTA weekends and holidays unless there are special operation taking place and the WF has been notified.

3.14.2. Cold stress readings for Westover will be taken when the temperature is less than 10F or when 10F and wind puts conditions in the "High Risk" category for frost bite. **Table 3.5** will be used to determine the wind chill and therefore the frostbite risk level.

Table 3.5. Wind Chill Chart and Risk Levels.



3.14.3. Notifications will be emailed and called out to specific customers when "Risk Level and Frostbite Time" go into LOW risk or worse due to the wind chill when below 10F or if at HIGH risk at 10F and when conditions change categories in **Table 3.14.3**., Risk Level and Frostbite Time.

Table 3.6. Risk Level and Frostbite Time.

RISK LEVEL AND FROSTBITE TIME				
CATEGORY	LOW	HIGH	SEVERE	EXTREME
FROSTBITE TIME	N/A	30 MIN	10 MIN	5 MIN

3.14.4. Specific questions about the WBGT and the Cold Stress Program should be addressed to Bioenvironmental at DSN 589-2523 or Commercial (413) 557-2523. Unit supervisors make the decision of what actions to take when Bioenvironmental is not available based on DAFI 48-151, *Thermal Stress Program*, 2 May 2022.

3.15. Extreme Temperature Forecast. For facility management, Base Civil Engineering (BCE) needs to know when extreme temperatures are forecast during the cold and warm seasons. An Extreme Cold Forecast or Extreme Heat Forecast will be emailed to BCE one duty day (Monday-Friday) prior to the event. See **Attachment 7** for an example. Extreme cold and extreme heat for the purpose of facility management are defined below.

3.15.1. Extreme cold for WARB is defined as two or more days in a row of 0F/-18 Celsius (C) or lower.

3.15.2. Extreme heat for WARB is defined as two or more days in a row of 100F/38C or higher.

Chapter 4

STAFF WEATHER SERVICES

4.1. General. Staff services are those briefings and other services provided primarily by WF leadership. The briefings may be provided in a non-flight MEF format focusing on planning for a particular event or a general informational brief for a specific audience. Examples include, but are not limited to, staff meetings, Installation Command Center (ICC) briefings, Crisis Action Team (CAT) briefings, and Instrument Refresher Course (IRC) briefings. Other services consist of, but are not limited to, meteorological training for Air Traffic Control (ATC) personnel and fulfilling any requests for meteorological data not provided on a scheduled or routine basis.

4.2. IRC Briefings. IRC briefings are provided to the 337 AS upon request. Individualized instruction may be provided depending on technician availability and priority of duties.

4.3. ICC/CAT Briefings. The WF will provide weather briefings as required for ICC/CAT briefings. This includes real-world emergency, exercise, and deployment briefings. Each briefing will be tailored to provide the appropriate weather intelligence required by wing leadership.

4.4. Seasonal Weather Briefings. Upon request, the WF will provide a WF briefer for any required seasonal weather briefings.

4.5. Pre-deployment Planning Briefings. The WF will provide pre-deployment weather briefings when requested. The content of the briefing will vary depending on the customer's requirements.

4.6. Flight Information Publication (FLIP) Weather Updates. The WF is responsible for ensuring all weather information in FLIP products is accurate. All weather-related revisions, corrections, or updates will be processed through the Airfield Management FLIP Manager, 439 OSS/OSAA, submitted directly to the National Geospatial-Intelligence Agency (NGA).

4.7. ATC Limited Observation Training. The WF provides ATC Limited Observation Training as requested. The TWR individual seeking training will call the Weather Flight Chief at DSN 589-3230 or Commercial (413) 557-3230 and schedule an appointment.

4.8. Climatic Data Requests. Requests for climatological data can be made by phone, e-mail, or in person. The WF will provide climatological data for WARB and other locations either through locally maintained records or by utilizing the 14th Weather Squadron (14 WS) for any requests beyond the local capability to fill.

4.9. Support Assistance Requests (SAR). Any specialized support for terrestrial, space, or climatological services needed for base agencies or contractors will be handled by the WF. The WF will submit a SAR request to the appropriate agency.

Chapter 5

SPACE WEATHER SUPPORT AND PRODUCTS

5.1. General. Many Air Force weapons and communications systems use Global Positioning System (GPS), satellite communications (SATCOM), and high frequency (HF), very high frequency (VHF) and ultra-high frequency (UHF) radio waves that can be rendered useless by electro- magnetic radiation from the sun. This chapter contains some brief information regarding space weather support, limitations, and products such as space weather analyses, forecasts, alerts, and warnings.

5.2. Support. The WF will maintain working knowledge of 557 WW space weather products to support WARB missions/systems that could potentially experience adverse space weather affects. Graphic products depicting space weather impacts on military systems have been created to provide near real-time data on potential system impacts and are available via web pages from the 557 WW or National Oceanic and Atmospheric Administration (NOAA). Any space weather support requirements that cannot be met by the 557 WW or NOAA's available space weather products will require the WF to contact the 557 WW for support. Sufficient time will be required to generate new products to best satisfy the requirement.

5.3. Limitations. Like terrestrial weather, there are numerous factors that influence space weather. One of the biggest limitations in identifying and forecasting space weather is a lack of sensors. Additionally, given the speed of solar wind and light, the ability to provide lead-times for significant space events can be extremely limited.

5.4. Products. Worldwide space weather products are available utilizing products generated at the 557 WW's strategic weather center and available through AFW-WEBS' Space Weather Main Page at: **https://weather.af.mil/confluence/display/AFWWEBSTBT/Space+Weather+Main+Page.Most** space weather products from the strategic center are current to very short-term forecasts (6-hourly periods). Broad coverage CONUS based space weather graphics products are available at: **https://weather.af.mil/confluence/display/AFWWEBSTBT/CONUS%20Regional%20Space%20Weather.AFW-WEBS** products are the primary source used by the WF to provide the space weather portion of the flight MEF.

5.5. Additional Space Weather Products and Support. Other advanced graphical and textual based space weather products are available via space weather web pages from the 557 WW via AFW-WEBS Space Weather Main Page or NOAA at: **http://swpc.noaa.gov**. These websites present information concerning space weather events, warnings, observations, analyses, forecasts and data summaries; online help pages and educational materials (briefings, product catalogs and links to other space weather sites). They provide additional details for these and other space weather products, data and images. For additional information or product requests, contact the WF.

5.6. Reporting. Actual space weather impacts experienced by WARB personnel will be reported either through the WF, any Air Force weather unit or via the AFW-WEBS site at: **https://weather.af.mil/AFW_WEBS/forms/SpaceImpactAssessmentRequest.php**.

Chapter 6

RESOURCE PROTECTION SERVICES

6.1. General. Weather watches, warnings, and advisories for WARB are issued for customer specified/higher authority specified criteria and within a desired lead time (DLT), when required.

6.2. WARB WF Support. The WARB WF is responsible for issuing all forecast weather watches, warnings, and advisories (WWA) and observed lightning warnings.

6.2.1. During WF non-duty hours, the WF will remain open or open up for WWA support based on customer requirements during closure.

6.2.2. The 15 OWS will monitor WARB for required WWAs during WF closure periods for any unplanned WWAs that occur or are imminent.

6.2.2.1. The WF provides a closure letter to the 15 OWS prior to closing that outlines the hours of closure, what WWAs need to be monitored, and list of on-call personnel in the event an unplanned event occurs.

6.2.3. The 15 OWS will take over WWA support in the event a major communication/network outage occurs and the WF cannot adequately monitor the weather situation for safety and resource protection.

6.3. Severe Weather Action Plan (SWAP) Procedures. When the potential exists for severe weather (i.e., thunderstorms, tornado, hail, tropical cyclones, blizzard, damaging winds, etc.) to affect WARB, SWAP will be implemented. SWAP may also occur for operational events that may require additional personnel (i.e., thunderstorms, major communication outage, surge in workload, COOP, etc.).

6.3.1. SWAP is used to ensure sufficient personnel are available during potential/actual severe weather events or during meteorological/operational events critical to mission success. The number of WF Meteorological Technicians needed on duty may increase depending on the SWAP event and whether it is during controlled or uncontrolled hours.

6.3.2. It is imperative that timely and accurate weather watches, warnings, and advisories are disseminated to all WARB agencies for personnel safety and resource protection.

6.3.3. The WF will perform SWAP responsibilities as defined in AFMAN 15-111, DAFMAN 15-129, AFI 15-128, AFMAN 10-206, local policy, and in the agreement with the 15 OWS documented in the Installation Datasheet Page (IDP).

6.3.4. The following lists SWAP criteria for WARB in which the WF must be present during uncontrolled airfield hours.

6.3.4.1. Tornado Watch/Warning

6.3.4.2. Severe Thunderstorm Watch/Warning

6.3.4.3. Damaging Wind (Winds GTE 50 KT) Watch/Warning

6.3.4.4. Any Thunderstorm Event

6.3.4.5. False Freezing Precipitation Reports

6.3.4.6. Increased Workload (i.e., approaching hurricane, network/communication outage, etc.)

6.4. Limitations. Reports of actual weather conditions received from other than a certified Meteorological Technician are considered "unofficial" weather observations.

6.5. Weather Watches. Watches are issued whenever atmospheric conditions are forecast to become favorable for the development of a predefined weather event that poses a threat to life and property which could "potentially" occur within a 5 NM radius from the center of the WARB aerodrome.

6.5.1. Watches are issued 2 hours or more prior to the onset of the criteria listed in **table 6.1**., WARB Weather Watch Criteria, when possible.

6.5.2. A watch will be upgraded to a warning should the criteria develop or when development is imminent and will pose a threat within a 5 NM radius of WARB.

Table 6.1. WARB Weather Watch Criteria.

Criteria	DLT
Tornado	As Potential Warrants
Severe Thunderstorm Wind GTE 50 KT and/or Hail GTE 1/2 inch	As Potential Warrants
Winds GTE 50 KT (Not associated with thunderstorms)	As Potential Warrants
Freezing Precipitation (Any Intensity)	As Potential Warrants
Heavy Snowfall (GTE 6 inches accumulating in 12 hours)	As Potential Warrants
Blizzard *	As Potential Warrants
Lightning within 5 NM of WARB	30 Minutes
* NOTE: Blizzard criteria includes a duration GTE 3 hours, sustained wind or gusts GTE 30KT and Considerable falling and/or blowing snow with prevailing visibility frequently GTE 1/4 SM. All Criteria must be met.	

6.6. Weather Warnings. Weather warnings are issued when the criteria in **Table 6.2**., WARB Weather Warning Criteria and Minimum DLT, pose a threat to life and property within a 5NM radius of WARB.

Table 6.2. WARB Weather Warning Criteria and Minimum DLT.

Criteria	Standard Lead-Time	WARB DLT*
Tornado	15 Minutes	15 Minutes
Severe Thunderstorm Wind GTE 50 KT and/or Hail GTE 1/2 inch	60 Minutes	60 Minutes
Wind GTE 50 KT (Not associated with thunderstorms)	60 Minutes	60 Minutes
Moderate Thunderstorm Wind GTE 35 KT but LT 50 KT and/or Hail GTE 1/4 inch but LT 1/2 inch	60 Minutes	60 Minutes
Wind GTE 35 KT but LT 50 KT	60 Minutes	60 Minutes

(Not associated with thunderstorms)		
WARB Weather Warning Criteria and Minimum DLT Continued		
Freezing Precipitation (Any Intensity)	60 Minutes	60 Minutes
Heavy Snow (GTE 6 inches accumulating in 12 hours)	60 Minutes	60 Minutes
Blizzard**	60 Minutes	60 Minutes
Lightning within 5 NM	Observed	Observed
Lightning within 10 NM	Observed	Observed
* NOTE 1: Any DLT > or < standard lead-times are based on WARB specific requirements.		
**NOTE 2: Blizzard criteria includes a duration GTE 3 hours, sustained wind or gusts GTE 30 KT, and considerable falling and/or blowing snow with prevailing visibility frequently LTE 1/4 SM. All criteria must be met.		

6.7. Observed Weather Warnings. Lightning warnings are the only type of "observed" weather warning issued for WARB. A Meteorological Technician will determine whether lightning is occurring within 5 NM or 10 NM of WARB and issue/cancel the appropriate warning when necessary. A lightning warning will remain in effect until a Meteorological Technician has determined that lightning has not occurred within the distance specified in the warning, 5 NM or 10 NM, for a minimum of 15 minutes per AFMAN 15-111.

6.7.1. Observed Lightning Warnings for the area within 5 NM radius of the center point of the WARB runway complex are issued in accordance with Air Force regulations.

6.7.2. Observed Lightning Warnings for the area in a 5 NM-10 NM radius of the center point of the WARB runway complex are issued in accordance with Defense Explosives Safety Regulation (DESR) 6055.06_AFMAN 91-201, *Explosive Safety Standards*, 10 March 2023.

6.8. Weather Advisories. A weather advisory is sent to customers whenever mission-limiting, non-severe weather is expected to occur at WARB. The predefined weather phenomenon may impact operations and is forecast to occur during the valid time of the advisory. WARB weather advisory criteria can be found in **Table 6.3**.

Table 6.3. WARB Weather Advisory Criteria and Minimum DLT.

Criteria	DLT
Wind GTE 25 KT but LT 35 KT	60 Minutes

6.9. Weather Watch, Warning and Advisory Dissemination. All weather watches, warnings, and advisories are issued via JET and are numbered consecutively using five digits. The first two digits indicate the month and the last three digits indicate the sequence number (e.g., 04-003).

6.9.1. 439 AW/CP, Maintenance Operations Center (MOC), the Flightline Production Supervisor, and AMOPS will receive an automated email message containing the watch, warning and/or advisory to their organization's email box. MOC and AMOPS can also view a copy on the JET webpage.

6.9.2. The TWR will receive the watch, warning and/or advisory into their local Air Traffic Control (ATC) system, Airfield Automated System (AFAS), via the JET system.

6.9.3. The WF will call 439 AW/CP, TWR, MOC, the Flightline Production Supervisor. If MOC is unavailable, WF will call Isochronal Inspection (ISO) and AMOPS to verify receipt of all watches, warnings and advisories.

6.9.4. Observed lightning warnings for "Lightning within 5 NM" are additionally disseminated verbally to Explosive Ordnance Disposal (EOD).

6.9.5. Observed lightning warnings for "Lightning within 10 NM" are disseminated via JET but are ONLY called out by the WF for dissemination or verification of receipt to EOD, MOC, and 439 AW/CP for AtHoc.

6.9.6. Certain weather warnings are disseminated by 439 AW/CP to the base "Giant Voice" system, in accordance with the WARB Installation Emergency Management Plan (IEMP) 10-2, which allows all members on base to prepare for inclement weather.

6.9.7. Weather watches, warnings, and advisories are disseminated by 439 AW/CP via the AtHoc system 24/7.

6.9.8. Certain weather watches and warnings are disseminated by AMOPS via the Secondary Crash Network (SCN) per WARB IEMP 10-2 and local policy.

6.9.9. Watches, warnings, and advisories will be called out by the WF in the following order:

6.9.9.1. 439 AW/CP

6.9.9.2. TWR

6.9.9.3. MOC (Flightline Production Supervisor and ISO if MOC is not here)

6.9.9.4. AMOPS

6.9.9.5. EOD for ONLY Observed Lightning Warnings for within 5 NM and 10 NM.

6.10. Upgrades/Downgrades. Advisories and warnings will be upgraded or downgraded as required.

6.11. Amendments/Extensions. Amendments/extensions to weather watches, warnings, and advisories will only be issued to change the valid time and will be issued before the original watch, warning, or advisory expires. New warnings and watches will be issued for any other change in weather criteria.

6.12. Cancellations. Watches, warnings, and advisories may be cancelled when the weather phenomena are no longer occurring or expected to occur. Cancellations will be disseminated in the same manner described above in 6.9 for issuances. However, if the product is not cancelled, it is assumed it will expire at the end of the valid period and additional notification will not occur.

6.13. National Weather Service (NWS) Watches/Warnings. Weather support inside DoD installations is the responsibility of the DoD agency and outside of DoD location the NWS is responsible at CONUS locations.

6.13.1. USAF weather organizations are responsible for comprehensive weather support inside the boundaries of all USAF and Army installations as well as joint installations in which USAF is the joint base lead agency. They have sole responsibility to create and disseminate the official forecast and all-weather watches, warnings, and advisories that are tailored toward the mission.

6.13.2. Outside of CONUS DoD installations, the NWS is responsible but also provides products such as flood and fire watches and warnings that USAF weather organizations normally do not have the responsibility to provide.

6.13.3. As determined by local Emergency Management, NWS river flood, flash flood, and fire watches and warnings will be received for WARB and the 30 NM commuting radius for informational purposes. **Table 6.4** outlines the specific products.

Table 6.4. National Weather Service Watches/Warnings Distributed to WARB.

NATIONAL WEATHER SERVICE WATHCHS/WARNINGS			
Warning Type	Criteria	Area	Issuance By
Fire Weather Watch/ Red Flag Fire Warning	Large fire growth, sustained winds or frequent gusts greater than or equal to 25 mph and relative humidity less than 25% or dry thunderstorms	30 NM	OWS
River Flood Watch/Warning	Water level at River Forecast point along a main stem river is expected to reach or exceed flood stage	30 NM	OWS
Flash Flood Watch/Warning	Rapid flooding usually along streams	30 NM	OWS

6.14. Chemical, Biological, Radiological, Nuclear and High Yield Explosive (CBRNE). CBRNE operations lie with CEX, Fire Emergency Services (CEF), and SGPB. The WF will serve as the subject matter expert (SME) for weather information needed to run CBRNE models or for manual plotting.

6.14.1. The WF will supply current weather information to CEX, CEF and SGPB to run plume models or plot data upon request.

6.14.2. The WF will also provide forecast meteorological information and, as the weather SME, and review the information provided in automated forecast data for accuracy. The following lists the forecast products/information that can be provided by the WF to the CBRNE team upon request:

6.14.2.1. Chemical Downwind Message (CDM). Used to predict the spread of chemical or biological agents after an incident or attack.

6.14.2.2. Effective Downwind Message (EDM). Used to provide wind information in the prediction of areas affected by fallout following a nuclear attack.

6.14.2.3. Basic Wind Message (BWM). Used to provide basic atmospheric information on wind, temperature, and pressure for a specific time and location surface to 30 kilometers.

6.14.2.4. Other Meteorological Information. Atmospheric information on wind, stability, temperature, humidity, weather, clouds, etc., can be provided by the WF upon request if information in CDMs, EDMs or BWMs are inadequate, misrepresentative, or unavailable.

6.14.3. During WF closure periods, CDM, EDM and BWM forecast products can be provided by the 15 OWS. Contact the 15 OWS Senior Duty Officer at DSN 576-9699 or Commercial (618) 256-9699.

6.15. Operational Reporting. The WF will assist the command post with weather related OPREP-3 reports and provide the 439 AW/CP with all pertinent weather information as requested. The 439 AW/CP, in turn, will provide the WF with a copy of any weather related OPREP-3 summary reports. The WF will then forward this information to HQ AFRC/A3VA and the 15 OWS.

6.16. Tropical Cyclone Support. The WF monitors a Tropical Cyclone Threat Assessment Product (TC-TAP) that is posted by the 15 OWS when a tropical system poses a threat to the 15 OWS Area of Responsibility (AOR) (i.e., the northeast CONUS).

6.16.1. The WF CANNOT deviate from the official forecast track or the 15 OWS TC-TAP forecast position, track, movement, maximum wind speed, or intensity. However, the WF can provide tailored weather forecasts for WARB based on the TC-TAP.

6.16.2. The WF will ensure all customers understand that the 48-hour and 72-hour outlooks (or longer if issued) contain a high degree of uncertainty are for planning purposes only and are subject to change.

6.16.3. The WF will follow 439 AW/PA policies regarding release of information regarding tropical cyclone support.

6.17. 439th Maintenance Group (439 MXG).

6.17.1. The WF will pass on WWA information directly to the Flightline Production Supervisor and ISO operations in the event MOC is closed and they are in operation.

6.17.2. The WF will call MOC and ISO prior to closing to determine what WWAs are required for monitoring/issuing during WF closure periods.

6.17.3. During UTA weekends, the WF will email a wind forecast to the ISO midnight shift supervisor Friday and Saturday nights before closing. ISO does not need WWAs issued for UTA weekend midnight shifts.

Chapter 7

RECIPROCAL SUPPORT

7.1. General. This chapter outlines the support provided to the WARB WF by various base agencies.

7.2. 439th Operations Support Squadron (439 OSS).

7.2.1. 439 OSS, Airfield Management (439 OSS/OSAA) will:

7.2.1.1. Disseminate lightning watches and all-weather warning products to designated agencies via the SCN when applicable and as outlined in the WARB IEMP 10-2 and local policy.

7.2.1.2. Notify WF Meteorological Technicians of aircraft emergencies, incidents, or accidents via the SCN.

7.2.1.3. Notify WF Meteorological Technicians of distinguished visitor arrivals, departures, and/or diversions.

7.2.1.4. Coordinate with the WF prior to any planned switch to generator power within building 1610.

7.2.1.5. Notify WF Meteorological Technicians of new, updated, or changed procedural NOTAMs affecting circling, landing, and take-off minimums.

7.2.1.6. Issue/cancel NOTAMs for weather equipment upon WF request.

7.2.1.7. Notify WF Meteorological Technicians about aircraft arrival and departure times.

7.2.2. 439 OSS, Airfield Tower (439 OSS/OSAT) will:

7.2.2.1. Notify the Weather Flight Chief of changes to published approach minimums at WARB.

7.2.2.2. Provide TWR orientation training to Meteorological Technicians. The Weather Flight Chief will provide limited observation training and certification for TWR personnel to report TWR prevailing visibility (TWR VIS). Training related to the Cooperative Weather Watch program and orientation of WF operations will also be provided.

7.2.2.3. Provide backup monitoring of the WF's PMSV UHF radio frequency, 274.75 MHz in the event of an outage or evacuation to their AOL.

7.2.2.4. Notify the WF daily of airfield closure and runway in use for uncontrolled operations.

7.2.2.5. Notify the WF when the active runway is changed.

7.2.2.6. Relay all local pilot weather reports (PIREPs) received directly from the pilot to the WF within 5 minutes of receipt. Note: The Meteorological Technician will evaluate the reported conditions and determine their use in observations, TAFs, and/or if a Pilot Report (PIREP) will be sent.

7.2.2.7. Initiate radio checks, when requested, to ensure proper PMSV operation.

7.2.2.8. Notify WF Meteorological Technicians when observations and/or wind information are no longer being received.

7.2.2.9. Notify WF Meteorological Technicians if elements in "automated" observations are missing or suspect due to possible equipment malfunction.

7.2.2.10. Notify the WF when any of the weather conditions in **Table 7.1** occur as part of the Cooperative Weather Watch program. The Meteorological Technician's view from building 1610 is significantly obstructed by buildings south through southwest. Note: Upon receipt of this information, the Meteorological Technician will determine if augmentation is needed based on the AFMAN 15-111 and local policy. If augmentation is needed, the Meteorological Technician will determine if a SPECI will be generated or if conditions will be reflected in the next METAR.

Table 7.1. Cooperative Weather Watch Program.

1.	A tornado, funnel cloud or waterspout is observed or is reported by other non-weather personnel (e.g., pilots) especially to the south through southwest.
2.	Lightning is observed, thunder is heard, or hail is falling, especially to the south through SW.
3.	TWR VIS when it differs from the surface prevailing visibility by one or more, reportable value when less than 4 SM.
4.	Any changes in TWR VIS from what is currently being reported in the observation, especially when it initially decreases below 1 SM, 2 SM, and 3 SM and when it increases to, or exceeds, these values.
5.	The TWR VIS drops below 4 SM or increases to 4 SM or more and differs from the surface visibility by one or more reportable value.
6.	When the visibility rapidly drops to the south through SW.
7.	Any other meteorological condition that could have an immediate, significant impact on the airfield and/or aircraft operations.

7.3. 439 AW/CP will:

7.3.1. Immediately relay changes in the flight MEF to aircrews or the OPSUP, if one is available, when received from the WF.

7.3.1.1. For critical MEF updates, they will pass on the current OPSUP's contact information, if one is available, to the WF so they may speak with them directly.

7.3.2. Immediately relay all mission status updates (i.e., maintenance delays, changes to departure times, changes to mission destinations, etc.) to the WF for all Local and non-IFM missions. This will allow the WF to properly MISSIONWATCH the mission and determine if the MEF for the mission needs to be updated, especially when non-IFM missions are delayed or there are changes to destinations.

7.3.3. Ensure the fastest dissemination of all weather watches, warnings, and advisories upon receipt in accordance with the WARB IEMP 10-2.

7.3.3.1. 439 AW/CP has the primary responsibility for sounding the Emergency Notification System (Giant Voice) in the event of a tornado warning or other significant warnings (e.g., observed lightning warning, wind warning, etc.).

7.3.3.2. 439 AW/CP has the primary responsibility for disseminating weather watches, warnings, and advisories via the AtHoc system for base-wide distribution 24/7.

7.3.4. Request the assistance of the WF in providing required weather information to be included in any required OPREP-3 reports. Copies of any weather related OPREP-3 reports will be provided to the Weather Flight Chief.

7.4. 439 AW/PA will:

7.4.1. Act as a liaison for inquiries from the general public to include, but not limited to: news sources, lawyers, construction companies, local government agencies and individuals not associated with any base agency or base contractor.

7.4.2. Refer public requests to the servicing National Weather Service office in Norton, MA.

7.4.3. Authorize any information that may be given to the general public by the WF.

7.4.4. The WF will not pass on any current, forecast, or climatological information without going through PA.

7.5. 439th Communications Squadron (439 CS) will:

7.5.1. Provide, coordinate, or arrange for the installation, maintenance, outage, and repair of all communication equipment related to all weather systems.

7.5.2. Support the WF when conducting troubleshooting due to a local communication issue related to the FMQ-19/JET system or replacement of JET equipment per the guidance of the JET Helpdesk.

7.5.3. Provide all necessary support to the JET SCA that is housed and maintained by 439 CS in building 1510, room 132, in accordance with guidance from the JET Helpdesk.

7.5.4. Advise the WF on any change in system connectivity, especially to the JET SCA.

7.5.5. Notify the WF prior to conducting routine maintenance on the local JET SCA so as not to degrade the mission capabilities of the WF during periods of inclement weather. Preventive maintenance will be provided as appropriate and as time permits.

7.5.6. Restore critical systems based on the restoral priorities that have been established in the event of natural disaster, or any other anomaly, that simultaneously impacts systems base-wide.

7.5.7. The 439 CS will be the main contact for coordination with all off-base agencies to repair off-base lines, telephone circuits, etc.

7.6. 439th Operations Support Squadron, Operations Maintenance (439 OSS/OSM) will:

7.6.1. Provide, coordinate, or arrange for the installation, maintenance, outage, and repair of all meteorological sensing equipment.

7.6.2. Notify the WF prior to conducting routine maintenance on meteorological weather equipment. Preventive maintenance will be provided as appropriate and as time permits.

7.6.3. Restore meteorological equipment based on the restoral priorities that have been established in the event of natural disaster, or any other anomaly.

7.7. 337 AS will:

7.7.1. Notify the WF when current/planned mission specifics change in order for the WF to provide the most accurate information possible and/or to provide updates if necessary. A minimum of 30 minutes is required for preparation of an updated MEF.

7.7.2. Provide weather briefing dissemination instructions for non-IFM missions departing from another location to the WF and coordinate any deviations from GDSS or alternates at that time. The WF will have the briefing ready for dissemination based on mission information in GDSS.

7.7.3. Provide post-mission feedback. The WF utilizes this data to refine their mission support role, gauge WF products strengths and weaknesses, and review forecasting techniques used.

7.7.4. Advise the WF of any known future changes in general mission or support requirements (e.g., adding in new training requirements, changes to weather minimums whether permanent or temporary, etc.).

7.7.5. Coordinate any changes to the format or issuance of WPs or MEFs provided by the WF with the Weather Flight Chief.

7.7.6. Provide PIREPs directly to the WF via the PMSV, phone, TWR or 439 AW/CP as frequently as possible.

7.7.7. Coordinate any weather briefing support that would need to be provided by the WF outside the WF's normal duty hours with the Weather Flight Chief as soon as possible.

7.7.8. Coordinate weather support for any special training activities, exercises, or events with the Weather Flight Chief as far in advance as possible. Coordination of weather limitations and notification procedures may need to be established. The Weather Flight Chief may also need to submit a weather request to the 557 WW in advance for activities that take place away from WARB when it is not practical or possible for the WF to provide the support due to hours of operation.

7.8. 439 MXG/MOC.

7.8.1. 439 MXG/MOC will provide information on maintenance's operation hours and closures.

7.8.1.1. This will allow the WF to tailor WWA support during WF closure hours and ensure the WF (or 15 OWS) is not open and monitoring/issuing any WWAs that are not required.

7.8.1.2. The WF will contact 439 MXG/MOC prior to normal closing for their hours.

7.8.2. ISO will coordinate their overnight operations with the WF.

7.8.2.1. ISO will let the WF know if they will be working indoors or outdoors for the night.

7.8.2.2. This will allow the WF to tailor WWA support during WF closure hours and ensure the WF (or 15 OWS) is not open and monitoring/issuing any WWAs that are not required.

7.9. All Unit Agencies Receiving Weather Support will:

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

7.9.2. Coordinate changes/additions to weather support requirements as soon as they are foreseen with the Weather Flight Chief.

7.9.3. Promptly inform the Weather Flight Chief of any requests for climatological data or specialized support required for day-to-day operations on WARB.

GREGORY D. BUCHANAN, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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

AFI 33-322, *Records Management and Information Governance Program*, 28 July 2021

AFMAN 10-206, *Operational Reporting*, 18 June 2018

AFMAN 11-2C-5V3_439AWSUP, *C-5 Operations Procedures*, 17 April 2020

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

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

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

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

DAFI 10-2501, *Emergency Management Program*, 16 October 2023

DAFI 48-151, *Thermal Stress Program*, 2 May 2022

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

DAFMAN 36-2905, *Air Force Physical Fitness Program*, 21 April 2022

DESR6055.09_AFMAN 91-201, *Explosives Safety Standards*, 10 March 2023

Abbreviations and Acronyms

ACC—Air Combat Command

AFAS—Airfield Automated System

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFW-WEBS—Air Force Weather Web Services

AIREP—Air Report

AMOPS—Airfield Management Operations

AMOS—Automated Meteorological Observing System

AMS—Automated Meteorological Station

AOC—Air Operations Center

AOL—Alternate Operating Location

AOR—Area of Responsibility

AOS—Air Operations Squadron

AR—Air Refueling

AS—Airlift Squadron

ATC—Air Traffic Control

AW—Airlift Wing

BCE—Civil Engineering

BCFG—Fog Patches

BWM—Basic Wind Message

BWW—Basic Weather Watch

C—Celsius—CAT—Crisis Action Team

CB—Cumulonimbus

CBRNE—Chemical, Biological, Radiological and High Yield Explosive

CC—Commander

CDM—Chemical Downwind Message

CEF—Fire Emergency Services

CEX—Emergency Management

CONUS—Continental United States

COOP—Continuity of Operations

CP—Command Post

CS—Communications Squadron

CWP—Control Weather Product

DAFI—Department of the Air Force Instruction

DAFMAN—Department of the Air Force Manual

DD—Department

DESR—Defense Explosives Safety Regulation

DLT—Desired Lead Time

DoD—Department of Defense

DST—Daylight Savings Time

EDM—Effective Downwind Message

EOD—Explosive Ordinance Disposal

EST—Eastern Standard Time

EWO—Emergency War Order

F—Fahrenheit—FLIP—Flight Information Publication

FT—Feet

GDSS—Global Decision Support System

GPS—Global Positioning System

GTE—Greater Than or Equal To

HF—High Frequency

HQ—Headquarters

IDP—Installation Datasheet Page

IEMP—Installation Emergency Management Plan

ICC—Installation Command Center

IFM—Integrated Flight Mission

IRC—Instrument Refresher Course

ISO—Isochronal Inspection

JET—Joint Environmental Toolkit

KT—Knot

L—Local—LAN—Local Area Network

LT—Less Than

LTE—Less Than or Equal To

MEF—Mission Execution Forecast

MEFP—Mission Execution Forecast Process

METAR—Aviation Routine Weather Report

METWATCH—Meteorological Watch

MHz—Megahertz

MIFG—Shallow Fog

MISSIONWATCH—Mission Watch

MOC—Maintenance Operations Center

MPH—Miles per Hour

MXG—Maintenance Support Group

NGA—National Geospatial-Intelligence Agency

NM—Nautical Mile

NOAA—National Oceanic and Atmospheric Administration

NOTAM—Notice to Airmen

NWS—National Weather Service

OPR—Office of Primary Responsibility

OPREP—Operational Report

OPSUP—Operations Supervisor

ORM—Operational Risk Management

OSAA—Operations Support Airfield Management

OSAW—Operations Support Airfield Weather

OSM—Operations Support Maintenance

OSS—Operations Support Squadron

OWS—Operational Weather Squadron

PA—Public Affairs

PIREP—Pilot Report

PMSV—Pilot to Metro Service

RDS—Records Disposition Schedule

RPM—Real Property Maintenance

RVR—Runway Visual Range

SAR—Support Assistance Request

SATCOM—Satellite Communications

SCA—Sensor Collection Appliance

SCN—Secondary Crash Network

SGPB—Bioenvironmental Engineering

SM—Statue Miles

SME—Subject Matter Expert

SNINCR—Snow Increasing Rapidly

SOP—Standard Operating Procedure

SPECI—Aviation Selected Special Weather Report

SWAP—Severe Weather Action Plan

TACC—Tanker Airlift Control Center

TAF—Terminal Aerodrome Forecast

TC-TAP—Tropical Cyclone Threat Assessment

TWR—Air Traffic Control Tower

UHF—Ultra High Frequency

USAF—United States Air Force

UP—Unknown Precipitation

UTA—Unit Training Assembly

VHF—Very High Frequency

WARB—Westover Air Reserve Base

WBGT—Wet Bulb Globe Temperature

WF—Weather Flight

WOP—Wing Operations Plan

WP—Weather Product

WS—Weather Squadron

WW—Weather Wing

WWA—Watches, Warnings and Advisories

Z—Zulu—Time

Office Symbols

439 AW/CC
439 OSS/OSAW
439 OSS
439 AW
439 AW/PA
337 AS
439 OSS/OSAA
14 WS
15 WW
439 AW/CP
439 MXG
618 AOC
ACC/AOS

Attachment 2

SPECIAL WEATHER OBSERVING CRITERIA

A2.1. General. SPECI surface weather observations will be taken and disseminated for the criteria listed in this attachment. However, the ceiling, sky condition, visibility, and RVR criteria listed below are subject to temporarily change if procedural NOTAMs have been issued for the WARB airfield. Any changes that occur between updated publications of this regulation will be published in the WARB Cooperative Weather Watch. Please see the Cooperative Weather Watch for current SPECI criteria or contact the WF.

A2.1.1. Ceiling SPECI Criteria.

Table A2.1. Ceiling SPECI Criteria.

Ceiling SPECI Criteria: SPECIs are generated when the ceiling forms or dissipates below, decreases to less than or if below, increase to equal or exceed the values listed.	
100 FT	**800 FT**
200 FT	**900 FT**
300 FT	**1000 FT**
500 FT	**1500 FT**
600 FT	**2000 FT**
700 FT	**3000 FT**
Ceiling heights are measured and reported in feet above ground level (AGL)	

A2.1.2. Sky Condition. A layer of clouds (it does not have to be a ceiling) or obscuring phenomena aloft is observed below 900 FT and no layer was reported below this height in the previous METAR or SPECI.

A2.1.3. Visibility SPECI criteria:

Table A2.2. Visibility SPECI criteria:

Surface Visibility SPECI Criteria: **SPECIs are generated when visibility decreases to less than or, if below, increase to equal or exceed the values listed.**		
1/4 SM	**1 SM**	**2 SM**
1/2 SM	**1 3/8 SM**	**2 3/4 SM**
3/4 SM	**1 1/2 SM**	**3 SM**
7/8 SM	**1 3/4 SM**	
All values are reported by the FMQ-19/JET system.		

A2.1.4. RVR SPECI criteria:

Table A2.3. RVR SPECI criteria:

Runway Visual Range (RVR) SPECI Criteria: **SPECIs are generated when the highest RVR value during the preceding 10 minutes decreases to less than or,**

if below, increases to equal or exceed the values listed.	
600 FT	2400 FT
1000 FT	4000 FT
1200 FT	4500 FT
1600 FT	5000 FT
1800 FT	5500 FT
2000 FT	6000 FT

A2.1.5. Tower Visibility criteria:

Table A2.4. Tower Visibility criteria:

Tower Visibility SPECI Criteria: SPECIs are generated when tower visibility decreases to less than or, if below, increase to equal or exceed the values listed.		
1 SM	2 SM	3 SM

A2.1.6. Tornado, funnel cloud, or waterspout. Is observed, disappears from sight or ends.

A2.1.7. Thunderstorm (occurring at the station within 5 NM). Either begins or ends. Note: A thunderstorm is considered to have ended 15 minutes after the last occurrence within 5 NM of the aerodrome.

A2.1.8. Thunderstorm in the vicinity (occurring within 5-10 NM of the station). Either begins or ends. Note: A thunderstorm is considered to have ended 15 minutes after the last occurrence within 5-10 NM of the aerodrome. This is local policy SPECI criteria due to the requirement of issuing observed lightning warnings for within 10 NM.

A2.1.9. Precipitation.

A2.1.9.1. Hail ($\geq$ 1/2 inch) begins or ends.

A2.1.9.2. Freezing precipitation begins, ends, or changes intensity.

A2.1.9.3. Ice pellets begin, end, or change intensity.

A2.1.9.4. Any other type of precipitation that begins or ends. NOTE: Except for freezing rain, freezing drizzle, hail, and ice pellets, a SPECI observation is not required for changes in type (e.g., drizzle changing to snow) or the beginning or ending of one type while another is in progress (e.g., snow changing to rain).

A2.1.10. Wind.

A2.1.10.1. Shifts. A directional change of 45 degrees or more in less than 15 minutes with a wind speed of 10 KT or more throughout the wind shift.

A2.1.10.2. Squall. Strong wind characterized by a sudden onset in which the wind speed increases at least 16 KT and is sustained at 22 KT or more for at least one minute.

A2.1.11. Upon resumption of Observing Services. If "supplementing" or providing "back-up" to the AMS, a SPECI observation will be taken within 15 minutes after the Meteorological Technician returns to duty following a break in observing coverage or augmentation at the unit unless a record observation if filed during that 15 minute period. If AMS is functioning properly and is in "AUTO", a SPECI observation is not required.

A2.1.12. Volcanic Eruption. When eruption or a volcanic ash cloud is first noted.

A2.1.13. Aircraft Mishap. ASPECI observation will be taken immediately following notification or sighting of an aircraft mishap at or near the observing location if augmenting the observations in back-up mode and/or supplementing observations. A SPECI is not required if AMS is functioning properly and is in "AUTO".

A2.1.14. Any other meteorological situation that in the Meteorological Technician's opinion is critical to the mission or flight safety.

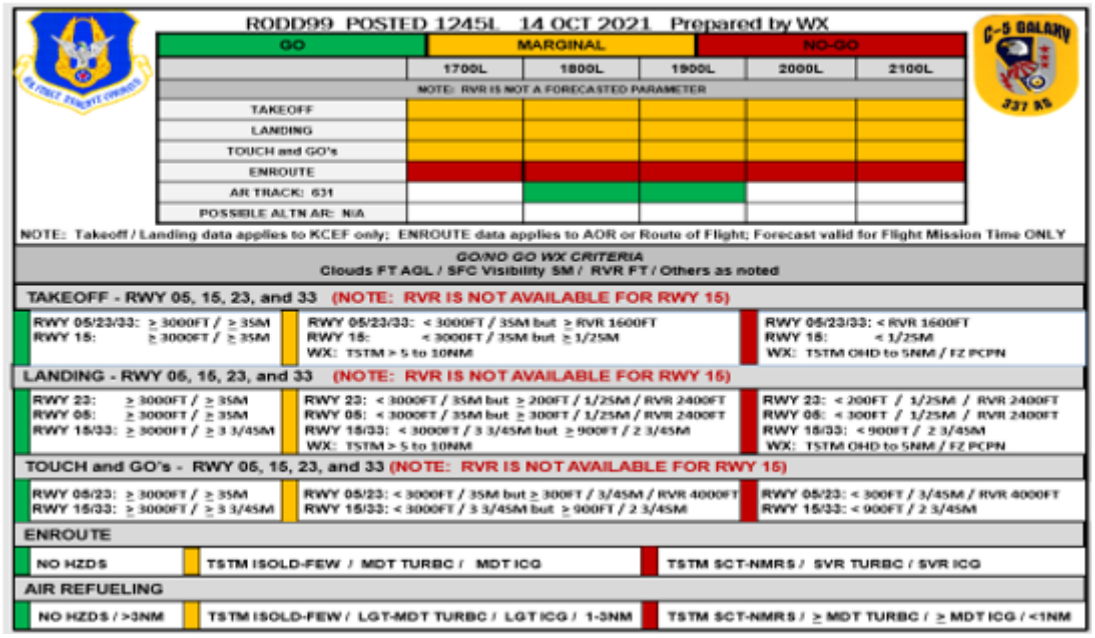
Attachment 3

WEATHER PRODUCTS (WP) – 337AS FLIGHT MISSION EXECUTION FORECAST (MEF)

A3.1. General. The WF's forecast products for flying missions are organized into a standard format for LOCAL/LOCAL Air Refueling (AR) MEFs and OFFSTATION MEFs. Examples of these products are presented below. Forecast products for non-flying missions will be tailored individually to satisfy the customer's request.

A3.1.1. Sample **LOCAL/LOCAL AR MEF**.

Figure A3.1. Sample LOCAL/LOCAL AR MEF.



RODD99 POSTED 1245L 14 OCT 2021 Prepared by WX

GO	MARGINAL			NO-GO	
	1700L	1800L	1900L	2000L	2100L
NOTE: RVR IS NOT A FORECASTED PARAMETER					
TAKEOFF					
LANDING					
TOUCH and GO's					
ENROUTE					
AR TRACK: 631					
POSSIBLE ALTN AR: N/A					

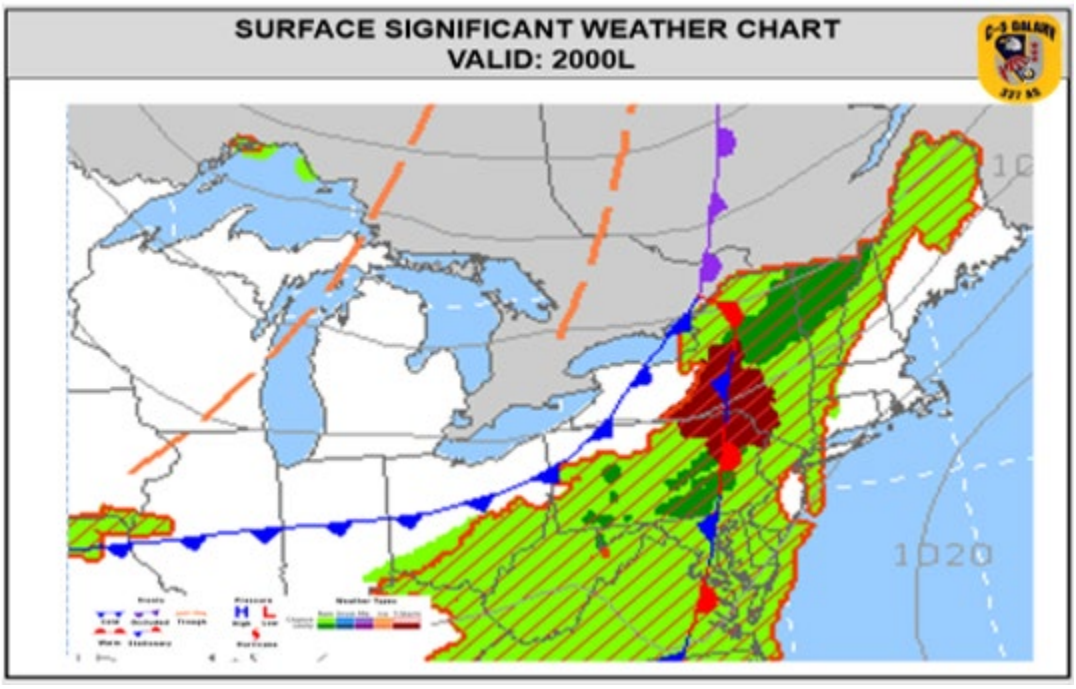
NOTE: Takeoff / Landing data applies to KCEF only; ENROUTE data applies to AOR or Route of Flight; Forecast valid for Flight Mission Time ONLY

GO/NO GO WX CRITERIA
Clouds FT AGL / SFC Visibility SM / RVR FT / Others as noted

TAKEOFF - RWY 05, 15, 23, and 33 (NOTE: RVR IS NOT AVAILABLE FOR RWY 15)		
RWY 05/23/33: ≥ 3000FT / ≥ 3SM RWY 15: ≥ 3000FT / ≥ 3SM	RWY 05/23/33: < 3000FT / 3SM but ≥ RVR 1600FT RWY 15: < 3000FT / 3SM but ≥ 1/2SM WX: TSTM > 5 to 10NM	RWY 05/23/33: < RVR 1600FT RWY 15: < 1/2SM WX: TSTM OHD to 5NM / FZ PCPN
LANDING - RWY 05, 15, 23, and 33 (NOTE: RVR IS NOT AVAILABLE FOR RWY 15)		
RWY 23: ≥ 3000FT / ≥ 3SM RWY 05: ≥ 3000FT / ≥ 3SM RWY 15/33: ≥ 3000FT / ≥ 3 3/4SM	RWY 23: < 3000FT / 3SM but ≥ 200FT / 1/2SM / RVR 2400FT RWY 05: < 3000FT / 3SM but ≥ 300FT / 1/2SM / RVR 2400FT RWY 15/33: < 3000FT / 3 3/4SM but ≥ 900FT / 2 3/4SM WX: TSTM > 5 to 10NM	RWY 23: < 200FT / 1/2SM / RVR 2400FT RWY 05: < 300FT / 1/2SM / RVR 2400FT RWY 15/33: < 900FT / 2 3/4SM WX: TSTM OHD to 5NM / FZ PCPN
TOUCH and GO's - RWY 05, 15, 23, and 33 (NOTE: RVR IS NOT AVAILABLE FOR RWY 15)		
RWY 05/23: ≥ 3000FT / ≥ 3SM RWY 15/33: ≥ 3000FT / ≥ 3 3/4SM	RWY 05/23: < 3000FT / 3SM but ≥ 300FT / 3/4SM / RVR 4000FT RWY 15/33: < 3000FT / 3 3/4SM but ≥ 900FT / 2 3/4SM	RWY 05/23: < 300FT / 3/4SM / RVR 4000FT RWY 15/33: < 900FT / 2 3/4SM
ENROUTE		
NO HZDS	TSTM ISOLD-FEW / MDT TURBC / MDT ICG	TSTM SCT-NMRS / SVR TURBC / SVR ICG
AIR REFUELING		
NO HZDS / >3NM	TSTM ISOLD-FEW / LGT-MDT TURBC / LGT ICG / 1-3NM	TSTM SCT-NMRS / ≥ MDT TURBC / ≥ MDT ICG / <1NM

A3.1.2. **15th OWS Surface Significant Weather Chart.**

Figure A3.2. 15th OWS Surface Significant Weather Chart.



A3.1.3. **Watches/Warnings/Advisories.**

Figure A3.3. Watches/Warnings/Advisories.

Watches/Warnings/Advisories

TYPE	VALID TIME (L)	CRITIERIA
ADVISORY	1200-2300	Winds greater than or equal to 25 but less than 35 kts.

WESTOVER ARB FORECAST AND AIRFIELD INFORMATION (All heights AGL)

VALID TIME: 1700L-2100L

TIME (L)	WIND DIR	WIND SPEED (KT)	VIS (SM) / WX	CLOUDS (FT AGL)	RMK	TEMP (C)	PA (FT)
1700-2100	180	12 G 18	7+ / NONE	BKN025 OVC040		+23	+195
TEMPO 1700-2100	180	15 G 26		BKN015 BKN025 OVC040	LGT-MDT TURB SFC-040		
		G					
		G					
		G					

ACTIVE RWY: 23

SPACE WEATHER IMPACTS		
HF COMM	FAVORABLE	
SOLAR DATA		
CIVIL TWILIGHT (L)	START	0439
	END	2103
SUN (L)	RISE	0513
	SET	2028

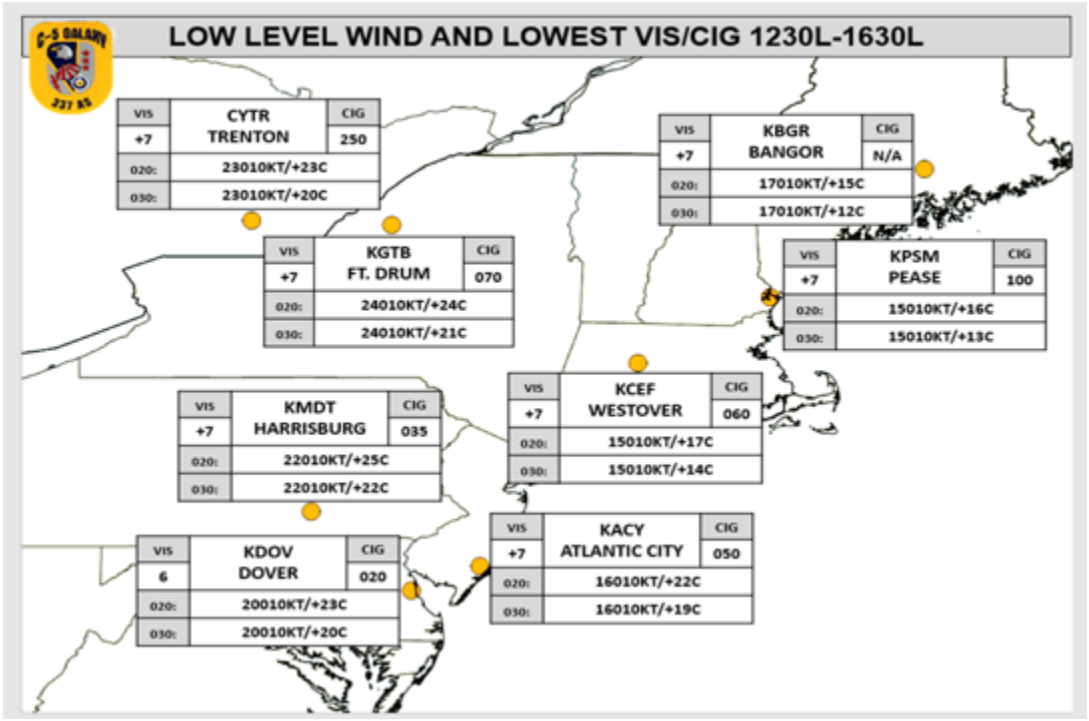
NOTE
CROSSWIND CALCULATED USING ONLY RUNWAY HEADING AND FORECASTED WIND SPEED / DIRECTION, TO INCLUDE GUSTS.

CROSSWIND AND HEAD/TAIL WIND INFORM (BY TIME)

TIME (L)	RUNWAY 05/23 X-WND	RUNWAY 05/23 H/T-WND	RUNV X-WND
1700-2100	14	12	09
TEMPO 1700-2100	20	17	13
	00	00	00
	00	00	00
	00	00	00

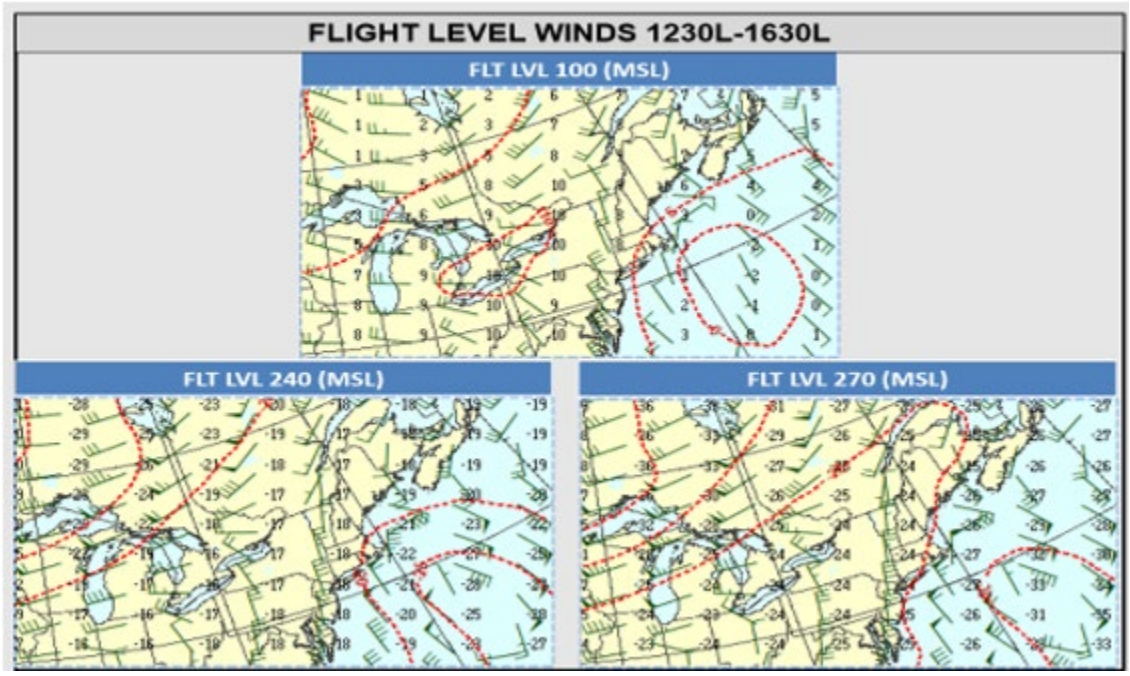
A3.1.4. **Low Level Wind and Lowest VIS/CIG.**

Figure A3.4. Low Level Wind and Lowest VIS/CIG.



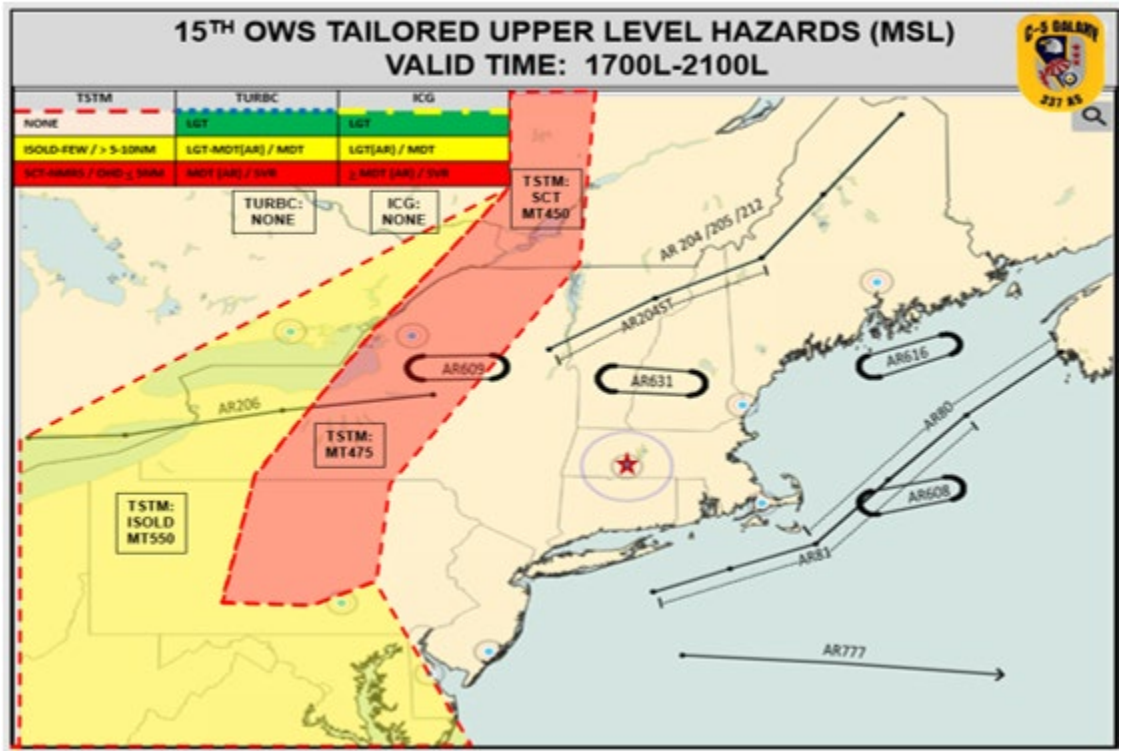
A3.1.5. **Flight Level Winds. This slide is provided on LOCAL MEFs ONLY**

Figure A3.5. Flight Level Winds. This slide is provided on LOCAL MEFs ONLY.



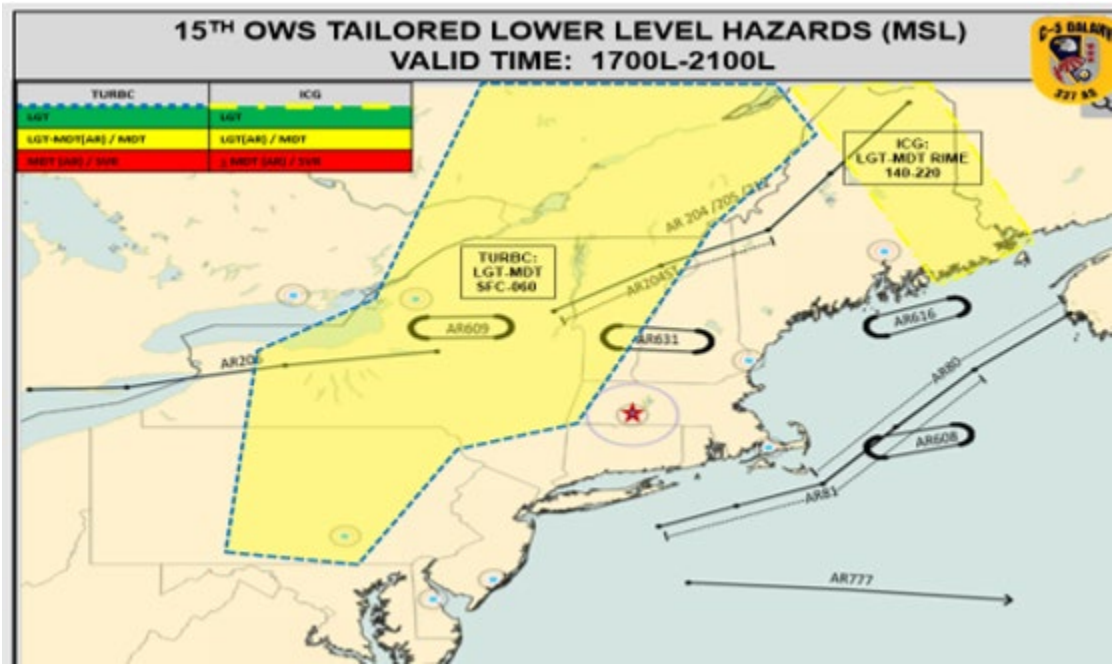
A3.1.6. **15th OWS Tailored Upper Level Hazards (MSL).**

Figure A3.6. 15th OWS Tailored Upper Level Hazards (MSL).



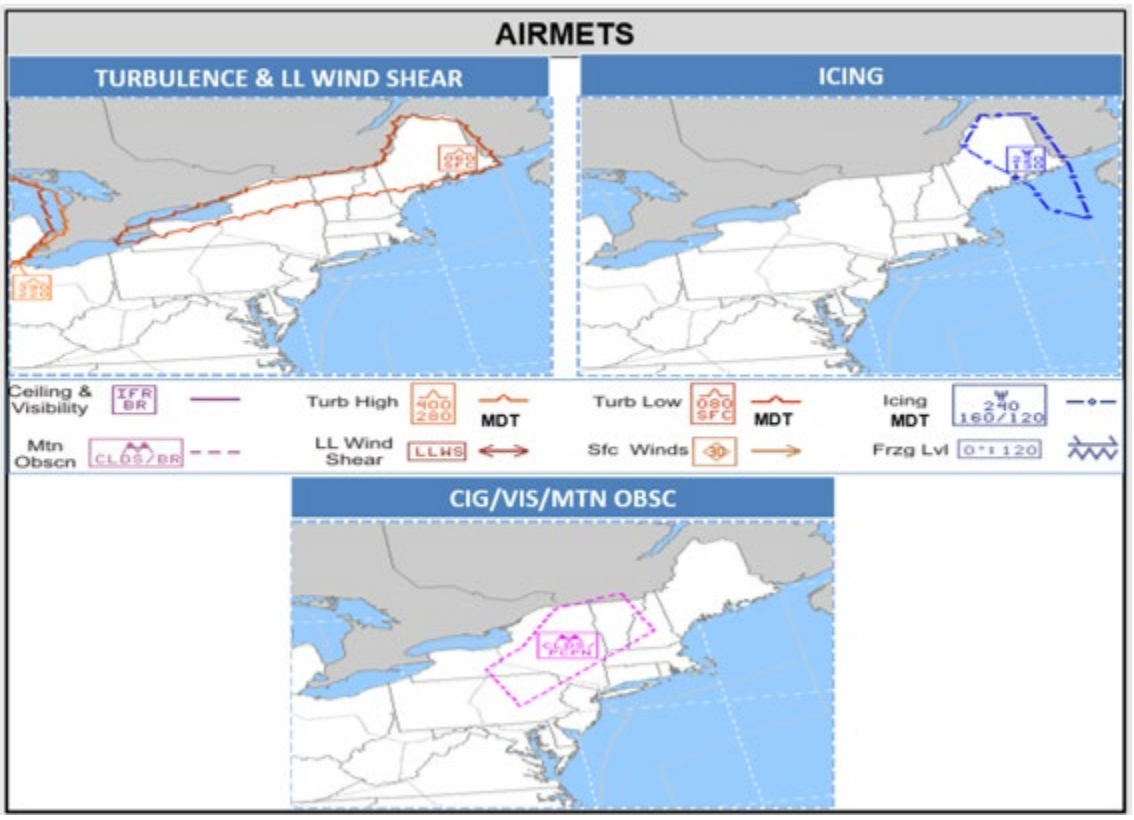
A3.1.7. **15th OWS Tailored Lower Level Hazards (MSL).**

Figure A3.7. 15th OWS Tailored Lower Level Hazards (MSL).



A3.1.8. **Airmets.**

Figure A3.8. Airmets.



A3.1.9. **SIGMETs.**

Figure A3.9. SIGMETs.

SIGMETS

PIREPS:

SWF UA /OV HUO180020/TM 1540/FL160/TP GLEX/WX VMC/TB SMOOTH
EWR UA /OV SBJ360010/TM 1543/FL140/TP B752/WX VFR/WV 300009G40/TB SMOOTH
ABE UA /OV ETX225010/TM 1543/FL060/TP P28B/SK VRB 055-059
JFK UA /OV JFK/TM 1548/FLDURGC/TP B737/RM B035 T045
BDL UA /OV BDL/TM 1552/FL280/TP A319/TB CONT LGT CHOP 280-295
EWR UA /OV EWR/TM 1555/FL020/TP B763/SK 020 BKN
TEB UA /OV TEB/TM 1607/FLDURGD/TP C510/SK OVC018/RM BASES 1800FT ON FINAL RWY 19
TEB UA /OV TEB/TM 1610/FLDURGD/TP C510/TB LGT/RM LGT TURBULENCE ON FINAL RWY 19
ALB UA /OV ALB010006/TM 1612/FL018/TP C17/SK BASES 018
BTV UA /OV BTV/TM 1620/FL003/TP CRJ9/WV 20016G26KTS/TB MOD/RM +/M 15KTS

A3.1.10. **Alternate Weather Locations.**

Figure A3.10. Alternate Weather Locations.

ALTERNATE WEATHER LOCATIONS
VALID TIME: 1700L - 2100L

BANGOR - KBGR

TIME (L)	DIR	SPD	(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND	
1700-2100	190	13	G 22	7+ / NONE	BKN120	+24	+192	29.92	RWY15/33	14
			G						RWY15/33	00
			G						RWY15/33	00
REMARKS										

PEASE - KPSM

TIME (L)	DIR	SPD	(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND	
1700-2100	170	13	G 21	7+ / NONE	SCT025 OVC040	+24	+63	29.96	RWY16/34	04
			G						RWY16/34	00
			G						RWY16/34	00
REMARKS										

TRENTON- CYTR

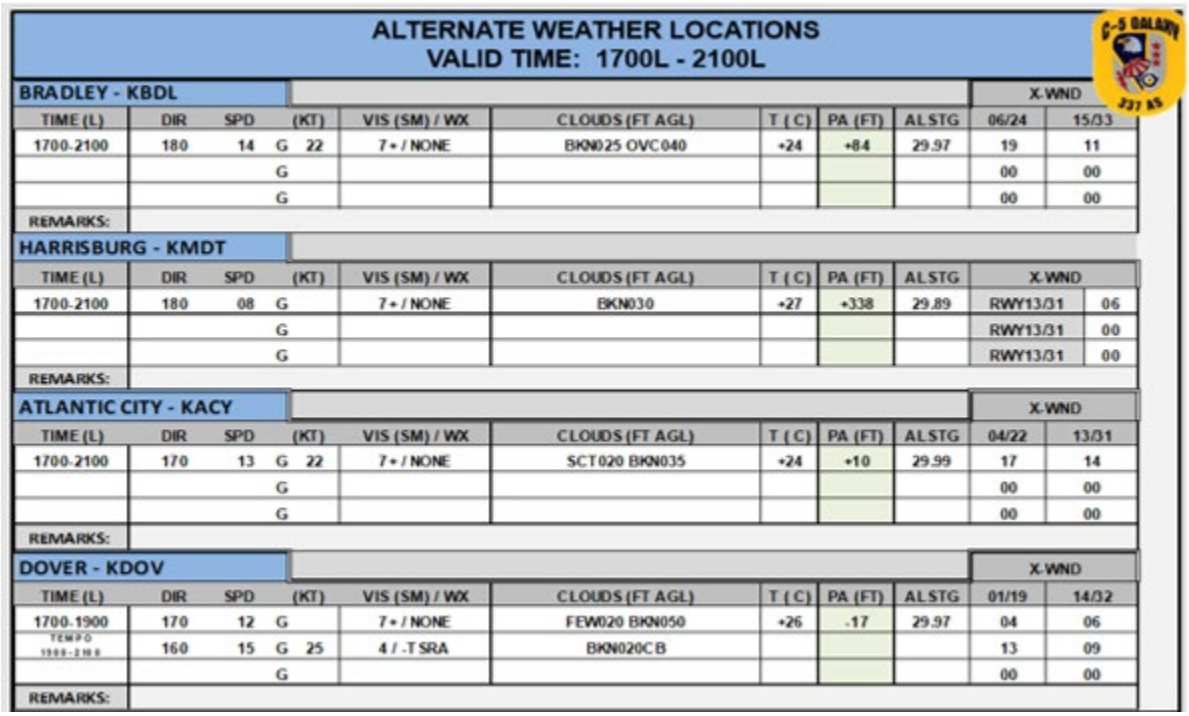
TIME (L)	DIR	SPD	(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND	
1700-1900	230	12	G 22	7+ / NONE	SCT040 BKN080	+25	+449	29.74	RWY06/24	04
TEMPO 1700-1900	VRB	30	G 45	1 +TSRA	SCT020 OVC040CB				RWY06/24	#VALUE!
1900-0100	230	08	G	7+ / NONE	FEW020	+23	+459	29.73	RWY06/24	01
REMARKS										

FT DRUM - KGTB

TIME (L)	DIR	SPD	(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND		
									03/21	08/26	15/33
1700-2100	280	15	G 25	6 / -SHRA	BKN025 OVC040	+27	+830	29.77	23	09	19
TEMPO 1700-2000	270	35	G 45	3 / -TSRA	OVC020CB				39	08	39
			G						00	00	00
REMARKS											

A3.1.11. **Alternate Weather Locations.**

Figure A3.11. Alternate Weather Locations.



ALTERNATE WEATHER LOCATIONS
VALID TIME: 1700L - 2100L

BRADLEY - KBDL

TIME (L)	DIR	SPD		(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND 06/24	X-WND 15/33
1700-2100	180	14	G	22	7+ / NONE	BKN025 OVC040	+24	+84	29.97	19	11
			G							00	00
			G							00	00
REMARKS:											

HARRISBURG - KMDT

TIME (L)	DIR	SPD		(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND	
1700-2100	180	08	G		7+ / NONE	BKN030	+27	+338	29.89	RWY13/31	06
			G							RWY13/31	00
			G							RWY13/31	00
REMARKS:											

ATLANTIC CITY - KACY

TIME (L)	DIR	SPD		(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND 04/22	X-WND 13/31
1700-2100	170	13	G	22	7+ / NONE	SCT020 BKN035	+24	+10	29.99	17	14
			G							00	00
			G							00	00
REMARKS:											

DOVER - KDOV

TIME (L)	DIR	SPD		(KT)	VIS (SM) / WX	CLOUDS (FT AGL)	T (C)	PA (FT)	ALSTG	X-WND 01/19	X-WND 14/32
1700-1900	170	12	G		7+ / NONE	FEW020 BKN050	+26	-17	29.97	04	06
TEMPO 1900-2100	160	15	G	25	4 / -TSRA	BKN020CB				13	09
			G							00	00
REMARKS:											

A3.1.12. **Mission Execution Forecast Feedback/Contact Information.**

Figure A3.12. Mission Execution Forecast Feedback/Contact Information.

Mission Execution Forecast Feedback

Contact Info: _____ Call Sign: _____

Date of Mission: _____ ICAO destination: T/O_____ Land_____

Was the mission completed?	Yes	No
Did the weather allow a successful mission?	Yes	No
Was the mission cancelled due to weather?	Yes (circle: Observed/Forecasted)	No
Was the mission rescheduled due to weather?	Yes (circle: Observed/Forecasted)	No
Which element was mission limiting?	None Ceiling Visibility Cross Wind Turbulence Icing Thunderstorm Freezing Rain Other: _____	

Please complete the following regarding the Air Refueling track

Forecasted Ceiling/Clouds	Amount:	Too little	Just right	Too much
	Height:	Too low	Just right	Too high
Forecasted Visibility	Distance:	Too low	Just right	Too high
Forecasted Turbulence	Overall:	Too little	Just right	Too much
Forecasted Icing	Overall:	Too little	Just right	Too much
Forecasted Thunderstorms	Overall:	Too little	Just right	Too much

General Comments:

_____

_____

_____

_____

_____

Please return to Westover ARB Weather Station
Comm 413-557-2879 DSN 589-2879

Contact Information

Request PIREP during takeoff/landing and en route.

Contact the Westover ARB Weather Office at:

PMSV FREQUENCY: U274.75
DSN: 589-2879
Commercial: (413) 557-2879
Fax DSN: 589-2156
Fax Commercial: (413) 557-2156
Office Hours: 0600L-2300L Daily

If requesting a 175-1, please call with standard flight information and please give at least 30 min notice.

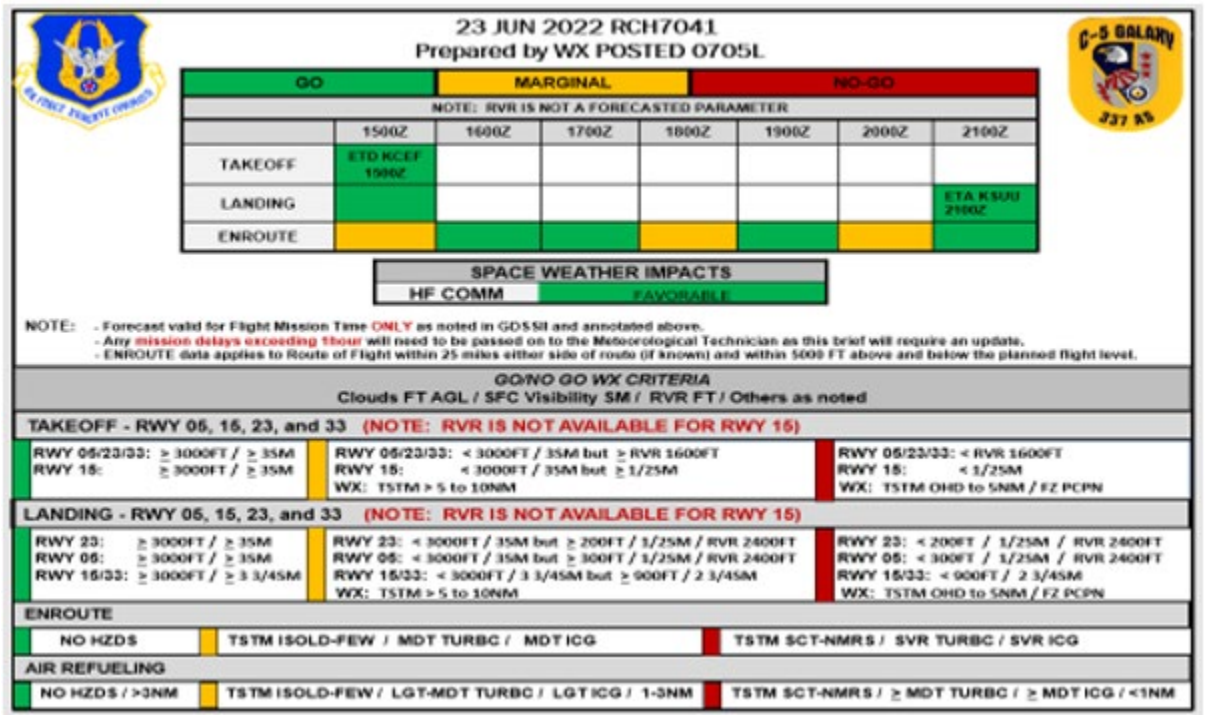
Outside office hours, please contact the 15th OWS at:

DSN: 576-9755
Commercial: (618) 256-9755
Fax DSN: 576-4855
Fax Commercial: (618) 256-9755

HAVE A GREAT FLIGHT!!

A3.1.13. **Sample OFFSTATION MEF.**

Figure A3.13. Sample OFFSTATION MEF.



23 JUN 2022 RCH7041
Prepared by WX POSTED 0705L

GO	MARGINAL	NO-GO

NOTE: RVR IS NOT A FORECASTED PARAMETER

	1500Z	1600Z	1700Z	1800Z	1900Z	2000Z	2100Z
TAKEOFF	ETD KCEF 1500Z						
LANDING							ETA KSUU 2100Z
ENROUTE							

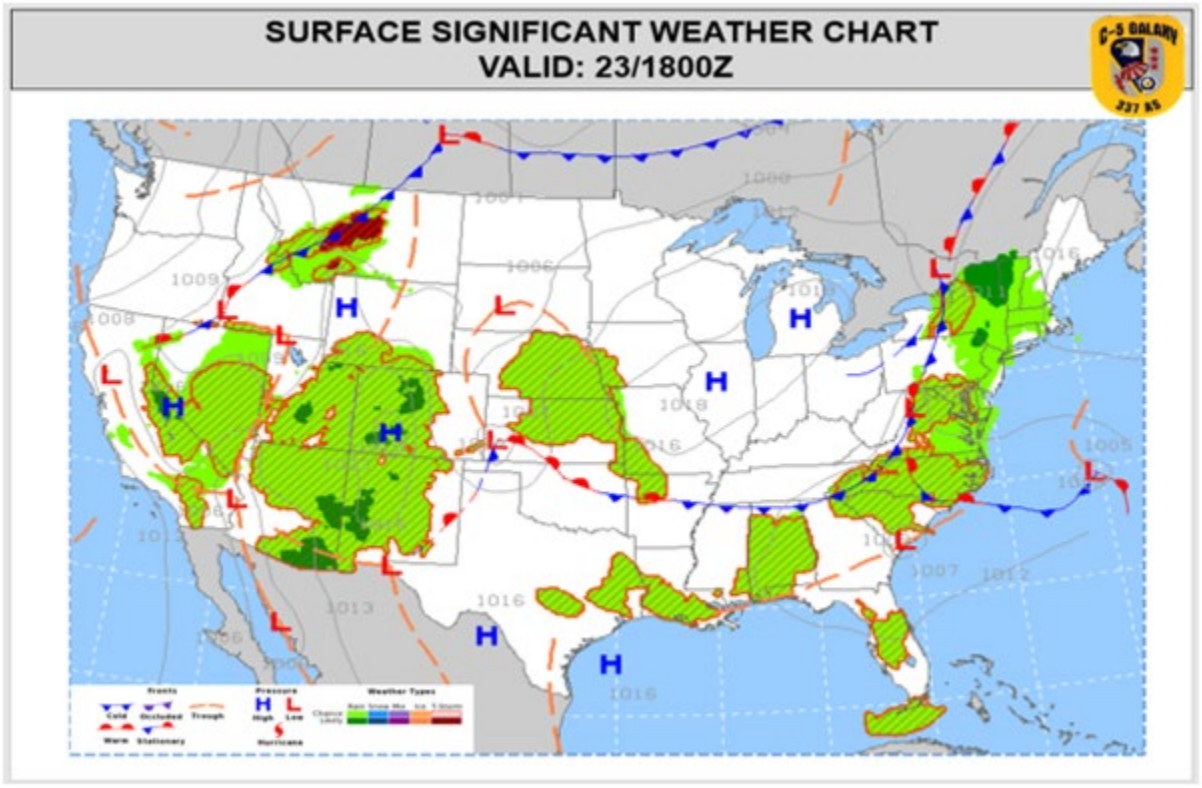
SPACE WEATHER IMPACTS	
HF COMM	FAVORABLE

NOTE:
- Forecast valid for Flight Mission Time ONLY as noted in GDSSII and annotated above.
- Any mission delays exceeding 1hour will need to be passed on to the Meteorological Technician as this brief will require an update.
- ENROUTE data applies to Route of Flight within 25 miles either side of route (if known) and within 5000 FT above and below the planned flight level.

GO/NO GO WX CRITERIA Clouds FT AGL / SFC Visibility SM / RVR FT / Others as noted		
TAKEOFF - RWY 05, 15, 23, and 33 (NOTE: RVR IS NOT AVAILABLE FOR RWY 15)		
RWY 05/23/33: ≥ 3000FT / ≥ 3SM RWY 15: ≥ 3000FT / ≥ 3SM	RWY 05/23/33: < 3000FT / 3SM but ≥ RVR 1600FT RWY 15: < 3000FT / 3SM but ≥ 1/2SM WX: TSTM > 5 to 10NM	RWY 05/23/33: < RVR 1600FT RWY 15: < 1/2SM WX: TSTM OHD to 5NM / FZ PCPN
LANDING - RWY 05, 15, 23, and 33 (NOTE: RVR IS NOT AVAILABLE FOR RWY 15)		
RWY 23: ≥ 3000FT / ≥ 3SM RWY 05: ≥ 3000FT / ≥ 3SM RWY 15/33: ≥ 3000FT / ≥ 3 3/4SM	RWY 23: < 3000FT / 3SM but ≥ 200FT / 1/2SM / RVR 2400FT RWY 05: < 3000FT / 3SM but ≥ 300FT / 1/2SM / RVR 2400FT RWY 15/33: < 3000FT / 3 3/4SM but ≥ 900FT / 2 3/4SM WX: TSTM > 5 to 10NM	RWY 23: < 200FT / 1/2SM / RVR 2400FT RWY 05: < 300FT / 1/2SM / RVR 2400FT RWY 15/33: < 900FT / 2 3/4SM WX: TSTM OHD to 5NM / FZ PCPN
ENROUTE		
NO HZDS	TSTM ISOLD-FEW / MDT TURBC / MDT ICG	TSTM SCT-NMRS / SVR TURBC / SVR ICG
AIR REFUELING		
NO HZDS / >3NM	TSTM ISOLD-FEW / LGT-MDT TURBC / LGT ICG / 1-3NM	TSTM SCT-NMRS / ≥ MDT TURBC / ≥ MDT ICG / <1NM

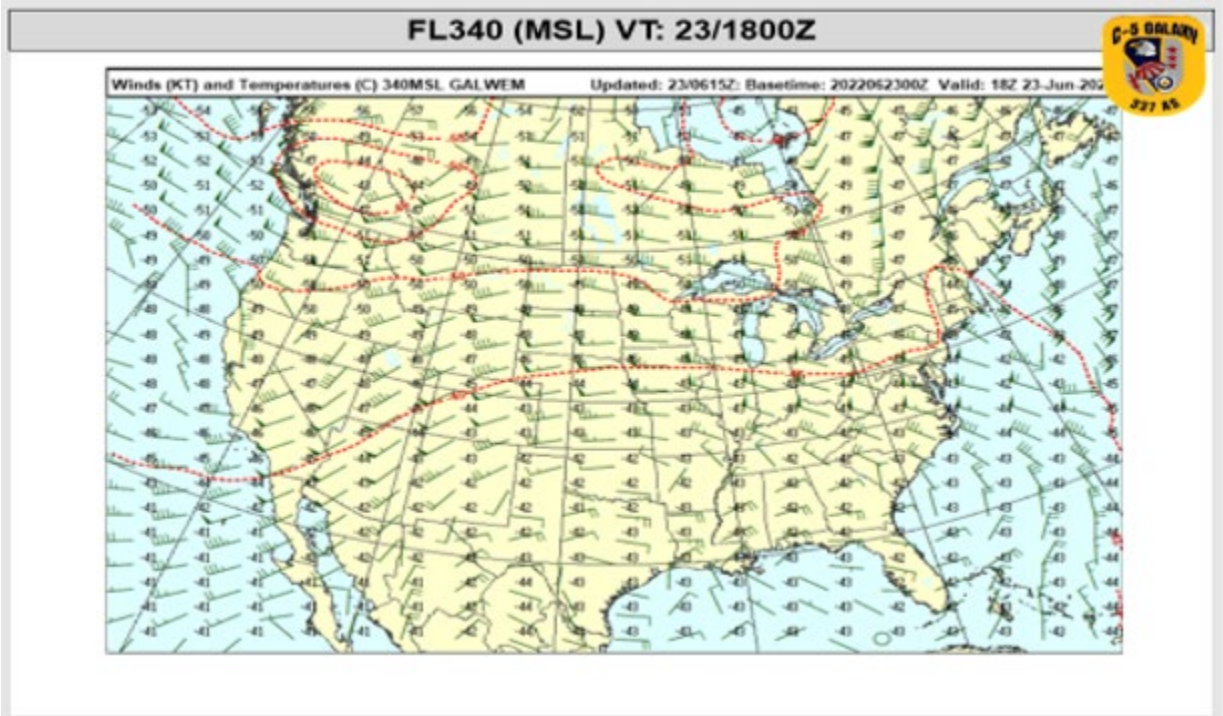
A3.1.14. **15th OWS Surface Significant Weather Chart.**

Figure A3.14. 15th OWS Surface Significant Weather Chart.



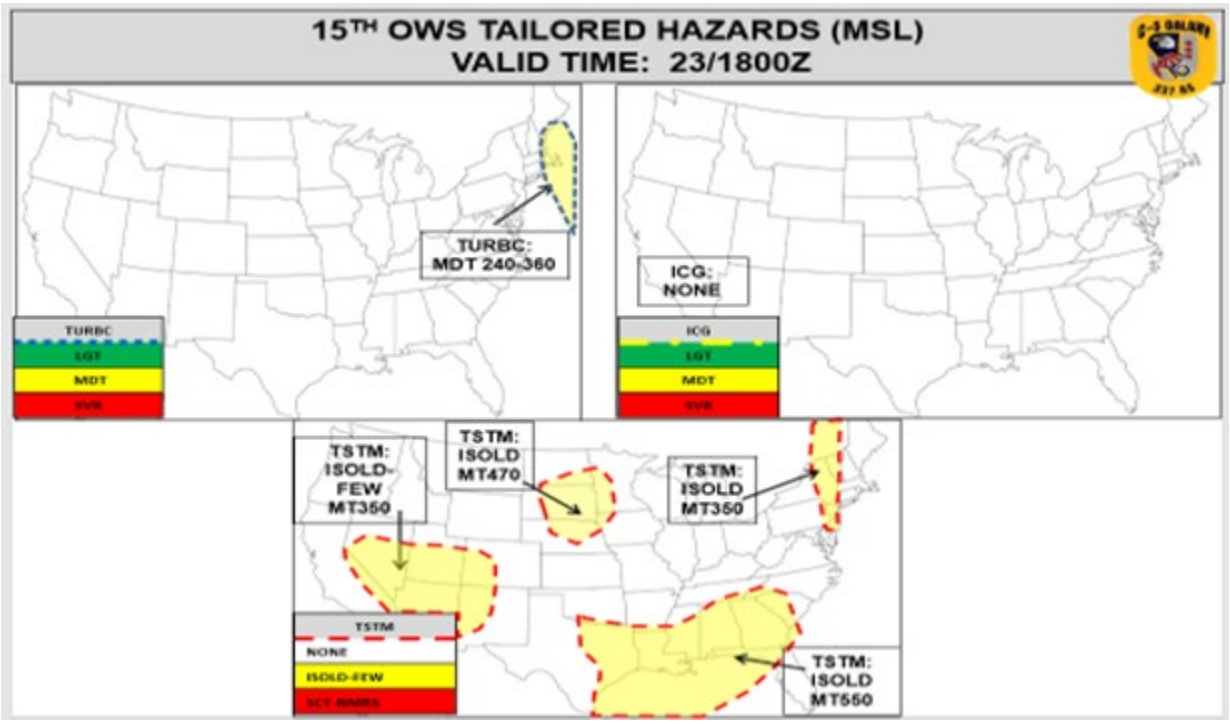
A3.1.15. **FL390 VT 27/1800Z.**

Figure A3.15. FL390 VT 27/1800Z.



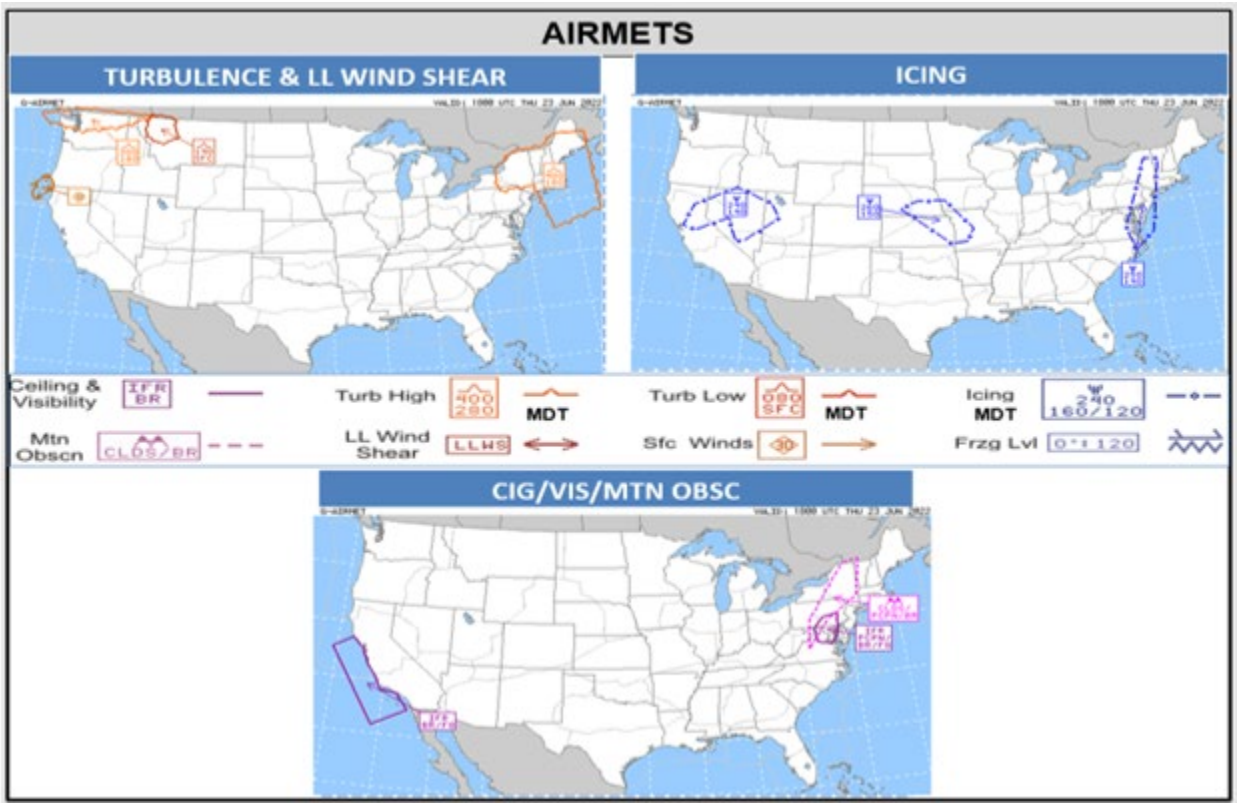
A3.1.16. **15th OWS Tailored Hazards Valid Time 23/1800Z. Sample OFFSTATION MEF.**

Figure A3.16. Sample OFFSTATION MEF.



A3.1.17. **Airmets.**

Figure A3.17. Airmets.

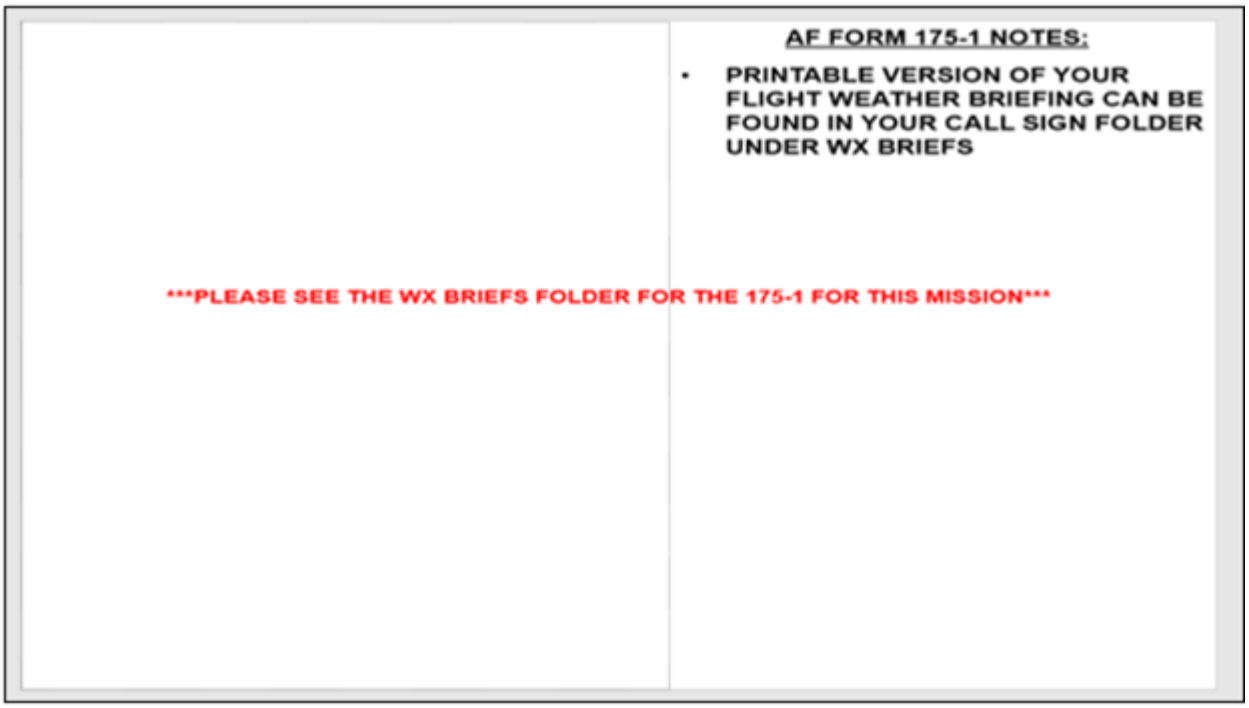


A3.1.18. **Sigmets.**

Figure A3.18. Sigmets.

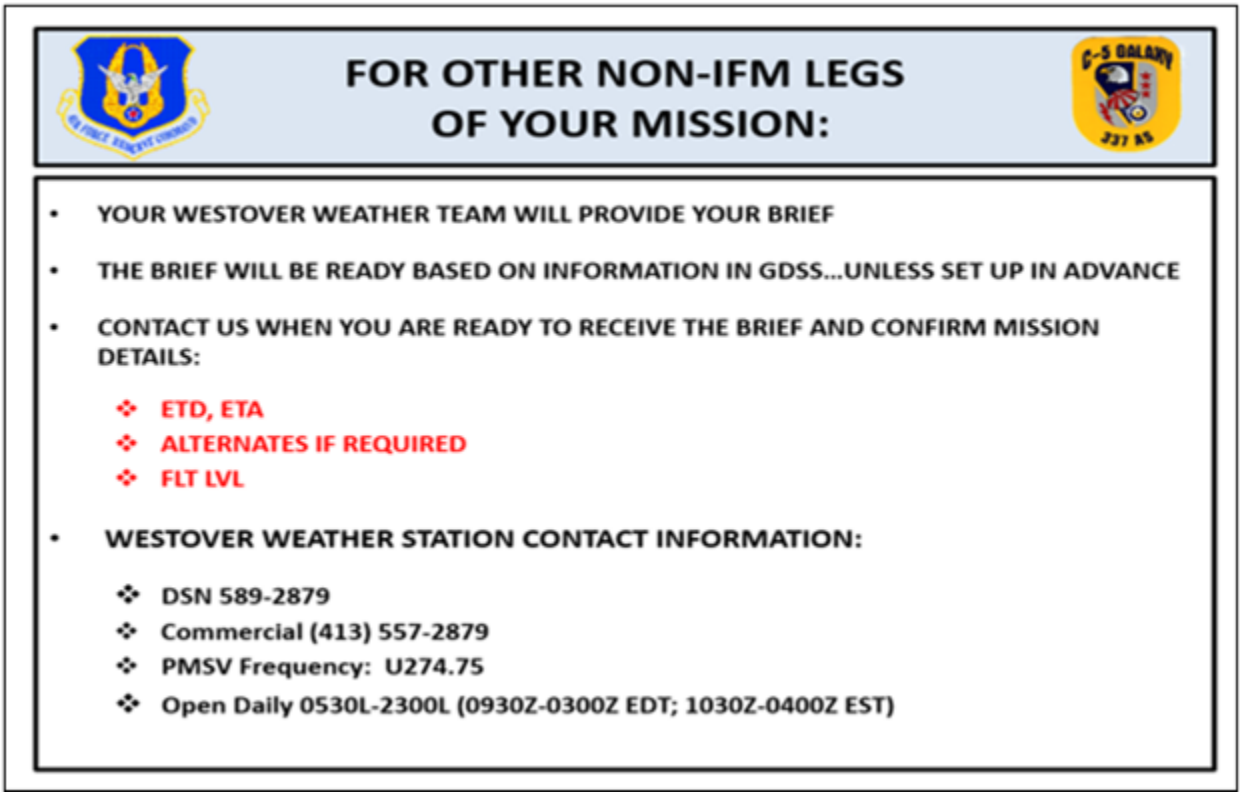
A3.1.19. **AF Form 175-1. Notes. The AF Form 175-1 is also provided for Off Station Missions in additions to the slides shown above.**

Figure A3.19. AF Form 175-1.



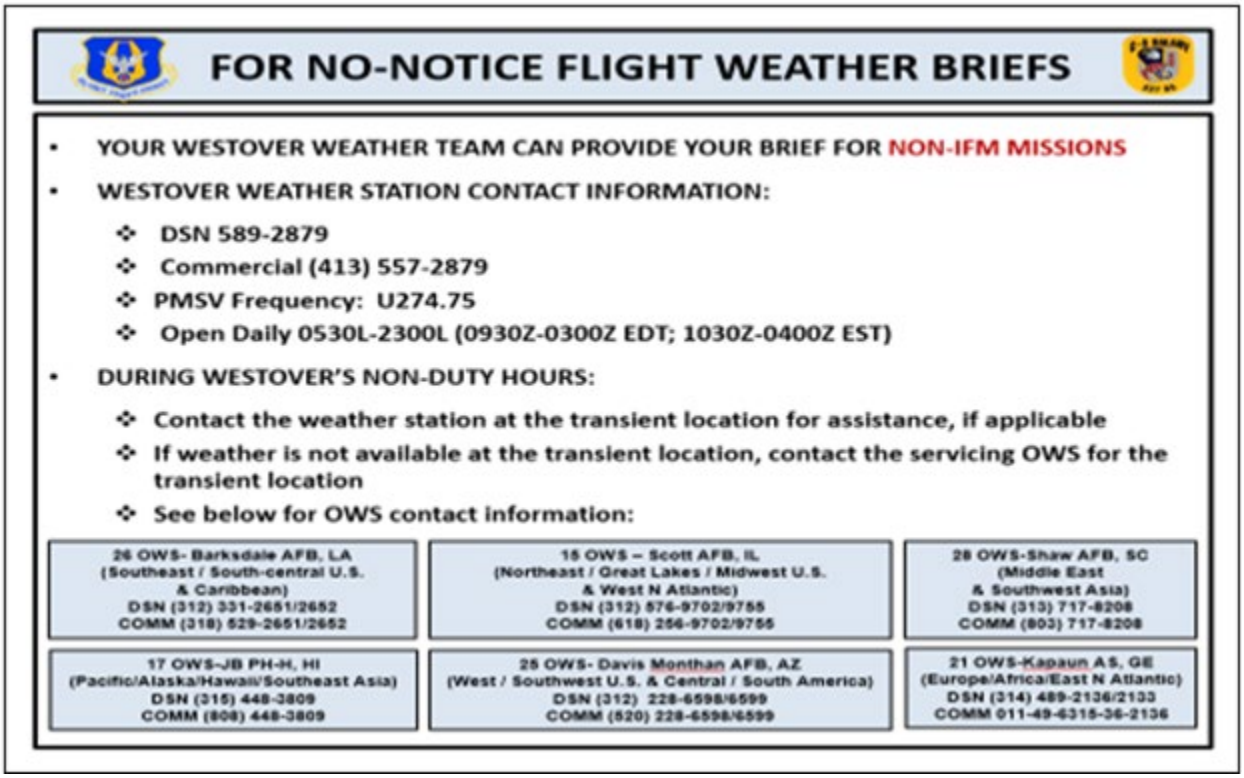
A3.1.20. **For Other Non-IMF Legs of Your Mission.**

Figure A3.20. For Other Non-IMF Legs of Your Mission.



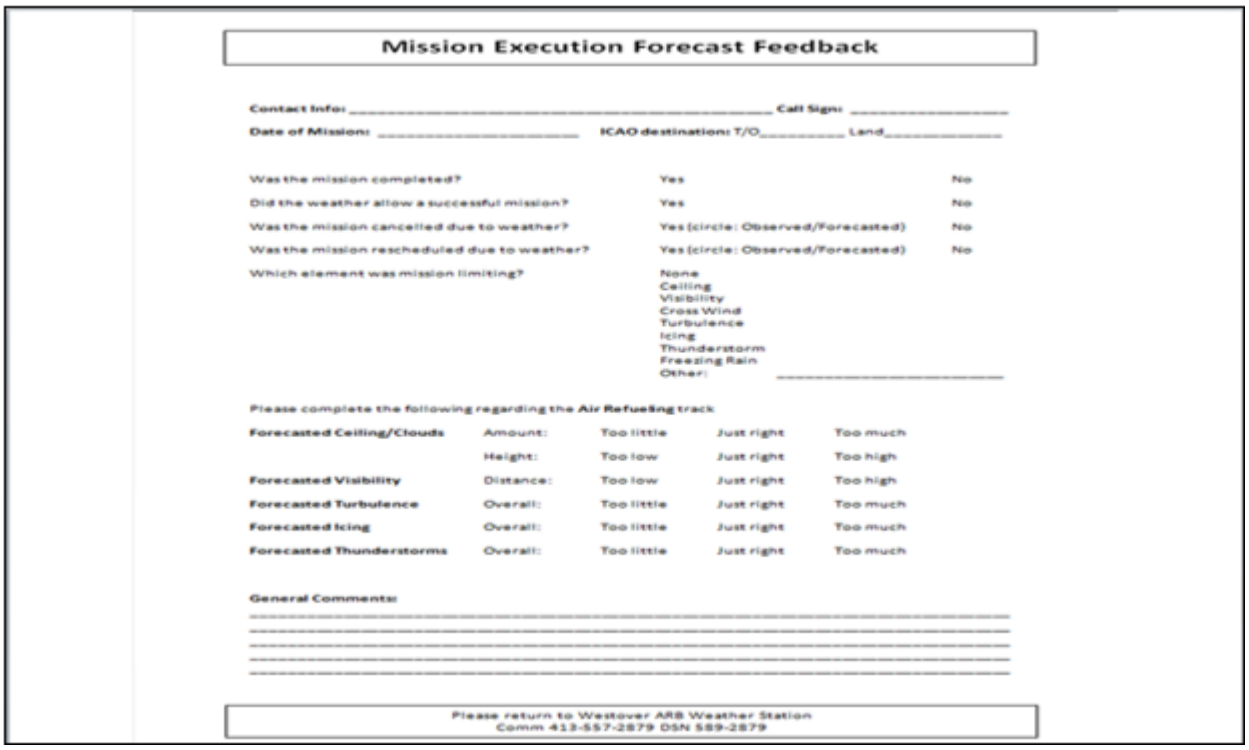
A3.1.21. **Future Briefs and Contact Information.**

Figure A3.21. Future Briefs and Contact Information.



A3.1.22. **Mission Execution Forecast Feedback.**

Figure A3.22. Mission Execution Forecast Feedback.



Mission Execution Forecast Feedback

Contact Info: _____ **Call Sign:** _____

Date of Mission: _____ **ICAO destination:** T/O_____ Land_____

Was the mission completed?	Yes	No
Did the weather allow a successful mission?	Yes	No
Was the mission cancelled due to weather?	Yes (circle: Observed/Forecasted)	No
Was the mission rescheduled due to weather?	Yes (circle: Observed/Forecasted)	No

Which element was mission limiting?

None
Ceiling
Visibility
Cross Wind
Turbulence
Icing
Thunderstorm
Freezing Rain
Other: _____

Please complete the following regarding the **Air Refueling** track

Forecasted Ceiling/Clouds	Amount:	Too little	Just right	Too much
	Height:	Too low	Just right	Too high
Forecasted Visibility	Distance:	Too low	Just right	Too high
Forecasted Turbulence	Overall:	Too little	Just right	Too much
Forecasted Icing	Overall:	Too little	Just right	Too much
Forecasted Thunderstorms	Overall:	Too little	Just right	Too much

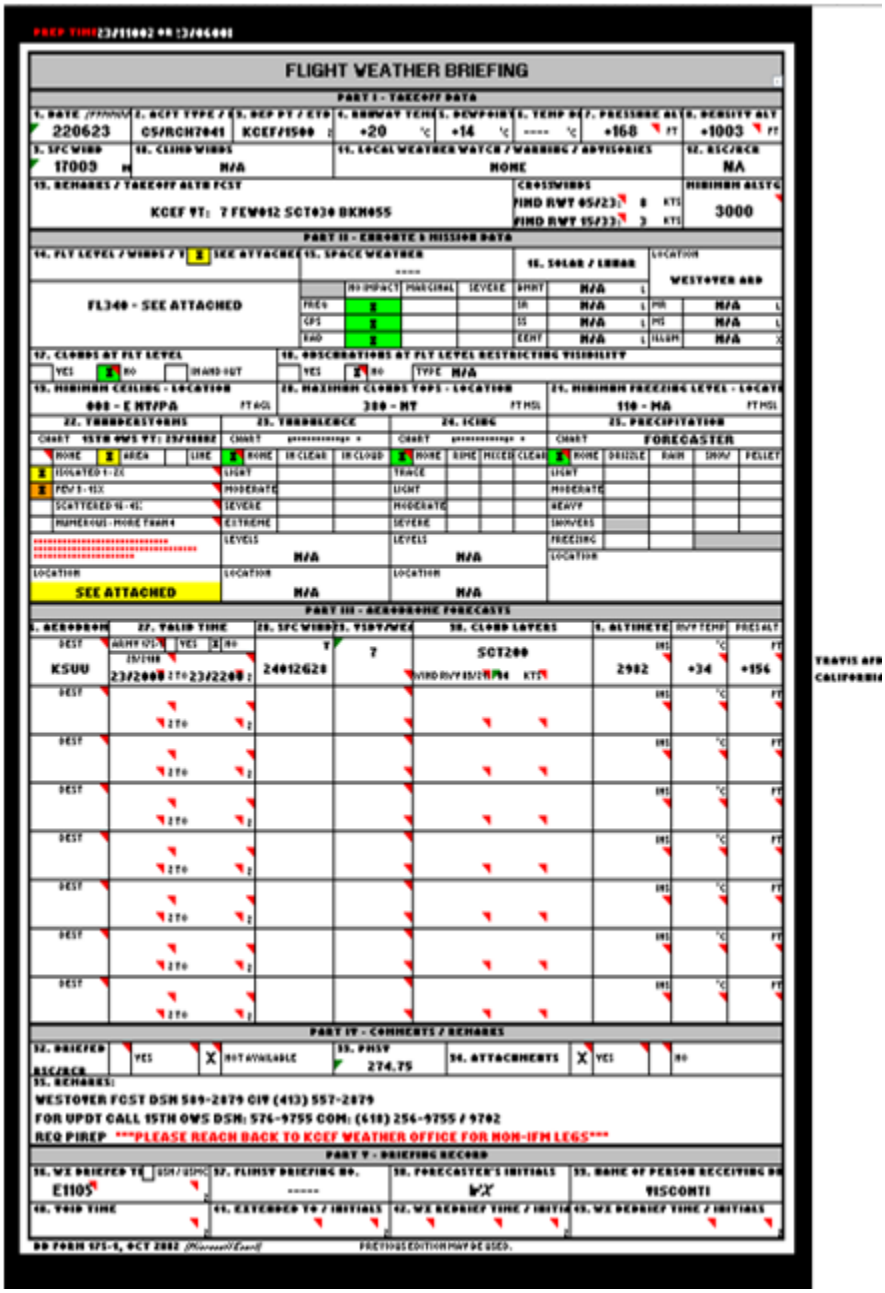
General Comments:

_____
_____
_____
_____
_____

Please return to Westover ARB Weather Station
Comm 413-557-2879 DSN 589-2879

A3.1.23. **Flight Weather Briefing.**

Figure A3.23. Flight Weather Briefing.



FLIGHT WEATHER BRIEFING

PART I - TAKEOFF DATA

1. DATE	2. ACFT TYPE /	3. DEP PT / CYD	4. RUNWAY TEMP	5. DEWPOINT	6. TEMP	7. PRESSURE ALT	8. DENSITY ALT
220623	C5/RCH7041	KCEF/1500	+20 °C	+14 °C	---- °C	+168 FT	+1003 FT

9. SFC WIND	10. CLIMB WINDS	11. LOCAL WEATHER WATCH / WARNING / ADVISORIES	12. RSC/RCR
17003 KT	N/A	NONE	NA

13. REMARKS / TAKEOFF ALTN FCST	CROSSWINDS	HEIGHTH ALSTG
KCEF FT: 7 FEW012 SCT030 BKN055	FIND RWY 05/23: 8 KTS FIND RWY 15/33: 3 KTS	3000

PART II - ENROUTE & MISSION DATA

14. FLT LEVEL / WINDS / T	SEE ATTACHED	15. SPACE WEATHER				16. SOLAR / LUNAR	LOCATION
FL340 - SEE ATTACHED			NO IMPACT	MARGINAL	SEVERE	ANNT	N/A L	WESTOVER ARB
		FREQ	X			IR	N/A L	PR	N/A L
		GPS	X			IS	N/A L	MS	N/A L
		RAD	X			EENT	N/A L	ILLUM	N/A X

17. CLOUDS AT FLT LEVEL	18. OBSCURATIONS AT FLT LEVEL RESTRICTING VISIBILITY
YES NO IN AND OUT	YES X NO TYPE N/A

19. MINIMUM CEILING - LOCATION	20. MAXIMUM CLOUDS TOPS - LOCATION	21. MINIMUM FREEZING LEVEL - LOCATI
000 - E NT/PA FT AGL	380 - NT FT MSL	110 - MA FT MSL

22. THUNDERSTORMS	23. TURBULENCE	24. ICING	25. PRECIPITATION
CHART 15TH OWS FT: 23/0000Z	CHART	CHART	CHART FORECASTER
NONE / AREA / LINE	NONE / IN CLEAR / IN CLOUD	NONE / TRACE / LIGHT / MOD / SEVERE	NONE / DRIZZLE / RAIN / SNOW / PELLET
X ISOLATED 1-2%	LIGHT	TRACE	LIGHT
X FEW 3-15%	MODERATE	LIGHT	MODERATE
SCATTERED 16-40%	SEVERE	MODERATE	HEAVY
NUMEROUS - MORE THAN 4	EXTREME	SEVERE	SHOWERS
	LEVELS N/A	LEVELS N/A	FREEZING
LOCATION SEE ATTACHED	LOCATION N/A	LOCATION N/A	LOCATION

PART III - AERODROME FORECASTS

26. AERODROME	27. VALID TIME	28. SFC WIND	29. VIS	30. CLOUD LAYERS	31. ALTIMETER	OAT	PRESALT
DEST KSUU	AMD? YES X NO 23/1418 23/2008 TO 23/2208	T 24012G28	7	SCT200	INS 2982	°C +34	FT +154
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT
DEST	TO				INS	°C	FT

TRAVIS AFB CALIFORNIA

PART IV - COMMENTS / REMARKS

32. BRIEFED RSC/RCR	YES	X NOT AVAILABLE	33. PHSV 274.75	34. ATTACHMENTS	X YES	NO

35. REMARKS:
WESTOVER FCST DSN 589-2879 CIV (413) 557-2879
FOR UPDT CALL 15TH OWS DSN: 576-9755 COM: (618) 256-9755 / 9702
REQ PIREP ***PLEASE REACH BACK TO KCEF WEATHER OFFICE FOR NON-IFM LEGS***

PART V - BRIEFING RECORD

36. WE BRIEFED TO	37. FLIGHT BRIEFING NO.	38. FORECASTER'S INITIALS	39. NAME OF PERSON RECEIVING BR
E1105	-----	WX	VISCONTI
40. VOID TIME	41. EXTENDED TO / INITIALS	42. WE REBRIEF TIME / INITIA	43. WE REBRIEF TIME / INITIALS

DD FORM 175-1, OCT 2002 PREVIOUS EDITION MAY BE USED.

A3.1.24. **Sample IFM MEF. This is for planning purposes ONLY. The official brief for IFM missions is provided by 618 AOC TACC at Scott AFB, IL .**

Figure A3.24. Sample IFM MEF.

Attachment 4

SNOW AND ICE PLAN FORECAST

A4.1. Sample Snow and Ice Plan Forecast.

Table A4.1. Sample Snow and Ice Plan Forecast.

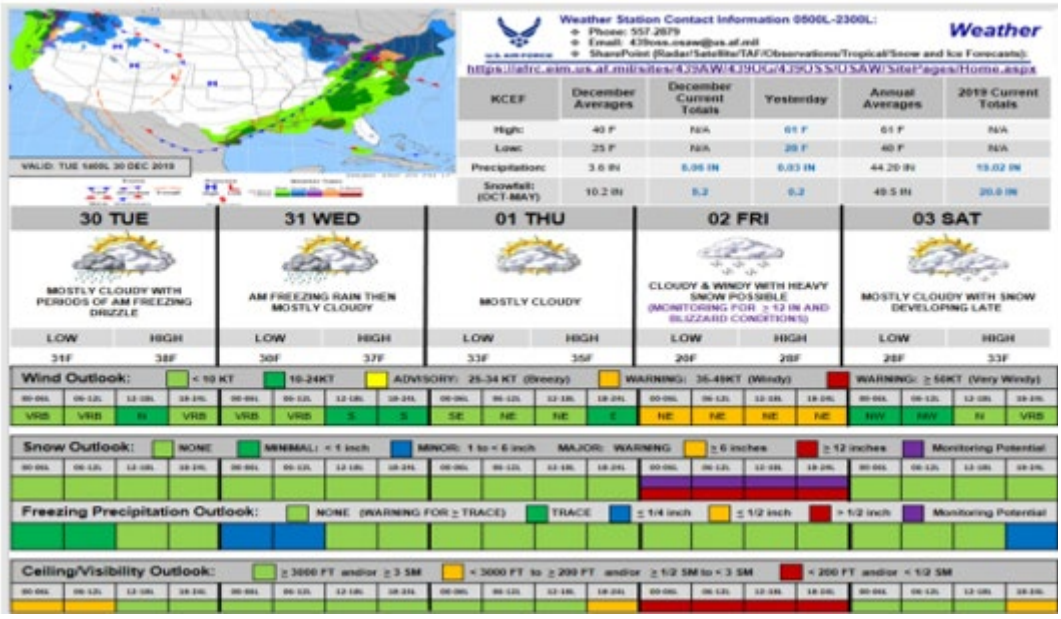
WESTOVER ARB SNOW AND ICE PLAN WEATHER FORECAST CONTACT INFORMATION: (413) 557-2879						
DATE ISSUED:	MON 13 OCT 2014			TIME:	1300L	
DAY OF WEEK	**DATE/ TIME (L)**	**PRECIP TYPE AND INTENSITY (OR BLACK ICE)**	**PRECIP AMOUNT (INCHES)**	**TEMP RANGE (F)**	**WIND (KT)**	**BLOWING and/or DRIFTING SNOW (Y/N)**
TUE	14/1200L-14/1700L	SNOW	1-3 “	30-32F	NE 10G15KT	N
	14/1700L-14/2300L	PERIODS OF RAIN	1/4 - 1/2 “	33-35F	S 10 KT	N/A
WED MORNING	15/0300L-15/0900L	BLACK ICE	N/A	28-32F	VRB 03KT	N/A
DATE/TIME (L) Temp drops to 32F or below	WED 15/0300L		**DATE/TIME (L) Temp rises above 32F**		TUE 14/1700L; WED 15/0900L	
REMARKS:	Rain will end late TUE evening with clearing skies overnight. This will allow areas of “Black Ice” to develop as temperatures drop below freezing.					
WEATHER OUTLOOK:	WED: Partly cloudy skies with NW winds 10KT. Expect a low of 28F WED morning and a High of 40F.					

Attachment 5

WESTOVER FIVE DAY OUTLOOK

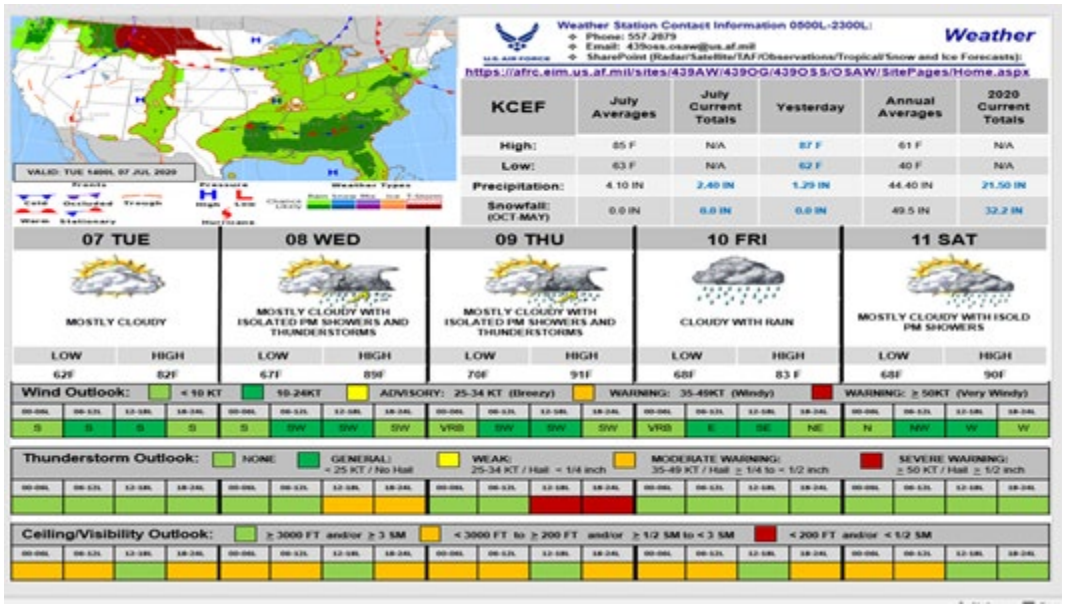
A5.1. Sample Fall/Winter Westover Five Day Outlook.

Figure A5.1. Sample Fall/Winter Westover Five Day Outlook.



A5.2. Sample Spring/Summer Westover Five Day Outlook.

Figure A5.2. Sample Spring/Summer Westover Five Day Outlook.



Attachment 6

FITNESS CENTER 1.5-MILE RUN AND 1.0-MILE WALK FORECAST

A6.1. Sample Fitness Center 1.5-Mile Run and 1.0-Mile Walk Forecast.

Figure A6.1. Sample Fitness Center 1.5-Mile Run and 1.0-Mile Walk Forecast.

Fitness Center 1.5-Mile Run and 1.0-Mile Walk PT Forecast

DATE:	23 MAR 2015	TIME FRAME OF RUN/WALK:		1250-1330		L	
Name of Fitness Center member:		MR PT		Forecaster Initials:		WX	
PASS ON THE FOLLOWING FORECAST INFORMATION:							
Sustained Wind Speed (mph)	15-18	Wind Gusts (mph)	26-28	Air Temp (F)	27	Wind Chill Temp (F) (When applicable)	11

AFI 36-2905 Condition:	
Sustain Wind must be ≤ **15 mph.**	**Air Temperature** must be ≥ **20F**
Gusts must be ≤ **20 mph.**	If it is a **wet day** (i.e., rain, mist, or heavy dew), the temperature must be **> 34F, including Wind Chill**

EVALUATE FOR THE FOLLOWING FORECAST CONDITIONS AND PASS ON ANY SIGNIFICANT INFORMATION:	
AFI 36-2905 Condition:	**Forecast information passed on:**
1. There can be **"no significant rain"**. Let them know if rain/drizzle is in the forecast.	NONE
2. There can be **no snow/ice accumulating** on the running surface. Will there be accumulating snow/ice?	NONE
3. There can be **no lightning within 5NM** and must wait at least 30 min after the last observed lightning. Will there be lightning within 5NM?	NONE
4. There can be **no hail** forecast or reported within 25 miles. Will hail be a threat?	NONE
5. Wet Bulb Globe Temperature (**WBGT**) must be ≤ **86F** at the start of the run/walk. **Refer them to BIOENVIRONMENTAL for questions on actions needed at 557-2523.**	N/A

Attachment 7

EXTREME TEMPERATURE FORECAST

A7.1. Sample Extreme Cold Forecast.

Figure A7.1. Sample Extreme Cold Forecast.

WESTOVER EXTREME COLD FORECAST					
Extreme Cold = 2 or more days in a row of 0F/-18C or lower					
START DATE:	27 FEB 2015	STOP DATE:	01 MAR 2015		
Forecast Low Temperature Range During the Period:	-10 TO -01	F	-23 TO -18	C	
Forecast High Temperature Range During the Period:	17 TO 24	F	-08 TO -04	C	
Forecast Low Temperature Range 2 Day Outlook After Stop Date:	02 TO 22	F	-17 TO -05	C	
Forecast High Temperature Range 2 Day Outlook After Stop Date:	24 TO 30	F	-04 TO -01	C	
REMARKS: There may be the need for another Extreme Cold Forecast for the middle of next week. We will send a new Forecast if needed. This forecast will be updated as needed. Contact the Westover Weather Station with any questions at 557-2879.					

A7.2. Sample Extreme Heat Forecast.

Figure A7.2. Sample Extreme Heat Forecast.

WESTOVER EXTREME HEAT FORECAST					
Extreme Heat = 2 or more days in a row of 100F/38C or higher					
START DATE:	04 JUL 2015	STOP DATE:	06 JUL 2015		
Forecast High Temperature Range During the Period:	100 TO 102	F	38 TO 39	C	
Forecast Low Temperature Range During the Period:	70 TO 74	F	21 TO 23	C	
Forecast High Temperature Range 2 Day Outlook After Stop Date:	90 TO 95	F	32 TO 35	C	
Forecast Low Temperature Range 2 Day Outlook After Stop Date:	65 TO 70	F	18 TO 21	C	
REMARKS: A heat wave with high temperatures around 100F is expected Saturday through Monday. This forecast will be updated as needed. Contact the Westover Weather Station with any questions at 557-2879.					