

**BY ORDER OF THE COMMANDER
442D FIGHTER WING**



**442D FIGHTER WING
INSTRUCTION 21-133**
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Maintenance

AIRCRAFT HOT BRAKES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*. It establishes procedures to follow in the event of hot brake of a 442d Fighter Wing (442 FW) owned aircraft. These procedures apply to all maintenance personnel assigned to the 442 FW. Superintendents, flight chiefs, and supervisors are responsible for ensuring compliance with this instruction. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/rims.cfm>.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include changing Dispatch Debrief Section (DDS) to Maintenance Operation Center (MOC).

1. Responsibilities. During flying of assigned A-10C 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 Incident Commander which will be the Senior Fire Officer.

1.1. Pilot: Following a brake application, which could cause overheated brakes, declare a ground emergency for hot 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 the location and appropriate status if known at that time. The SOF will notify the Command Post who will notify MOC and the fire department of the appropriate status when they arrive on the scene.

1.1.2. If the condition occurs during 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 20 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 taxiing, taxi only as far as necessary to clear taxi routes and stop the aircraft. If "hot brakes" are found after aircraft is parked, the aircraft will be left in position. If 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. MOC: When informed of a "hot brakes" condition. The MOC will initiate Emergency Action Check sheet, 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. **Note:** When notifying the SOF, MOC will request other landing aircraft be moved away from the hot brake aircraft to the de-arm area at the other end of the runway, if necessary.

1.3. 442d Aircraft Maintenance Squadron (442 AMXS): Upon notification of a hot brake condition, AMXS personnel will respond to aircraft with chocks, ground cord, headset, fire bottle and await instructions from the On Scene Commander.

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

2. Procedures:

2.1. Procedures for suspected hot brakes found by maintenance at parking ramp: Suspend maintenance and evacuate all unnecessary personnel 300 feet of suspected hot brake aircraft. Chock aircraft nose gear, direct pilot to shut down engines if needed. Notify MOC, providing aircraft location, munitions and fuel on board. MOC will contact Base Operations and initiate a ground emergency. Direct other aircraft out of the area. The landing gear safety pins will not be installed and munitions/armament will not be de-armed. Monitor wheel and tire for 20 minutes. This allows time for the heat to build up to its maximum temperature. Wheel fuse plugs melt at a temperature of 390 degrees Fahrenheit.

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

2.1.2. If tire deflates do the following: 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.

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Commander

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

AFMAN 33-363, *Management of Records*, 01 March 2008

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

Prescribed Forms

No forms prescribed

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

442 AMXS—442d Aircraft Maintenance Squadron

442 FW—442d Fighter Wing

AF—Air Force

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

DDS—Dispatch Debrief Section

MOC—Maintenance Operations Center

OPR—Office of Primary Responsibility

RDS—Records Disposition Schedule

SOF—Supervisor of Flying