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Maintenance

**HANDLING CRASHED/DAMAGED AIRCRAFT**

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*. It is used in conjunction with PACAFI 21-107, *Aircraft Crash Removal Procedures* and 354 FWI 13-201, *Air Traffic Control Procedures and Airfield Management*. It establishes procedures for the recovery of aircraft that have been involved in a ground or air incident or accident, and ensures adequate coverage, 24 hours a day, 7 days a week. It applies to all personnel assigned to the 354 FW maintenance complex and does apply to the Air National Guard or US Air Force Reserve units and members.

**SUMMARY OF REVISIONS**

This instruction incorporates technical order changes. Several paragraphs were re-written to clarify procedures and eliminate redundancy. An bar (|) indicates changes in paragraph 2. .Response Schedule..., Paragraph 3.3.4. Ensure all explosives...and Paragraph 4.1.4. If time or conditions...

**1. General.** The aircraft -2 series technical orders normally contain crash recovery procedures. However, consideration must be given to the extent of damage, terrain conditions, runway requirements, equipment availability, and release determinations by the local crash recovery supervisor. Consequently, the crash recovery supervisor or representative will determine the method of removal and equipment to be used. The fire chief or representative will take full command on arrival at the scene, IAW AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*.

**2. Response Schedule.** Crash recovery personnel will be on duty in the Wheel and Tire section to respond to all in-flight emergencies (IFE) and ground emergencies (excluding hung rockets, flares, and unsafe guns), between 0700 and 2400, Monday through Friday. During periods of decreased manning crash recovery personnel will only be available during the 354 FW/Cope Thunder Flying window. For after hours, weekends, holidays, and down days the Maintenance Operations Center (MOC) will receive the names and phone numbers to contact in case of an emergency.

### 3. Responsibilities:

3.1. NCOIC, Wheel and Tire/Crash Recovery. The NCOIC will ensure:

3.1.1. The provisions of this instruction remain current.

3.1.2. All personnel assigned or augmented for duty in the Wheel and Tire/Crash Recovery complies with the contents of this instruction.

3.1.3. All assigned crash recovery vehicles and equipment are on hand and serviceable.

3.2. Maintenance Squadron Commander. The Maintenance Squadron Commander will designate, in writing, a crash recovery supervisor and alternate.

#### 3.3. Crash Recovery Supervisor or Alternate:

3.3.1. Act as on-scene technical advisor.

3.3.2. Ensure security of aircraft and equipment by coordinating with security forces.

3.3.3. Ensure the accomplishment of all general safety procedures.

3.3.4. Ensure all explosives are saved and removed prior to aircraft movement by coordinating with EOD, munitions, armament, and egress personnel.

3.4. WOC. The WOC will notify the following of aircraft ground emergencies, IFEs, and crashes:

3.4.1. Wing Commander.

3.4.2. Logistics Group Commander.

3.4.3. Operations Group Commander.

3.4.4. Maintenance Squadron Commander.

3.4.5. Maintenance Superintendent.

3.4.6. Wheel and Tire/Crash Recovery.

3.4.7. Flightline maintenance vehicles (on radio nets).

3.4.8. Quality Assurance.

3.4.9. EOD (only when a hazardous munitions situation exists or when requested by the fire chief).

3.4.10. Flight Safety

3.5. The owning organization will augment the Crash Recovery section, as required.

### 4. Procedures:

4.1. When notified of an IFE, the crash recovery crew should report to the staging area, Taxiway "C". The crash recovery team will move to another location if requested by the fire chief.

4.1.1. The crash recovery team will establish radio contact with the fire chief to receive all information pertaining to the aircraft (i.e., tail number, nature of problem).

- 4.1.2. When aircraft has landed, the crash recovery crew will remain at staging area and await instructions from the fire chief. If IFE is for landing gear or hydraulic malfunction, crash recovery crew will comply with 354 FWI 13-201, paragraph 5.6.
- 4.1.3. The crash recovery crew will respond to the staging area with appropriate equipment and stand by until released by the senior fire official at the scene.
- 4.1.4. If time or conditions do not permit, TO 00-5-1, paragraph 2-7.2 will take effect. Paragraph 2-7.2 states on scene commanders are granted broad discretionary powers to waive compliance with TO procedures in emergency situations. This waiver authority must be used with caution to avoid placing personnel or equipment in jeopardy. The situation must be documented and sent to HQ USAF/ILMM and HQ AFMC/ENBP after the emergency is resolved.
- 4.1.5. In the case where insufficient crash recovery personnel are available, the crash recovery supervisor will request assistance from the owning organization.
- 4.1.6. In all cases, the type of support required will depend upon the type of emergency, extent of the damage, type of aircraft, and other appropriate factors.
- 4.1.7. For ground emergencies, crash recovery crew will respond to the aircraft location, staying clear of fire fighting equipment, and await instructions from the fire chief.
- 4.1.8. If an aircraft lands under emergency conditions and taxis clear of the active runway under its own power, the owning organization will ensure the aircraft is returned to the appropriate parking ramp. The owning organizations are the 18th Fighter Squadron (FS) and the 355 FS for wing assigned aircraft, and Transient Alert for transient/cross-country aircraft. 168th Alaska Air National Guard for their own aircraft. Units deployed here with maintenance teams will take care of their aircraft once clear of the runway.
- 4.1.9. Non-USAF (Navy, RAF, etc.) aircraft will have their own crash recovery team. Eielson's crash recovery team will augment their team in any way possible and with any equipment they have on hand. This is due to lack of equipment for, and experience on their aircraft.
- 4.2. **Barrier Engagements.** When notified of an impending barrier engagement, the crash recovery crew will go to Taxiway C for either barrier.
- 4.2.1. After engaging the barrier, if the aircrew elects to keep the aircraft engines running, the fire department and civil engineering power production crew will sling shot the aircraft from the barrier and have the aircraft taxi off the runway.
- 4.2.2. If the IFE involves a landing gear or a hydraulic malfunction, the aircraft will be shut down on the active runway. Recovery procedures will be according to 354 FWI 13-201.
- 4.2.3. After engaging barrier, if engines are shut down, crash recovery personnel will, upon notification by the fire chief that the aircraft is fire safe, install downlocks/safety pins, push the aircraft backwards with a tug to clear the barrier, reset and secure the tail hook, and tow the aircraft off the runway.
- 4.2.4. The crash recovery team will tow the disabled aircraft clear of the runway and taxiway. The owning organization will be responsible for returning the aircraft to the parking area.
- 4.3. **Tire Blowouts.** The crash recovery crew will install the new tire(s) in the event one or both main or nose gear tires blow on the runway, time or conditions permitting. If the wheel is damaged and can-

not be removed, or time or conditions do not allow for a tire change, the wheel dolly will be used and the aircraft towed to the nearest exit ramp.

**4.4. Hot Brake Condition.** The crash recovery supervisor will coordinate with the senior fire official prior to approaching the aircraft to verify the condition of the brakes. The crash recovery team will park aircraft with hot brakes IAW 354 FWI 13-201, paragraph 5.5. There will be coordination between the fire chief and crash recovery supervisor before entry or reentry to all aircraft with hot brake situations.

4.4.1. If hot brakes are discovered the aircraft will, if possible, taxi to the hot brake area IAW 354 FWI 13-201. If the aircraft has shut down before hot brakes are discovered, then all personnel will evacuate 300 feet to the front or rear of the aircraft.

4.4.2. After hot brakes are declared, Fire Department and maintenance personnel will not reenter the area for 30 minutes (45-60 minutes for F-16s, IAW TO 1F-16CG-1).

4.4.3. If brakes are still considered hot after initial period, withdraw again. Continue to check the brake temperature at 15-minute intervals until they are safe.

4.4.4. When brake conditions are acceptable, the crash recovery supervisor will verify the safe condition of the aircraft and notify the Fire Chief. Once the Fire Chief has released the aircraft, the owning unit will tow the aircraft to parking.

**NOTES:**

1. Hot brakes normally attain peak temperatures 15 to 60 minutes after the aircraft is parked. Taxiing the aircraft in attempt to cool the brakes by airflow only aggravates the severity of the condition. Therefore, taxiing should only be conducted to arrive at a clear area. Consideration will be given to use emergency tire deflators if fire is evident and fuse plugs haven't activated and the tire has not deflated.
2. All landing gear pins must be installed prior to engine shut down, unless personnel safety would be in jeopardy.

4.4.5. A-10 Hot Brake Procedures. Follow the procedures set forth in TO 1A-10A-6WC-1 for recovery and parking.

4.4.6. F-16 Hot Brake Procedures. Follow the procedures set forth in TO 1F-16CG-6WC-1-11 for recovery and parking.

**5. Crash Recovery Equipment and Maintenance.** A primary and alternate crash recovery equipment monitor will be designated in writing.

5.1. The primary or alternate will conduct a semiannual inventory on all assigned crash recovery equipment. The equipment monitor will certify the inventory.

5.2. A 7-day serviceability check will be accomplished on such items as jacks, portable generators, air blowers, etc., and documented on AFTO Form 244 maintenance records.

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