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UNITED STATES ARMY AVIATION CENTER OF EXCELLENCE WEATHER SUPPORT

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CHAPTER 1
Operating Location Charlie (OL-C), 18th COMBAT WEATHER
SQUADRON (18th CWS) INTRODUCTION

1-1. **OL-C MISSION.** OL-C provides meteorological support to Fort Novosel, United States Army Aviation Center of Excellence (USAACE), and other assigned and tenant units at Fort Novosel listed in this regulation (Reg).

1-2. **OL-C OVERVIEW.** OL-C is aligned under the 18th CWS, 5th Combat Weather Group, 93rd Air and Group Operations Wing, Air Combat Command. OL-C is a team of meteorological technicians and electronics technicians located at Cairns Army Airfield (AAF). Locally, OL-C is aligned under the USAACE G3 Air.

1-3. **CONTACT INFORMATION.** OL-C is located in building 30101D Wallace Street, Fort Novosel, Alabama 36362. The telephone numbers for the duty forecaster are (DSN) 558-8385/8397, commercial 334-255-8385/8397.

1-4. **OL-C RESPONSIBILITIES.** OL-C's primary responsibilities are to provide tailored mission planning and execution weather services for USAACE aviation flight training and to provide resource protection to the Fort Novosel complex. These services are outlined in chapters two and three of this Reg, reciprocal support and responsibilities are outlined in chapter four. All weather services provided by OL-C are accomplished in accordance with (IAW) the duty priorities listed in appendix A. The maintenance work center maintains the Doppler weather radar located in Echo, Alabama, in addition to the automated weather sensors at Cairns AAF, Hanchey Army Heliport (AHP), Lowe AHP, and Shell AHP. The general responsibilities of the Air Force and Army regarding weather support are outlined in Army Regulation (AR) 115-10/Air Force Instruction (Interservice Publication) (AFI 15-157 (IP) (Weather Support for the U.S. Army) and AR 5-25 (Army Weather Functional Activities).

1-5. **RELEASE OF WEATHER INFORMATION TO NON-DEPARTMENT OF DEFENSE (DOD) AGENCIES/INDIVIDUALS.** OL-C will not release weather information to non-DOD agencies or individuals without prior coordination with the Fort Novosel Installation Operations Center (IOC) for severe weather events or the Public Affairs Office (PAO) for routine weather information. The IOC or PAO will provide written evidence of coordination before any release of information.

1-6. **RELEASE OF WEATHER INFORMATION TO DOD AGENCIES/INDIVIDUALS.** OL-C is required to release a significant event report in the event of a weather-related aircraft mishap (Class A, B, or C) or upon occurrence of a severe weather event where damage has occurred to the post. These reports are prepared and disseminated to the appropriate agencies as soon as possible. In case of a severe weather event, the weather summary will be sent to the IOC. All reports will be sent to the 18th CWS and USAACE G3. Basic climatology for Cairns AAF, Hanchey AHP, Lowe AHP, and Shell AHP is available on the OL-C homepage at <https://home.army.mil/novosel/index.php/weather>. Any other request for data should be made with a minimum of three days' notice.

CHAPTER 2

OBSERVING PRODUCTS AND SERVICES

2-1. **OVERVIEW.** A(n) fixed meteorological equipment (FMQ)-19 automated meteorological observing system at Cairns AAF automatically collects and disseminates weather observations. The Cairns AAF observation is the official observation for the Cairns AAF Class D (control tower is operational) or Class E (control tower is not operational) airspace. Additional weather sensors are located at Hanchey AHP, Lowe AHP, and Shell AHP. The Shell AHP FMQ-23 observation is the official observation for Shell AHP.

a. OL-C. Meteorological technicians are available to augment the FMQ-19, IAW Air Force Manual (AFMAN) 15-111 (Surface Weather Observations), from 0100L Monday through 0100L Saturday (excluding federal holidays). OL-C closes from 0100L through 0300L each morning, Tuesday through Friday.

b. Cooperative Weather Watch (CWW). OL-C has established a CWW with air traffic control (ATC) towers at Troy Municipal Airport (MAP) and all basefields and stagefields. ATC personnel will notify the meteorological technician when they observe significant weather conditions that differ from those reported in official observations, and the meteorological technician will incorporate that information into local flight briefings. Pilot reports (PIREPs) are another crucial element of the CWW (see paragraph 2-7). OL-C will reevaluate weather conditions whenever a reliable source reports weather that differs from the last observation to determine if a new observation is required, and if automated weather sensors require troubleshooting. The CWW is detailed in paragraph 4-2d.

2-2. **SURFACE OBSERVATION PRODUCTS.** The FMQ-19 provides Meteorological Aerodrome Report (METAR) and special weather report (SPECI) weather observations IAW the criteria and guidelines in Air Force Manual AFMAN 15-111. METAR observations are disseminated at approximately 58 minutes past each hour. SPECI observations are disseminated whenever significant weather changes occur (see appendix B for SPECI criteria).

2-3. **SURFACE OBSERVATION EQUIPMENT.** OL-C uses the FMQ-19 automated observing system to provide observing services to the Cairns AAF Class D airspace. Additionally, there are several automated surface observing systems (ASOSs) and three FMQ-23s in the local flying area that provide surface observations.

a. Fixed Meteorological Instrumentation. Electronic technicians maintain the instrumentation and displays of all fixed meteorological equipment; however, there may be instances when various Fort Novosel agencies must assist in repairing equipment when an outage involves aspects that are beyond the responsibility and capability of the Meteorological Technicians (such as communication or power lines).

(1) The Air Force owns and maintains the following meteorological equipment in and around Cairns AAF:

Equipment	Measures	Location
FMQ-19	Pressure, cloud height, winds, temperature, dew point, visibility, present weather, precipitation	Cairns AAF
FMQ-23	Pressure, cloud height, winds, temperature, dew point, visibility, present weather, precipitation	Hanchey AHP Lowe AHP

(2) The Army owns several ASOSs in the local area. The National Weather Service provides maintenance service via a memorandum of agreement with the Army. ASOSs provide continuous readouts of pressure, altimeter setting (ALSTG), temperature, dew point, wind direction and speed, present weather, visibility, cloud height, and cloud coverage (up to 12,000 feet). For ASOS limitations, see paragraph 2-6b. Data from the ASOSs may be accessed on very high frequencies (VHFs) or telephonically. The ASOSs' VHF frequencies and telephone numbers are also listed below.

Location	ICAO	VHF Frequency	Telephone Number
South Alabama RAP, AL	K79J	134.875	334-222-9770
Greenville MAP, AL	KPRN	120.000	334-383-9676
Eufaula (Weedon Field), AL	KEUF	128.35	334-687-5596
Floral MAP, AL	K0J4	124.175	334-858-4843
Bonifay (Tri-County) MAP, FL	K1J0	None	850-547-1431

b. FMQ-13 Wind Measuring Equipment. The 1st Battalion, 11th Aviation Regiment (1-11th Avn Regt) owns and maintains FMQ-13 wind measuring equipment at all basefields and stagefields, except for Cairns. Maintenance is performed by navigational aids (NAVAIDS) maintenance division.

c. FMQ-23. The Army owns an FMQ-23 located at Shell AHP. The Army and Air Force have signed an exception to policy to allow Air Force Electronics Technicians at Cairns AAF to provide touch maintenance on this system.

d. The priority for equipment maintenance/restoral is as follows:

- (1) Radar.
- (2) FMQ-23 (Shell AHP).
- (3) FMQ-19.
- (4) FMQ-23 (Lowe AHP, Hanchey AHP).

2-4. SURFACE OBSERVATION DISSEMINATION. Surface observations are disseminated locally and long line. Procedures vary at each location and are described below.

a. Local Dissemination. The primary means for agencies to receive the Cairns AAF observation is through the Joint Environmental Toolkit (JET) via the Army Airfield Automation System (AAAS). For non-ATC customers, there are secure hyperlinks on the OL-C homepage. The JET, via the AAAS, provides local and area observations, forecasts, weather watches, warnings, and advisories (WWA) to ATC agencies at Cairns AAF (Army Radar Approach Control (ARAC), Holmes Radio, and Cairns AAF air traffic control tower (ATCT)), and the ATCTs at Hanchey AHP, Lowe AHP, and Shell AHP. If JET is inoperable, weather observations will be accessed by ATC agencies using the respective JET ATC Portal, which is linked from the OL-C aviation website. When the Fort Novosel network and the JET are both inoperable, Cairns AAF Meteorological Technicians will relay observations to the ARAC and Holmes Radio along with Cairns AAF ATCT, Hanchey AHP ATCT, Lowe AHP ATCT, and Shell AHP ATCT via the Weather Hotline.

b. Long Line Dissemination. IAW Air Force directives, OL-C Meteorological Technicians augment the FMQ-19 observations, and long line dissemination is accomplished via JET. In the event of a JET outage, observations will be transmitted long line via the Air Force Weather Web Service (AFW-WEBS).

c. Aircrews with a VHF radio or telephone may access real-time ASOS weather observation data at area locations with an ASOS (see paragraph 2-3a). These systems are not augmented and should be used with caution. As stated in USAACE Reg 95-2 (Directory of Aviation Training Facilities and Procedures), the official observation for Fort Novosel basefields inside Cairns AAF Class D airspace is the Cairns AAF observation.

2-5. SURFACE OBSERVATION CODE. Official surface weather observation abbreviations and codes are documented in AFMAN 15-111.

2-6. OBSERVING LIMITATIONS. The official point of observation at Cairns AAF is the FMQ-19 sensor. Buildings located at Cairns AAF limit the meteorological technician's ability to take complete representative weather observations when augmenting the FMQ-19.

a. OL-C Limitations.

(1) The backup observation point is located approximately 30 feet off the SE corner of building 30101. From this vantage, the Cairns AAF meteorological technician does not have a full 360° view of the airfield. Buildings obstruct the meteorological technician's view of the aerodrome from the southwest (SW) through the northwest (NW). This limits the meteorological technician's ability to accurately determine prevailing visibility when backing up the FMQ-19.

(2) Emergency evacuation of the Weather Station temporarily disrupts observing and forecasting services. Meteorological technicians relocate to the alternate operating location (AOL) located in Building 30311 (FLATIRON). Observing and forecasting services will be available at the AOL. The telephone number at the AOL is DSN 558-8157, commercial 334-255-8157. While operating from the AOL, backup equipment may be used to record the observation.

(3) Pilot-to-Metro service (PMSV) and the weather information frequency (WIF) are subject to the limitations inherent in the use of VHF and UHF. Pilots in the local area may not be able to reach the OL-C meteorological technicians via PMSV due to various circumstances that prevent the signal from reaching the radio tower. See paragraph 3-5 of this Reg for the PMSV frequency and backup procedures.

b. General Limitations of the ASOS.

(1) Cloud height and coverage are determined by a laser beam ceilometer and dependent on what is directly above the sensor. ASOS attempts to determine sky condition but may provide an incorrect cloud coverage amount if clouds are stationary or moving very slowly. Additionally, the ASOS systems cannot determine cloud height above 12,000 feet.

(2) Visibility is determined using a forward scatter visibility meter; ASOS reported values may be highly variable and not representative for the entire airfield.

(3) The freezing rain sensor does not report occurrence until ice has accumulated to ≥ 0.01 inch. Aircraft operations may be affected before the ASOS reports the occurrence of freezing rain (i.e., icing).

(4) An ASOS may not detect all thunderstorms or hail occurrences. An ASOS cannot detect virga, sector visibility, tower visibility, or tornadoes.

c. General Limitations of the FMQ-19/FMQ-23. As with any automated system, the FMQ-19/FMQ-23 has inherent weaknesses. However, OL-C has developed procedures to mitigate any weaknesses of the system.

(1) Cloud height and coverage are determined by a laser beam ceilometer, which looks at the small portion of the sky directly above the sensor. Algorithms use time and space averaging in order to determine the sky condition. The FMQ-19 measures cloud heights up to 25,000 feet, and the FMQ-23 measures cloud heights up to 40,000 feet.

(2) Visibility is determined at the sensor group, so it may not always be representative of the entire airfield.

(3) The FMQ-19/FMQ-23 may not detect all thunderstorms and lightning and cannot report thunderstorm and lightning remarks. Furthermore, the system cannot detect hail, virga, tower visibility, volcanic ash, cloud types, or tornadoes/funnel clouds/waterspouts. Fort Novosel's FMQ-23s do not have freezing precipitation sensors.

(4) Due to the characteristics of the algorithms, the FMQ-19/FMQ-23 may be slow to respond and report accurate sky condition, visibility, and present weather during periods of rapidly changing weather conditions.

d. Other Equipment Limitations. Because the FMQ-13 at Runkle Stagefield is 70 feet high, the surface wind speeds are generally lower than the sensor reported values.

2-7. **PILOT REPORTS.** The local training area is approximately 29,000 square miles and is a data-sparse region in which weather can vary widely over short distances. PIREPs are an extremely important source of weather information provided by aircrews operating in the local area.

a. Criteria. OL-C disseminates all PIREPs received.

b. PIREP Format and Dissemination. At a minimum, a PIREP must contain location, time, altitude, type of aircraft, and at least one weather element such as winds, temperature, icing, turbulence, low level wind shear (LLWS), visibility, or present weather in order to be disseminated. However, any reports of significant weather elements are useful and important to Meteorological Technicians. PIREPs may be reported to the Weather Station via PMSV radio or relayed to the Weather Station through ATC agencies. Meteorological Technicians also include PIREPs, as appropriate, in-flight weather briefings.

CHAPTER 3 FORECAST PRODUCTS AND SERVICES

3-1. **OVERVIEW.** Forecasting support is provided by the Air Force and organized in tiers to serve various levels of military organizations and operations. The 26th Operational Weather Squadron (26 OWS), located at Barksdale Air Force Base (AFB) in Louisiana, is at the operational level focusing on meteorology and the production of weather products for the SE portion of the United States. OL-C provides all support to Fort Novosel, its customers, and tenants during duty hours. After duty hours, the 26 OWS provides limited support.

a. Onsite forecasting services from OL-C are available from 0100L Monday through 0100L Saturday (excluding federal holidays). OL-C closes from 0100L-0300L each morning, Tuesday through Friday. The 110th Aviation Brigade (110th AB) will inform OL-C of any weekend flying not later than 1600L by Thursday of each week, and a Meteorological Technician will be scheduled for overtime. In the event of weekend flying, OL-C will publish the Mission Execution Forecast (MEF) package at least one hour prior to the scheduled flight period. Weather services will be provided by the 26 OWS whenever onsite forecasting services are not available.

(1) A meteorological technician is on-call during non-duty hours and should be prepared to respond when recalled to implement severe weather action procedures (SWAP) described in paragraph 3-4f below. Contact information will be provided to the 26 OWS to notify the on-call severe weather manager whenever SWAP criteria are met.

(2) Should onsite forecasting services be unavailable for aviation support, customers should call the 26 OWS for flight weather briefings (DSN 334-331-2651/2652/2653).

(3) For any other onsite forecasting support, including major outdoor events (i.e., Freedom Fest) that are outside normal hours of operation, a written request should be made to OL-C at least seven calendar days in advance so overtime support can be coordinated.

b. OL-C produces various forecasts to assist mission planning, training operations, and resource protection. OL-C is responsible for the Terminal Aerodrome Forecasts (TAFs), MEFs, and Department of Defense (DD) Forms 175-1 (Flight Weather Briefing) for flights originating from Cairns AAF. OL-C provides flight weather information to authorized aircrew members and

pilots upon request. Flight weather briefing products are produced for display on the OL-C homepage. FLATIRON MEDEVAC crews are supported on non-training missions as a priority service. OL-C issues all forecast and observed watches, warnings, and advisories during duty hours.

c. After duty hours, the 26 OWS issues the required watches, warnings, and advisories and implements SWAP when needed. The 26 OWS also provides flight weather briefing support after duty hours.

3-2. FORECAST PRODUCTS. The MEF package is issued at the beginning of each flying period and valid until the end of that period. See paragraph 3-3b for issue times and valid times for each flying period. These products are primarily disseminated via the Fort Novosel network on the OL-C homepage. In the event of a network outage, the MEF will be e-mailed to each Base Operations and Maintenance section and posted to the official OL-C Facebook and X pages. Expect delays when the MEF must be disseminated using backup procedures. The Fixed Wing Flimsy (FW Flimsy) is issued at 0000L and is valid from 0600 Local (L) until 1800L. The TAF is disseminated at 10 Zulu (Z), 18Z, and 02Z.

a. MEF.

(1) The MEF primarily focuses on weather conditions affecting the USAACE local flight training areas and is tailored to specific criteria that impact local aviation operations. It contains a separate forecast for each of the six MEF forecast areas (see appendix G) within the USAACE local flying area and is amended or updated as required (see appendix H).

(2) The format of the MEF may change occasionally based on local requirements and feedback from aviators, however, the MEF will always contain the forecasted information below. All times on the MEF are in Z time, except as noted.

(a) Present weather such as precipitation or obstructions to visibility.

(b) Surface winds.

(c) Aviation hazards within 150 nautical miles (NM) such as LLWS, icing, and turbulence.

Note. Turbulence intensity in the MEF is for Category II (Cat II) aircraft.

(d) Thunderstorms and the amount of coverage. Coverage amounts are Isolated (1-10%), Few (11-25%), Scattered (26-49%), and Numerous (> 50%).

(e) Sky condition above ground level (AGL).

(f) Flight level winds within 150NM provided in 1,000-foot intervals from 1,000 feet to 8,000 feet. Wind data is valid for the midpoint of the flying period.

(g) Flight level temperatures within 150NM (in °C).

(h) Forecast maximum and minimum temperatures (in °C) for the period for Cairns AAF and the local flying area.

(i) Forecast maximum pressure altitude (PA) and density altitude (DA) (in feet) for the period for Cairns AAF and the local flying area.

(j) Solar and lunar data, including begin morning nautical twilight (BMNT), end evening nautical twilight (EENT), sunrise (SR), sunset (SS), begin morning civil twilight (BMCT), end evening civil twilight (EECT), moonrise (MR), moonset (MS), % lunar illumination, and lunar azimuth and elevation. These events are listed in L time. Lunar data is valid at 2100L.

(k) Any WWAs that are in effect or will be in effect, at any time during the period.

Note. Only weather WWAs that affect flight operations will be included. The observed lightning warning/advisory, heavy precipitation watch/warning, and tropical watches/warnings will not be included.

(l) Time of issuance for any amendments or updates to the MEF.

(m) Planning data for the next period, which will include the forecast maximum temperature (in °C) and PA (in feet) for Cairns AAF, along with a forecast of visual flight rules (VFR) or instrument flight rules (IFR) for each MEF forecast area.

(3) The MEF is continuously monitored for accuracy and amended as needed IAW the criteria listed in appendix H.

b. Local Department of Defense (DD) Form 175-1. The standard flight weather briefing is a DD Form 175-1. OL-C produces a Local DD Form 175-1 for flights within 150NM of Cairns AAF, including those filing IFR flight plans and cross-country flights. The Local DD Form 175-1 includes terminal weather for locations within 100NM of Cairns AAF. During the AM and PM flying periods, a Local DD Form 175-1 Continuation Sheet is also produced with weather for locations outside 100NM but within the Fort Novosel local flying area of 150NM. These products are primarily disseminated via the Fort Novosel network on the OL-C homepage. The Local DD Form 175-1 is posted to the homepage at the beginning of each period with valid times concurrent with the MEF. The Local DD Form 175-1 may not have information in all blocks, as it is available elsewhere. See appendix E for a breakdown of the Local DD Form 175-1. Sometimes, meteorological technicians will use all stops or all stations (A/S) within 100NM rather than a list of individual location identifiers. Note that A/S refers to all stations within 100NM of Cairns AAF when all forecast conditions are similar.

c. If a customer requires a DD Form 175-1 for locations outside the local flying area or airfields not listed on the Local DD Form 175-1, request a DD Form 175-1 by using the Request DD 175-1 link on the aviation webpage <https://home.army.mil/novosel/weather/aviation-weather>, or email request to fortnovoselweather@army.mil. For routine or scheduled flights, aircrews should submit their DD Form 175-1 request at least two hours prior to the desired brief time for the timeliest service. OL-C will not provide a DD Form 175-1 for simulator training or for planning. OL-C meteorological technicians perform other duties that take priority over routine weather briefings (see appendix A). This policy does not apply to FLATIRON MEDEVAC flights.

d. MEF/Local DD Form 175-1 Updates/Amendments. The MEF/Local DD Form 175-1 will be updated/amended IAW OL-C's duty priorities (see appendix A) when it becomes evident that the forecast is not on target and the criteria of appendix H are met. When the MEF/Local DD Form 175-1 is amended, OL-C will print copies for the students at Cairns AAF and post it to the OL-C homepage. OL-C will also issue a weather advisory via JET to notify the Fort Novosel Basefield ATC agencies and operations of the change. Basefield air traffic control towers will ensure airborne crews within their control are notified. Holmes Radio will contact all active stagefields, to include Molinelli Forward Arming and Refueling Point (FARP) ATCT, Troy Municipal Airport ATCT, and all other airborne crews within Holmes Radio remote radio control. Furthermore, when the basefields' operations sections call for a weather void time, OL-C will brief them on any amendments.

e. FW Flimsy. OL-C produces a FW Flimsy for certain destinations within 250NM of Cairns AAF. Destinations include: KBFM, KHSA, KLCQ, KVQQ, and KSGJ. This product is for the Dothan Fixed Wing customers only. This product is primarily disseminated via the Fort Novosel network on the OL-C homepage. The FW Flimsy contains FL winds/temps and hazards up to FL180 and is not a stand-alone product. See appendix E for a breakdown of the FW Flimsy.

f. TAF. Every eight hours, OL-C produces a TAF for a 15NM radius centered on Cairns AAF, valid for 30 hours. The TAF is available to ATC agencies via the JET display on the AAAS and to other customers via secure hyperlinks on the OL-C homepage. Note that the TAF is only issued when the Cairns tower is open.

3-3. FORECAST PRODUCT DISSEMINATION TO AIRCREWS.

a. The primary means of disseminating forecast products to aircrews is via the Fort Novosel network on the OL-C homepage. The OL-C homepage contains various products and links to products depicting current and forecast weather worldwide, to include radar imagery, satellite imagery, surface observations, and TAFs. All locally generated products are also posted to the homepage. These local products are described below.

(1) A secure link to JET from the website provides access to current observations, TAFs, and all Fort Novosel watches, warnings, and advisories in effect.

(2) The AM, PM, and Night 1 (N1) MEFs are posted to the website at 0500L Central Daylight Time (CDT) (0445L Central Standard Time (CST)), 1045L CDT (1015L CST), and 1715L CDT (1630L CST). Between postings, the MEF will be amended or updated as appropriate, and the amendments or updates will be posted to the website.

(3) The AM, PM, and N1 Local DD Form 175-1s are posted to the website at 0500L CDT (0445L CST), 1045L CDT (1015L CST), and 1715L CDT (1630L CST). Between postings, the Local DD Form 175-1 will be amended or updated as appropriate, and the amendments or updates will be posted to the website.

(4) The AM and PM Continuation Sheets are posted to the website at 0500L CDT (0445L CST) and 1045L CDT (1015L CST). There is no N1 Continuation Sheet. Between postings, the Local DD Form 175-1 will be amended or updated as appropriate, and the amendments or updates will be posted to the website.

(5) The FW Flimsy is posted to the website at 0000L. Between postings, the FW Flimsy will be amended or updated as appropriate, and the amendments or updates will be posted to the website.

(6) MEF/Local DD Form 175-1 amendments, updates, watches, warnings, and advisories are also disseminated via the OL-C official government Facebook and X pages. This additional networking capability helps reach as many people as possible in a short amount of time.

(7) The WIF on 348.8 broadcasts a continuous recorded loop containing the details of all MEF amendments. If there are no MEF amendments, OL-C will update the WIF hourly with a new void time and initials. The WIF is updated during USAACE flying hours.

(8) Climatology data for Cairns AAF, Hanchey AHP, Lowe AHP, and Shell AHP is available on the OL-C website.

(9) The seven-day outlook is posted to the OL-C website daily. This product is for planning purposes only.

(10) Hurricane information may also be found on the website when a storm is threatening. Updates will be posted up to four times daily in the Hurricane Central section. Additionally, the hurricane update will be posted to the official OL-C Facebook page for the benefit of the Fort Novosel community.

b. Briefing Schedule. The issue times and valid times of forecast products for each period are as follows:

- (1) AM Period (CDT): Issued at 0500L; valid 0630L-1300L.
AM Period (CST): Issued at 0445L; valid 0630L-1300L.
- (2) PM Period (CDT): Issued at 1045L; valid 1300L-1930L.
PM Period (CST): Issued at 1015L; valid 1300L-1930L.
- (3) N1 Period (CDT): Issued at 1715L; valid 1930L-0230L.
N1 Period (CST): Issued at 1630L; valid 1930L-0230L.

c. Backup Procedures. The primary means of receiving aviation weather forecasts is via the OL-C aviation homepage. If the website is down, OL-C will e-mail the MEF package to the Base Operations and Maintenance sections of each Basefield and post to the official OL-C Facebook and X pages. Base Operations is responsible for disseminating the flight weather briefing to those sections without access to the data. Expect delays when the MEF must be disseminated using backup procedures.

3-4. RESOURCE PROTECTION PRODUCTS. The 26 OWS and OL-C issue weather watches, weather warnings, terminal weather advisories (TWAs) (forecast and observed), and area weather advisories (AWAs) (forecast and observed). All watches, warnings, and advisories are issued IAW AFMAN 15-129. See appendix D for weather watch, warning, and advisory criteria.

a. Weather Watches. During duty hours, OL-C issues forecast weather watches for a 15NM radius centered on Cairns AAF. Weather watches alert post agencies to the potential for severe or hazardous weather to occur within 15NM of Cairns AAF. After duty hours, the 26 OWS is responsible for issuing certain watches as outlined in appendix D. The 26 OWS issues a forecast lightning watch for a 5NM radius centered on Troy MAP during Troy ATCT duty hours.

b. Weather Warnings. During duty hours, OL-C issues forecast weather warnings for a 15NM radius centered on Cairns AAF, along with observed weather warnings (e.g., observed lightning within 5NM) for Cairns AAF. After duty hours, the 26 OWS is responsible for issuing certain forecast and observed weather warnings as outlined in appendix D. The 26 OWS issues forecast and observed weather warnings for a 5NM radius centered on Troy MAP and Dothan regional airport (RAP) during duty hours, along with observed lightning warnings for a 5NM radius centered on Hanchey AHP, Knox AHP, Lowe AHP, Shell AHP, and Molinelli FARP. Weather warnings alert post agencies to the occurrence or imminent occurrence of severe or hazardous weather conditions requiring specific actions to ensure safety of flight, life, and/or property.

c. Weather Advisories. During duty hours, OL-C issues observed and forecast TWAs and AWAs for the local flying area. After duty hours, the 26 OWS is responsible for issuing certain observed and forecast advisories as outlined in appendix D. Weather advisories alert post agencies to weather conditions, which could affect flight operations or post support. Forecast weather advisories are issued when the conditions within the advisory are expected to occur within the valid times of the advisory.

(1) TWAs. These advisories alert post agencies to the occurrence or forecast of weather within 15NM of Cairns AAF, potentially affecting flight operations or post support.

(2) AWAs. These advisories alert post agencies to the occurrence or forecast of weather within 60NM of Cairns AAF potentially affecting flight operations.

d. Dissemination of Watches, Warnings, and Advisories. All watches, warnings, and advisories are disseminated to ATC agencies at Cairns AAF, Hanchey AHP, Lowe AHP, and Shell AHP via JET and AAAS. Non-ATC customers may access watches, warnings, and advisories via a secure hyperlink to JET on the OL-C homepage. For all watches, warnings, and advisories issued or cancelled by OL-C, follow-up telephone calls are made to certain customers, depending on the criteria of the watch, warning, or advisory. During duty hours, OL-C will notify Cairns AAF Base Operations telephonically to confirm receipt of any watch, warning, or advisory that is issued or cancelled. During duty hours, OL-C will notify IOC telephonically to confirm receipt of any watch or warning that is issued or cancelled. Additionally, the IOC is notified via e-mail when any watch or warning is issued or cancelled. See appendix D, Figure 1 for details.

e. Backup Dissemination of Watches, Warnings, and Advisories. When JET dissemination capabilities are lost, OL-C will locally disseminate all watches, warnings, and advisories to ATC agencies via the Weather Hotline. Watches, warnings, and advisories may also be obtained from the MEF/Local DD Form 175-1 on the OL-C homepage. Finally, OL-C posts all watches, warnings, and advisories to their official government Facebook and X pages.

f. SWAP. These procedures are in place to ensure sufficient personnel are available to augment automated weather sensors and to collaborate and partner with the 26 OWS to monitor and manage potential/actual severe weather events and meteorological/operational events critical to mission success. In the context of SWAP, severe weather is defined as any weather phenomenon considered critical enough by the customer to require advance/special notice and subsequent actions to prevent serious injury or damage to personnel, property, or resources. It is imperative that timely and accurate weather WWAs are disseminated to all Fort Novosel agencies to ensure personnel and resource protection. OL-C will perform SWAP responsibilities as defined in AFMAN 15-129.

(1) Activation. SWAP will be activated when any of the following occur:

- A severe thunderstorm watch or warning is issued for Cairns AAF
- A tornado watch or warning is issued for Cairns AAF
- A damaging wind watch or warning is issued for Cairns AAF
- A heavy snow watch or warning is issued for Cairns AAF
- A freezing precipitation watch or warning is issued for Cairns AAF
- A hurricane or tropical storm is forecast to affect the area

(2) Notification. During duty hours, the on-duty meteorological technician will implement SWAP by notifying the on-call. During non-duty hours, the 26 OWS will implement SWAP by notifying the on-call, at which time the on-call will assume WWA responsibility until the threat has passed. The on-call will contact the IOC and the 26 OWS upon assuming duty and upon closing.

(3) Severe Weather Reporting Procedures. OL-C will provide a significant event report via e-mail to the 18th CWS, 26 OWS, IOC, and USAACE G3 for any weather-related casualties, injuries, property damage, and/or significant impact to operations.

(4) Severe Weather Summary Content. The significant event report will include the following information: executive summary; relevant observations +/- one hour of the event; TAF; MEF; forecast hazards, watches, warnings, and advisories with lead times/timing errors; damage/casualty assessment and cost estimates if known; weather discussion, and status of equipment. Significant event reports are normally distributed the same day or within 24 hours of the event unless it occurs over the weekend or on a holiday, in which case the report is distributed the next staff duty day.

3-5. **OTHER FORECAST SERVICES.** OL-C provides the following forecast products and services in addition to those previously described. OL-C management also fulfills the Staff Weather Officer (SWO) function, performing staff integration in a variety of ways. SWO functions are indicated with a * below.

a. Hurricane Support - When a hurricane threatens the Gulf Coast or upon initial notification from the IOC or G3, OL-C management begins providing post leadership with tropical updates via the OL-C homepage and via e-mail to Post leadership up to four times daily. These updates will contain the following information: storm name; date/time; if/when Fort Novosel will be impacted within the next 96 hours; how Fort Novosel will be impacted within the next 96 hours; onset/duration of 34 knots (kts) sustained winds; onset/duration of 50kts sustained winds; onset/duration of 64kts sustained winds; time of maximum winds at Fort

Novosel; onset of precipitation at Fort Novosel; total rainfall expected at Fort Novosel; and closest point of approach. A graphic showing the current storm position, storm information block, five-day storm track, and wind swath will also be posted. Per Air Force policy, OL-C will not deviate from official forecasts issued by the National Hurricane Center (NHC).

(1) The updates will be posted and e-mailed as soon as storm information is updated by the NHC (normally by 0445L, 1045L, 1645L, and 2245L). Visit the website <https://home.army.mil/novosel/index.php/weather/hurricane-central> and select "Hurricane Briefing Update". The hurricane briefing update is also posted to the official OL-C Facebook page. Additionally, OL-C will provide a briefer to the IOC when requested.

(2) Aircraft evacuation planning/mission forecasts will be produced as needed. OL-C will provide planning data, including a seven-day aviation forecast, for all potential evacuation sites for all assigned and tenant units.

b. PMSV Support. PMSV support is available at Cairns AAF from 0100L Monday through 0100L Saturday (excluding federal holidays). OL-C closes from 0100L-0300L each morning, Tuesday through Friday. The frequency is 134.1 KHz on the VHF channel. Meteorological technicians will provide requested forecast support and solicit PIREPs from all airborne aircrews. In the event of a PMSV outage and during non-duty hours, aircrews should utilize pilot to dispatch radio on 371.35 MHz (UHF) and 126.2 KHz (VHF). A Notice to Airmen (NOTAM) will be coordinated with USAACE G3 in the event of a lengthy PMSV outage.

c. Aircraft Mishaps/Incidents*. Weather information for aircraft mishaps (Class A, B, or C) or incidents within 60NM of Cairns AAF is available upon request from an authorized agency. Upon notification of an aircraft mishap, OL-C will perform a data save and prepare a preliminary weather summary containing the observed and forecast weather in the area at the time of the accident. These weather summaries are prepared and disseminated to the appropriate unit's safety office as soon as possible. OL-C will provide a significant event report via e-mail to the 18th CWS, IOC, and USAACE G3 for any weather-related aircraft mishap. It is important to notify OL-C immediately of a suspected Class A, B, or C incident, as certain data is perishable.

d. Seven-Day Aviation Forecast*. OL-C will provide a seven-day aviation forecast each day not later than (NLT) 0730L. The outlook will be posted to the OL-C homepage and emailed to the USAACE Staff.

e. Weekend Flying Planning Forecast*. OL-C will issue a weather (Go/No Go) planning forecast by 1400L Thursday and again at 0730L Friday if USAACE weekend flying is scheduled. 110th AB will include OL-C in weekend flight planning correspondence.

f. Semiannual Weather Briefings*. Briefings highlighting weather patterns and seasonal aviation hazards are available upon request. Requests for semiannual briefings should be made at least three days in advance, if possible.

g. Presidential Weather Support*. Presidential weather support will be provided IAW Air Force directives.

h. Staff Weather Briefings*. Weather risk discussions are provided to senior leaders through the IOC whenever significant weather threatens the Fort Novosel area. In-person weather briefings are given upon request.

i. Pre-deployment Planning Support*. Upon request, OL-C will provide weather planning information and climatology data to any Fort Novosel agency or unit preparing for deployment. Requests should be submitted at least one week in advance, as some data may take time to research and collect.

j. Climatological Services. Climatological studies and information are available upon request. Climatology for Cairns AAF, Hanchey AHP, Lowe AHP, and Shell AHP is provided on the OL-C homepage. Requests for additional data should be made with a minimum of three days' notice. Some requests for climatology must be submitted to the Climate Service Center at the 14th Weather Squadron due to their complex nature. Such requests may take longer to complete.

k. ATC Weather Training*. OL-C provides initial and recurring training on limited observing procedures to all ATC personnel on its Blackboard ATC Wx Course at https://sigcoe.llc.army.mil/webapps/blackboard/content/listContentEditable.jsp?content_id=_519271_1&course_id=_2810_1&mode=cpview. This training includes Fort Novosel unique Cooperative Weather Watch (CWW) requirements. OL-C maintains the training material, while the individual training at each location is managed by the ATC location.

l. Emergency/Crisis Action Response*. OL-C will provide emergency/crisis action response such as weather information and/or briefing support as requested. This includes weather subject matter expertise during chemical, biological, radiological, nuclear, and high-yield explosive operations.

m. Ranger/Tomahawk Fury Briefings*. For Ranger and Tomahawk Fury missions, OL-C will provide planning weather, a DD Form 175-1 on the day of the mission, and in-person briefing support as requested. Requests for planning weather, DD Form 175-1 and in-person briefing should be made to management at least three days in advance. OL-C will not provide a DD Form 175-1 for planning purposes.

n. Initial entry rotary wing course (IERW) Flight School Academics*. OL-C provides weather briefings to the IERW Flight School approximately every two weeks and reviews/updates the Flight School's weather curriculum as required.

o. Monday/Friday staff updates*. OL-C provides USAACE staff updates every Monday (NLT 0900L) and Friday (NLT 1300L). The focus is on impacts to aircraft/installation, impacts to flight operations, tropical, and any special events.

3-6. FORECAST PRODUCT LIMITATIONS. The following forecast product limitations should be considered:

a. Generally, forecast accuracy decreases as the length of the forecast term increases. Additionally, if the weather station loses capabilities for a period of time (e.g., communications outage, weather station evacuation, etc.), forecast accuracy worsens as weather information becomes obsolete and no updated information is available to meteorological technicians.

b. Meteorological technicians cannot always provide forecasting service on a first-come, first-served basis, or they may be unable to quickly handle every request for weather service during periods of adverse weather or heavy workloads. OL-C's duty priority list, provided in appendix A, ensures tasks are performed according to their importance using a risk management approach.

CHAPTER 4

RECIPROCAL SUPPORT AND RESPONSIBILITIES

4-1. OL-C ROLES AND RESPONSIBILITIES. OL-C accomplishes the following tasks:

a. Provide the weather forecasting and observing services described in chapters 2 and 3 and appropriate appendices of this Reg.

b. Notify the IOC upon opening and closing operations.

c. Provide peacetime weather support to Army Reserve components assigned to Fort Novosel, using products and procedures described in this Reg.

d. Submit a weather summary or significant event report to the IOC and 18th CWS whenever a severe weather-related mishap or aircraft accident occurs.

e. Notify Cairns AAF Base Operations of all PMSV outages and returns to service. Since OL-C does not have the ability to conduct a daily radio check, OL-C will use the first PMSV contact of the day as a radio check and document as such.

f. Provide ATC weather support.

(1) OL-C will provide initial and recurring training on limited observing procedures to ATC personnel on its Blackboard ATC Wx Course at:
https://cybercoe.llc.army.mil/webapps/blackboard/execute/announcement?method=search&context=course&course_id=_2205_1&handle=cp_announcements&mode=cpview

(2) Establish a CWW with 1-11th Avn Regt personnel.

g. Upon request, provide assistance to investigating officials reviewing Fort Novosel aircraft mishaps.

h. Notify the USAACE G3 Air of any limitations in providing weather support and provide information to update the NOTAMs and DOD flight information publications (FLIP) accordingly.

i. Release weather information to DOD agencies upon request (see paragraph 1-6).

j. Coordinate with the 26 OWS on all issues related to weather support provided to Fort Novosel by the 26 OWS.

4-2. OL-C ACTIVITY REQUIREMENTS. OL-C requires support from various units assigned to Fort Novosel.

a. USAACE G3 will:

- (1) Inform the site supervisor, in writing, of any weather support requirement changes.
 - (2) Provide the site supervisor and other OL-C personnel access to all plans that require or impact weather support.
 - (3) Notify the site supervisor if an alert or contingency requires weather support.
 - (4) Notify the site supervisor at least seven days in advance if an exercise requires weather support.
 - (5) Budget funds for the support of OL-C as prescribed in AR 115-10.
 - (6) Submit changes in weather operations (e.g., PMSV frequencies or operating hours) to DOD FLIP and NOTAMs.
 - (7) Provide administrative support.
 - (8) Provide all necessary IT equipment required for weather/staff operations.
- b. USAACE G6 will provide IT technical support for current and emerging technologies and software as required for weather/staff operations.
- c. Directorate of Plans, Training, Mobilization and Security will:
- (1) Disseminate weather WWAs through the IOC IAW the Fort Novosel All Hazards Installation Protection Plan, appendix H (Weather Plan).
 - (2) Promptly report significant events that involve OL-C services or reports of damage caused by a weather event.
 - (a) Coordinate with OL-C prior to submitting a report concerning such events.
 - (b) Include Air Combat Command, LANGLEY AFB VA in message reports, with information copies to A3W LANGLEY AFB VA//DIW//.
 - (c) Provide OL-C an information copy of any command-level event or incident report that involves weather.
 - (3) Relay EMERGENCY ACTIONS MESSAGES, which affect the post to OL-C.
 - (4) Notify OL-C of all FPCON changes.
 - (5) Coordinate with OL-C to conduct a monthly tornado siren test.
- d. The 1-11th Avn Regt will:
- (1) Conduct a CWW at all ATC facilities. Notify the Weather Station when the following occur:

- (a) Winds \geq 20kts, 30kts, or 45kts occur at any Basefield or Stagefield with wind measurement capability.
 - (b) There are significant weather phenomena, such as fog or thunderstorms that may affect flight operations.
 - (c) Cairns AAF tower will notify the Weather Station when tower visibility is < 4 statute miles (SM) and different from the visibility reported on the current Cairns AAF observation (i.e., the surface visibility).
 - (d) Hanchey AHP, Lowe AHP, and Shell AHP towers will notify the Weather Station when their ceiling is $\leq 1,000$ feet and/or visibility ≤ 3 SM and different from the observation at Cairns AAF.
 - (e) Hanchey AHP, Lowe AHP, and Shell AHP towers will notify the Weather Station if a cloud ceiling forms below decreases to less than or, if below, increases to equal or exceed 500 feet. Additionally, notify the Weather Station when visibility decreases to less than or, if below, increases to equal or exceed $1/2$ SM.
 - (f) Relay all PIREPs received to weather personnel within five minutes. If ATC responsibilities cause delays beyond five minutes, relay as soon as possible. It is very important to relay local PIREPs and any occurrence of previously unreported weather conditions that could affect flight safety or be critical to the safety and efficiency of other local operations and resources.
- (2) Disseminate weather WWAs, and any other significant information IAW the Fort Novosel All Hazards Installation Protection Plan, appendix H (Weather Plan).
 - (3) Maintain the PMSV Radio and monitor it during short-duration outages. Provide a radio check upon request.
 - (4) ATC tower personnel at Cairns AAF, Hanchey AHP, Lowe AHP, and Shell AHP will notify the Weather Station upon opening and closing. Cairns AAF tower will provide the active runway upon opening the airfield and changing runways and inform the Weather Station of the current runway light setting upon opening, closing, or changing the light setting.
 - (5) Provide orientation tours of ARAC and ATC operations to newly assigned weather personnel upon request.
 - (6) Notify the Weather Station of meteorological equipment outages, communications outages, and aircraft mishaps. Provide the Weather Station a copy of the initial mishap report upon request or when a Class A, B, or C accident occurs.
 - (7) ARAC/Holmes Radio will relay PIREPs, weather WWAs, and weather reports to and from all basefields, stagefields, and airborne aircraft.
 - (8) Holmes Radio will relay all MEF amendments to all active stagefields (including Molinelli ATCT) and airborne crews.

- (9) Provide backup radar support upon request.
- e. 110th Aviation Brigade will notify OL-C, in writing, of:
 - (1) Additional briefing or weather services needed due to changing aircraft or training requirements.
 - (2) Weekend flight training activities by 1600L Thursday. Include a courtesy copy of any weekend flight training coordination that takes place during the week leading up to Thursday at 1600L.
 - (3) Coordinate potential flyaway locations prior to each tropical/hurricane event.
- f. Army Reserve components will notify OL-C when:
 - (1) Weather or weather service may be a factor in a Class A, B, or C mishap being investigated.
 - (2) Flying is planned for the weekend.
- g. Cairns AAF Operations will relay all MEF amendments to Cairns AAF tower, Hanchey AHP, Knox AHP, Lowe AHP, Shell AHP, FLATIRON Operations, and Holmes Radio.
- h. OL-C personnel require support from various agencies at Fort Novosel to complete official duties and provide for unit members' quality of life. All requirements concerning Fort Novosel's responsibilities regarding training, operations, communications, administration, budget, and logistics are outlined in AR 115-10 (Weather Support for the U.S. Army). Units providing support services to OL-C include, but are not limited to, the following:
 - (1) The Network Enterprise Center (NEC) provides telephone/communication lines, communications/administrative support, and computer network services. The NEC provides commercial, long-distance, and DSN telephone access. The NEC provides support for the three FMQ-23 servers (patches, updates, etc.). NEC technicians repair OL-C's network capability 24 hours a day, seven days a week, at a priority just below that given to airfield NAVAIDS and the IOC's communications capabilities.
 - (2) The Logistics Readiness Center provides government vehicles and refuels generators.
 - (3) Directorate of Public Works (DPW) provides and maintains OL-C facilities (at Cairns AAF and the weather radar facility in Echo, Alabama - Building 81001) and restores/maintains backup generators at high priority.
 - (4) NAVAIDS Maintenance Division maintains/repairs the PMSV Radio and WIF of OL-C.
- i. Each Fort Novosel agency and tenant unit will:

(1) Provide OL-C feedback on its forecasting, observing, and training products and services.

(a) Aviation customers will debrief IAW locally established policies and procedures.

(b) Weather information from the debriefing will be routed to the weather station through local communication channels (e-mail).

(2) Review weather support requirements at least annually. Notify OL-C through USAACE G3 when changes are required.

(3) Notify the NEC whenever a network-related outage occurs, affecting weather support.

(4) (All aviators) Pass significant flight weather information to OL-C via Holmes Radio, PMSV, ATC, Base Operations, or telephone.

(5) Notify OL-C when weekend flying is planned.

The proponent agency of this regulation is Air Division, USAACE G3. Users are invited to send comments and suggested improvements to the CG, USAACE, ATTN: ATZQ-OPA, Fort Novosel, AL 36362-1100.

RICHARD P. TUCKER
COL, AV
Chief of Staff

Appendices
A-K

APPENDIX A WEATHER STATION DUTY PRIORITIES

Operating Location- Charlie provides weather support on a priority basis to ensure tasks are performed in the order of their importance. Tasks are accomplished with the following priority as a guide unless the meteorological technician's operational risk management assessment dictates otherwise:

Order of Priority	Duty
1	Execute Weather Station evacuation / COOP
2	Respond to aircraft and ground emergencies (aircraft emergencies and mishaps, accidental release of toxic chemicals, or any operation involving the safety of aircraft, materiel, or personnel)
3	Issue / disseminate watches, warnings, and advisories (WWA)
4	Respond to telephone HOTLINES (Flatiron medical evacuation missions, Army radar approach control, Cairns Army Airfield (AAF), Hanchey Army Heliport (AHP), Lowe AHP, Holmes Radio, IOC)
5	Respond to Pilot-to-Metro Service contacts
6	Disseminate observations for KOZR (auto, augmented, or manual)
7	Disseminate urgent Pilot Reports (PIREPs)
8	Prepare and disseminate Mission Execution Forecast/-1/-2/FW Flimsy
9	Disseminate PIREPs
10	Provide flight weather briefings to local aircraft departing Cairns AAF (-1s)
11	Provide assistance to transient aircraft departing Cairns AAF (-1s)
12	Respond to other telephones (non-HOTLINES)
13	Perform MISSIONWATCH
14	Disseminate Terminal Aerodrome Forecast for KOZR
15	Training
16	Administrative tasks

APPENDIX B
SELECTED SPECIAL WEATHER REPORT (SPECI) CRITERIA (CAIRNS ARMY AIRFIELD)

1. Prevailing visibility is observed to decrease to less than or if below, increase to equal or exceed:

- a. 3 statute miles (SM) (Air Force Manual (AFMAN) 15-111).
- b. 2SM (AFMAN 15-111, Department of Defense (DOD) Flight Information Publication (FLIP)).
- c. 1 1/2SM (AFMAN 15-111, DOD FLIP).
- d. 1 1/4SM (DOD FLIP).
- e. 1SM (AFMAN 15-111, DOD FLIP).
- f. 3/4SM (AFMAN 15-111, DOD FLIP).
- g. 1/2SM (AFMAN 15-111, DOD FLIP).
- h. 1/4SM (AFMAN 15-111, Army Regulation (AR) 95-1).

2. Ceilings: The ceiling is observed to form below, decrease to less than or, if below, increase to equal or exceed:

- a. 3,000 feet (AFMAN 15-111).
- b. 2,000 feet (AFMAN 15-111).
- c. 1,500 feet (AFMAN 15-111).
- d. 1,000 feet (AFMAN 15-111).
- e. 800 feet (AFMAN 15-111).
- f. 700 feet (AFMAN 15-111).
- g. 600 feet (DOD FLIP).
- h. 500 feet (AFMAN 15-111, DOD FLIP).
- i. 400 feet (DOD FLIP).
- j. 300 feet (AFMAN 15-111, DOD FLIP).
- k. 200 feet (AFMAN 15-111, DOD FLIP).

3. Sky Condition: A layer of clouds or obscuring phenomena aloft is observed 600 feet or below, and no layer was reported in a previous meteorological terminal air report or special weather report (SPECI) (AFMAN 15-111).
4. Wind shift: Wind direction changes by 45° or more in < 15 minutes with sustained winds (or gusts) of ≥ 10 Knots (Kts) or more throughout the shift (AFMAN 15-111).
5. Squall: Wind speed increases by 16kts and is ≥ 22kts for at least one minute (AFMAN 15-111).
6. Thunderstorms begin or end (AFMAN 15-111).
7. Precipitation begins or ends. Unless noted below, a SPECI is not required for changes in type or the beginning or end of one type while another is in progress (AFMAN 15-111).
 - a. Hail begins or ends (AFMAN 15-111).
 - b. Freezing precipitation begins ends, or changes intensity (AFMAN 15-111).
 - c. Ice pellets begin, end, or change intensity (AFMAN 15-111).
8. Tornado or funnel cloud is observed or disappears (Single Element SPECI) (AFMAN 15-111).
9. Runway visual range (RVR) decreases to less than or, if below, increases to equal or exceed:
 - a. 6,000 feet (AFMAN 15-111, DOD FLIP).
 - b. 5,000 feet (AFMAN 15-111, DOD FLIP).
 - c. 4,000 feet (AFMAN 15-11, DOD FLIP).
 - d. 2,400 feet (AFMAN 15-111, DOD FLIP).
 - e. 2,000 feet (AFMAN 15-111).
 - f. 1,600 feet (AFMAN 15-111).
 - g. 1,200 feet (AFMAN 15-111).
 - h. 1,000 feet (AFMAN 15-111).
 - i. 600 feet (AFMAN 15-111).

Note. RVR conditions (RWY 06 only) are unavailable (RVRNO), are first determined, or when RVRNO is no longer applicable.

Note. Prevailing visibility is first observed to be \leq 1SM; again, when prevailing visibility goes above 1SM.

Note. RVR is only reported long line for RWY 06, when active.

10. Tower visibility: When notified by ATC that tower visibility has decreased to less than or, if below, increased to equal or exceed 1SM, 2SM, or 3SM and the tower visibility differs from the prevailing visibility.

11. Upon resumption of observing function (only when supplementing or backing up). Take a SPECI within 15 minutes after returning following a break in coverage.

12. Aircraft Mishap (ACFT MSHP) (only when the FMQ-19 field data collection unit archive capability is not operating or when operating in manual mode). Include ACFT MSHP in the "Remarks" section of Air Force Form 3803 (Surface Weather Observations (METAR/SPECI)) but do not disseminate the remark.

APPENDIX C

FMQ-19 AUGMENTATION PARAMETERS

1. The FMQ-19 automated observing system is a certified Air Force system and provides automated observations 24/7 to Cairns Army Airfield. The FMQ-19 will remain in AUTO mode at all times unless the Meteorological Technician is performing augmentation for criteria listed in Air Force Manual (AFMAN) 15-111. Augmentation consists of supplementing and/or backing up. Supplementing is the process of manually adding data to an observation generated by an automated surface weather observing system that is beyond that system's capability to measure and report. Backing up is the process of manually providing meteorological data, documentation, and/or communication of an automated weather observation when the primary automated method is unavailable or unrepresentative. All manually observed elements will be observed from the weather station's backup observation point. The meteorological technician is responsible for ensuring the validity of all augmented data. Augmentation will not normally occur when the weather station is closed unless tornadic activity is occurring or forecast to occur.
2. The following elements will be supplemented (AFMAN 15-111):
 - a. Tornado, funnel cloud, or waterspout.
 - b. Hail ($\geq 1/2$ ").
 - c. Volcanic ash.
 - d. Dust storm or sandstorm.
 - e. Ice pellets or freezing precipitation.
 - f. Tower visibility.
3. The following is a list of the most commonly used mandatory parameters of the FMQ-19 (and equipment used), which will be backed up when conditions impact operations based on criteria in appendices H, I, and J:
 - a. Wind speed and direction (Kestrel 5500).
 - b. Visibility (meteorological technician and visibility chart).
 - c. Present weather elements and obscurations (meteorological technician).
 - d. Sky cover, up to and including 12,000 feet (meteorological technician, Skew-T, local observations).
 - e. Temperature/dew point (Kestrel 5500).
 - f. Altimeter setting (Kestrel 5500).

- g. Lightning location (AFW-WEBS, 26 OWS TAF Manager, Allison House).
- h. Layer of clouds or obscuring phenomena aloft observed at or below 600 feet selected special weather report (meteorological technician, Skew-T, local observations).
- i. Other remarks.
- j. Additive data.

APPENDIX D WEATHER WATCH/WARNING/ADVISORY CRITERIA

1. KOZR Forecast Weather Watch Criteria. Watches are issued for a 15NM radius around Cairns Army Airfield (AAF).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
TORNADO	TORNADO	AS WARRANTED	OL-C *
SEVERE THUNDERSTORM	HAIL $\geq 1/2"$ AND/OR WINDS ≥ 45 KTS	AS WARRANTED	OL-C *
DAMAGING WINDS	WINDS ≥ 45 KTS	AS WARRANTED	OL-C *
HEAVY RAIN	HEAVY RAIN $\geq 2"$ IN 12 HRS	AS WARRANTED	OL-C *
HEAVY SNOW	SNOWFALL $\geq 1/2"$ ACCUMULATION	AS WARRANTED	OL-C *
FREEZING PRECIP	FREEZING PRECIP (ANY TYPE)	AS WARRANTED	OL-C *
LIGHTNING	LIGHTNING	60 MIN	OL-C *
TROPICAL STORM EFFECTS (TSE)	SUSTAINED WINDS ≥ 34 KTS BUT < 64 KTS, RAIN $\geq 2"$, TORNADOES	AS WARRANTED	OL-C *
HURRICANE EFFECTS (HE)	SUSTAINED WINDS ≥ 64 KTS, RAIN $\geq 2"$, TORNADOES	AS WARRANTED	OL-C *

* Issued by the 26 OWS after duty hours.

2. KOZR Weather Warning Criteria. Warnings are issued for a 15NM radius around Cairns AAF, except the observed lightning warning, which is issued for a 5NM radius around Cairns AAF.

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
TORNADO	TORNADO	5 MIN	OL-C *
SEVERE THUNDERSTORM	HAIL $\geq 1/2"$ AND/OR WINDS ≥ 45 KTS	60 MIN	OL-C *
MODERATE THUNDERSTORM	HAIL $< 1/2"$ AND/OR WINDS 30-44KTS	60 MIN	OL-C *
DAMAGING WINDS	WINDS ≥ 45 KTS	60 MIN	OL-C *
STRONG WINDS	WINDS 30-44KTS	60 MIN	OL-C *
FREEZING PRECIP	FREEZING PRECIP (ANY TYPE)	60 MIN	OL-C *
HEAVY SNOW	SNOWFALL $\geq 1/2"$ ACCUMULATION	60 MIN	OL-C *
HEAVY RAIN	RAIN $\geq 2"$ IN 12 HRS	60 MIN	OL-C *
LIGHTNING	LIGHTNING W/IN 5NM	OBSERVED	OL-C *
PRE-TROPICAL STORM	GUSTS ≥ 30 KTS, RAIN $\geq 2"$	2 HOURS	OL-C *
TROPICAL STORM EFFECTS (TSE)	SUSTAINED WINDS ≥ 34 KTS BUT < 64 KTS, RAIN $\geq 2"$	2 HOURS	OL-C *
HURRICANE EFFECTS (HE)	SUSTAINED WINDS ≥ 64 KTS, RAIN $\geq 2"$	2 HOURS	OL-C *
POST-TROPICAL STORM	GUSTS ≥ 30 KTS	AS WARRANTED	OL-C *

* Issued by the 26 OWS after duty hours.

3. KOZR Terminal Weather Advisory (TWA) Criteria. TWAs are issued for a 15NM radius around Cairns AAF, except the observed lightning advisory, which is for a 10NM radius around Cairns AAF.

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
TERMINAL ADVISORY	PREDOMINANT IFR (N1 ONLY)	OBSERVED	OL-C
TERMINAL ADVISORY	PREDOMINANT IFR (N1 ONLY)	60 MIN	OL-C
TERMINAL ADVISORY	PREDOMINANT LIFR (AM & PM ONLY)	30 MIN	OL-C
TERMINAL ADVISORY	LTG W/IN 10NM	OBSERVED	OL-C *

* Issued by the 26 OWS after duty hours.

4. KOZR (area weather advisory) AWA Criteria. AWAs are issued for a 60NM radius around Cairns AAF.

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
AREA ADVISORY	TORNADO	AS WARRANTED	OL-C
AREA ADVISORY	HAIL \geq 1/2" AND/OR WINDS \geq 45KTS	AS WARRANTED	OL-C
AREA ADVISORY	WINDS \geq 45KTS	AS WARRANTED	OL-C
AREA ADVISORY	TURBC (SEVERE OR GREATER)	60 MIN	OL-C *
AREA ADVISORY	TURBC (MODERATE OR GREATER)	OBSERVED	OL-C *
AREA ADVISORY	ICING (ANY TYPE/INTENSITY)	60 MIN	OL-C *
AREA ADVISORY	NON-CONVECTIVE WINDS \geq 20KTS	OBSERVED	OL-C *
AREA ADVISORY	LLWS BELOW 2000 FEET	OBSERVED	OL-C *
AREA ADVISORY	PREDOMINANT IFR (N1 ONLY)	60 MIN	OL-C
AREA ADVISORY	PREDOMINANT IFR (N1 ONLY)	OBSERVED	OL-C
AREA ADVISORY	PREDOMINANT LIFR (AM & PM ONLY)	30 MIN	OL-C

* Issued by the 26 Operational Weather Squadron (OWS) after duty hours.

5. KTOI Forecast Weather Watch Criteria. Watches are issued for a 5NM radius around Troy Municipal Airport (MAP) during their operating hours (0830-1630L, Monday-Friday except holidays).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
LIGHTNING	LIGHTNING W/IN 5NM	30 MIN	26 OWS

6. KTOI Forecast Weather Warning Criteria. Warnings are issued for a 5NM radius around Troy MAP during their operating hours (0830-1630L, Monday-Friday except holidays).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
TORNADO	TORNADO W/IN 5NM	5 MIN	26 OWS
SEVERE THUNDERSTORM	HAIL $\geq 1/2"$ AND/OR WINDS ≥ 45 KTS W/IN 5NM	60 MIN	26 OWS
DAMAGING WINDS	WINDS ≥ 45 KTS W/IN 5NM	60 MIN	26 OWS
LIGHTNING	LIGHTNING W/IN 5NM	OBSERVED	26 OWS

7. KDHN Weather Advisory Criteria. Advisories are issued for a 5NM radius around Dothan Regional Airport (RAP), except the observed lightning advisory, which is issued for a 10NM radius around Dothan RAP, during their operating hours (0600-2200L, Monday-Friday except holidays).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
LIGHTNING	LIGHTNING W/IN 10NM	OBSERVED	26 OWS
CROSS WINDS	CROSS WIND ≥ 25 KTS	OBSERVED	26 OWS
GUST SPREAD	GUST SPREAD ≥ 15 KTS	OBSERVED	26 OWS

8. KDHN Forecast Weather Warning Criteria. Warnings are issued for a 5NM radius around Dothan RAP during their operating hours (0600-2200L, Monday-Friday except holidays).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
LIGHTNING	LIGHTNING W/IN 5NM	OBSERVED	26 OWS

9. Basefields Weather Advisory Criteria. Advisories are issued for a 10NM radius around each Basefield during their operating hours (Basefields 24/7; Molinelli Forward Arming and Refueling Point (FARP) 0800-0100L Monday-Friday except holidays).

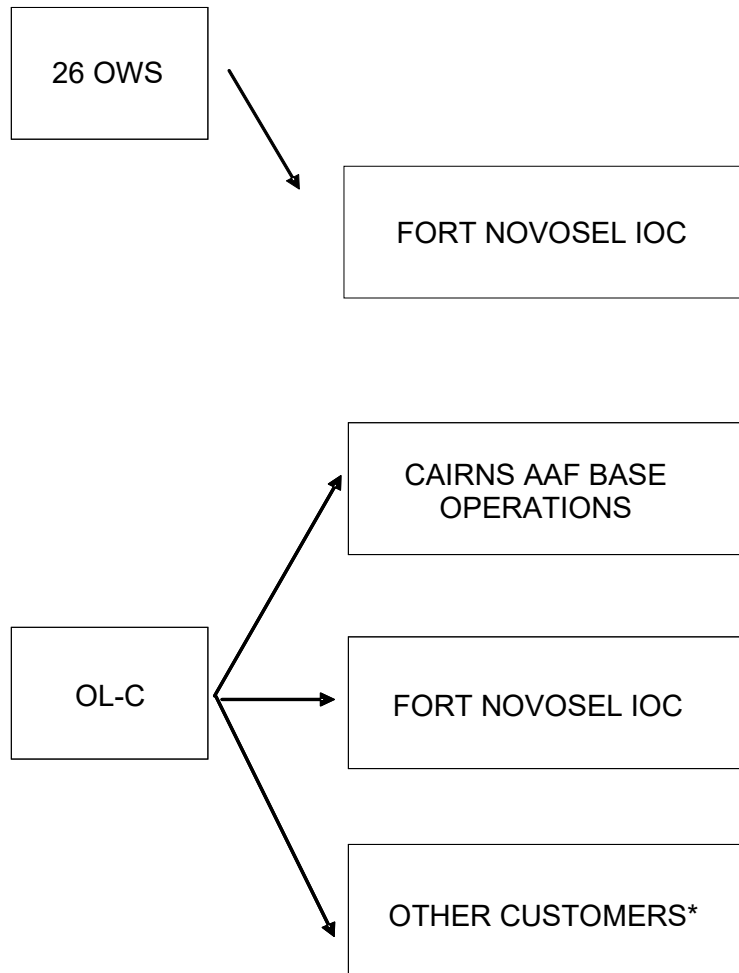
THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
LIGHTNING	LIGHTNING W/IN 10NM OF SHELL AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 10NM OF LOWE AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 10NM OF HANCHEY AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 10NM OF KNOX AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 10NM OF MOLINELLI FARP	OBSERVED	26 OWS

10. Basefields Weather Warning Criteria. Warnings are issued for a 5NM radius around each Basefield during their operating hours (Basefields 24/7; Molinelli FARP 0800-0100L Monday-Friday except holidays).

THREAT	CRITERIA	DESIRED LEAD TIME	ISSUED BY
LIGHTNING	LIGHTNING W/IN 5NM OF SHELL AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 5NM OF LOWE AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 5NM OF HANCHEY AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 5NM OF KNOX AHP	OBSERVED	26 OWS
LIGHTNING	LIGHTNING W/IN 5NM OF MOLINELLI FARP	OBSERVED	26 OWS

11. Weather watches, warnings, and advisories are each numbered sequentially by month; (e.g., the first weather watch in August would be #08-001, the third weather warning in November would be #11-003, and the tenth weather advisory in December would be #12-010).

FIGURE 1
RESOURCE PROTECTION NOTIFICATION CHAIN



*For freezing precipitation/snow/heavy rain watches and warnings, the Emergency Management Control Section, DPW, will be notified. For lightning within 10NM and 5NM, Refuel will be notified. For instrument flight rules (IFR)/low instrument flight rules (LIFR) advisories, Army Radar Approach Control and Holmes Radio will be notified.

Generally, Cairns AAF Base Operations disseminates watches, warnings, and advisories through operational channels via the weather telephone. The IOC disseminates watches and warnings through administrative channels. For details on how Cairns AAF Base Operations and the IOC disseminate watches, warnings, and advisories and a further breakdown of dissemination through individual organizations, see the Fort Novosel All Hazards Installation Protection Plan, appendix H (Weather Plan).

APPENDIX E **BREAKDOWN OF DEPARTMENT OF DEFENSE FORM 175-1** **(FLIGHT WEATHER BRIEFING)**

Part I: Take-off Data. An amendment is annotated in the top left corner and an update is annotated in the top right corner.

AM AMENDED @ 1345 Z FLIGHT WEATHER BRIEFING UPDATED @ 1525 Z AM							
PART I - TAKEOFF DATA (VALID AT 08L)							
1. DATE 190529	2. ACFT TYPE / NO.	3. DEP PT / ETD Z	4. RUNWAY TEMP 26 °C	5. DEWPOINT 20 °C	6. TEMP DEW °C	7. PRESSURE ALT 270 FT	8. DENSITY ALT FT
9. SURFACE WIND		10. CLIMB WINDS		13. WWAS AWA 05-053 NON-CONVECTIVE WIND ≥ 20KTS OBS W/HN 60NM YT: 1515Z TIL UFNZ			

Block #

- 1 - Zulu date (YYMMDD).
- 2-3 - Blank
- 4 - Take-off temperature for flight period (AM-08L, PM-14L, Night 1 (N1) -20L).
- 5 - Take-off dew point for flight period (AM-08L, PM-14L, N1-20L).
- 6 - Blank
- 7 - Take-off Pressure Altitude (PA) for flight period (AM-08L, PM-14L, N1-20L).
- 8-12 - Blank
- 13 - Any watch, warning, or advisory (that affects flight operations) in effect at takeoff.

Part II: Enroute and Mission Data.

PART II - ENROUTE & MISSION DATA (ALL HEIGHTS ARE MSL)															
14. FLT LEVEL/WIND/TEMP								15. SPACE WEATHER				16. SOLAR / LUNAR (21L)			
010	20025KT	/	23 °C	050	24035KT	/	15 °C	NO IMPACT		MARGINAL	SEVERE	BMNT / EENT:		0528L /2001L	
020	21030KT	/	20 °C	060	25030KT	/	13 °C	FREQ	X			BMCT / EECT:		0557L /1933L	
030	22035KT	/	17 °C	070	25025KT	/	12 °C	GPS	X			SR/SS 0621L / 1908L		MR/MS 0524L / 1706L	
040	24035KT	/	16 °C	080	26025KT	/	10 °C	RAD	X			AZ / EL 289.2 / -47.3		ILLUM 9 %	
18. OBSCURATIONS AT FLT LEVEL RESTRICTING VISIBILITY															
19. MINIMUM CEILING - LOCATION ISOLD AREAS 015 FT AGL								20. LLWS NONE				21. MINIMUM FREEZING LVL - LOCATION MOST AREAS 125 FT MSL			
22. THUNDERSTORMS				23. TURBULENCE (CAT II)				24. ICING				25. PRECIPITATION			
NONE X AREA LINE				NONE IN CLEAR IN CLOUD				NONE RIME MIXED CLEAR				NONE DZ RAIN SNOW PELLET			
ISOLATED 1 -2%				LIGHT X				TRACE				LIGHT X			
FEW 3 - 15% MT 450				MODERATE OCNL OCNL				LIGHT				MODERATE			
SCATTERED 16 - 45%				SEVERE				MODERATE				HEAVY			
NUMEROUS > 45%				EXTREME				SEVERE				SHOWERS X			
HAIL, SEV TURB & ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN/NEAR THUNDERSTORMS				LEVELS X 020-060				LEVELS ⊖ 050-080				FREEZING			
				LOCATION ⊖ ISOLD AREAS				LOCATION X S OF I-10				LOCATION ⊖ N OF KTOI			

Block

- 14 - Flight level (FL) winds and temperatures from FL 010-080, encompassing 150NM.
- 15 - Space weather.
- 16 - SR, SS, BMNT, EENT, MR, MS, and % illumination are included in this block. All times are in local. Lunar azimuth and elevation data is valid for 2100L.
- 17 - Blank.
- 18 - Obscurations at FL restricting visibility within 150NM. If flight visibility is restricted, an obstruction will be indicated.
- 19 - Minimum ceiling (AGL) within 150NM.
- 20 - Low level wind shear (LLWS) below FL 020 within 150NM.
- 21 - Minimum freezing level (MSL) within 150NM.
- 22 - Thunderstorms within 150NM. Includes the type, coverage, maximum tops, and location.
- 23 - Turbulence (Cat II aircraft) within 150NM. Includes the type, intensity, levels, and location.
- 24 - Structural icing within 150NM. Includes the type, amount, levels, and location.
- 25 - Precipitation within 150NM. Includes the type, intensity, and location.

Part III: Aerodrome Forecasts.

PART III - AERODROME FORECASTS (ALL HEIGHTS ARE AGL)						
26. AIRPORT	27. VALID TIME	28. SFC WIND	29. VSBY/WEA	30. SKY CONDITION	31. ALSTG	
DEST / ALT KOZR	Z TO Z 1130 1800	VRB06	7	SCT060	29.94	INS Same as KOZR:
DEST / ALT TEMPO	Z TO Z 1130 1330		3 BR	FEW005 SCT010 BKN060		INS ,KDHN,KEDN,KTOI,KPRN,KMG
DEST / ALT	Z TO Z					INS M,KMXF,KSEM,KAUO,K79J,KMA
DEST / ALT	Z TO Z					INS I,K1J0,KTLH,KEUF,KLSF,KCSG
DEST / ALT	Z TO Z					INS ,KBIJ,KBGE,KABY,KMGR,KTVI,K
DEST / ALT	Z TO Z					INS 17J,KEGI,KDTS,KHRT,KVPS,K
DEST / ALT	Z TO Z					INS PAM,KECP
DEST / ALT KCEW	Z TO Z 1130 1330	VRB04	3 BR	FEW005 SCT010	29.94	INS Same as KCEW:
DEST / ALT TEMPO	Z TO Z 1130 1300		1 BR	SCT002 BKN005		INS
DEST / ALT FROM	Z TO Z 1330 1500	VRB06	7	SCT012	29.96	INS KMVC,KGZH,KNSE,KNDZ,K0J4
DEST / ALT TEMPO	Z TO Z 1330 1500			BKN012		INS KPNS,KNPA
DEST / ALT FROM	Z TO Z 1500 1800	20006	7	FEW020 SCT050	29.94	INS
DEST / ALT	Z TO Z					INS
DEST / ALT	Z TO Z					INS
DEST / ALT	Z TO Z					INS
DEST / ALT	Z TO Z					INS
DEST / ALT	Z TO Z					INS

Block

- 26 - Contains all locations within 100NM.
- 27 - Valid time begins at the beginning of the flying period and ends when significant changes occur, which require additional lines to the forecasts. The end of the forecast period is the end of the scheduled flying period.
- 28 - Forecast surface wind in DDDSSGSS. DDD indicates the direction from which wind is forecast to be blowing; SS indicates wind speed in knots; G indicates gusts if any, and SS indicates maximum forecast wind gust in knots.

- 29 - Forecast visibility and any weather or obstructions to visibility. Thunderstorms will be forecast using specific codes to articulate the level of risk/probability as follows:

VCTS = Low risk of thunderstorms. Minimal mission impact.

TEMPO condition = Moderate risk of thunderstorms.

Predominant condition = High risk of thunderstorms. Rare.

- 30 - Forecast sky condition in meteorological Terminal Aerodrome Forecast code.
31 - Forecast minimum altimeter setting.

Note. Large blocks to the right will indicate destinations in the local flying area that are within 100NM and have the same or similar forecast. If all locations are the same, there will be a remark stating A/S, or all stations, are the same or better.

Note. Locations in the local flying area outside 100NM but within 150NM will be listed on a Continuation Sheet. These include Jack Edwards (KJKA), Bay Minette (K1R8), Foley Muni (K5R4), Tuscaloosa (KTCL), Chilton County (K02A), Crisp County (KCKF), LaGrange (KLGC), Moody Air Force Base (KVAD), Valdosta (KVLD), and Tifton (KTMA).

Part IV: Contact Information and Remarks

PART IV - CONTACT INFORMATION					
PMSV KOZR: 134.1 WIF: 348.8 PMSV KLOR: 243.35	KOZR WX: 334-255-8385 KLOR WX: 334-255-4024	FACEBOOK: /FTNOVOSELWX TWITTER: @FTNOVOSELWX	https://acoeweather.tradoc.army.mil/PRODUCT%20DROP/PM.PDF		
KOZR MAXIMUMS:	MAX TEMP:	32°C	MAX PA:	300 FT	MAX DA: 2770 FT
35. REMARKS:					

Note. This area includes several methods to contact OL-C for updates, including Pilot-to-Metro Service frequencies, telephone numbers, and social media sites.

Block

- 35 - Remarks. Used to comment on significant phenomena not covered elsewhere. Includes KOZR max temperature, PA, and Density Altitude for the flying period.

Part V: Briefing Record.

PART V - BRIEFING RECORD					
36. WX BRIEFED TIME E 10:00 Z	37. FLIMSY BRIEFING # AM 1130Z-1800Z	38. FORECASTER'S INITIALS DR	40. VOID TIME 11:30 Z	41. EXTENDED TO/INITIALS 16:55 /DR Z	42. WX REBRIEF TIME/INITIALS 15:25 /DR Z

Block

- 36 - Initial weather brief time (Zulu) for flight period.
37 - Flight period's valid times are entered in this block.
38 - Meteorological Technician's initials.
40 - Initial weather void time (Zulu) for flight period.

- 41 - Updated void time is entered in this block, along with the Meteorological Technician's initials.
- 42 - Updated brief time is entered in this block, along with the Meteorological Technician's initials.

APPENDIX F BREAKDOWN OF THE MISSION EXECUTION FORECAST

Part I: Date/Valid Time/Briefer. An amendment is annotated in the top left corner, and an update is annotated in the top right corner.

AMENDED @ 1440 Z		MISSION EXECUTION FORECAST		UPDATED @ 1615 Z	
DATE:	8-Apr-21	VALID PERIOD:	AM 1130Z-1800Z	FORECASTER INITIALS:	CH

Part I lists the Zulu date, valid period, and forecaster's initials.

Part II: Enroute, Forecast Data, and Solar/Lunar Data

FLIGHT LEVEL WINDS & TEMPS (MSL)			FCST DATA:		KOZR	AREA	SOLAR/LUNAR (LOCAL)		
FLT LEVEL	WIND / TEMP		MAX TEMP (°C):	34	35	BMNT	0443L	EENT	2050L
010	28010	KT / 30 °C	MIN TEMP (°C):	27	26	SUNRISE			0544L
020	28010	KT / 27 °C	MAX DEWPT (°C):	23	24	SUNSET			1949L
030	28015	KT / 24 °C	MIN ALSTG:	29.85	29.83	BMCT	0516L	EECT	2017L
040	28015	KT / 21 °C	MAX PA (FT):	370	590	MOONRISE			2327L
050	28015	KT / 18 °C	MAX DA (FT):	3040	3460	MOONSET			1019L
060	29015	KT / 16 °C	MIN CIG (FT AGL):	020	020	AZIMUTH			79 °
070	30015	KT / 14 °C	MIN VIS (SM):	1	1	ELEVATION			-31 °
080	30015	KT / 12 °C	MIN WX:	+TSRA	+TSRA	% ILLUM			81%

Part II includes flight level (FL) winds and temperatures from FL 010-080, encompassing 150NM. Also included are max/min temperature and dew point; min altimeter setting; max pressure altitude (PA); max density altitude (DA); and min cig/vis/wx for KOZR (Cairns Army Airfield) and the 150NM flight area. Finally, solar/lunar data is provided in Local time.

Part III: Hazards

FLIGHT HAZARDS W/IN 150NM (All heights are MSL)					
TURBULENCE (CAT II)	LGT	OCNL	MDT	CLR/CLD	FL: 020-060 LOC: S OF I-10
ICING	LGT	RIME		FL: 050-080	LOC: N OF KTOI
THUNDERSTORMS	AREA	FEW	MT:	450	LOC: ISOLD AREAS
LOW LEVEL WIND SHEAR	NONE				

All flight hazards within 150NM are identified in this block. Turbulence (Category II aircraft) is identified by type, intensity, and levels. Icing (structural icing only) is identified by type, intensity, and levels. Thunderstorms are identified by type, coverage, and maximum tops.

Part IV: MEF Area Forecasts.

AREA FORECASTS (All heights are AGL)		TS COVERAGE
GOLDFISH	23006KT 7SM FEW050 SCT120 SCT250 ISOLD 0030-0200Z: 4SM -SHRA SCT050 BKN120 BKN250	NONE
VANGUARD N AMD 1 @ 0230 Z	27006KT 7SM VCTS SCT050 BKN120 BKN250 ISOLD 0030-0500Z: 3SM SHRA BKN050 BKN120 AFT 0500Z: VRB06KT 7SM FEW050 SCT120 BKN250	ISOLATED (1-10%)
VANGUARD C AMD 1 @ 0230 Z	23006KT 7SM VCTS FEW050 SCT120 SCT250 ISOLD 0400-0500Z: VRB20G25KT 2SM TSRA SCT050 BKN120 BKN250 AFT 0500Z: VRB05KT 7SM FEW050 SCT120 SCT250	FEW (11-25%)
VANGUARD S AMD 1 @ 0230 Z	23006KT 7SM VCTS FEW050 SCT120 SCT250 ISOLD 0400-0500Z: VRB20G25KT 2SM TSRA SCT050 BKN120 BKN250 AFT 0500Z: VRB05KT 7SM FEW050 SCT120 SCT250	FEW (11-25%)
HAWK AMD 1 @ 0230 Z	27006KT 7SM VCTS SCT050 BKN120 BKN250 ISOLD 0030-0500Z: 3SM SHRA BKN050 BKN120 AFT 0500Z: VRB06KT 7SM FEW050 SCT120 BKN250	ISOLATED (1-10%)
BEARCAT	23006KT 7SM FEW050 SCT120 SCT250 ISOLD 0030-0200Z: 4SM -SHRA SCT050 BKN120 BKN250	NONE
REMARKS:	AMD TO ADD VCTS TO VG S, VG C AND KPNS AREAS UNTIL 0500Z. EXTEND VCTS FOR VG N AND HAWK UNTIL 0500Z. INCREASE TSRA COVERAGE FOR VG C AND VG S TO FEW.	

Part IV lists the forecast for each area for the entire period. Grid lines will be used to divide areas further when weather conditions dictate the need for greater detail. If thunderstorms are forecast, the max coverage for each area is listed in the thunderstorm coverage block (right). There is also a space for remarks to expand on any area forecast and/or briefly describe amendments or updates. If an area is amended, the amendment # and time will be annotated in the area of operations (AO) block (left).

Part V: Planning Data.

PM PLANNING						
FORECAST AREA:	GOLDFISH	VANGUARD N	VANGUARD C	VANGUARD S	HAWK	BEARCAT
FORECAST CATEGORY/TIMING:	VFR EP	VFR EP	VFR EP	VFR EP	VFR EP	VFR EP
KOZR MAX TEMP: 35 C	KOZR MIN ALSTG: 29.88		KOZR MAX PA: 340 FT		T'STORMS: NO	

Part V lists planning data for the next flying period. Planning data includes a forecast condition for each forecast area VFR, MVFR, IFR and the max temperature, max PA, and yes/no for thunderstorms for KOZR.

Part VI: Contact Information.

CONTACT INFORMATION			
FORECASTER PHONE	PMSV	WIF	SOCIAL MEDIA: FB: /fnovoselwx TWITTER: @fnovoselwx
334-255-8385/8397	134.1 (V)	348.8 (U)	ON THE WEB: https://acoeweather.tradoc.army.mil/PRODUCT%20DROP/PM.PDF

Part VI lists OL-C's commercial/DSN telephone numbers, PMSV, WIF, and social media contact information.

Part VII: Weather Watches, Warnings, and Advisories.

WEATHER WATCHES, WARNINGS, ADVISORIES							MAX WIND	MAX HAIL
TYPE	NUMBER	VALID TIME				CRITERIA		
AWA	05-053	1515	Z	TIL	UFN	Z	NON-CONVECTIVE WIND \geq 20KTS OBS W/IN 60NM	

Part VII lists all weather watches, warnings, and advisories (affecting flight operations) that are in effect or forecast to be in effect during the period.

APPENDIX G

MISSION EXECUTION FORECAST (MEF) AREAS DEFINED

1. The MEF includes six forecast areas. Grid lines will be used to divide areas further when weather conditions dictate the need for greater detail. In the context of this regulation and all forecast products issued by OL-C, these six forecast areas are:

a. BEARCAT. Synonymous with Area of Operations (AO) Bearcat as defined in United States Army Aviation Center of Excellence (USAACE) Regulation 95-2 (Directory of Aviation Training Facilities and Procedures). Specific airfields include High Falls Stagefield, Highbluff Stagefield, Tri-County Municipal Airport (MAP), and Marianna MAP.

b. HAWK. Synonymous with AO HAWK as defined in USAACE Reg 95-2. Specific airfields include the Molinelli Range, Tabernacle Stagefield, Hunt Stagefield, Hatch Stagefield, Hooper Stagefield, Ech Stagefield, and Goldberg Stagefield.

c. VANGUARD. The boundaries of VANGUARD are the same as AO VANGUARD as defined in USAACE Reg 95-2. However, in an effort to provide a more detailed forecast, VANGUARD NORTH, VANGUARD CENTRAL, and VANGUARD SOUTH, as defined below, will be used.

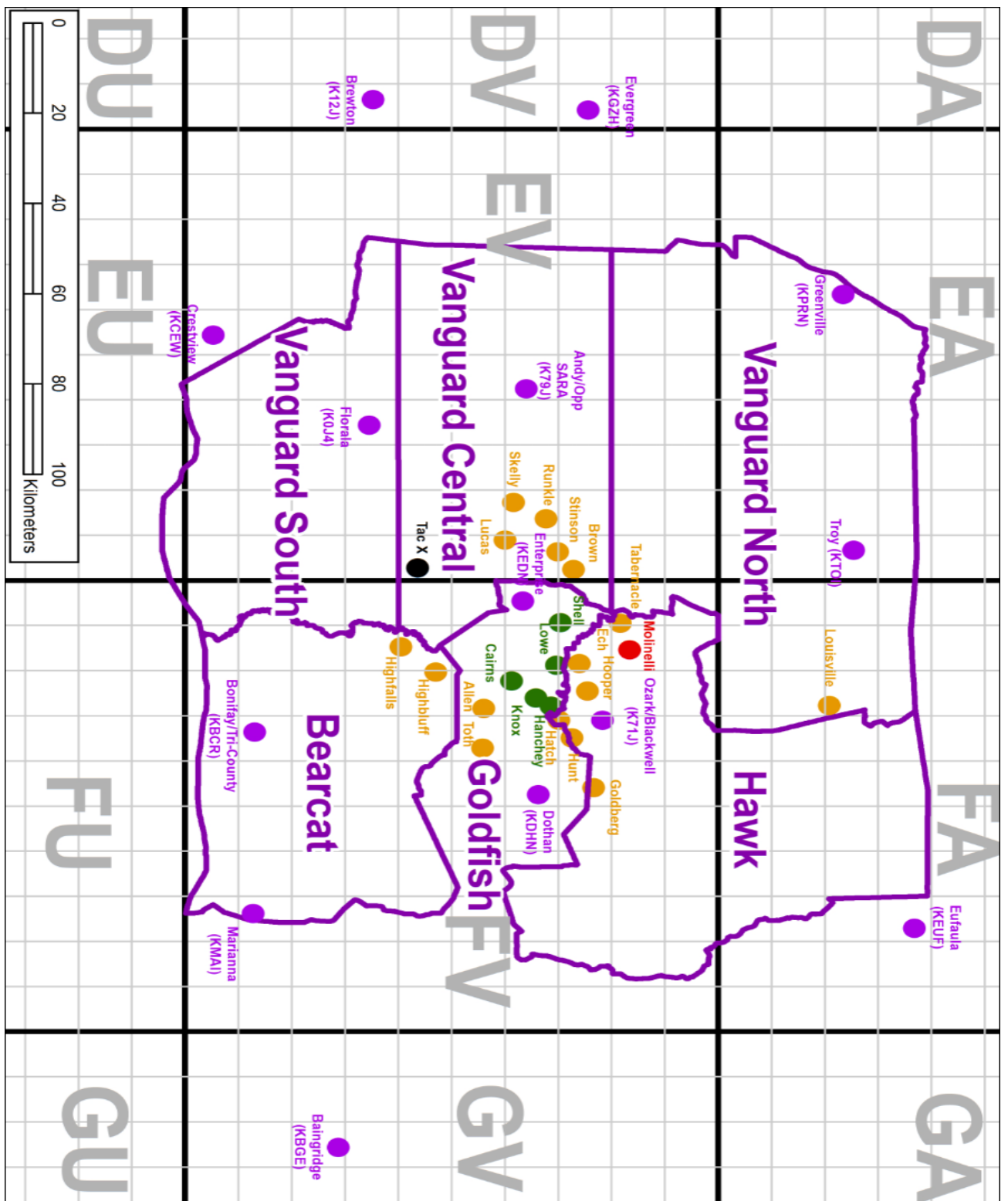
(1) VANGUARD NORTH. The southern boundary is the EV 80 east-west grid line. Specific airfields include Troy MAP, Louisville Stagefield, and Greenville MAP.

(2) VANGUARD CENTRAL. The northern boundary is the EV 80 east-west grid line, and the southern boundary is the EV 40 east-west grid line. Specific airfields include South Alabama Regional Airport (RAP), Stinson Stagefield, Runkle Stagefield, Skelly Stagefield, Brown Stagefield, Lucas Stagefield, and TAC-X training site.

(3) VANGUARD SOUTH. The northern boundary is the EV 40 east-west grid line. Specific airfields include Floral MAP and Crestview, Florida.

d. GOLDFISH. Specific airfields include Hanchey Army Heliport (AHP), Knox AHP, Dothan RAP, Cairns Army Airfield, Lowe AHP, Shell AHP, Allen Stagefield, Toth Stagefield, and Enterprise MAP.

2. The six MEF forecast areas are depicted in the image below.



APPENDIX H

MISSION EXECUTION FORECAST (MEF) SPECIFICATION/AMENDMENT CRITERIA

1. Specification Criteria. The MEF specifies the onset and duration of the following conditions:
 - a. Thunderstorms. Timing and coverage.
 - b. Weather watches, warnings, and advisories that are in effect or will be in effect during the period.
 - c. Surface winds gusting to ≥ 20 knots within the local flying area.
 - d. Ceiling. When a ceiling decreases to less than, or if below, increases to equal or exceed the following levels:
 - (1) 1,700 feet (Lowe MTP Course).
 - (2) 1,000 feet (Primary/Contact Division launch minimum, Advanced Division, 23rd Flying Training Squadron (23 FTS), FLATIRON, AH-64D/E, UH-60, UH-72A, CH-47 night training minimum).
 - (3) 700 feet (Primary/Contact Division launch minimum and Stagefield training minimum, 23rd FTS day training minimum).
 - (4) 600 feet (Advanced Division alternate minimum).
 - (5) 500 feet (FLATIRON night training minimum, AH-64D/E, UH-60, TH-1, UH-72A, CH-47 day training minimum).
 - (6) 300 feet (FLATIRON day training minimum, Advanced Division Special VFR minimum).
 - (7) 200 feet (C-12 Reserves launch minimum, Advanced Division day training minimum).
 - (8) 100 feet (MEDEVAC launch minimum).
 - e. Visibility. When visibility decreases to less than, or if below, increases to equal or exceed the following values:
 - (1) 3 statute miles (SM) (Primary/Contact Division launch minimum, Advanced Division, 23 FTS, FLATIRON, AH-64D/E, UH-60, UH-72A, TH-1, CH-47 night training minimum).
 - (2) 2SM (23 FTS day training minimum).
 - (3) 1SM (Primary/Contact Division launch minimum and Stagefield training minimum, FLATIRON night training on Cairns AAF minimum, AH-64D/E, UH-60, UH-72A, TH-1, CH-47 day training minimum).

(4) 1/2SM (Advanced Division Special VFR minimum, C-12 Reserves launch minimum, FLATIRON, AH-64D/E, UH-72A, UH-60 day training minimum).

(5) 1/4SM (Advanced Division day training minimum, MEDEVAC launch minimum).

MEF AMENDMENT CRITERIA

2. Amendment Criteria. The MEF is amended when any of the following conditions have been incorrectly forecast:

- a. Thunderstorms. Timing and/or coverage of FEW or greater.
- b. Weather Watches, Warnings, or Advisories (WWA). Weather WWA criteria are met and were not forecast or, if specified, are no longer expected to occur.
- c. Surface Winds. When forecast surface wind speed, including gusts, is in error by 10 knots or more.
- d. Surface Winds. When the direction of the forecast surface winds is in error by 30° or more, and the predominant wind speed, including gusts is over 15 knots.
- e. Ceiling and Visibility. When ceiling/visibility decreases to less than or, if below, increases to equal or exceed the following categories (category is determined by the lower ceiling or visibility value):

	CIG	VIS
CAT A:	< 200	< 1/4
CAT B:	≥ 200 AND < 500	≥ 1/4 AND < 1
CAT C:	500	1
CAT D:	600	≥ 1 1/4 AND < 2
CAT E:	≥ 700 AND < 1000	≥ 2 AND < 3
CAT F:	> 1000	> 3

- f. ISOLD/TEMPO conditions become predominant, do not occur, or are no longer expected.
- g. Any other element considered important to flight operations.

APPENDIX I BREAKDOWN OF THE FIXED WING FLIMSY

Date/Valid Time/Briefer. List the Zulu date, valid period, and forecaster's initials. An amendment is annotated in the top left corner, and an update is annotated in the top right corner.

AMENDED @ 1555 Z		FIXED WING FLIMSY		UPDATED @ 1615 Z	
DATE: 28-Jun-22	VALID TIME:	1100Z-2300Z	FORECASTER INITIALS:	AD	

Part I: Takeoff Data.

PART I - TAKEOFF DATA							
TEMP (°C)		DEW POINT (°C)		ALSTG		PRESSURE ALT	
12Z	24	12Z	21	12Z	30.02	12Z	310
15Z	29	15Z	20	15Z	30.04	15Z	291
18Z	32	18Z	19	18Z	30.02	18Z	310
21Z	31	21Z	19	21Z	29.98	21Z	347

Part I lists the forecast temperature, dew point, altimeter setting, and PA in 3-hour increments to cover the entire 12-hour valid period.

Part II: Enroute and Mission Data

PART II - ENROUTE & MISSION DATA (ALL HEIGHTS ARE MSL)									
WESTERN ROUTE					EASTERN ROUTE				
FL	12Z	15Z	18Z	21Z	FL	12Z	15Z	18Z	21Z
100	10010/09	12005/08	09005/08	10005/08	100	16005/08	19005/08	25005/09	14005/08
120	09010/06	09005/05	15005/05	15005/05	120	15005/05	22005/05	24005/05	24005/05
140	09005/02	12005/01	12005/01	15005/01	140	13005/02	21005/01	23005/01	25005/01
160	12005/-03	14005/-03	16005/-03	17010/-03	160	12005/-03	17005/-03	19005/-03	24005/-03
180	10005/-08	18005/-08	18010/-07	20010/-07	180	09005/-07	15005/-07	18010/-07	21005/-07

Part II lists flight level (FL) winds and temperatures from FL 100-180 for the Western Route (KDHN-KHSA) and the Eastern Route (KDHN-KSGJ).

18. OBSCURATIONS AT FLT LEVEL										19. MINIMUM CEILING AND LOCATION										21. MINIMUM FREEZING LEVEL AND LOCATION																													
YES					TYPE:					PRECIP					007					FT AGL					ISOLD EAST RT					150					FT MSL					ENRT									
22. THUNDERSTORMS										23. TURBULENCE (CAT II)										24. ICING										25. PRECIPITATION																			
	NONE	X	AREA		LINE	X	NONE	IN CLEAR	IN CLOUD	X	NONE	RIME	MIXED	CLEAR		NONE	DZ	RAIN	SNOW	PELLET																													
	ISOLATED 1 - 2%					LIGHT					TRACE					LIGHT					LIGHT					X																							
X	FEW 3 - 15%					MODERATE					LIGHT					MODERATE					MODERATE					X					X																		
	SCATTERED 16 - 45%					SEVERE					MODERATE					MODERATE					HEAVY					X					X																		
	NUMEROUS > 45%					EXTREME					SEVERE					SEVERE					SHOWERS					X					X																		
HAIL, SEV TURBC & ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN/NEAR THUNDERSTORMS										LEVELS										LEVELS										FREEZING																			
										LOCATION										LOCATION										LOCATION										LOCATION									
										ALL AREAS																														ISOLD ENRT									

Part II also lists enroute weather and hazards from FL 100-180 for the Western Route (KDHN-KHSA) and the Eastern Route (KDHN-KSGJ).

Part III: Aerodrome Forecasts.

PART III - AERODROME FORECASTS (ALL HEIGHTS ARE AGL)						
26. AIRDROME	27. VALID TIME	28. SFC WIND	29. VSBY/WEA	30. SKY CONDITION	31. ALSTG	
DEST / ALTN KBFM	1100 1800	04006	7	FEW030	29.98	AMD 1 1555 Z KHSA
DEST / ALTN FROM	1800 2300	15008	7 VCTS	SCT030 BKN050	29.95	
DEST / ALTN TEMPO	2100 2300	VRB15G25	2 TSRA	SCT010 BKN030		
DEST / ALTN						
DEST / ALTN						
DEST / ALTN KLCQ	1100 1700	VRB04	7	SCT007 SCT030		KVQQ, KSGJ
DEST / ALTN TEMPO	1100 1400		2 BR	BKN007		
DEST / ALTN FROM	1700 2300	10008	7 VCTS	SCT030 BKN050		
DEST / ALTN TEMPO	2100 2300	VRB15G25	2 TSRA	SCT010 BKN030		
DEST / ALTN						
DEST / ALTN						
DEST / ALTN						
DEST / ALTN						
DEST / ALTN						
DEST / ALTN						

Part III lists the aerodrome forecasts for KBFM, KHSA, KLCQ, KVQQ, and KSGJ for the 12-hour valid period. Any stations that are the same as or better will be listed in the block at the right. Amendments will be shown in the block at the right.

Part IV: Contact Information.

PART IV - CONTACT INFORMATION			
PMSV: 134.1 (VHF)	PHONE: 334-255- 8385/8397	FACEBOOK: /FTNOVOSELWX TWITTER: @FTNOVOSELWX	https://acoeweather.tradoc.army.mil/PRODUCT_DROP/FW.PDF
35. REMARKS:			

Part IV lists OL-C's commercial/DSN telephone numbers, pilot to metro service (PMSV), weather information frequency (WIF), and social media contact information.

Part V: Briefing Record.

PART V - BRIEFING RECORD	
36. WX BRIEFED TIME 1100Z Z	THIS PRODUCT IS FOR DHN FIXED WING CUSTOMERS ONLY. YOU MUST CALL 255-8385 OR 255-8397 FOR AN UPDATE/VOID TIME TO CONSTITUTE A LEGAL FLIGHT WEATHER BRIEFING.

This product is ONLY valid when customers call OL-C and obtain an update and void time.

Note: Any information not provided on the Fixed Wing Flimsy may be obtained from the Local DD 175-1.

APPENDIX J
FIXED WING FLIMSY SPECIFICATION/AMENDMENT CRITERIA

1. Specification/Amendment Criteria. The Fixed Wing Flimsy will be amended for the following:
 - a. Significant changes to flight level winds/temperatures.
 - b. Changes to hazards (thunderstorms, icing, turbulence).
 - c. Ceiling/visibility of:
 - 1500' / 3SM
 - 600' / 1½SM
 - 300' / 1SM

APPENDIX K REFERENCES

Air Force Form 3803

Surface Weather Observations (METAR/SPECI).

Air Force Manual 15-111

Surface Weather Observations.

Army Regulation (AR) 5-25

Army Weather Functional Activities.

AR 115-10 (AFI 15-157 (IP))

Weather Support for the U.S. Army.

Department of Defense Form 175-1

Flight Weather Briefing.

USAACE Regulation (Reg) 95-2

Directory of Aviation Training Facilities and Procedures.

GLOSSARY ACRONYMS/ABBREVIATIONS

1-11th Avn Regt	1st Battalion, 11th Aviation Regiment
18th CWS	18th Combat Weather Squadron
23 FTS	23rd Flying Training Squadron
26 OWS	26th Operational Weather Squadron
110th AB	110th Aviation Brigade
AAAS	Army Airfield Automation System
AAF	Army Airfield
ACFT MSHP	Aircraft Mishap
AFB	Air Force Base
AFMAN	Air Force Manual
AFW-WEBS	Air Force Weather Web Service
AGL	Above Ground Level
AHP	Army Heliport
ALSTG	Altimeter Setting
AO	Area of Operations
AOL	Alternate Operating Location
AR	Army Regulation
ARAC	Army Radar Approach Control
A/S	All Stations
ASOS	Automated Surface Observing System
ATC	Air Traffic Control
AWA	Area Weather Advisory
BMCT	Begin Morning Civil Twilight

BMNT	Begin Morning Nautical Twilight
CDT	Central Daylight Time
CST	Central Standard Time
CWW	Cooperative Weather Watch
DA	Density Altitude
DD	Department of Defense
DOD	Department of Defense
DPW	Directorate of Public Works
DSN	Direct Support Number
EECT	End Evening Civil Twilight
EENT	End Evening Nautical Twilight
FARP	Forward Arming and Refueling Point
FL	Flight Level
FLIP	Flight Information Publications
FMQ	Fixed Meteorological Equipment
IAW	In Accordance With
IERW	Initial Entry Rotary Wing Course
IFR	Instrument Flight Rules
IOC	Installation Operations Center
JET	Joint Environmental Toolkit
Kts	Knots
L	Local
LLWS	Low Level Wind Shear
MAP	Municipal Airport
MEF	Mission Execution Forecast

METAR	Meteorological Aerodrome Report
MR	Moonrise
MS	Moonset
MSL	Mean Sea Level
NAVAIDS	Navigational aids
NEC	Network Enterprise Center
NHC	National Hurricane Center
NM	Nautical Miles
NW	Northwest
NOTAM	Notice to Air Mission
OL-C	Operating Location-Charlie
OWS	Operational Weather Squadron
PA	Pressure Altitude
PAO	Public Affairs Office
PIREP	Pilot Report
PMSV	Pilot-to-Metro Service
RAP	Regional Airport
Reg	Regulation
RVR	Runway Visual Range
RVRNO	Runway Visual Range Not Available
SM	Statute Miles
SPECI	Special Weather Report
SR	Sunrise
SS	Sunset
SW	Southwest

SWO	Staff Weather Officer
SWAP	Severe Weather Action Procedures
TAF	Terminal Aerodrome Forecast
TWA	Terminal Weather Advisory
UHF	Ultra-High Frequency
USAACE	United States Army Aviation Center of Excellence
VFR	Visual Flight Rules
VHF	Very-High Frequency
WIF	Weather Information Frequency
WWA	Watch, Warning, and Advisory