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Weather

SEVERE WEATHER PLAN

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 15-1, *Atmospheric and Space Environmental Support*. It establishes procedures to be followed prior to and or during adverse and severe weather conditions that may degrade or endanger the safety of personnel, aircraft or support equipment. This instruction applies to all aircraft maintenance activities within the 944th Fighter Wing (FW).

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

A “[” indicates revised material since the last edition.

1. Responsibilities:

1.1. The 56th Operations Support Squadron’s Weather Flight (Base Weather Station [BWS]) will issue weather advisories and warnings for significant weather events that are occurring or are expected to occur with 25 nautical miles (NM) and 5 NM of Luke Air Force Base (LAFB). These advisories and warnings are disseminated via the Automated Weather Distribution System (AWDS). Reference LAFB Instruction 15-101, *Weather Support*.

1.2. All commanders and maintenance officers within the 944 FW will ensure that flight line work-center supervisors are familiar with the contents of this instruction and necessary actions are promptly complied with. Response prior to and or during adverse/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 302d Fighter Squadron (FS) Maintenance Operations Center (MOC)/Debrief/Dispatch Section (DDS) is responsible for receiving weather advisories and warnings from BWS and disseminating the information to aircraft maintenance activities via land mobile radios (LMR) or telephone

system. The MOC/DDS is responsible for implementing and monitoring severe weather checklists (**Attachment 2**) and their compliance.

1.4. The 302 FS Maintenance Expediter or appointed representative will receive weather advisories and warnings from the MOC/DDS and ensure compliance with severe weather checklists. The Expediter will notify the MOC/DDS when checklists have been completed. The Expediter will monitor maintenance activities during weather advisories/warnings to prevent unsafe conditions.

2. Procedures:

2.1. Upon receipt of a weather advisory/warning, the 944th Operations and Logistics Group Commanders or designated representatives will:

2.1.1. Direct available personnel to take appropriate actions to comply with severe weather checklists.

2.1.2. Initiate recall of personnel from home as necessary.

2.2. The MOC/DDS will receive weather advisories/warnings from BWS via AWDS.

2.3. Upon notification of weather advisory/warning MOC/DDS will:

2.3.1. Implement severe weather checklist and notify Expediter and applicable agencies.

2.3.2. Monitor progress and status of unit actions to comply with checklists.

2.3.3. Notify the 944 FW Commander or designated representative when it becomes known that an action required under this instruction cannot be accomplished.

2.3.4. Inform the Expediter and applicable agencies when the weather advisory/warning has been updated or canceled.

2.3.5. Receive immediate notification of any damage to aircraft, equipment, supplies or facilities. Reports will be completed and forwarded to the 944 FW Commander or designated representative as soon as possible.

2.4. Upon notification from MOC/DDS of a weather advisory/warning, the Expediter or designated representative will:

2.4.1. Implement severe weather checklists and notify MOC/DDS of their completion.

2.4.2. Monitor weather conditions and notify MOC/DDS of any uncertainties or circumstances that may require verification with BWS.

2.4.3. Monitor maintenance activities on the flight line and in hangars in accordance with severe weather checklists and weather forecasts.

2.4.4. Monitor munitions movements and fuel cell maintenance during adverse weather conditions.

2.5. Upon notification from MOC/DDS of a weather advisory/warning, the Fuel Systems Section Supervisor or designated representative will direct the following actions:

2.5.1. Cease work on aircraft repairs as dictated by the appropriate severe weather checklist.

2.5.2. Temporarily install aircraft access panels with the rubber seal and fasten. Panels should be secured with one fastener in each corner and one on each side. Tape will 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 work/aircraft 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***

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

AFOSH 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 (ATOS)*

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

LAFBI 15-101, *Weather Support*

LAFB OPLAN 32-1, *Readiness*

Abbreviations and Acronyms

AFB—Air Force Base

AFPD—Air Force Policy Directive

AWDS—Automated Weather Distribution System

BWS—Base Weather Station

DDS—Debrief/Dispatch Section

FS—Fighter Squadron

FW—Fighter Wing

Ice FOD—Ice Foreign Object Damage

LMR—Land Mobile Radio

MOC—Maintenance Operations Center

NM—nautical mile

T.O.—technical order

Terms

Forecast Weather Advisory—A forecast weather advisory is issued with designated lead time for forecast conditions (e.g., thunderstorms expected to move within 5 NM of Luke, 1 hour lead time). This will be relayed by MOC/DDS to appropriate agencies.

Observed Weather Advisory—An observed weather advisory is issued without lead time for conditions already occurring (e.g., thunderstorms or lightening within 5 NM of Luke). This will be relayed by MOC/DDS to appropriate agencies that will comply with applicable checklists.

Weather Warning—A weather warning is a special notice relayed by MOC/DDS 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 applicable 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 1—The BWS will issue an observed weather advisory via AWDS when winds reach 16-29 knots. The MOC/DDS will inform appropriate agencies who will comply with applicable severe weather checklist.

Severe Wind Conditions 2—The BWS will issue a weather advisory via AWDS when winds are forecast to reach 30-40 knots. The MOC/DDS will inform appropriate agencies who will comply with applicable severe weather checklist.

Severe Wind Condition 3—The BWS will issue a weather warning via AWDS and the secondary crash net when winds are forecast to exceed 40-49 knots. The MOC/DDS 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. The BWS will issue an observed advisory when weather condition is conducive to ice formation. The MOC/DDS will inform all agencies of an Ice FOD Alert. Agencies will refer to T.O. 1F-16C-270JG-00-21, *Engine Operation Low Power*, for required actions.

Attachment 2

SEVERE WEATHER CHECKLISTS

A2.1. THUNDERSTORM/LIGHTNING WATCH/WARNING

UPON NOTIFICATION OF THUNDERSTORM/LIGHTNING WATCH/WARNING, OBTAIN THE FOLLOWING INFORMATION:

INFORMATION	BASE	CRASH	CMD	FLT	AWDS	OTHER
SOURCE:	OPS _____	NET _____	POST _____	LINE _____	_____	_____
START DATE / TIME	_____			STOP TIME	_____	
TYPE OF WEATHER CONDITION: _____						
TIMES VALID: FROM _____ TO _____						
INITIAL NOTIFICATION _____ UPGRADE _____ DOWNGRADE _____						
REMARKS: (LIST AWDS MESSAGE NUMBER) _____						

The Thunderstorm/Lightning watch/warning, has two parts:

1. THUNDERSTORM/LIGHTNING WATCH.: 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.

CHECKSHEET CALLED IN COMPLETED BY EXPEDITE--TIME: _____

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.

CHECKSHEET CALLED IN COMPLETED BY EXPEDITE--TIME: _____

3. NOTIFY THE FOLLOWING:

GIANT VOICE SYSTEM _____

ALL RADIOS _____

_____ EXPEDITER	66519
_____ MUN STORAGE	65555
_____ FSM OIC-NCOIC	65545-65546
_____ PRO SUPER	68012
_____ FUEL SECTION	65562
_____ ECM POD SHOP	65433
_____ QA	65508
_____ COMMAND POST	65419
_____ AIS	65444
_____ SIMULATOR	65445

* _____ 302 FS/SOF 65363/HOTLINE

* _____ LG/CC 65510

***NOTIFY ONLY IF NOT NOTIFIED BY
COMMAND POST/CRASH NET**

A2.2. HIGH WINDS - WIND CONDITIONS 1 & 2

UPON NOTIFICATION OF A **WIND CONDITION 1 (16-29 KNOTS)**, OR **WIND CONDITION 2 (30-40 KNOTS)**, OBTAIN THE FOLLOWING INFORMATION:

INFORMATION	BASE	CRASH	CMD	FLT	AWDS	OTHER
SOURCE:	OPS _____	NET _____	POST _____	LINE _____	_____	_____
START DATE / TIME	_____			STOP TIME	_____	
TYPE OF WEATHER CONDITION: _____						
TIMES VALID: FROM _____ TO _____						
INITIAL NOTIFICATION _____ UPGRADE _____ DOWNGRADE _____						
REMARKS: (LIST AWDS MESSAGE NUMBER) _____						

1. **Wind Condition 1:** Surface winds, blowing dust and/or wind gusts from **16-29 knots**. Ensure these actions are accomplished:

_____ a. Close canopies, radomes, and access panels on aircraft not in work.

_____ **CHECKSHEET CALLED IN COMPLETED BY EXPEDITE TIME:** _____

2. **Wind Condition 2:** Surface winds, blowing dust and/or wind gusts from **30-40 knots**. Ensure these actions are accomplished:

_____ a. Comply with all wind condition 1 actions

_____ b. Stop washing aircraft/equipment when solvents/chemicals are used, if solvents/chemicals are not used, wash may continue.

_____ c. Secure or remove from the flight line all light tools, maintenance stands and/or support equipment not in use, excluding acft ladders.

_____ d. Ensure that all chocks are laced.

_____ e. Install intake and exhaust covers and safety gear on aircraft.

_____ f. Check security of ground wires on aircraft and equipment.

_____ g. Remove from the flight line all munitions trailers not in use.

_____ h Exercise judgment in the removal of large panels, heavy equipment, ejection seats and avionics equipment

_____ i. Stop all outside fuel cell/tank maintenance

_____ j. Downjack flightline acft on jacks.

_____ **CHECKSHEET CALLED IN COMPLETED BY EXPEDITE TIME:** _____

3. NOTIFY THE FOLLOWING:

ALL RADIOS _____

_____ EXPEDITER 66519

_____ LGQ 65508

_____ FUEL SECTION 65562

_____ MUNITIONS STORAGE 65555

A2.3. HIGH WINDS -WIND CONDITIONS 3 & 4 & 70 KNOTS OR GREATER

UPON NOTIFICATION OF A **WIND CONDITION 3 (41-49 KNOTS)** OR **WIND CONDITION 4 (50 KNOTS & GREATER OR HAIL 1/4" OR GREATER)**, OBTAIN THE FOLLOWING INFORMATION:

INFORMATION BASE CRASH CMD FLT AWDS OTHER
 SOURCE: OPS _____ NET _____ POST _____ LINE _____ _____
 START DATE / TIME _____ STOP TIME _____
 TYPE OF WEATHER CONDITION: _____
 TIMES VALID: FROM _____ TO _____
 INITIAL NOTIFICATION _____ UPGRADE _____ DOWNGRADE _____
 REMARKS: (LIST AWDS MESSAGE NUMBER) _____

1. **Wind Condition 3:** surface winds, blowing dust, or wind gusts from **41-49 knots**. Ensure these actions are accomplished:

- _____ a. Comply with all wind condition 1 & 2 actions.
- _____ b. Remove all support equipment not in use from flight line and secure, (Only exception, is if equipment is located on ECHO row and is required by base security to remain in place). 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 maintenance..
- _____ e. Stop defuel operations
- _____ f. Close all hangar doors, monitor hangar maintenance.
- _____ g. Hangar all aircraft with engine removed and all defueled aircraft.
- _____ h. Stop all inside fuel cell/tank maintenance.

_____ **CHECKSHEET CALLED IN COMPLETED BY EXPEDITE TIME:** _____

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.

_____ **CHECKSHEET CALLED IN COMPLETED BY EXPEDITE TIME:** _____

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

_____ **CHECKSHEET CALLED IN COMPLETED BY EXPEDITE TIME:** _____

4. NOTIFY THE FOLLOWING:

_____EXPEDITER	66519
_____COMMAND POST	65419
_____MUNITIONS STORAGE	65555
_____FUEL SECTION	65562
_____ECM POD SHOP	65433
_____QA	65508
_____FSM OIC-NCOIC-PRO SUPER	65545/5546/8012
_____AIS	65444

* _____FW/CC 65383
* _____LG/CC 65510
* _____SAFETY 65361
* _____OG/CC 65367

***NOTIFY ONLY IF NOT NOTIFIED BY
COMMAND POST/CRASH NET**

Attachment 3

F-16 AIRCRAFT AND WINDS INFORMATION

A3.1. 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)

A3.2. 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-2-00GV-00-1, *General Vehicle Description*, Section 10)