



*Weather*

**WEATHER SUPPORT**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the Keesler AFB WWW site, Forms and Publications at: <https://wwwmil.keesler.af.mil/pubs/index.html>. If you lack access, contact the Base Publications Manager (81 CS/SCPI).

---

OPR: 81 OSF/OSW (Capt J. Patton)

Certified by: 81 TRW/CV (Col Ray T. Garza)

Pages: 46/Distribution: F

---

This instruction implements Air Force Policy Directive (AFPD) 15-1, *Atmospheric and Space Environmental Support*, Air Force Instruction 10-229, *Responding to Severe Weather Events*, Air Force Instruction (AFI) 15-118, *Requesting Specialized Weather Support*, AFI 15-114, *Weather Support Evaluation*, Air Force Manual (AFMAN) 15-111, *Surface Weather Observations*, AFMAN 15-124, *Meteorological Codes*, and AFMAN 15-125, *Weather Station Operations*. It establishes responsibilities and weather support procedures and provides general information for weather services, including weather observations, forecasts, warnings, watches, advisories, dissemination of information and reciprocal support. It applies to units assigned to the 81st Training Wing and units assigned to or supported by Keesler Air Force Base. It outlines peacetime weather support and is used by units on Keesler AFB that require weather support. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322, Vol. 4). This instruction also applies to the US Air Force Reserve units and members on Keesler AFB.

**Chapter 1 — GENERAL INFORMATION**

1.1. General.....	4
1.2. Concept of Operations .....	4
1.3. Responsibilities.....	4
1.4. Weather Service Priorities .....	5
1.5. Weather Service Limitations .....	5
1.6. Release of Weather Information to Non-DoD Agencies and Individuals .....	5
1.7. Exercise Evacuation of the Weather Station .....	6
1.8. Weather Homepage and Public Folder .....	6
1.9. Dissemination of Weather Information .....	6
1.10. Utilization of Weather Station Personnel .....	6
1.11. Records Management .....	6
1.12. Weather Indoctrination Training .....	6

**Chapter 2 — FORECASTING AND BRIEFING SERVICES**

2.1. General.....	7
2.2. Terminal Aerodrome Forecast (TAF).....	7
2.3. Pilot-to-Metro Service (PMSV) and PIREPs .....	7
2.4. Radar Support .....	8
2.5. Backup Weather Support.....	8
2.6. Briefings .....	8
2.7. Specialized Support .....	9
2.8. Alternate Forecasting Site.....	9

**Chapter 3 — OBSERVING SERVICES**

3.1. General.....	10
3.2. Basic Weather Watch (BWW).....	10
3.3. Cooperative Weather Watch.....	11
3.4. Weather Equipment .....	11
3.5. Surface Weather Observing Site.....	11
3.6. Site and Equipment Limitations .....	11
3.7. Alternate Observation Site.....	12
3.8. Dissemination Procedures .....	12

**Chapter 4 — WEATHER ADVISORIES, WATCHES, AND WARNINGS**

4.1. General.....	13
4.2. Weather Advisories .....	13
4.3. Weather Watches .....	13
4.4. Weather Warnings .....	14
4.5. Weather Dissemination and Numbering Sequence .....	14
4.6. Hurricane Advisories and Information .....	14
4.7. Severe Weather Management .....	15

**Chapter 5 — RECIPROCAL SUPPORT**

5.1. General.....	16
5.2. 81 TRW Command Post.....	16
5.3. 81 OSF Airfield Operations.....	16
5.4. 81 OSF Control Tower .....	16
5.5. 81st Communications Squadron.....	17
5.6. 81 TRW Safety .....	18
5.7. 403d and 45 AFL Supervisors of Flying (SOFs).....	18
5.8. 81st Civil Engineering .....	18
5.9. 81st Security Forces Squadron .....	18
5.10. 81 TRW Exercise Evaluation Team .....	18
5.11. Flying Units located on Keesler.....	18

5.12. 81st Training Group.....	19
5.13. <b>Form Prescribed. Keesler AFB Form 25, Weather Dissemination Log</b> .....	19
<b>Attachment 1 — KEESLER AFB WEATHER SERVICE PRIORITIES .....</b>	<b>20</b>
<b>Attachment 2 — TAF SPECIFICATION AND AMENDMENT CRITERIA .....</b>	<b>21</b>
<b>Attachment 3 — KEESLER AFB SPECIAL AND LOCAL OBSERVATION CRITERIA.....</b>	<b>24</b>
<b>Attachment 4 — COOPERATIVE WEATHER AGREEMENTS.....</b>	<b>27</b>
<b>Attachment 5 — FORMATS/EXAMPLES.....</b>	<b>29</b>
<b>Attachment 6 — AMIS/N-TFS OR LEGACY “AWDS” .....</b>	<b>33</b>
<b>Attachment 7 — EQUIPMENT DESCRIPTION AND RESTORAL PRIORITY .....</b>	<b>34</b>
<b>Attachment 8 — WEATHER ADVISORY, WATCH, AND WARNING CRITERIA .....</b>	<b>37</b>
<b>Attachment 9 — KEESLER AFB WEATHER WATCH/WARNING DISSEMINATION MATRIX .....</b>	<b>39</b>
<b>Attachment 10 — KEESLER AFB WEATHER ADVISORY DISSEMINATION MATRIX .....</b>	<b>41</b>
<b>Attachment 11 — KEESLER AFB FORM 25, KEESLER WEATHER DISSEMINATION LOG .....</b>	<b>42</b>
<b>Attachment 12 — TERMS, ABBREVIATIONS, ACRONYMS .....</b>	<b>44</b>

## Chapter 1

### GENERAL INFORMATION

**1.1. General.** The 81st Operations Support Flight's Base Weather Station (BWS) provides and arranges weather support to all military units assigned to Keesler AFB. Basic concepts and procedures are outlined in Air Force and Air Education and Training Command (AETC) directives, instructions, and manuals. This document establishes requirements and procedures for areas of weather support that must be coordinated at the local level to meet mission needs. It consolidates weather support requirements and procedures for normal peacetime operations, but does not cover procedures for emergency war operations or other special operations/procedures that are covered in applicable base plans and instructions.

**1.2. Concept of Operations.** The BWS provides or arranges for 24-hour operational and staff weather support for Keesler AFB, issues weather advisories, watches, warnings, and hurricane information for personnel and resource protection. The BWS provides 24-hour terminal forecasts and routine surface observations for Keesler AFB. The forecast section is a limited duty operation (see chapter 2 for details).

#### **1.3. Responsibilities.**

1.3.1. The BWS will provide the following general types of weather support services:

1.3.1.1. Operational support:

1.3.1.1.1. Surface weather observations for Keesler AFB.

1.3.1.1.2. Terminal Aerodrome Forecasts for Keesler AFB.

1.3.1.1.3. Pilot-to-metro service on UHF 344.6.

1.3.1.1.4. Weather watches, warnings, advisories, and hurricane information.

1.3.1.1.5. Flight weather briefings.

1.3.1.2. Staff Support:

1.3.1.2.1. Evaluation of weather support requirements.

1.3.1.2.2. Climatology studies and analyses.

1.3.1.2.3. Battlestaff and wing staff briefings.

1.3.1.2.4. Parade forecasts IAW AFMAN 36-2203, Keesler Supplement 1.

1.3.1.2.5. Travel or TDY weather outlooks as requested by commanders.

**1.3.2. All base units will:**

1.3.2.1. IAW AFI 10-229, *Responding to Severe Weather*, be familiar with weather advisory, watch, and warning criteria, and develop procedures or checklists to take appropriate actions for applicable criteria. See Attachment 8 for criteria.

1.3.2.2. Develop internal procedures to promptly disseminate weather warnings and watches to appropriate personnel. Submit a copy of your dissemination procedures to the BWS fax at 7-2459 within 30 days of receipt of this KAFBI. See Attachments 9 and 10 for initial dissemination.

1.3.2.2.1. Keesler AFB Form 25, **Weather Dissemination Log**, can be tailored by units for use with dissemination procedures. See Attachment 11 for an example of Keesler AFB Form 25.

1.3.2.3. Annually review their response to severe weather and provide the BWS a copy of checklists used to accomplish resource protection. AFI 10-229, *Responding to Severe Weather*, mandates requirements for severe weather preparation and recovery.

1.3.2.4. Notify the BWS OIC/NCOIC in writing or via email of any new weather service requirements or to delete services no longer required.

1.3.2.5. Notify the BWS duty observer at ext. 7-4397 of all AMIS/N-TFS (legacy AWDS) outages/problems.

**1.4. Weather Service Priorities.** To ensure critical services are provided, the BWS personnel will follow the duty priorities listed in Attachment 1.

**1.5. Weather Service Limitations.**

1.5.1. Observing accuracy, forecasting and briefing capabilities are limited to the availability of operational meteorological and communications equipment.

1.5.2. It is assumed the BWS will be adequately manned and supported to fulfill the services outlined in this instruction; if not, expect disruption of normal services.

1.5.3. The BWS maintains only limited historical and climatological information; therefore, requests beyond the BWS records will require time for processing.

**1.6. Release of Weather Information to Non-DoD Agencies and Individuals.** Except as authorized by 81 TRW Public Affairs, non-DoD organizations and individuals will be referred to other government or private weather information services for weather data.

1.6.1. Weather request by foreign nationals must be coordinated through the BWS for proper coordination with AF STINFO officers.

**1.7. Exercise Evacuation of Weather Station.** The BWS will not evacuate during exercises.

**1.8. Weather Homepage and Public Folder.** The BWS maintains a weather homepage at (<http://www.keesler.af.mil/index1.html>). The homepage provides links to current local data, forecasts, satellite and radar imagery, and climatological data.

1.8.1. A five-day outlook for Keesler, satellite and radar imagery, and current hurricane information can also be found in the *81 OSF Weather* public folder, located in *Microsoft Outlook* on the base Local Area Network. The public folder is updated twice daily at 0800 and 1330L.

**1.9. Dissemination of Weather Information.** Weather watches and warnings will be disseminated IAW Attachment 9 and weather advisories IAW Attachment 10; hurricane information as outlined in paragraph 4.6; observations as outlined in paragraph 3.8; forecasts as outlined in paragraph 2.2; and LAN products as outlined in paragraph 1.8.

**1.10. Utilization of Weather Station Personnel.** Weather personnel should not be tasked for ready augmentee positions or functions and details that will take them away from their forecasting or observing duties. Agencies wishing to task personnel from the BWS must coordinate four weeks in advance with the weather station OIC or NCOIC on their ability to support the tasking.

**1.11. Records Management.** The BWS will maintain and dispose of records according to AFMAN 37-139, *Records Disposition Schedule*.

**1.12. Weather Indoctrination Training.** The BWS will provide weather indoctrination training and initial weather certification to Air Traffic Controllers assigned to 81 OSF, IAW AFI 13-203. Other agencies requiring similar training should coordinate with the BWS OIC.

## Chapter 2

### FORECASTING AND BRIEFING SERVICES

**2.1. General.** Forecasting services are available from 0615L to 1900L daily, except on federal holidays or other approved Aerodrome closures.

2.1.1. There will be a standby forecaster available 24 hours a day, 7 days a week who will man the weather station when weather warning criteria is expected to affect the base or for mission requirements, of which a remote briefing from another station or Operational Weather Squadron will not suffice.

**2.2. Terminal Aerodrome Forecast (TAF).** The BWS issues a TAF for the Keesler AFB aerodrome by 0615L, 1415L and 1815L unless closed. The TAF covers a 24-hour period and is disseminated over the AMIS/N-TFS (legacy AWDS). TAF specification and amendment criteria are listed in Attachment 2.

2.2.1. If the AMIS/N-TFS is inoperable, the TAF will be disseminated via telephone to the tower, base operations, and the command post. It will be entered into the Automated Weather Network by another BWS or via the Air Force Weather Information Network (AFWIN).

### **2.3. Pilot-to-Metro Service (PMSV) and PIREPS.**

2.3.1. PMSV is available on UHF 344.6 MHz to provide aircrew with operational weather support. Aircrews are to provide PIREPs as required by the Flight Information Handbook section C and 11 series AFIs (see Attachment 4).

2.3.2. When no forecaster is on duty, observers may relay via the PMSV only the following information with valid times: surface observations; TAFs for which amendment capability exists; locally disseminated watches, warnings and advisories.

2.3.3. When the station is closed on federal holidays, etc., PMSV support is available on Columbus and Tyndall METRO, same UHF frequency or Eglin METRO on 342.6. See the Flight Information Handbook section C for additional Pilot-to-METRO services.

2.3.4. Air Traffic Control facilities will pass airborne weather information and PIREP's to the BWS IAW FAAO 7110.65.

2.3.5. Local Supervisors of Flying (SOFs) will pass weather reports received from airborne aircraft to the duty forecaster as part of the Cooperative Weather Watch (see Attachment 4).

2.3.6. The BWS will disseminate PIREPs locally when they reflect operationally significant weather within 50 NM of Keesler AFB (reports of any icing, turbulence, low-level wind shear, thunderstorm activity, tops/bases of clouds, flight visibility and obstructions to vision). PIREPs will be disseminated longline IAW AFMAN 15-111.

**2.4. Radar Support.** Real-time radar data is obtained using the WSR-88D Doppler Weather Radar. The radar data acquisition unit is owned and maintained by Mobile, Alabama National Weather Service Office, and is located at the Mobile Airport. Additional radar images can be obtained from weather related web sites. The BWS also has the capability to dial into upstream WSR-88D radars to obtain data.

**2.5. Backup Weather Support.**

2.5.1. During forecaster non-duty hours, unless the airfield is closed for a federal holiday, etc., an observer will be on duty to direct aircrew requests to 24-hour units and to watch for developing weather threats near Keesler. Observers will follow Standard Operating Procedures and AFMAN 15-125 to evaluate and take action on developing weather threats.

2.5.2. During aerodrome closures and federal holidays, the Air Force Weather Agency will relay Mississippi Point Weather Warnings (PWWs) to the 81 TRW/CP, who will recall the standby forecaster.

2.5.2.1. It is assumed PWWs will be issued with sufficient lead-time, allowing a forecaster to man the BWS and issue appropriate local warnings, if required. Additionally, the standby forecaster will analyze the local weather prognosis twice daily during aerodrome closures/holidays. Appropriate action will be taken IAW AFMAN 15-125, the prognosis, and PWWs, as stated in paragraph 2.1.1.

**2.6. Briefings.** The Base Weather Station will provide the following types of weather briefings:

2.6.1. **Flight weather briefings** will be available in the BWS between 0615 and 1900L. Pilots departing on cross-country flights or transiting Keesler AFB should receive an in-station weather briefing from the BWS. The most current after-hour weather briefing procedures will be posted in the weather station when the forecaster section is closed.

2.6.1.1. Out-of-station flight weather briefings are available upon request where an in-station briefing would be impractical. Seventy-two hour advance notice is required to ensure that personnel are available and the briefing is prepared.

2.6.1.2. Weather personnel will metwatch the flight route of missions briefed by the BWS. Personnel will relay significant changes in briefed weather to the owning SOF for relay to the aircrew as necessary. Significant changes include: hazards not briefed; destination and alternates all reflecting IFR conditions not previously briefed; and any PIREPs received along the route which contain hazards not briefed on departure.

2.6.2. **Routine staff weather** and stand-up briefings will be provided to the 81 TRW/CC. Requirements for additional staff briefings will be coordinated with the BWS OIC or NCOIC. Commander briefings consist of a satellite image, radar summary, 24-hour forecast, plus a 4 day outlook, and any other pertinent information such as active hurricanes, etc.

**2.6.3. Instrument Refresher Course briefings, seasonal flight safety, and quarterly SOF briefings** will be available when coordinated in advance. Customers will coordinate at least 2 weeks in advance to ensure manpower is available to support their request.

**2.6.4. Weather briefings in support of local exercises, Operational Readiness Inspections, etc.,** will be provided according to applicable directives. Briefing content and associated visual aids will be coordinated between the requesting agency and the BWS. Units outside 81 TRW who require weather support for exercises will coordinate the request well in advance through the 81 OSF/CC.

## **2.7. Specialized Support.**

2.7.1. The BWS has no Electro-Optics forecast requirements. Any new requirements for this support must be coordinated with the BWS OIC so a program can be implemented as necessary.

2.7.2. The BWS will provide an initial worst case toxic corridor and backup the agency calculating the corridor by using AFTOX v4.1 if the unit responsible (see 81 TRW PLAN 32-1) is unable to perform the calculations.

**2.8. Alternate Forecasting Site.** If the BWS is evacuated due to hurricanes, fire, bomb threat, etc., the forecaster will proceed to the alternate observer site or to the hurricane evacuation shelter, as appropriate. Upon arrival, the forecaster will prepare local forecasts and conduct a limited metwatch using available equipment and data. Normal weather support will likely be interrupted.

## Chapter 3

### OBSERVING SERVICES

**3.1. General.** The BWS will provide hourly surface weather observations, as well as Specials and Locals, as required by the criteria in Attachment 3. Observer operations are conducted 24 hours daily, except on federal holidays or other approved aerodrome closures when an observer is then on telephone standby.

3.1.2. Types of Observations. The observer takes hourly observations (METAR) during the 15 minutes proceeding each hour. The observer also takes special and local observations as defined in Attachment 3.

3.1.2.1. Each METAR observation includes the following information: time, sky condition, prevailing visibility, RVR (if required), present weather, obstruction to vision (if any), temperature, dew point, wind speed and direction (magnetic), altimeter setting, and remarks (as appropriate).

3.1.2.1.1. Instantaneous Runway Visual Range (RVR) values will be in feet and only disseminated locally for runway 21 when conditions require report of RVR.

**3.2. Basic Weather Watch (BWW).** An observer who, because of other duties, cannot monitor the weather continuously, thus cannot detect and report all weather changes as they occur, conducts a BWW. In addition to taking and disseminating record observations, the BWW observing program involves the following minimum requirements as the basis for the detection of significant changes in weather conditions:

3.2.1. Recheck of weather conditions at intervals not to exceed 20 minutes since the last observation/recheck, to determine the need for a local or special observation, when any of the following conditions are observed to be occurring or are forecast to occur within 1 hour.

3.2.1.1. Ceiling forms below or decreases to less than 1,500 feet AGL, or dissipates or increases to equal or exceed 1500 feet.

3.2.1.2. Visibility decreases to less than 3 SM or increases to equal or exceed 3 SM.

3.2.1.3. Precipitation (any form).

3.2.1.4. Fog or mist.

3.2.1.5. Thunderstorms or lightning within 5NM of Keesler AFB.

3.2.2. In addition to the above minimum requirements, the observer remains alert for any other changes in weather conditions which require a special or local observation.

3.2.3. When a reliable source (certified tower controller, pilot, on or off duty weather personnel) reports weather conditions significantly different from the last disseminated observation, the weather is rechecked and a new observation is disseminated, if required.

**3.3. Cooperative Weather Watch.** The Keesler AFB Control Tower, Security Forces, Aircrew and SOF notify the weather station whenever significant weather events or changes are occurring IAW Attachment 4.

**3.4. Weather Equipment.** The BWS has sensors to measure cloud base heights, wind direction and speed, atmospheric pressure, rainfall, and ambient air temperature. A complete listing can be found in Attachment 7.

**3.5. Surface Weather Observing Site.** Surface weather observations are taken from the flight line side of Bldg 0233, 10-15 feet west of the observer room door. This observation can be supplemented with conditions observed from the stairwell next to BWS (weather permitting) and the southeast external corner of Bldg 0233.

**3.6. Site and Equipment Limitations.** The observer's ability to view the horizon is limited by various obstructions. Also, certain limitations to the equipment could affect the quality of weather observation readings.

3.6.1. Obstructions to Vision. Bldg 0233 completely blocks the observer's view to the east. At night, glare from floodlights near the flight line make it difficult to see clouds and visibility markers.

3.6.2. Obstructions to Hearing. Aircraft engine noise may prevent the observer from hearing thunder.

3.6.3. Equipment Limitations.

3.6.3.1. Visibility markers one mile or more from the observation site exist only in the west through north sector.

3.6.3.2. The wind sensor (FMQ-13) has documented deficiencies; details are available in AFMAN 15-111 or the BWS. Additionally, the wind-measuring instrument on Runway 21 occasionally gets hit with "prop wash" from aircraft this can produce non-representative wind speed and direction readings.

3.6.3.2.1. When the wind sensors are deemed unreliable, calls will be placed to ATC and CP with instructions to use the winds from the local observations which will be taken more frequently IAW AFMAN 15-111.

3.6.3.3. Runway Visual Range (RVR) is determined by instantaneous readout and not a 10-minute average. It is only reported when runway 21 is active and reporting criteria are met IAW AFMAN 15-111.

**3.7. Alternate Observation Site.** If the BWS is evacuated, the weather observer will proceed to Hewes Hall, Bldg 6903. Upon arrival, the observer will begin a limited metwatch and take surface weather observations using the Manual Observing System (MOS) Kit. These observations are passed to ATC agencies, the command post, and called out for longline dissemination IAW SOP.

**3.8. Dissemination Procedures.** Observations will be disseminated over AMIS/NTFS (legacy AWDS). If the system is inoperative, observations will be disseminated by telephone to the control towers at Keesler and Gulfport, and upon request to the wing command post. Longline dissemination will be accomplished by calling another unit or use of AFWIN provided the observer has LAN capability.

## Chapter 4

### WEATHER ADVISORIES, WATCHES, AND WARNINGS

**4.1. General.** Certain weather conditions endanger property or life, pose a safety hazard, or adversely impact operations. The BWS monitors these phenomena and issues weather advisories, watches, and warnings for significant weather events that are occurring or are expected to occur.

4.1.1. Commanders must be familiar with weather watch, warning, and advisory criteria that affect their operations or personnel and ensure that the notification is passed to the lowest echelon in their unit who may require the notification for personal safety and resource protection.

4.1.2. Dissemination Procedures. Weather advisories, watches, and warnings are disseminated by the BWS via AMIS/N-TFS (legacy AWDS.) A follow-up call is made to the Keesler command post and tower. Further dissemination will be accomplished IAW Attachments 9 and 10.

4.1.2.1. For internal dissemination, Keesler AFB Form 25 can be tailored, reproduced, and used by your unit. See Attachment 11.

**4.2. Weather Advisories.** A weather advisory is a special notice provided to supported customer that alerts them to weather conditions that could affect their operations. Two types of advisories are issued; observed weather advisories and forecast weather advisories.

4.2.1. Observed Weather Advisory. A weather advisory issued when the customer does not require advanced notification of a particular weather phenomenon.

4.2.2. Forecast Weather Advisory. A weather advisory issued when the customer requires advance notification of an impending condition with sufficient time to allow protective actions to be taken.

4.2.3. Forecast weather advisories will only be issued when the airfield is open.

4.2.4. Weather Advisory Criteria are listed in Attachment 8. Disseminate IAW Attachment 10.

**4.3. Weather Watches.** A weather watch is a special notice provided to supported customers that alerts them of a **potential** for weather conditions of such intensity as to pose a hazard to life or property for which the customer must take protective action (e.g., tornadoes, thunderstorms with winds greater than 50 knots and/or hail greater than or equal to 3/4 inch, lightning within 5 nautical miles, blizzard conditions, etc.).

4.3.1. The BWS issues weather watches for Keesler AFB and will man the station and issue watches whenever they are required. Watches normally precede warnings.

4.3.2. Weather Watch Criteria are listed in Attachment 8. Disseminate IAW Attachment 9.

4.3.3. All unit's on Keesler will, at a minimum, review their protective action procedures when watches are issued.

**4.4. Weather Warnings.** A weather warning is a special notice provided to supported customers that alerts them to weather conditions of such intensity as to pose a hazard to life or property. Warnings are issued to alert supported agencies of significant weather conditions that are occurring or forecast to occur of which protective actions must be taken.

4.4.1. The BWS issues weather warnings for Keesler AFB whenever the criteria is expected to occur, i.e., 24/7.

4.4.2. Criteria for weather warnings are listed in Attachment 8. Disseminate IAW Attachment 9.

4.4.3. All units will complete their protective actions upon receipt of weather warnings.

**4.5. Weather Dissemination and Numbering Sequence.** Weather warnings, watches, and advisories will be numbered consecutively for an entire month. The first two digits represent the month and the last three digits represent the number warning, watch, or advisory issued for the month. For example, the fifth warning issued for the month of August would be numbered "Weather Warning 08-005."

4.5.1. Only one warning may be in effect at a time, **excluding the observed lightning warning.** If new warning criteria is expected, or current warning criteria is no longer expected, a new warning will be issued with all the expected phenomena and the old warning canceled. However, multiple watches or advisories can be in effect at one time as long as they are for a different weather phenomena.

4.5.2. To change the valid times or duration of a warning, watch, or advisory, an extension or change to the warning, watch, or advisory will be issued.

4.5.3. The lightning warning and watch will always be canceled when no longer expected. Other warnings, watches and advisories will be canceled or allowed to expire when no longer required.

**4.6. Hurricane Advisories and Information.** The Tropical Prediction Center (TPC) Miami, FL (also referred to as the National Hurricane Center) issues official tropical cyclone forecasts and related information for tropical depressions, storms, and hurricanes in the Atlantic region. These forecasts include information describing initial and forecast locations, movement, intensity, and horizontal dimensions of significant winds and waves about the tropical cyclones.

4.6.1. The TPC will issue an initial forecast for a system once it forms. Thereafter updated forecasts will be available at 0300, 0900, 1500 and 2100Z, unless there is a change to the forecast. Intermediate special forecasts will be issued whenever there is a hurricane or tropical storm watch or warning issued (reference National Hurricane Operations Plan). Tropical forecasts and outlooks are available on-line at [www.nhc.noaa.gov](http://www.nhc.noaa.gov).

4.6.2. Evacuation and Disaster Support. Although official tropical cyclone forecasts from the TPC must be relayed verbatim to the customer, the BWS will interpret these forecasts for Keesler AFB. Since supported agencies may require a 48-hour and 72-hour outlook for planning purposes, customers must understand the uncertainty of these outlooks. Release of tailored forecasts to the public will only be done IAW public affairs procedures for release of information to non-military organizations; see paragraph 1.6.

4.6.2.1. The BWS will tailor the official Hurricane Center forecasts to include the following:

4.6.2.1.1. Onset of 25 knot crosswinds and weather phenomena or conditions expected that could prevent evacuation of aircraft; onset of the 50 knot winds at Keesler; timeline of expected Hurricane Conditions (HURCONs) based on the current forecast. Other elements of the official forecast such as landfall time and location, storm intensity, surge, etc., will not be adjusted.

4.6.2.2. The BWS provides tailored forecasts to the Battlestaff/commanders and recommends HURCON levels to the installation commander, who is the declaring authority. See 81 TRW 81 TRW PLAN 32-1 for more hurricane information.

4.6.2.3. The BWS will notify the installation commander when a tropical system is developing in the Gulf of Mexico or forecast to move into the Gulf. Based on the official forecast and the situation, the BWS can recommend a Battlestaff.

4.6.3. Disseminating Hurricane Information. When there is an active tropical system in the Gulf of Mexico, the BWS will provide the public forecast advisory, a plot of the forecast track, and a satellite image via email. These slides will be sent to the 81 TRW/CCE, 81 TRW/XP (Battlestaff coordinator), and Command Post for dissemination.

**4.7. Severe Weather Management** will be accomplished at Keesler AFB IAW AFMAN 15-125 and AFI 10-229.

## Chapter 5

### RECIPROCAL SUPPORT

**5.1. General.** The BWS cannot be effective without the support of other Keesler units. Critical aspects of this support are outlined in this chapter.

**5.2. 81 TRW Command Post.** Disseminates weather advisories, watches, and warnings according to 81 TRW checklists and Attachments 9 and 10. The command post will:

5.2.1. Coordinate with the BWS management on any OPREP-3, HOMELINE, BEELINE, or PINNACLE reports which involve severe weather, aircraft mishaps, or natural disasters at Keesler AFB. Severe weather is defined as all occurrences of tornadoes, hail greater or equal to 3/4 inch, and winds greater than or equal to 50 knots.

5.2.2. When the BWS is closed, recall the Keesler standby forecaster when AFWA faxes the Keesler Command Post with a Point Weather Warning for Keesler AFB. The Keesler BWS will provide the command post a standby roster each time they close.

5.2.3. Provide classified storage for BWS classified materials.

**5.3. 81st Operations Support Flight's Airfield Operations,** during airfield operating hours will:

5.3.1. Notify BWS of all aircraft ground emergencies, in-flight emergencies (IFE), and aircraft accidents via the secondary crash phone.

5.3.2. Provides flight information to the BWS on DVs, transient aircraft schedules, and changes to local aircrew flight plans/schedules.

5.3.3. Provide quarterly Airfield Operations Board meeting minutes/agendas to the BWS.

5.3.4. Supply the BWS with required Flight Information Pamphlet (FLIP) and FLIP related products. Updates weather information in the FLIP as initiated by the BWS.

5.3.5. Include weather support information in NOTAMs issued when aerodrome sets other than normal duty hours, etc.

5.3.6. Provide runway surface condition to the duty observer.

**5.4. 81st Operations Support Flight's Control Tower** will:

5.4.1. Conduct daily operational checks of the pilot-to-metro-service radio (equipment permitting) on days the airfield is open, preferably between 0630-0700.

5.4.2. Notify the BWS when the active runway changes.

5.4.3. Provide Air Traffic Control indoctrination to weather personnel and provide a cooperative weather watch as stated in paragraph 3.3; see Attachment 4.

5.4.4. Notify the BWS whenever the High Intensity Runway Lights (HIRL) are changed (i.e., when the lights are turned on/off and when setting is changed to or set on STEP 3, 4 or 5).

5.4.5. Notify the BWS whenever the tower's AMIS/N-TFS terminal (legacy AWDS) or wind indicator become inoperative or return to service.

5.4.6. IAW FAAO 7110.65 tower personnel must use the lower prevailing visibility from either the weather observer (surface) or from the air traffic controller (tower level) for aircraft operations when the visibility at either location is less than four miles.

**5.5. 81st Communications Squadron (81 CS).** Provide and arrange for maintenance of all weather and communications equipment and provides a single 24-hour point of contact for logging out equipment listed Attachment 7. The Communications Focal Point will periodically update weather personnel on the status of open maintenance actions. The 81 CS will also:

5.5.1. Restore equipment in the order listed in Attachment 7 and respond to weather equipment outages that prevent mission accomplishment within 30 minutes during normal duty hours and 45 minutes after duty hours, weekends, and holidays. Direct contract support when required, i.e., interface with commercial telephone lines.

5.5.2. Perform routine maintenance requests in a timely manner as the maintenance workload permits. Maintain a Periodic Maintenance Inspection (PMI) log and schedule on weather equipment.

5.5.3. Allow for dial-out use of modems by forecast computers in the event of the LAN/network failure. Coordinate planned network outages to ensure timing will not interfere with weather/airfield operations.

5.5.4. Prioritize internet access by forecaster operational computer systems ahead of non-critical/non-operationally related systems on base.

5.5.5. Provide assistance with planning weather system upgrades that interface with the base LAN.

5.5.6. Provide assistance/maintenance of pager notification system for units using it to disseminate weather warnings. Notify units when the system is not working properly.

5.5.7. Host the Keesler web site where the weather homepage resides and provide a public folder in *Microsoft Outlook* for posting weather products. Provide and arrange maintenance of the LAN system including the weather homepage if the BWS does not have qualified personnel.

**5.6. 81 TRW Safety (81 TRW/SE).** Notify the BWS of all mishaps in which weather or weather services could have been a factor.

5.6.1. Include weather support procedures in the annual flying safety program.

5.6.2. Inspect 81 TRW organizations and tenant units for compliance with any weather related AFOSH standards.

**5.7. 403d and 45 ALF Supervisors of Flying (SOFs).** Inform the BWS of declared alternate airfields and provide the BWS with PIREPs received from unit aircraft. Pass updated weather information to respective aircrew IAW AFI 11-418.

**5.8. 81st Civil Engineer Squadron (81 CES).** Ensure all weather equipment (communication and observing) and the BWS have an automatically starting emergency power supply in the event of power outages. Provide period maintenance checks of emergency power generators and train BWS personnel on use of the emergency generator.

5.8.1. Notify the BWS of property damage due to weather phenomena.

5.8.2. When notified of air conditioning problems in room 109, Bldg 0233, Civil Engineers will respond on an emergency basis. When existing equipment cannot be repaired in a timely manner, Civil Engineers will make every attempt to provide an alternative method of cooling.

5.8.3. Ensure any contractor support requiring weather notifications receive said notification in a timely manner.

**5.9. 81st Security Forces Squadron (81 SFS).**

5.9.1. Provide the 81 TRW command post with information on damage or injuries caused by adverse weather. Assess debris situation and recommend to CP if the BCE should be called in early to clean up debris before normal duty hours.

5.9.2. Urgently notifies the BWS when observing adverse weather phenomena or conditions as part of the Cooperative Weather Agreement in Attachment 4.

**5.10. 81 TRW Exercise Evaluation Team.** Assist BWS with conducting exercises as required in AFI 10-229, *Responding to Severe Weather*.

**5.11. Flying Units located on Keesler.** Will provide the BWS at least 72 hours notice when special weather support is required for out-of station/mass briefs or Crisis Action Team briefs, etc.

5.11.1. Will coordinate two weeks in advance for exercise related weather support and special briefing such as Instrument Refresher Course, Quarterly SOF, and safety briefings, etc.

5.11.2. Provide PIREPS IAW with criteria listed in Attachment 4.

5.11.3. Provide the BWS with weekly/daily flying schedules upon publication and inform the BWS in a timely manner of mission cancellation to eliminate wasted manpower preparing an unnecessary weather briefing.

5.11.3.1. Provide the duty forecaster mission itinerary at least two hours in advance of delivery time for preparation of flight weather brief.

#### **5.12. 81st Training Group (81 TRG).**

5.12.1. 81 TRSS will provide parade and drill down information and schedule changes to the BWS to meet responsibilities set forth in AFMAN 36-2203/Keesler AFB Supplement 1.

5.12.2. Notify the BWS of special events that require added METWATCH for weather criteria that may preclude the event.

5.12.3. 81 TRSS/TSF. Provide facilities for the BWS's alternate observing site (Bldg 6903, room 241). This includes Class A telephone access and a key for non-duty hour entrance as required. This facility will be used when Bldg 0233 is evacuated and by personnel training for such evacuations.

5.12.4. 81 TRSS/TSM and 336 TRS/CCQ will complete milestones and weather dissemination requirements set forth in 81 TRW PPLAN 00-02, *Transporting NPS Airman During Adverse/Inclement Weather Conditions*. Additionally, notification requirements are outlined in Attachments 8 and 9 of this instruction.

**5.13. FORM PRESCRIBED.** Keesler AFB Form 25, **Weather Dissemination Log** (AFMAN 37-139, Table 15-4, Rule 1). This form reflects the most routine watches and warnings issued at Keesler AFB. The list is not complete; thus, "other" is included for dissemination of rare events such as freezing precipitation and blizzards, etc.

ROOSEVELT MERCER, JR., Brigadier General, USAF  
Commander  
81st Training Wing

**Attachment 1****KEESLER AFB WEATHER SERVICE PRIORITIES**

- A1.1.** Complete Emergency War Order Tasks
- A1.2.** Respond to Aircraft, Ground Emergencies, and Supervisor of Flying (SOF) requests
- A1.3.** Take and Disseminate Surface Weather Observations locally
- A1.4.** Answer Pilot to Metro Service (PMSV) calls
- A1.5.** Disseminate Weather Warnings, Advisories, and Watches locally
- A1.6.** Disseminate Pilot Reports (PIREPS) locally
- A1.7.** Transmit Surface Observations and PIREPS longline
- A1.8.** Prepare and Issue Terminal Aerodrome Forecasts
- A1.9.** Provide Flight Weather Briefings
- A1.10.** Provide Other Briefings

## Attachment 2

### TAF SPECIFICATION AND AMENDMENT CRITERIA

**A2.1. General.** Terminal Aerodrome Forecasts (TAFs) are forecasts of meteorological elements expected to occur at a specific terminal. They are routinely prepared and are used for operational purposes. Specified in each TAF (scheduled and amended) is the expected time of occurrence to the nearest hour (and minute, as appropriate), the expected duration, and intensity (where applicable) when certain conditions are expected to occur.

#### **A2.1.1. Terms Explained:**

A2.1.1.1. Terminal Aerodrome - The area within a 5 nautical mile radius of the Keesler AFB runway complex.

A2.1.1.2. TAF - Terminal Aerodrome Forecast. This is a forecast of required weather elements for a particular terminal aerodrome covering a 24-hour period. The TAF is a concise statement of the expected meteorological conditions at the terminal aerodrome during the specified period.

A2.1.1.3. Vicinity - The area within a 5-10 nautical mile radius of the Keesler AFB runway complex.

A2.1.1.4. BECMG - The change indicator for the TAF. A change group of "BECMG 1719" becomes valid at 19Z; "BECMG 1213" is valid at 13Z, etc.

A2.1.1.5. TEMPO - This term indicates intermittent weather conditions for the TAF. A grouping of TEMPO 1519 indicates intermittent conditions will occur from 15Z-19Z.

A2.1.1.6. FM - Is used to forecast a change expected to take place quickly over a period of less than 30 minutes. "FM13" becomes valid at 13Z and expects the specified condition to take place by 1330.

A2.1.1.7. Amendment - An unscheduled forecast which revises the current forecast.

#### **A2.2. TAF Specification Criteria.**

A2.2.1. Ceiling and visibility decreases to less than, or if below, increases to equal or exceed:

<b>Ceiling</b>	<b>Visibility</b>
3,000 feet	3 miles
1,500 feet	2 miles
1,000 feet	1 mile
700 feet	

500 feet	
300 feet	¾ mile

#### A2.2.2. Wind:

A2.2.2.1. Speed change of 10 knots or more.

A2.2.2.2. Direction change of 30 degrees or more when the predominant wind speed or gusts is expected to be in excess of 15 knots.

A2.2.3. Precipitation or thunderstorms.

A2.2.4. Icing or turbulence (for Cat II aircraft), not associated with thunderstorms, from the surface to 10,000 feet MSL.

A2.2.5. Non-convective low level wind shear.

A2.2.6. Any local criteria for weather warnings or advisories that can be specified in the TAF (see Attachment 8).

A2.2.7. The lowest altimeter setting expected during the initial forecast period and in each change group.

A2.2.8. All cloud layers expected below 1000 feet regardless of amount will be encoded.

**A2.3. Amendments.** TAFs may be amended any time to ensure they are representative. The 1800L TAF will not be amended after 1900L. Amendments are valid for the period starting the whole hour prior to the amendment and cover the remaining time of the original forecast.

A2.3.1. The TAF will be amended when:

A2.3.1.1. An unforecast change which meets amendment criteria is expected to occur, or occurs, and is expected to last at least 30 minutes and is not correctly forecast by the next whole hour.

A2.3.1.2. A forecast condition meeting amendment criteria does not occur by the specified hour and is not expected to occur within the next 30 minutes.

A2.3.1.3. When a TEMPO group becomes predominant or is no longer expected to occur.

A2.3.2. **Amendment Criteria:**

A2.3.2.1. If ceiling or visibility decrease to less than or if below increase to equal or greater than the following categories:

<b>Ceiling</b>	<b>Visibility</b>
D. 3,000 feet	3 miles
C. 1,000 feet	2 miles
B. 300 feet	3/4 mile

**NOTE:** Ceiling and visibility categories are determined by the lower of the ceiling or visibility elements.

A2.3.2.2. Wind:

A2.3.2.2.1. Error in forecast wind speed of 10 knots or more (including gusts).

A2.3.2.2.2. Error in forecast wind direction of more than 30 degrees when the predominant wind speed (including gusts) is, or is forecast to be, in excess of 15 knots.

A2.3.2.3. Precipitation when:

A2.3.2.3.1. Unforecast freezing precipitation begins or ends.

A2.3.2.3.2. It requires issuance, cancellation or amendment of a local warning or advisory (see Attachment 8)

A2.3.2.3.3. Forecaster considers the occurrence or nonoccurrence of precipitation to be operationally significant.

A2.3.2.4. Turbulence/Icing. Not associated with thunderstorms, from surface to 10,000 ft MSL which first meets, exceeds, or decreases below moderate or greater thresholds (for Cat II aircraft) and was not specified in the TAF.

A2.3.2.5. Non-convective low level wind shear is occurring and is expected to continue, or is expected to begin, but is not specified in the forecast. Or was in the forecast, but is no longer expected to occur during the forecast period.

A2.3.2.6. Any of the locally established criteria for weather warnings or advisories, (Attachment 8) occur, are expected to occur, or were specified in the forecast, but are no longer occurring nor expected to occur in the forecast period.

A2.3.2.6.1. As this applies to the lightning warning, the TAF will only be amended if thunderstorm activity was not forecast to occur but later occurs or is expected to occur.

### Attachment 3

#### KEESLER AFB SPECIAL AND LOCAL OBSERVATION CRITERIA

**A3.1. Special Observations.** The observer takes a special observations (SPECI) to report weather conditions passing through critical threshold values important to flying operations. The BWS disseminates these observations via the AMIS/N-TFS. With the exception of single element specials, these observations contain the following information: time, sky condition, prevailing visibility, present weather, obstruction to visibility (if required), temperature, dew point, wind speed and direction, altimeter setting, remarks (as appropriate), and RVR values sent locally only when reporting conditions are met.

#### A3.2. Criteria for Special Observations.

A3.2.1. Ceilings. A ceiling forms or dissipates below, decreases to less than or, if below, increases to equal or exceeds:

3,000 feet (AFMAN 15-111)	600 feet (DOD FLIP)
1,500 feet (AFMAN 15-111)	500 feet (AFMAN 15-111) (DOD FLIP)
1,000 feet (AFMAN 15-111)	400 feet (DOD FLIP)
800 feet (DOD FLIP)	300 feet (DOD FLIP)
700 feet (AFMAN 15-111) (DOD FLIP)	

A3.2.2. Sky Condition. A layer of clouds or obscuring phenomenon aloft is observed below 800 feet and no layer was reported below 800 feet in the preceding metar or special observation.

A3.2.3. Prevailing Visibility. The prevailing visibility decreases to less than, or if below, increases to equal or exceeds:

3 miles (AFMAN 15-111)	1 1/2 miles (DOD FLIP)
2 miles (AFMAN 15-111) (DOD FLIP)	1 1/4 mile (DOD FLIP)
1 3/4 mile (DOD FLIP)	1 mile (AFMAN 15-111) (DOD FLIP)
	3/4 mile (DOD FLIP)

A3.2.4. Tornado, funnel cloud, or waterspout is observed or disappears from sight.

A3.2.5. Thunderstorm begins or ends (defined as 15 minutes after last occurrence of lightning or thunder). New thunderstorms do not require a SPECI if one is currently reported as in progress at the station.

A3.2.6. Precipitation.

A3.2.6.1. Hail begins or ends.

A3.2.6.2. Freezing precipitation begins, ends, or changes in intensity.

A3.2.6.3. Ice pellets begin, end, or change in intensity.

A3.2.6.4. Any other type of precipitation begins or ends IAW AFMAN 15-111 for changing precipitation types.

A3.2.7. Wind Shift. Any wind direction change of 45 degrees or more in less than 15 minutes with wind speeds of 10 knots or more.

A3.2.8. Runway conditions will be transmitted as a SPECI or amended to a METAR or SPECI being taken at the time upon notification by Airfield Operations (with the exception of a dry runway report).

A3.2.9. Tower Visibility. When either the tower controllers' or weather observers' visibility is less than 4 miles and they differ by a reportable SPECI criteria value, a SPECI will be transmitted with the tower visibility as a remark.

A3.2.10. Miscellaneous. SPECIs are also taken for real-world nuclear accidents, when volcanic ash is first observed, or any other meteorological situation, which, in the opinion of the observer, is critical to the safety of aircraft operations.

A3.2.11. Single Element SPECIs. Tornadic Activity or other elements that would cause an immediate threat to life or property will be taken and disseminated as a single element special.

A3.2.12. Resumption of Observing Services. Within 15 minutes after returning to duty following a break in hourly coverage, if a record observation was not filed as scheduled during that 15-minute period (evacuation or holiday closure), a SPECI will be taken.

**A3.3. LOCAL OBSERVATIONS.** Are taken to report changes in conditions significant to local airfield operations which do not meet SPECI criteria. The BWS takes local observations in support of base agencies and disseminates these observations over the AMIS/N-TFS. Local observations will contain the same elements as a full element specials, para A.3.1. LOCALs will be taken for the following situations:

A3.3.1. Aircraft mishap, activation of Disaster Control Group, or toxic spill/corridor.

A3.3.2. Change in runway.

A3.3.3. Altimeter Local. At a frequency not to exceed 35 minutes when there has been a change of .01 inches of Mercury or more since ALSTG last disseminated.

A3.3.4. Instantaneous RVR values will be reported if the RVR is less than 6000 ft and/or the prevailing visibility is 1 statute mile or less and the active runway is 21. A local will be taken when RVR is observed to decrease to less than or if below, increase to equal or exceed:

6000 feet (AFMAN 15-111)
5000 feet (AFMAN 15-111) (DOD FLIP)
4000 feet (DOD FLIP)
2400 feet (AFMAN 15-111)

A3.3.4.1. RVR may be taken as a single element local when RVR is requested by an aircrew or the tower and it differs from the last disseminated value.

A3.3.5. Full element locals will be more frequently transmitted when the wind sensor is deemed unreliable based on AFMAN 15-111 criteria.

A3.3.6. Miscellaneous. Any other meteorological situation which, in the opinion of the observer, is significant to local operations or as requested by a customer.

## Attachment 4

### COOPERATIVE WEATHER AGREEMENTS

**A4.1. General.** Cooperative Weather Watch (CWW) is an agreement with other agencies to report previously undetected weather elements. Of primary concern is the occurrence of previously unreported weather conditions that could affect flight safety or which could be critical to the safety or efficiency of other local operations and resources.

**A4.2.** As part of Keesler's CWW the **Control Tower** will:

A4.2.1. Relay all PIREPs (pilot reports) they receive to the BWS.

A4.2.2. Notify the BWS of all apparent changes in clouds that are noted (e.g., the ceiling raises or lowers, or cloud cover changes from scattered to broken/overcast or vice versa).

A4.2.3. Notify the BWS when:

A4.2.3.1. Tower visibility decreases to less than, or if below, increases to equal or exceed 4, 3, 2, 1 3/4, 1 1/2, 1 1/4, 1 or 3/4 miles. See table at A3.2.3.

A4.2.3.2. Precipitation begins or ends or changes in form (e.g., rain becomes ice pellets, turns into snow, etc).

A4.2.3.3. Thunder is heard.

A4.2.3.4. A tornado, funnel cloud, or waterspout is observed and/or disappears from sight.

A4.2.3.5. Lightning is observed at any distance from the control tower.

**A4.3.** As part of Keesler's CWW, **Security Forces Personnel** will:

A4.3.1. Report damaging or threatening weather conditions observed directly to the BWS or to CP for relay to the BWS. Early reports of undetected phenomena could be critical for warning other personnel who require shelter.

A4.3.1.1. Threatening weather includes; close proximity lightning, funnel clouds, tornadoes, hail of any size, wind gusts affecting unsecured objects, etc.

**A4.4.** As part of Keesler's CWW, **locally stationed aircrew** will report PIREPs IAW Flight Information Handbook Section C.

A4.4.1. Report unusual or unforecast weather to appropriate control agency without delay.

A4.4.2. Provide PIREPs over PMSV to include weather conditions experienced during climb and descent.

A4.4.3. Provide PIREPs for the following criteria which will be disseminated as “Urgent Upper Air” reports by weather personnel.

A4.4.3.1. Hail, Low Level Wind Shear (LLWS) - air speed fluctuations of 10 knots or more within 2,000 feet of surface, severe icing, severe or extreme turbulence, Clear Air Turbulence (CAT), tornado, funnel cloud, or waterspout (FC).

A4.4.3.2. Volcanic eruption and/or ash

**A4.5. Local Supervisors of Flying will:**

A4.5.1. Relay all PIREPS and summary of flight weather conditions experienced by their aircrew to the duty forecaster as received.

**Attachment 5****FORMATS/EXAMPLES**

**A5.1. Local Dissemination Formats.** For METAR/TAF weather codes please visit the following web sites, contact the BWS for a handout or download AFPAM 11-238:

<http://www.cyberair.com/tower/faa/wea/nawf/index.html>

[www.nws.noaa.gov/om/pilot.htm](http://www.nws.noaa.gov/om/pilot.htm)

[http://www.camanoisland.com/verber/Aviation/metar\\_ab.htm](http://www.camanoisland.com/verber/Aviation/metar_ab.htm),

[www.awc-kc.noaa.gov/info/domestic\\_contractions.html](http://www.awc-kc.noaa.gov/info/domestic_contractions.html),

**A5.1.1. WEATHER WARNING FORMAT**

KEESLER AFB WEATHER WARNING 02-001 (1)

VALID 12/2100Z (12/1500L) TO 13/0300Z (12/2100L) (2)

SURFACE WINDS ARE FORCAST TO BE EQUAL TO  
OR GREATER THAN 35 KTS. EXPECT GUSTS TO  
48 KTS ASSOCIATED WITH THUNDERSTORMS. (3)

45/SM (4)

- 1 - STATION IDENTIFIER AND WEATHER WARNING NUMBER
- 2 - VALID TIME OF WARNING IN "Z" AND LOCAL TIME
- 3 - TEXT OF THE WARNING
- 4 - MINUTES AFTER THE HOUR AND INITIALS

**A5.1.2. WEATHER WATCH FORMAT**

KEESLER AFB WEATHER WATCH 05-002 (1)

VALID 17/0000Z (16/1800L) TO 17/0300Z (16/2100L) (2)

POTENTIAL EXISTS FOR SEVERE THUNDERSTORM DEVELOPMENT  
WITHIN 25 NM OF KEESLER DURING THE PERIOD, WITH WINDS  
OF 50KT OR GREATER AND/OR 3/4" HAIL OR GREATER. A  
WEATHER WARNING WILL BE ISSUED LATER IF REQUIRED. (3)

51/SMITH (4)

- 1 - STATION IDENTIFIER AND WEATHER WATCH NUMBER
- 2 - VALID TIME OF WATCH IN "Z" AND LOCAL TIME
- 3 - TEXT OF THE WATCH
- 4 - MINUTES AFTER THE HOUR AND INITIALS

**A5.1.3. FORECAST WEATHER ADVISORY FORMAT**

KEESLER AFB WEATHER ADVISORY 06-003 (1)  
 VALID 12/2100Z (12/1500) TO 13/0300Z (12/2100L) (2)  
 SURFACE WINDS FORECAST TO REACH SPEEDS OF 25-34 KTS (3)  
 ASSOCIATED WITH SHOWERS AND THUNDERSTORMS. (4)

- 1 - STATION IDENTIFIER
- 2 - VALID TIME OF FORECASTED ADVISORY IN "Z" AND LOCAL TIME
- 3 - TEXT OF THE FORECASTED ADVISORY
- 4 - CLARIFY IF WINDS DUE TO THUNDERSTORMS

**A5.1.4. OBSERVED WEATHER ADVISORY FORMAT**

KEESLER AFB ADVISORY 02-024 (1)  
 OBSERVED TEMPERATURE BELOW 40F. (2)

- 1 - STATION IDENTIFIER
- 2 - TEXT OF THE OBSERVED ADVISORY

**A5.1.5. TAF (FORECAST) FORMAT**

KBIX FCST 12-12 06008KT 7 SCT050 SCT120 ALSTG30.10INS WND 17012KT AFT 18  
 (1) (2) (3) (4) (5) (6) (7)

BCMG 19-20 18012KT 7 -RA SCT010 BKN020 OVC050 ALSTG30.00INS  
 (8)

- 1 - STATION IDENTIFIER
- 2 - VALID TIME OF THE FORECAST (24 HOUR FORECAST PERIOD)
- 3 - WIND DIRECTION AND SPEED
- 4 - VISIBILITY AND OBSTRUCTIONS TO VISION (IF ANY)
- 5 - SKY CONDITION
- 6 - LOWEST ALTIMETER SETTING EXPECTED
- 7 - REMARKS (IF ANY)
- 8 - TIME OF THE NEXT FORECAST GROUP

**A5.1.6. RECORD OR RECORD SPECIAL OBSERVATION (METAR) FORMAT**

KBIX METAR 1255Z 36006KT 1SM R21/4000FT -SHRA BR OVC020 32/32  
 (1) (2) (3) (4) (5) (6) (7) (8)  
 A2995 RMK TWR VIS 2 SLP168 PA +7 55/RK  
 (9) (10) (11)

- 1 - STATION IDENTIFIER AND OBSERVATION TYPE
- 2 - TIME Z (UNIVERSAL TIME COORDINATED)
- 3 - WIND DIRECTION AND SPEED
- 4 - VISIBILITY IN STATUTE MILES (SM)
- 5 - RUNWAY VISUAL RANGE (WHEN REQUIRED VALUES SENT LOCAL ONLY)
- 6 - WEATHER AND OBSTRUCTION TO VISION (IF ANY)
- 7 - SKY CONDITION
- 8 - TEMPERATURE AND DEW POINT
- 9 - ALTIMETER SETTING
- 10 - REMARKS (IF REQUIRED) PRESSURE ALTITUDE IS INCLUDED IN THE  
REMARK SECTION
- 11 - MINUTES AFTER THE HOUR/INITIALS

#### **A5.1.7. SPECIAL OBSERVATION (SPECI) FORMAT**

KBIX SPECI 2244Z 18007KT 6SM TS SCT030CB BKN090 BKN250  
 (1) (2) (3) (4) (5) (6)

32/24 A2996 RMK TS 9 NW MOV SSW PA -2 45/RK  
 (7) (8) (9) (10)

- 1 - STATION IDENTIFIER AND OBSERVATION TYPE
- 2 - TIME Z (UNIVERSAL TIME COORDINATED)
- 3 - WIND DIRECTION AND SPEED
- 4 - VISIBILITY IN STATUTE MILES (SM)
- 5 - WEATHER AND OBSTRUCTION TO VISION (IF ANY)
- 6 - SKY CONDITION
- 7 - TEMPERATURE AND DEW POINT
- 8 - ALTIMETER SETTING
- 9 - REMARKS (IF REQUIRED) PRESSURE ALTITUDE IS INCLUDED IN THE  
REMARK SECTION
- 10 - MINUTES AFTER THE HOUR/INITIALS

**A5.1.8. LOCAL OBSERVATION (LOCAL) FORMAT** at Keesler is the same as Special observations with the exception of certain single element locals.

#### **A5.1.9. PIREP FORMAT**

KBIX PIREP TIME 1500 GPT FL 040 TP C130 SK 050 SCT UNKN WX -RA  
 (1) (2) (3) (4) (5) (6) (7)

TA 10 TURB LGT ICE NEG  
 (8) (9) (10)

- 1 - STATION IDENTIFIER
- 2 - TIME OF THE REPORT (UNIVERSAL COORDINATED TIME)

- 3 - LOCATION OF AIRCRAFT
- 4 - FLIGHT LEVEL
- 5 - TYPE AIRCRAFT
- 6 - SKY CONDITION
- 7 - WEATHER AT FLIGHT LEVEL
- 8 - OUTSIDE AIR TEMPERATURE IN CELSIUS
- 9 - TURBULENCE REPORTED (IF ANY)
- 10 - ICING REPORTED (IF ANY)

**A5.1.10.** For assistance reading/decoding any weather forecast or observation, contact the Keesler Base Weather Station at ext. 7-4397/3305.

## Attachment 6

### AMIS/N-TFS OR LEGACY “AWDS”

**A6.1.** The AMIS/N-TFS is the primary method of weather dissemination. Agencies with a dissemination terminal are highlighted. Units must call the duty observer at 377-4397 if their terminal is not working.

A6.1.1. Call 377-0484 for assistance moving this equipment or turning it in.

**A6.2.** The following table indicates the location of AMIS/N-TFS (Advanced Meteorological Information System/New-Tactical Forecast System) components. This equipment belongs to Air Force Weather Agency’s contract with General Dynamics. Certain components are on the BWS equipment account and can not be removed from their location as indicated by the \*.

C/DM	Base Weather Station (Bldg 233, Room 109, Radar Room)
BWS	Base Weather Station (Bldg 233, Room 102)
VSAT DISH	2.44 m Pole Mount (East of Bldg 233)
VSAT RPDS	Base Weather Station (Bldg 233, Room 102)
SWO/WWO*	53 WRS (Bldg 233, Room 133)
SWO/WWO	Base Weather Station (Bldg 233, Room 102)
ABT	Base Weather Station (Bldg 233, Room 102)
ABT	Base Weather Station (Bldg 233, Room 104)
OBS	Base Weather Station (Bldg 233, Room 102A)
<b>FCF/ATC*</b>	<b>Control Tower (Bldg 4209, Cab)</b>
<b>FCF/ATC*</b>	<b>Control Tower (Bldg 4209, Cab)</b>
<b>FCF/ATC*</b>	<b>Gulfport Tower (B24045 AP Road, Cab)</b>
<b>FCF/FO*</b>	<b>403 AW Command Post (Bldg 223, Room 223)</b>
<b>FCF/FO*</b>	<b>45 AS OPS (Bldg 2902, Room 119)</b>
<b>FCF/FO*</b>	<b>53 WRS SOF (Bldg 233, Room 132)</b>
<b>FCF/FO*</b>	<b>403d MXS (Bldg 4203, Room 121)</b>
<b>FCF/FO*</b>	<b>Base Operations (Bldg 233, Room 107)</b>
<b>FCF/FO*</b>	<b>Command Post (Bldg 4330, Room 149)</b>

## Attachment 7

### EQUIPMENT DESCRIPTIONS AND RESTORAL PRIORITY

**A7.1. General.** The 81st Communications Squadron is the focal point for weather equipment maintenance. Maintenance will be performed by a combination of Air Force technicians and contractors.

**A7.2. Weather Equipment.** Keesler AFB has a single-instrument runway, except for the dual sensor wind equipment. Readouts for the observing equipment are located in Bldg 0233. The BWS's weather equipment/systems consists of the following:

A7.2.1. One Telog-Equipped Tipping Bucket Rain Gauge. This instrument measures rainfall and rainfall rates and sends data via phone lines to computers inside the BWS. The rain gauge is located at the top of the stairwell at north east corner of BWS.

A7.2.2. One GMQ-34, Laser Beam Ceilometer (LBC). The sensor for the LBC is located near the approach end of runway 21. This instrument accurately measures cloud base heights up to 12,000 feet.

A7.2.3. One FMQ-13, Wind Measuring Set. This set includes two sensors; one located near approach end 21 and the other near midway of Keesler's runway. The FMQ-13 measures wind speed and direction.

A7.2.4. One GMQ-32, Transmissometer. The sensor for the GMQ-32 is located next to a blast deflector near the approach end of runway 21. The GMQ-32 measures instantaneous horizontal visibility up to 6,000 feet.

A7.2.5. One ML-658, DBASI Barometer. This instrument is located in the BWS. The DBASI measures atmospheric pressure and computes the altimeter setting. It presents readings in millibars or inches of mercury.

A7.2.6. One FMQ-8, Temperature/Dew Point Set. The sensor for the FMQ-8 is located just off the center of the runway. The FMQ-8 automatically and continually senses the free air temperature and dew point.

A7.2.7. One Next Generation Radar (NEXRAD - WSR-88D) Principal User Processor Workstation. NEXRAD is Doppler weather radar and data processing system, which collects, processes, and displays high-resolution reflectivity and velocity data. It has an effective range of 248 NM. The radar acquisition unit is located in Mobile.

A7.2.8. One ML-102, Aneroid Barometer. This instrument measures atmospheric pressure in millibars. It is used as a backup to the DBASI and is located in the BWS.

A7.2.9. Model 430 TSS Thunderstorm Sensor located 50 yards south of the 15th hole of the base golf course. This instrument detects the return strokes of cloud to ground lightning out to 100 nautical miles.

A7.2.10. AMIS/N-TFS (legacy AWDS system) located in room 109, Bldg 0233, with dedicated telephone lines to the AWN at Tinker AFB for alphanumeric data and to AFWA at Offutt AFB for graphical data and model output. It also interfaces with the VSAT (Very Small Aperture Terminal) ingest/data handler for some AFWA products obtained from a commercial satellite. The VSAT satellite dish is located in fabrication lot across from Bldg 0233.

A7.2.11. GVAR (GOES Direct Readout Ground Station). The system's satellite dish is located in the fabrications lot across from the Bldg 0233 and receives satellite imagery directly from the GOES 8 for display in the station.

A7.2.12. The National Lightning Detection Network (NLDN) display is located in the observing section and provides CONUS/Gulf of Mexico cloud to ground lightning strikes, color codes them by time, is accurate to within half nautical mile, and displays recent strikes within 30 seconds of occurrence. Data is obtained from a commercial satellite and array of sensors across the nation. The dish is located in the fabrication lot across from Bldg 0233.

A7.2.13. Emergency Manager Weather Information Network (EMWIN) receiver and software, provides access to the National Weather Service data available with an HF radio or satellite receiver. The small satellite dish can be set up outside the building and directly downloads National Weather Service products from GOES East.

A7.2.14. Manual Observing Kit (MOSKIT). This kit contains instruments to measure weather elements which are used as a backup for observing equipment. It includes a Laser Range Finder to determine the height of cloud bases.

A7.2.15. Pilot to Metro Service (PMSV). The UHF radio for communication with airborne aircrew on 344.6 is located in the BWS.

**A7.3. Communications.** Weather data is obtained via leased commercial telephone lines, the internet, and satellite download for ingest into the various weather systems. The 81st Communications Squadron will maintain the following weather communications equipment 7 days a week/24 hours a day in priority listed below. Response to weather communication equipment outages during other than normal duty hours will be based on mission impact. Communication systems that interface with commercial telephone companies will be coordinated and tracked by the CS.

A7.3.1. Pilot to Metro Service (PMSV)

A7.3.2. NEXRAD communications and modem

A7.3.3. Class A/local telephone lines and phone lines connecting to weather equipment on the flightline.

A7.3.4. AMIS/N-TFS communications lines

A7.3.5. Lightning Detection System equipment, communication lines and modems.

A7.3.6. Telog Tipping Bucket Rain Gauge equipment, communication lines, and modems

**A7.4.** The 81 CS will respond to weather equipment or communication outages that prevent mission accomplishment within 30 minutes during normal duty hours and 45 minutes after duty hours, weekends, and holidays. Equipment restoral priorities, reasoning, and response times are as follows (in order of priority highest to lowest). Deviations are authorized based on existing and forecast weather conditions as specified by a forecaster or the BWS management.

<b>TYPE OF EQUIPMENT</b>	<b>REASONING</b>	<b>RESPONSE TIME</b>
Wind Measuring (FMQ-13)	Determines active runway Critical to flight safety.	45 minutes
NEXRAD weather radar	“Eyes” out beyond the base to local flying areas. Resource protection.	45 minutes
Cloud Measuring (GMQ-34)	Determines cloud bases, impacts flight operations/ airfield status.	45 minutes
Pressure Measuring (ML-658, ML-102,)	Aneroid used to back-up the DBASI. Aircraft equipped with altimeters.	1 duty day
Visibility Measuring (GMQ- 32)	Can be accurately determined by visual means.	1 duty day
Temperature/Dew Point Measuring (FMQ-8)	Can be determined by using sling psychrometer.	1 duty day
Tipping Bucket Rain Gauge	Used for official rainfall calculations.	1 duty day
Lightning Detection System (LDS)	Determines distance of lightning strikes.	1 duty day

## **Attachment 8**

### **WEATHER ADVISORY, WATCH, AND WARNING CRITERIA**

#### **A8.1. Weather Watch Criteria for Keesler.**

A8.1.1. Tornadoes. The potential exists for tornadoes within 25 NM of Keesler. Desired lead-time, issued when the potential exists.

A8.1.2. Severe Thunderstorms. The potential exists for severe thunderstorms (surface winds 50 knots or greater and/or hail  $\frac{3}{4}$  inch or greater) within 25 NM of Keesler. Desired lead-time, 4 hours.

A8.1.3. Lightning Watch. Potential exists for lightning within 5 NM of Keesler center of runway. Desired lead-time, 30 minutes.

A8.1.4. Freezing Precipitation. The potential exists for freezing rain within 25 NM of Keesler. Desired lead-time, when the potential exists.

A8.1.5. Heavy Precipitation. The potential exists for rain or snow accumulation of 2 inches in 2 hours within 25 NM of Keesler. Desired lead-time, issued when the potential exists.

A8.1.6. Blizzard Conditions. The potential exists for snow or blowing snow reducing visibility to  $\frac{1}{4}$  mile or less and accompanied by winds 35kts and greater within 25 NM of Keesler. Desired lead-time, 6 hours.

#### **A8.2. Observed Weather Warning criteria for Keesler AFB.**

A8.2.1. Lightning Warning. Thunderstorms or Lightning within 5 NM of Keesler AFB center of runway. Desired lead-time, upon occurrence.

#### **A8.3. Forecast Weather Warning criteria for Keesler AFB, all apply to 5 NM radius of Keesler AFB center of runway:**

A8.3.1. Tornadoes. Desired lead-time, 15 minutes.

A8.3.2. Surface winds 50 knots or greater. Desired lead-time, 2 hours.

A8.3.3. Surface winds 35 – 49 knots. Desired lead-time, 45 minutes.

A8.3.4. Hail  $\frac{1}{2}$  to less than  $\frac{3}{4}$  inch. Desired lead-time, 45 minutes.

A8.3.5. Hail  $\frac{3}{4}$  inch or greater. Desired lead-time, 2 hours.

A8.3.6. Freezing Precipitation. Desired lead-time, 90 minutes.

A8.3.7. Heavy Precipitation. Two inches or more of precipitation (rain or snow) in a 2-hour period. Desired lead-time, 90 minutes.

A8.3.8. Blizzard. Desired lead-time, 2 hours.

**A8.4. Forecast Advisories:**

A8.4.1. Freezing Temperatures (less than or equal to 32° F for a period in excess of two hours). Desired lead-time, 12 hours.

A8.4.2. Non-Convective Low Level Wind Shear (LLWS). Desired lead-time, 30 minutes.

A8.4.3. Surface Winds greater than or equal to 25 knots and less than 35 knots. Desired lead-time, 30 minutes.

**A8.5. Observed Advisories:**

A8.5.1. Temperature rises through or drops below 40 degrees F. Disseminated when observed.

A8.5.2. Crosswinds greater than or equal to 25 knots. Disseminated when observed.

## Attachment 9

### KEESLER AFB WEATHER WATCH/WARNING DISSEMINATION MATRIX

**A9.1.** All watches and warnings are disseminated over the AMIS/N-TFS (see units with AMIS/N-TFS terminals in attachment 6). The Base Weather Station will perform backup calls to the 81st Command Post and the Air Traffic Control tower to ensure receipt.

A9.1.1. The BWS will notify the 81 TRG/CC of all watches and warnings other than lightning watches/warnings, and will notify the Golf Course of all lightning watches and warnings.

A9.1.1.1. The BWS will ensure the OSF/CC is notified after airfield hours when Severe Thunderstorm watches and warnings are issued as it may require the recall of Transient Alert contractors.

A9.1.2. Watches and Warnings will be further disseminated by the Command Post and Outdoor Recreation according to the tables below. Units listed will develop methods to notify subordinate agencies. Groups should use their 24-hour operations to recall other key personnel/units that need to implement resource protection plans.

A9.1.2.1. The 81st Command Post will disseminate ALL watches and warnings as indicated. When the Keesler Alert Net (KAN) is used, initials must be obtained from the agencies with an asterisk \* if the KAN is not used, calls must be placed the agencies with \*:

#### DISSEMINATING AGENCY: COMMAND POST

Upon receipt of a WEATHER WATCH or WARNING, the COMMAND POST will notify, via telephone lines, the agencies listed below.

Keesler Alert Net Recipients (KAN)	DURING DUTY HOURS NOTIFY IN THE FOLLOWING ORDER:
Security Forces x 3040 *	OUTDOOR REC x 3186/3160
Fire Dept x 3333 *	KAN (see para. A9.1.2.1)
Med Group (ER) x 0500 *	SIMS FACILITY x 2317
CES (EMCS) x 4179/4936 *	COMMANDERS NET
CS Job Control x 2052 *	45 ALF x 0663
Base Operations x 2120/2123 *	MOBILITY CONTROL CNTR ***
Transient Alert x 2521	DECA x 4971/2830/4468
Vehicle Ops x 2432	2 <sup>ND</sup> AF/CV
Fuels Management x 2964 *	LODGING 7-2420
403d CP x 4181 *	
403d MXS x 4220	

		<b>AFTER DUY HOURS:</b>
53 WRS (SOF) x 2409/1927		
81 TRG x 2328/5511		81 SFS x 3040
81 TRSS x 3023/2729 *		403 <sup>RD</sup> CP x 4181 **
81 TRW/SE x 2910/7023		81 CS JOB CONTROL x 2052
81 TRW/JA x 3630		FUELS x 2964
81 TRW/PA x 2783/3604		336 <sup>th</sup> (for TRSS) x 5244
81 LG/CC x 2709		BASE OPERATIONS x 2120
81 SPTG/CC x 3023		CES (EMCS) x 4179
738 <sup>TH</sup> EIS x 2823		BLAKE FITNESS CENTER
81 MSS/PRU x 2153		(For Outdoor Recreation)
81 MSS x 3225		LODGING x 2420
81 CPTS x 3995		SPTG/CC *
		TRW CC/CV *
		Fire Dept x 3333
		***MOBILITY CONTROL CNTR <b>ONLY</b> Notify when active
		** Recall STBY for Severe
		* lightning warnings/watches not required after their duty hours

A9.1.2.2. The command post will disseminate Tornado Warnings by using the cable override system, activating the base siren for 3-5 minute steady tone, and broadcasting the warning over commanders net and the KAN. Base Operations will disseminate it IAW TRW PLAN 32-1.

A9.1.2.3. The command post will notify the 336 TRS/CCQ during the hours of 1800L-0500L and on weekend/down days instead of the 81 TRSS.

A9.1.2.4. Outdoor Recreation will disseminate all watches and warnings to the agencies in the table upon receipt from the command post. After Outdoor Recreation's duty-hours, the command post will notify the Blake Fitness Center who is responsible for dissemination.

MARINA
SWIMMING POOLS #1-5
BLAKE FITNESS CENTER
YOUTH CENTER
ARTS AND CRAFTS CNTR
FAMILY CAMP

### Attachment 10

#### KEESLER AFB WEATHER ADVISORY DISSEMINATION MATRIX

**A10.1.** All advisories are disseminated over the AMIS/N-TFS (see units with AMIS/N-TFS terminals in attachment 6). The Base Weather Station will perform backup calls to the command post and control tower to ensure receipt (with the exception of LLWS or crosswind advisories).

A10.1.1. The BWS will notify/perform backup calls to control tower, 403d command post, and 45 ALF SOF for crosswind and Low Level Wind Shear advisories.

A10.1.2. The BWS will notify/perform backup calls to 403d Dispatch for the observed advisory of temperatures passing through 40F.

A10.1.3. The advisories listed below are for dissemination by the command post. Those with an asterisk \* require initials and notification until their duty section closes (i.e., Base Operations and 403<sup>rd</sup> CP until 2300L).

Upon receipt of a WEATHER ADVISORY, COMMAND POST will notify, via telephone lines, the agencies listed below the corresponding ADVISORY issued.		
SFC WINDS 25-34 KTS		FORECASTED TEMPERATURE
Commanders Net		BELOW 32F
KAN		KAN
45 ALF x 0663 *		TRSS/336 <sup>th</sup> x 3023/5244*
403d CP x 4181 *		2AF/CV
TRSS/336 <sup>th</sup> x 3023/5244*		81TRW/CV/CC
CS JOB CONTROL x 2052*		45 ALF x 0663
MOBILITY CONTROL CNTR ***		MOBILITY CONTROL CNTR ***
SFS x 3040*		DECA
BASE OPERATIONS *		SFS x 3040 *
FIRE DEPT x 3333 *		BASE OPERATIONS
		403d CP x 4181*
*** MOBILITY CONTROL CNTR Notify when activated		FIRE DEPT x 3333 *
* Denotes units to notify after normal duty hours.		CES (EMCS) x 4179 *

A10.1.3.1. The command post will notify the 336 TRS/CCQ during the hours of 1800L-0500L and on weekend/down days instead of the 81/TRSS.

**Attachment 11**

**KEESLER AFB FORM 25, KEESLER WEATHER DISSEMINATION LOG**

A11.1. Units may use Keesler Form 25 to keep track of watches, warnings, and advisories and to document further dissemination within their organization. The form can be tailored electronically in Form Flow.

A11.1.1. Only routinely issued notifications are listed on Keesler Form 25; units should use “other” to disseminate rare events such as blizzards and freezing precipitation.

A11.1.2. In the example, Base Operations has listed the agencies that they need to notify of weather watches and warnings, etc. They can keep pre-filled forms available next to their phone and simply fill in the data as it is read by the disseminating agency, i.e., the Command Post. On the day in the example, there were several items issued and they were able to use the same form.

**Keesler AFB Form 25, Keesler Weather Dissemination Log (Front), Sample**

WEATHER WATCH	NUMBER	DATE	RECEIVED	VALID TIMES		EXTENSIONS	
	12-001	13 Dec 00	1675Z	13/1800Z- 2000Z		until 2100	
NOTE: MORE THAN ONE WATCH MAY BE IN EFFECT AT A TIME. USE SEPARATE BLOCK FOR EACH ONE			AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
	TORNADO. THE POTENTIAL EXISTS FOR TORNADOES WITHIN 25 NM OF KEESLER AFB		TA x 2521	1677	JF	2075	JF
	SEVERE THUNDERSTORMS. THE POTENTIAL EXISTS FOR SEVERE THUNDERSTORMS, SURFACE WINDS 50 KNOTS OR GREATER AND / OR HAIL 3/4 INCH OR GREATER, WITHIN 25 NM OF KEESLER		CAM	1650	JS	2100	JS
			Transient Crews				
			Boac 626	1700	R.R.		
	LIGHTNING. THE POTENTIAL EXISTS FOR LIGHTNING WITHIN 5 NM OF KEESLER AFB		Grounds Maint				
	OTHER:		None on field				
REMARKS:							
WEATHER WATCH	NUMBER	DATE	RECEIVED	VALID TIMES		EXTENSIONS	
NOTE: MORE THAN ONE WATCH MAY BE IN EFFECT AT A TIME. USE SEPARATE BLOCK FOR EACH ONE			AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
	TORNADO. THE POTENTIAL EXISTS FOR TORNADOES WITHIN 25 NM OF KEESLER AFB		TA x 2521				
	SEVERE THUNDERSTORMS. THE POTENTIAL EXISTS FOR SEVERE THUNDERSTORMS, SURFACE WINDS 50 KNOTS OR GREATER AND / OR HAIL 3/4 INCH OR GREATER, WITHIN 25 NM OF KEESLER		CAM				
			Transient Crews				
	LIGHTNING. THE POTENTIAL EXISTS FOR LIGHTNING WITHIN 5 NM OF KEESLER AFB		Grounds Maint				
	OTHER:						
REMARKS:							
WEATHER WATCH	NUMBER	DATE	RECEIVED	VALID TIMES		EXTENSIONS	
NOTE: MORE THAN ONE WATCH MAY BE IN EFFECT AT A TIME. USE SEPARATE BLOCK FOR EACH ONE			AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
	TORNADO. THE POTENTIAL EXISTS FOR TORNADOES WITHIN 25 NM OF KEESLER AFB		TA x 2521				
	SEVERE THUNDERSTORMS. THE POTENTIAL EXISTS FOR SEVERE THUNDERSTORMS, SURFACE WINDS 50 KNOTS OR GREATER AND / OR HAIL 3/4 INCH OR GREATER, WITHIN 25 NM OF KEESLER		CAM				
			Transient Crews				
	LIGHTNING. THE POTENTIAL EXISTS FOR LIGHTNING WITHIN 5 NM OF KEESLER AFB		Grounds Maint				
	OTHER:						
REMARKS:							

**Keesler AFB Form 25, Keesler Weather Dissemination Log (Reverse), Sample**

LIGHTNING WARNING		NUMBER <i>12- 002</i>	DATE <i>13 Dec</i>	RECEIVED <i>1730L</i>	VALID TIMES <i>1925- 2100</i>	EXTENSIONS		
<i>X</i>	LIGHTNING IS OCCURRING WITHIN 5 NM OF KEESLER AFB.			AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
	EXPECTED TO LAST UNTIL <u><i>End of valid time, 2100</i></u>			TA x 2521	<i>1930</i>	<i>JT</i>	<i>2030</i>	<i>JT</i>
	THIS WARNING IS IN EFFECT UNTIL CANCELED BY THE WEATHER STATION.			CAM	<i>1932</i>	<i>RS</i>	<i>2010</i>	<i>RS</i>
	NOTE: THIS WARNING MAY BE IN EFFECT AT THE SAME TIME AS OTHER WARNINGS			Transient Crews				
	OTHER:			Grounds Maint				
REMARKS:								
WEATHER WARNING		NUMBER <i>12- 001</i>	DATE <i>13 Dec</i>	RECEIVED <i>1630L</i>	VALID TIMES <i>1800- 2000</i>	EXTENSIONS <i>until 2100</i>		
NOTE: ONLY ONE WARNING (In addition to lightning) MAY BE IN EFFECT AT ONE TIME. THEREFORE THERE MAY BE SEVERAL CRITERIA INCLUDED IN THE WARNING AND VALID TIMES OF EACH CRITERIA MUST BE ANNOTATED SEPARATELY. ALL WARNINGS ARE FOR WITHIN 5 NM OF KAFB.								
WARNING CRITERIA: (Check the item of those that apply)				AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
<i>X</i>	a. Tornado:	Valid times:	L	TA x 2521	<i>1635</i>	<i>JT</i>		
	b. Winds 35-49 knots, max expected: <u><i>35</i></u> kts:	Valid times: <u><i>1800 - 2000</i></u>	L	CAM	<i>1636</i>	<i>RS</i>		
	These winds are / are not (circle one) associated with thunderstorms or rainshowers			Transient Crews				
				<i>None on station</i>				
	c. Winds 50 knots or greater, max expected: _____ kts:	Valid times: _____ - _____	L	Grounds Maint				
	These winds are / are not (circle one) associated with thunderstorms or rainshowers			<i>None on airfield</i>				
	d. Hail 1/2 to 3/4 inch;	Valid times: _____ - _____	L					
e. Hail 3/4 inch or greater	Valid times: _____ - _____	L						
f. Heavy precip: 2" or more rain / snow in 2 hrs.	Valid times: _____ - _____	L						
g. Other:	Valid times: _____ - _____	L						
REMARKS:								
WEATHER ADVISORY		NUMBER <i>12- 008</i>	DATE <i>13 Dec</i>	RECEIVED <i>1735L</i>	VALID TIMES <i>1700- 1900</i>	EXTENSIONS		
OBSERVED ADVISORIES:				AGENCY	ISSUE TIME	INITIALS	CANCEL TIME	INITIALS
Temperature below 40F / LLWS / crosswinds >25 kts (circle one)				TA x 2521	<i>1740</i>	<i>JT</i>	<i>1635</i>	<i>JT</i>
FORECAST ADVISORIES: THE POTENTIAL EXISTS FOR SEVERE THUNDERSTORMS.				CAM	<i>1745</i>	<i>RS</i>	<i>1636</i>	<i>SS</i>
<i>X</i>	a. Winds 25-34 knots, max expected: <u><i>29</i></u> kts:			Transient Crews				
	These winds are / are not (circle one) associated with thunderstorms or rainshowers.			<i>None 026</i>	<i>1500</i>	<i>RR</i>	<i>1700</i>	<i>RR</i>
	b. Freezing Temperatures expected _____			Grounds Maint				
REMARKS: <i>Upgraded to Warning 12- 001</i>				<i>none on airfield</i>				

## Attachment 12

### TERMS, ABBREVIATIONS, ACRONYMS

#### A12.1. Terms, Abbreviations, and Acronyms.

**Aerodrome** – The space within a 5 nautical (NM) circle from the center of the runway complex.

**AGL** – Above ground level.

**AMIS/N-TFS** – Advanced Meteorological Information System/New-Tactical Forecast System is the primary dissemination system of weather information at Keesler AFB. Formerly known as the Automated Weather Distribution System (AWDS).

**AWDS** – The Automated Weather Distribution System was the primary dissemination system for distributing weather data and NOTAM information to DoD unit throughout the Continental United States (CONUS). Replaced by AMIS/N-TFS.

**AWN** – Automated Weather Network is the primary long-line transmission system of weather information for dissemination to the world weather community.

**Basic Weather Watch** – Weather observers conduct a basic weather watch from the Base Weather Station. In addition to taking scheduled observations, the observer rechecks weather conditions at least every 20 minutes when certain conditions are forecast to occur.

**BWS** - Base Weather Station. Refers specifically to the 81st Operations Support Flight Weather Element. The weather station facility at Keesler AFB is in building 90233.

**Cooperative Weather Watch** – As part of the Basic Weather Watch, tower personnel assist BWS observers in monitoring weather conditions. Security Forces also help monitor certain conditions.

**Desired Lead-time** – The amount of advance notice supported agencies need prior to onset of a particular weather phenomenon.

**DoD Flip** – Department of Defense Flight Information Publication

**Forecast Weather Advisory** – A weather advisory issued when the customer requires advance notification of an impending condition with sufficient time to allow protective actions to be taken.

**ITS** – Index of Thermal Stress applies to AETC pilot/pilot trainees, reference AETCI 11-405, Flying Training Supervisors

**IFR** – Instrument Flight Rules; ceilings less than 1000 ft and visibility less than 3 miles.

**In station** – Refers to the physical locale of the weather station at Keesler AFB.

**LAN** – Local Area Network

**MOCC** – Maintenance Operations Control Center

**Metwatch** – Meteorological watch is the process of monitoring the weather and informing supported agencies when certain established weather conditions that could affect their operations or pose a hazard to property or life are occurring or are expected to occur.

**MSL** – Mean sea level - a reference to altitude compared to the average height of sea surface.

**NM** – Nautical mile equals 1.15 miles.

**NOTAM** – Notice to Airmen. These are bulletins for aircrews containing information on aerodromes and flight paths.

**Observed Weather Advisory** – A weather advisory issued when the customer does not require advanced notification of a particular weather phenomenon.

**Out of station** – Refers to any physical locale other than the weather station at Keesler AFB.

**PIREP** – Pilot report of in-flight weather conditions provided by an aircraft crewmember.

**PMSV** – Pilot-to-metro service, available to provide airborne access to weather information.

**Prevailing Visibility** – The greatest horizontal visibility equaled or exceeded throughout at least ½ the horizon circle. The visibility does not have to be continuous throughout 180 consecutive degrees, but may be composed of sectors distributed anywhere around the horizon circle.

**RAPCON** – Radar Approach Control for Keesler AFB, an air traffic control facility at Gulfport, MS.

**RVR** – Runway Visual Range. A value determined by instruments located alongside and about 14 feet higher than center line of the runway and calibrated with reference to the sighting of either high-intensity lights or the visual contrasts of other targets, whichever yields the greater visual range.

**SM** – Statute mile.

**SOF** – Supervisor of Flying

**Terminal Aerodrome** – The area within a 5 nautical mile radius of Keesler AFB runway complex.

**TAF** – Terminal Aerodrome Forecast. This is a forecast of required weather elements for a particular terminal aerodrome covering a 24-hour period. The TAF is a concise statement of the expected meteorological conditions at the terminal aerodrome during the specified period.

**Weather Warning** – A weather warning is a special notice provided to supported customers that alerts them to weather conditions of such intensity as to pose a hazard to life or property.

**Watch** – A weather watch is a special notice provided to supported customers that alerts them of a potential for weather conditions of such intensity as to pose a hazard to life or property for which the customer must take protective action (e.g., tornadoes, thunderstorms with winds greater than 50 knots and/or hail greater than or equal to 3/4 inch, lightning within 5 nautical miles, blizzard conditions).