BY ORDER OF THE COMMANDER
442D FIGHTER WING

442d FIGHTER WING INSTRUCTION 21-133

10 July 1998

Maintenance

AIRCRAFT HOT BRAKES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

OPR: 442 MXS/LGMC (SMSgt Steve Brazeal) Certified by: 442 LG/CC (Col John S. Hansen)
Pages: 4
Distribution: F

This instruction implements Air Force Policy Directive (AFPD) 21-1, *Managing Aerospace Equipment Maintenance*. It assigns responsibilities and outlines procedures for ground handling of aircraft that have hot brake conditions. These procedures apply to all personnel assigned to the 442d Logistics Group and the 442d Operations Group.

1. Responsibilities. During flying of assigned A-10A/OA-10A aircraft, it is the responsibility of all 442 FW maintenance or munitions personnel that discover a hot brake condition to respond and determine the necessary action. A "hot brake" is when the pilot reports the condition and/or when the wheel fuse plug melts and the tire deflates. No ground personnel will enter an aircraft's danger zone when "hot brakes" are declared until cleared by the Senior Fire Officer.

1.1. Pilot: Following a brake application, which could cause overheated brakes, declare a ground emergency for brakes.

1.1.1. Contact the control tower and Supervisor of Flying (SOF) declare a ground emergency, and request fire department coverage and maintenance support for hot brakes. Give location and appropriate status if known at that time. The SOF will notify the Command Post who will notify maintenance and the fire department of the appropriate status when they arrive on the scene.

1.1.2. If landing roll or following an aborted take-off, do not taxi further than necessary to assure safe clearance from runway.

1.1.3. Every effort should be made to get the aircraft to the "hot brakes" parking area with the fire department standing by until the brakes have cooled for at least 30 minutes. The "hot brakes" parking area is located at the south or north hammerhead. Personnel safety is paramount. Under no circumstance will safety be compromised to park the aircraft at the "hot brakes" parking area. If possible, stop the aircraft facing into the wind.

1.1.4. If a fire is observed, leave the aircraft and stay clear of responding emergency vehicles.

1.1.5. If notified of "hot brakes" while taxing, taxi only as far as necessary to clear STOP taxi routes and stop the aircraft. If "hot brakes" are found after aircraft is parked, the aircraft will be left in position. In a congested area, consideration must be given to the evacuation of nearby aircraft and personnel in the event of fire or tire failure.

1.1.6. Since debris from an exploding tire will normally travel outboard in relation to the aircraft, the flight crew will attempt to align the aircraft so that danger to ground personnel and nearby aircraft is reduced. In no case will the aircraft be moved to a congested area.

1.2. Maintenance Control Function (MCF): When informed of a "hot brakes" condition. The MCF will initiate Emergency Action Checksheet #7, Aircraft Hot Brakes, obtain and document the following information: aircraft serial number, location, aircraft configuration, date and time notified. Coordinate equipment for the aircraft, as required. Notify the following personnel:

Base Fire Department

Base Operations

Supervisor of Flying (SOF)

Wing Safety

Quality Assurance

Fighter Squadron Maintenance (FSM)

Maintenance Squadron (MXS)

442 LG/CC

NOTE: When notifying the SOF, MCF will request other landing aircraft be moved away for the hot brake aircraft to the Dearm area at the other end of the runway, if necessary.

1.3. Fighter Squadron Maintenance: Upon notification of a hot brake condition, FSM personnel will respond to the aircraft with chocks, ground cord, headset, fire bottle.

1.4. Upon arrival, the Senior Fire Officer assumes command of the situation whenever a ground emergency is declared. The senior maintenance person on site will coordinate with the Senior Fire Officer, as required.

2. Procedures:

2.1. Procedures for suspected hot brakes found by maintenance at parking ramp: Suspend maintenance and evacuate personnel 300 feet of suspected hot brake aircraft . Chock aircraft nose gear. Direct pilot to cut engines if needed. Notify MCF, providing aircraft location, munitions and fuel on board. Direct other aircraft out of the area. The landing gear safety pins will not be installed and munitions/ armament will not be dearmed. Monitor wheel and tire for 20 minutes. This allows time for the heat to build up to it's maximum for melting of wheel fuse plugs, which melt at a temperature of 390 degrees Fahrenheit.

2.1.1. If the fuse plugs do not melt after 20 minutes, the brake assembly is considered not hot. Resume normal maintenance on the affected and adjacent aircraft. If parking spot is on the end of a parking row, ensure vehicle traffic is routed away until danger has passed.

2.1.2. If tire deflates do the following: Call the fire department and notify MCF. Do not tow aircraft. After the tire has deflated the majority of the danger is over. Remain clear of aircraft and adjacent aircraft until the fire department terminates emergency. **NOTE:** Insure that minimum personnel are exposed to the explosive area of an aircraft with a hot brake condition. Do not approach landing gear from either side; approach only from the front or rear. Do not use fire extinguishers on hot brakes. Do not move aircraft for at least 20 minutes after brakes have been cooled.

CHARLES E. STENNER, JR., Col, USAFR
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 21-1--*Managing Aerospace Equipment Maintenance*

T.O. 4-B-1-1--*Use of Landing Wheel Brakes and Wheels During Ground Operations*