

**22 August 1997**



**Weather**

**SEVERE WEATHER PLAN**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: 944 FW/CPM (MSgt S. Treadwell)

Certified by: 944 FW/CCE (Major M. Manjarres)

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This instruction establishes procedures to be followed for severe and adverse weather conditions which may degrade or endanger the safety of personnel, aircraft, or support equipment. It implements AFRPD 15-1, Atmosphere and Space Environmental Support. This instruction applies to aircraft maintenance activities in the 944th Fighter Wing.

**1. Responsibilities:**

1.1. The 56th Operations Support Squadron's Weather Flight, Base Weather Station (BWS) is responsible for issuing weather advisories and warnings that are occurring or are expected to occur within 25 Nautical Miles (NM) and 5NM of Luke AFB. These warnings will be disseminated via Automated Weather Distribution System (AWDS) and/or the secondary crash network to the 944 FW Consolidated Command Post and Maintenance Operations Center (MOC).

1.2. 944 FW commanders and maintenance officers will ensure that flight line workcenter supervisors are familiar with the contents of this instruction and necessary actions are promptly complied with. Response in severe weather conditions must be based on sound judgment and common sense. In the absence of written or verbal directives, personnel are expected to protect themselves, their equipment, and USAF property; in general, whenever conditions are forecasted, or exist, that could cause physical harm or damage.

1.3. The MOC is responsible for receiving weather advisories and warnings from BWS and disseminating the information to aircraft maintenance activities via Land Mobile Radios (LMR) or intercom system. The MOC is responsible for implementing and monitoring severe weather checklists (Attachment 1) and their compliance.

1.4. 302d Fighter Squadron Maintenance (FSM) expediter or appointed representative will receive weather advisories and warnings from the MOC and ensure compliance with severe weather checklists. The expediter will notify the MOC when checklists have been completed. The expediter will monitor maintenance activities during weather advisories/warnings to prevent unsafe conditions.

## 2. Procedures:

- 2.1. MOC will receive weather advisories/warnings from BWS via AWDS.
- 2.2. Upon notification of weather advisory/warning MOC will:
  - 2.2.1. Implement severe weather checklist and notify expediter and applicable agencies.
  - 2.2.2. Monitor progress and status of unit actions to comply with checklists.
  - 2.2.3. Notify 944 FW/CC or designated representative when it becomes known that an action required under this instruction cannot be accomplished.
  - 2.2.4. Inform expediter and applicable agencies when the weather advisory/warning has been updated or canceled.
  - 2.2.5. Immediately be notified of any damage to aircraft, equipment, supplies, or facilities. Reports will be completed and forwarded to the 944 Wing Commander or designated representative as soon as possible.
- 2.3. Upon notification from MOC of a weather advisory/warning, the expediter or designated representative will:
  - 2.3.1. Implement severe weather checklists and notify MOC of their completion.
  - 2.3.2. Monitor weather conditions and notify MOC of any uncertainties or circumstances that may require verification with BWS.
  - 2.3.3. Monitor maintenance activities on flight line and in hangars IAW severe weather checklists and weather forecasts. Monitor munitions movements and fuel cell maintenance during adverse weather conditions.
- 2.4. Upon receipt of weather advisory/warning, the Operations and Logistics Group Commanders or designated representative will:
  - 2.4.1. Direct available personnel to take appropriate actions to comply with severe weather checklists. Initiate recall of personnel from home as necessary.
- 2.5. The Fuel Systems Section Supervisor or designated representative shall ensure compliance with this instruction. Various problems and situations can normally be associated with severe weather and high winds. These can include a lightning fire, fueled by high winds, personnel being struck by lightning or blown off aircraft wings or fuselage, static charge build-up caused by high winds, and airborne debris striking personnel from severely gusting winds. When a severe weather advisory is relayed to the Fuel Systems Section from the MOC, the Fuel Systems Section will complete the following:
  - 2.5.1. Work will cease on aircraft repairs as dictated by the appropriate severe weather checklist.
  - 2.5.2. Aircraft access panels will be temporarily installed with the rubber seal and fastened. Panels should be secured with one fastener in each corner, and one on each side. Tape should be placed over remaining screw holes on aircraft parked outside to prevent blowing dust from entering fuel cells/tanks.
  - 2.5.3. Close aircraft openings by installing appropriate covers.
  - 2.5.4. Depart the aircraft and secure any equipment in use.

2.5.5. Depart the area and proceed to the Fuel Systems Section. If time does not permit, seek shelter in any vehicle or proceed to the nearest safe building.

CRAIG S. FERGUSON, Colonel, USAFR  
Commander

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

AFOOSH STD 91-38, *Hydrocarbon Fuels-General*

AFOOSH STD 91-66, *General Industrial Operations*

T.O. 1F-16C-2-70JG-00-21, *Engine Operation Low Power*

T.O. 1F-16C-2-00GV-00-1, *General Vehicle Description*

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*

T.O. 1-1-3, *Inspection and repair of Aircraft Integral Tanks, and Fuel Cells*

LAFBI 15-101, *Weather Support at Luke AFB and Gila Bend AFAF*

LAFB OPlan 32-1, *Readiness*

***Terms***

**Forecast Weather Advisory**—A forecast weather advisory is issued with designated lead time for forecast conditions, e.g., thunderstorms expected to move within five miles of Luke (one hour lead time). This will be relayed by maintenance Operations Center (MOC) to appropriate agencies.

**Observed Weather Advisory**—An observed weather advisory is issued without lead time for conditions now occurring, e.g., thunderstorms or lightening within five miles of Luke. This will be relayed by MOC to appropriate agencies who will comply with appropriate checklists.

**Weather Warning**—A weather warning is a special notice relayed by MOC when weather conditions are of such severity as to pose a hazard to life and/or property, e.g., severe winds, heavy rain, etc. Agencies will comply with appropriate checklists to prevent injury to personnel and government property.

**Tornado Warning**—A tornado warning is a special notice via base siren to warn personnel of a tornado that has actually been sighted or indicated by radar and presents eminent danger to the base.

**Severe Wind Condition I**—Base Weather will issue an observed weather advisory, via Automated Weather Distribution System (AWDS) computer, when winds reach 16-24 knots. MOC will inform appropriate agencies who will comply with applicable severe weather checklist.

**Severe Wind Conditions II**—Base Weather will issue a weather advisory, via AWDS, when winds are forecast to reach 25-34 knots. MOC will inform appropriate agencies who will comply with applicable severe weather checklist.

**Severe Wind Condition III**—Base Weather will issue a weather warning via AWDS and the secondary crash net when winds are forecast to exceed 35 knots. MOC will inform appropriate agencies who will comply with applicable severe weather checklist.

**Ice Foreign Object Damage (Ice FOD) Alert**—Weather condition conducive to ice formation. Base Weather will issue an observed advisory when weather condition is conducive to ice formation. MOC will inform all agencies of an ice FOD alert. Agencies will refer to T.O. 1F-16C-270JG-00-21 for required actions.

Attachment 2

SEVERE WEATHER ADVISORY/WARNING NOTIFICATION

Part I

This Severe Weather Checklist has four parts:

- Part I. Advisory/Warning Notification
- Part II. Thunderstorm/Lightning Advisory/Warning
- Part III. High Winds - Wind Condition 1 & 2
- Part IV. High Winds - Wind Condition 3 & 4

Upon notification of a severe weather advisory/warning, either by the secondary crash phone, the weather computer (AWDS), or by an eyewitness' confirmation, complete the following:

- 1. TYPE OF WEATHER: \_\_\_\_\_  
\_\_\_\_\_
- 2. TIMES VALID:FROM: \_\_\_\_\_ TO: \_\_\_\_\_
- 3. REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NOTIFY THE FOLLOWING:**

ALL RADIOS: \_\_\_\_\_  
 LGQ (65508): \_\_\_\_\_  
 FUEL SECTION (65562) \_\_\_\_\_

EXPEDITER: \_\_\_\_\_  
 MUN STORAGE (65555) \_\_\_\_\_

**NOTE:** Some weather warnings will affect the flying schedule, so coordinate with the Operations "SOF" (65363) as to our limits during these conditions.

**NOTE:** Be prepared to execute additional checklists if required.

SEVERE WEATHER THUNDERSTORM/LIGHTNING ADVISORY/WARNING

Part II

This part of the Severe Weather Checklist is for Thunderstorm/Lightning advisory/warning, it has two parts:

- 1. Thunderstorm/Lightning Advisory
- 2. Thunderstorm/Lightning Warning

**1. THUNDERSTORM/LIGHTNING ADVISORY:** Thunderstorms or lightning and/or hail outside 5 nautical miles; not yet posing a hazard to any maintenance activity:

- a. Close all canopies, radomes, and access panels on aircraft not being worked.
- b. Remove all unused ground support equipment from flight line.
- c. Limit all maintenance such as hydrazine, lox servicing, munitions maintenance, and fuel cell maintenance.
- d. If visibility is a factor (i.e., blowing dust or sand) towing teams may be set up in case towing is required.

**2. THUNDERSTORM/LIGHTNING WARNING:** Thunderstorms or lightning and/or hail observed within 5 nautical miles; lightning hazard exists:

- a. Stop all maintenance on or around aircraft.
- b. Stop all refueling/defueling on aircraft or support equipment.
- c. Stop all munitions movements, up/down loading, and all munitions maintenance.
- d. Stop all egress maintenance.
- e. Stop all fuel cell/tank maintenance.
- f. Stop all NDI and trim pad maintenance.
- g. Stop all maintenance on and shut down AIS work stations.
- h. Stop all maintenance on ECM pods & shut down test stations.
- i. Stop all servicing.
- j. \_\_\_\_\_ Prepare to chock and shutdown.

**MOC WILL NOTIFY THE FOLLOWING:**

ALL RADIOS 302 FS/SOF: \_\_\_\_\_  
 INTERCOM SYSTEM: \_\_\_\_\_  
 MUN STORAGE (65555) \_\_\_\_\_  
 FUEL SECTION (65562) \_\_\_\_\_  
 ECM POD SHOP (65433) \_\_\_\_\_

EXPEDITER: \_\_\_\_\_  
 LGQ (65508): \_\_\_\_\_  
 FSM/OIC/NCOIC (65545) \_\_\_\_\_  
 AIS (65444) \_\_\_\_\_  
 PMEL (65440) \_\_\_\_\_

LG/CC (65510) \_\_\_\_\_

**NOTE: Be prepared to execute additional checklists if required.**

**SEVERE WEATHER HIGH WINDS - WIND CONDITIONS 1 & 2**

**Part III**

This part of the Severe Weather Checklist is for high winds and has two parts:

- 1. Wind Condition 1
- 2. Wind Condition 2

1. Wind Condition 1: Surface winds, blowing dust and/or wind gusts from 16-24 knots. Ensure these actions are accomplished:

- a. Stop washing aircraft/equipment when solvents/chemicals are used.
- b. Close canopies, radomes, and access panels on aircraft not in work.
- c. Remove from the flight line any support equipment not being used.

2. Wind Condition 2: Surface winds, blowing dust and/or wind gusts from 25-34 knots. Ensure these actions are accomplished:

- a. Comply with all wind condition 1 actions
- b. Secure or remove from the flight line all light tools, maintenance stands and/or support equipment not in use.
- c. Ensure that all chocks are laced.
- d. Install intake and exhaust covers and safety gear on aircraft.
- e. Check security of ground wires on aircraft and equipment.
- f. Remove from the flight line all munitions trailers not in use.
- g. Exercise judgment in the removal of large panels, heavy equipment, ejection seats and avionics equipment
- h. Stop all outside fuel cell/tank maintenance

MOC WILL NOTIFY THE FOLLOWING:

ALL RADIOS: \_\_\_\_\_

LGQ (65508): \_\_\_\_\_

MUNITIONS STORAGE (65555): \_\_\_\_\_

EXPEDITER: \_\_\_\_\_

FUEL SECTION: \_\_\_\_\_

NOTE: Be prepared to execute additional checklists if required.

## **SEVERE WEATHER HIGH WINDS - WIND CONDITIONS 3 & 4 & 70 KNOTS OR GREATER**

### **Part IV**

This part of the severe weather checklist is for high winds and has three parts:

1. Wind Condition 3
2. Wind Condition 4
3. Winds forecasted 70 knots or greater

1. Wind Condition 3: surface winds, blowing dust, or wind gusts from 35-49 knots. Ensure these actions are accomplished:

- a. Comply with all wind condition 1 & 2 actions.
- b. Remove all support equipment from flight line and secure. Position engine trailers into the wind and set brakes, set carriage rails to full down position, double check all grounds and lock all four position pads.
- c. Hangar or secure all aircraft parts trailers.
- d. Stop egress and munitions maintenance and transport.
- e. Stop all refuel/defuel operations.
- f. Close all hangar doors, monitor hangar maintenance.
- g. Downjack flight line aircraft on jacks.
- h. \_\_\_\_\_ Hangar all aircraft with engine removed and all defueled aircraft.
- i. \_\_\_\_\_ Stop all inside fuel cell/tank maintenance.

2. Wind Condition 4: Surface winds, blowing dust and/or wind gusts at/or exceeding 50 knots, or hail 1/4" or greater. Ensure these actions are accomplished:

- a. Comply with all wind condition 1, 2, & 3 actions.
- b. Hangar as many aircraft as possible, especially if hail is forecasted.
- c. \_Park remaining aircraft outside into the wind if practical.
- d. Terminate all aircraft maintenance - to include hangar maintenance.

3. If winds are forecasted to be 70 knots or greater, accomplish the following:

- a. Comply with all wind condition 1, 2, 3, & 4 actions
- b. Prepare aircraft for evacuation if directed by wing commander

**MOC WILL NOTIFY THE FOLLOWING:**

ALL RADIOS: \_\_\_\_\_

INTERCOM SYSTEM: \_\_\_\_\_

FW/CC: \_\_\_\_\_

LG/CC: \_\_\_\_\_

OG/CC: \_\_\_\_\_

FSM/OIC/NCOIC: \_\_\_\_\_

Expediter: \_\_\_\_\_

LGQ: \_\_\_\_\_

MUN STORAGE: \_\_\_\_\_

FUEL SECTION: \_\_\_\_\_

ECM POD Shop: \_\_\_\_\_

ALS: \_\_\_\_\_

PMEL: \_\_\_\_\_

Wing Safety: \_\_\_\_\_

**Attachment 3**

**F-16 DATA**

Weight of Airframe (C model with engine installed) .....	approximately	17,434
Weight of Airframe (D model with engine installed) .....	approximately	17,929
Weight of Engine F100 PW-220.....		3,310
Internal Fuel "C" .....		6,972
Internal Fuel "D" .....		5,785
Weight 20MM Ammo (Full).....		287
Weight AIM-9 (2 each).....		390

Reference: QA Weight and Balance data

**WINDS**

	BELOW	ABOVE	ABOVE
	30 KNOTS	30 KNOTS	70 KNOTS
Less than 15,000 LBS	OK	Hangar	Hangar/Evacuate
More than 15,000 LBS	OK	OK	Hangar/Evacuate

Reference: 1F-16C-2-OOGV-OO-1 Section 10