BY ORDER OF THE COMMANDER
911 AIRLIFT WING

911 AIRLIFT WING INSTRUCTION 15-101

13 APRIL 2007

Weather

AIRCRAFT SEVERE WEATHER PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 911 MXS/MXM
Supersedes 911LGOI32-401, 1 March 2000

Certified by: 911 AW/CC (Col Randal Bright)
Pages: 6

This instruction implements Air Force Policy Directive (AFPD) 15-1, *Atmospheric and Space Environmental Support.* It establishes procedures to insure aircraft and equipment are properly secured and notification of personnel for unusual weather conditions. It is applicable to all members of the 911 Airlift Wing. Refer any recommended changes to this instruction in writing to the OPR. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123 (will convert to AFMAN 33-363), Management of Records, and dispose of IAW the Air Force Records Disposition Schedule (RDS) located at **https://afrims.amc.af.mil/**.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed.

Paragraph **3.**, **4.1.**, **4.2.**, **4.2.2.**, **4.2.3.**, **4.3.1.**, **4.3.1.3.**, **4.4.2.1.1.**, **4.4.2.2.1.**, **4.4.2.2.5.**, **5.**, **A1.3.5.2.** – **A1.3.5.6.** were rewritten and must be read for changes.

1. General: To preclude emergency action during normal working hours, damage to aircraft, or having to alert personnel during off duty hours, the following procedures will be adhered to for conditions other than listed in paragraph **2.**

2. Explanation of terms:

2.1. Phase 1: Winds 55-80 knots.

2.2. Phase 2: Winds above 80 knots.

2.3. Phase 3: Any weather requiring evacuation of all flyable aircraft.

2.4. Phase 4: Period following passage of severe weather.

3. Readiness : During normal duty hours, when notified by the Command Post, the Maintenance Operations Center (MOC) will alert the production superintendent or expediter when a severe weather warning is received. During non-duty hours (1600-2300), Flight Line night shift personnel will contact the Flight Line Chief, Maintenance Group Commander or alternate as required, for assistance. During the period 2300-0730, the Maintenance Group Commander will contact individuals as required.

4. Preparation for Severe Weather:

4.1. When winds are forecasted to be less than 55 knots and no abnormal climactic or seasonal weather is expected, normal precautions will be exercised in protecting buildings, aircraft, vehicles and AGE, with one exception: aircraft cowling or panels will not be opened or removed if the wind exceeds 30 knots. For aircraft, the provision of TO 1C-130H-2-00GE-0-1, *Towing, Engine Motoring or Runs.*

4.2. **Phase I (winds 55-80 knots).** Preliminary safeguards would be adhered to due to seasonal and climactic severe weather occurrences.

4.2.1. Building custodians will insure that their buildings are secure and employees counseled on proper safeguards prior to leaving their work areas.

4.2.2. The Pro Superintendent will insure that AGE and loose equipment are properly protected during periods of non-use. The aircraft will be moored in accordance with TO 1C-130H-2-10JG-00-1 Section 10-20-01.

4.2.3. Periodic checks of the weather will be made by Command Post. Significant forecast weather changes will be relayed to the production superintendent.

4.3. **Phase 2 (winds above 80 knots).**

4.3.1. Maintenance Operation Center (MOC)/Command Post will:

4.3.1.1. Immediately relay weather-warning information to the production superintendent.

4.3.1.2. Alert or recall personnel as necessary.

4.3.1.3. Provide aircraft status and changes to Command Post.

4.3.2. Flight line will:

4.3.2.1. Move or realign aircraft and equipment to minimize wind damage or aircraft movement.

4.3.2.2. Prepare aircraft for possible evacuation or storage as dictated by the maintenance status.

4.3.3. Maintenance Squadron & Staff will:

4.3.3.1. Clear all outside work areas of non-essential AGE and assist Flight Line in the re-location of support equipment.

4.3.3.2. Assist with **4.3.2.2.**, above.

4.4. **Phase 3 (evacuation of all flyable aircraft).**

4.4.1. All functions complete tasks listed under Phase 2.

4.4.2. Follow-on action will be dictated by the amount of advance warning received: 72, 48, 24, and 12 hours prior to the forecasted beginning of severe winds (80 knots or more).

4.4.2.1. 72 hour warning.

4.4.2.1.1. Aircraft status, assigned and transient, will be provided to Command Post by MOC. Changes in status should be reported at least every four hours.

4.4.2.1.2. Aircraft Maintenance Squadron will expedite maintenance without going into overtime, unless authorized by Maintenance Group Commander.

4.4.2.1.3. Select and alert an evacuation crew chief for each aircraft.

4.4.2.1.4. Select and alert the enroute maintenance team.

4.4.2.1.5. Re-fuel/de-fuel aircraft to establish fuel load.

4.4.2.1.6. Re-check security of maintenance equipment.

4.4.2.2. 48 hour warning.

4.4.2.2.1. MOC will report status of aircraft to Command Post as changes occur.

4.4.2.2.2. AMXS will continue to expedite maintenance, use overtime as deemed necessary. Recall personnel from leave if necessary.

4.4.2.2.3. Resort to cannibalization, if necessary.

4.4.2.2.4. Pre-flight aircraft as they come in commission.

4.4.2.2.5. Provide Command Post with tail numbers of aircraft and recommended priority of evacuation.

4.4.2.2.6. Continue to secure all loose non-essential equipment. Maintenance stands, fire bottles, chocks, etc., should be placed in a hangar or nose dock.

4.4.2.3. 24-12 hour warning.

4.4.2.3.1. Continue to expedite maintenance. Go into a two or three shift operation if necessary.

4.4.2.3.2. Continue the use of cannibalization.

4.4.2.3.3. Place evacuation personnel, crew chiefs, and enroute team on a two hour alert status.

4.4.2.3.4. Moor aircraft that cannot be evacuated or housed. Place a large truck (decon or fuel) in front of aircraft to spoil the wind.

4.4.2.3.5. Re-check entire area for loose equipment and secure as required.

4.4.2.3.6. Re-check all moored aircraft. Insure all tiedowns, chocks, spoilers, etc. are in place.

5. After termination of severe weather, the Production Superintendent/Expeditor will inspect the flight line area for damage and report any damage found to the MOC. Aircraft will be inspected by assigned crew chiefs and discrepancies reported to Flight Line Expeditor and MOC. A thorough FOD check of aircraft parking area will be directed by the Flight Line Chief prior to resuming aircraft operations. Mainte-

nance Squadron and the staff will inspect all their respective areas and report to the MXG/CC or the MOC as soon as possible. MOC will compile damage/ discrepancy data and relay to Command Post in a timely manner.

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Commander

Attachment 1

PITTSBURGH INTERNATIONAL AIRPORT LIGHTNING WARNING SYSTEM

A1.1. General introduction:

A1.1.1. The Precision Lightning Warning System (PLWS) installed at the Pittsburgh international airport receives data from two sources:

A1.1.1.1. Electric Field Mills (EFMs).

A1.1.1.2. Real-time lightning data obtained from the National Lightning Detection Network.

A1.2. The two EFMs at Pittsburgh are located on the Grant-Oliver Building at the exit from the public parking lots at the airport and on the 14-32 electrical field Vault. These EFMs identify potentially dangerous lightning conditions and initiate appropriate safety procedures EFMS DO NOT PREDICT IF LIGHTNING WILL OCCUR. EFM merely indicates that conditions are unsafe as measured by the safety criteria.

A1.3. Warning Levels:

A1.3.1. Using the two sources of information above, multiple levels of warning are generated by the PLWS, system users are altered either by a Yellow/Red indicator light, or a text message over the Com-net system.

A1.3.2. Thresholds:

A1.3.2.1. Whenever a lightning flash occurs at a distance equal to or within 17.0 miles, but not within 5.5 miles and one EFM has equaled or exceeded its threshold.

A1.3.2.2. The potential level of two EFMs has equaled or exceeded the established threshold with no lightning flash occurring within 17.0 miles.

A1.3.2.3. A lightning flash occurs at a distance equal to or within 5.5 miles but not within 3.0 miles with any EFM reporting a value equal to or greater than the established threshold.

A1.3.3. Lightning Warning.

A1.3.3.1. Color Sequence: Red.

A1.3.3.2. Con-net Indication: LIGHTNING WARNING LEVEL HIGH. Sent as information an ALARM.

A1.3.4. Thresholds:

A1.3.4.1. Whenever a lightning flash occurs at a distance equal to or less than 5.5 miles.

A1.3.4.2. A lightning flash occurs at distance equal to or within 5.5 miles, but no within 3.0 miles and both EFM threshold alarms have been activated.

A1.3.4.3. This level will remain for at least five (5) minutes after the initial warning.

A1.3.5. Comments:

A1.3.5.1. ACDA Operations will make a “one-call” radio broadcast on all county radio frequencies stating “LIGHTNING WARNING IN EFFECT.” Notify 911 AW 474-8255 (after hours) 474-8146/8148 (0630L-1630L Mon-Fri). PANG 474-7374.

A1.3.5.2. All personnel should suspend work in open areas at this point.

A1.3.5.3. All personnel should suspend work on aircraft in hangar 129 with the AFT fuselage, vertical stabilizer and horizontal stabilizer positioned outside the hangar.

A1.3.5.4. ACDA Operations will not reference if the storm is approaching, skirting or leaving the area.

A1.3.5.5. Fueling operations will cease at this point.

A1.3.5.6. Tenant employees should refer to their company policies.

A1.3.6. Comments:

A1.3.6.1. ACDA Operations will make a “one-call” radio broadcast on all County radio frequencies stating “Lightning Condition 1 In Effect.

A1.3.6.2. As the potential passes, the color sequence will be in reverse of the above, going from RED to YELLOW to ALL CLEAR.

A1.3.7. All Clear.

A1.3.7.1. Color Sequence: no visible color indications

A1.3.7.2. Com-net Indication. LIGHTNING WARNING LEVEL CLEAR. Sent as information only.

A1.3.8. Thresholds:

A1.3.8.1. No activity is present within 17 miles of the facility.

A1.3.8.2. Reflects that the system if functional and communication and the alarm system are intact.

A1.3.9. Comments:

A1.3.9.1. ACDA Operations will make a “one-call” radio broadcast on all County radio frequencies stating “Lightning Warning All Clear”. Also call AF RESERVE and PANG.