

**BY ORDER OF THE COMMANDER  
HILL AIR FORCE BASE (AFMC)**



**AIR FORCE INSTRUCTION 32-1043**

**HILL AIR FORCE BASE  
Supplement 1**

**16 NOVEMBER 1999**

**Civil Engineering**

**MANAGING AIRCRAFT ARRESTING  
SYSTEMS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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***AFI 32-1043, 1 November 1996, is supplemented as follows:***

***SUMMARY OF REVISIONS***

Paragraph 2.5.1.3 was combined with paragraph 2.5.1.1. Paragraph 2.5.1.4 renumbered to 2.5.1.3. Paragraphs 2.5.2.1. and 2.5.2.2. were exchanged. Paragraph 2.5.2.4. incorporated into paragraph 2.5.2.1. Paragraph 2.6. renamed to Active Runway Changes. Additional agency notifications added to paragraph 2.7.3. Paragraph 2.8. preventative maintenance was changed from every Monday (0630 to 1230) to two weekends each month. In addition, Barrier Maintenance will utilize these dates to train and certify 75 CEG/CEF Fire Department and 419 FW Power Production personnel. Office symbols and terminology's revised. A ( | ) indicates revision from previous edition.

1.3.5.1. (Added) The airdrome officer (AO) from Base Operations (75 OSS/OSAMB) will ensure proper coordination is effected between personnel and agencies responsible for operating, removing aircraft from, and resetting barrier arresting systems. (See Hill 13-201, *Air Traffic Control and Flight Operations*.)

1.3.5.2. (Added) Operating Requirements at Hill AFB. The airfield manager/designated representative will:

1.3.5.2.1. (Added) Ensure the on-site inspection of the arresting system is accomplished daily by Power Production Flight (75 CES/CEOP) and the Control Tower Chief (75 OSS/OSAT) is notified of the status and position of each barrier.

1.3.5.2.2. (Added) Following an engagement of the arresting barrier, determine whether inbound traffic can be landed safely or should be diverted to another airfield.

1.3.5.2.3. (Added) Request the indicated air speed (IAS) and gross weight of the aircraft at time of arresting cable engagement; and relay to 75 CES/CEOP.

1.3.5.2.4. (Added) Maintain a barrier engagement log.

1.3.5.3. (Added) Tower personnel will initiate notification via the primary crash circuit when advised by a pilot that a barrier engagement will be made or after a barrier engagement has taken place without prior notification.

1.3.5.4. (Added) 75 CES/CEOP will:

1.3.5.4.1. (Added) Retract and inspect barrier immediately after engagement during duty hours. Fire Protection Division (75 CEG/CEF) will retract the barrier after normal duty hours. On call, 75 CES/CEOP will then inspect and certify the barrier.

1.3.5.4.2. (Added) Record IAS and aircraft gross weight at time of each engagement.

1.3.5.5. (Added) 75 CEG/CEF, after notification of a planned barrier engagement or of an aircraft engaging the arresting barrier, will:

1.3.5.5.1. (Added) Immediately dispatch fire and crash rescue equipment to the site.

1.3.5.5.2. (Added) Ensure at least one fire truck remains at the site until released by the AO or designated alternate.

1.3.5.6. (Added) 75 OSS/OSAMB after notification of an aircraft barrier engagement will:

1.3.5.6.1. (Added) Activate the secondary crash circuit.

1.3.5.6.2. (Added) During off duty hours, holidays, and weekends, notify the following:

1.3.5.6.2.1. (Added) Airfield Operations Flight (75 OSS/OSA) Commander.

1.3.5.6.2.2. (Added) Civil Engineering Service Desk.

1.3.5.6.2.3. (Added) Hill Consolidated Command Post (75 ABW/CP); who will notify on-scene commander, who will determine whether a photographer is required.

1.3.5.7. (Added) Transient Alert (75 OSS/OSCT), after notification of a barrier engagement, will provide equipment and personnel to expeditiously remove the aircraft from the runway, as directed by Current Operations Flight (75 OSS/OSC) or designated alternate.

1.3.5.8. (Added) Flight Safety Division (OO-ALC/SEF) will:

1.3.5.8.1. (Added) In the event an arresting barrier engagement results in damage to the aircraft, take action to comply with regulations governing accident investigation and reporting.

1.3.5.8.2. (Added) During duty and off-duty hours, holidays, or weekends, assure adequate statements and photographs are taken to comply with *AFI 91-204, Safety Investigations and Reports*.

1.3.8.1. (Added) 75 CES/CEOP personnel will conduct barrier training for air traffic controllers as needed in accordance with guidelines of basic publications.

1.3.8.1.1. (Added) For the BAK-12 and BAK-12/14 arresting systems, explain:

1.3.8.1.1.1. (Added) Actuating system of BAK-12/14.

1.3.8.1.1.2. (Added) Bi-directional principle.

1.3.8.1.1.3. (Added) Brake capability to absorb energy.

1.3.8.1.1.4. (Added) Runway procedures.

1.3.8.1.1.5. (Added) Rewind principle and time interval involved.

1.3.8.1.1.6. (Added) Why aircraft do not have to engage the center of cable for an even runout.

1.3.8.1.2. (Added) The remaining operational techniques will be taught by technical orders and barrier information available.

2.4. (Added) Aircraft Arresting Systems Available on Hill Runway (Rwy) 14/32:

2.4.1. (Added) North end:

2.4.1.1. (Added) A bi-directional BAK-12/14, located 1250 feet from the approach threshold.

2.4.1.2. (Added) A bi-directional BAK-12, located 2574 feet from the approach threshold.

2.4.2. (Added) South end:

2.4.2.1. (Added) A bi-directional BAK-12/14, located 1250 feet from the approach threshold.

2.4.2.2. (Added) A bi-directional BAK-12, located 2584 feet from the approach threshold.

2.5. (Added) Arresting System Configurations:

2.5.1. (Added) Active Runway 14:

2.5.1.1. (Added) North and South BAK-12/14, cables retracted and available (on request) for raised position.

2.5.1.2. (Added) North BAK-12, cable removed and positioned alongside of runway shoulder.

**NOTE:**

If the North BAK-12/14 is in a non-operational status, the North BAK-12 will be in the operationally ready (OR) position.

2.5.1.3. (Added) South BAK-12, cable configured in the OR position.

2.5.2. (Added) Active Runway 32:

2.5.2.1. (Added) North and South BAK-12/14, cables retracted and available (on request) for raised position.

2.5.2.2. (Added) South BAK-12, cable removed and positioned alongside of runway shoulder.

**NOTE:**

If the South BAK-12/14 is in a non-operational status, the South BAK-12 will be in the OR position.

2.5.2.3. (Added) North BAK-12, cable configured in the OR position.

**2.6. (Added) Active Runway Changes.** The configuration of the North and South arrestment systems will be effected through a jointly coordinated process involving 75OSS/OSAT, (requesting agency); 75OSS/OSAMB; and 75 CES/CEOP during duty hours, and 75CEG/CEF after duty hours. 75OSS/OSAT will notify 75 OSS/OSAMB of the requirement. 75OSS/OSAMB will then recall 75 CES/CEOP or 75CEG/CEF.

2.6.1. (Added) Changeover procedures (Runway 14 to Runway 32) by step:

2.6.1.1. (Added) Tower raises North BAK-12/14. Runway 32 becomes active runway.

2.6.1.2. (Added) 75 CES/CEOP removes South BAK-12 cable as soon as traffic permits.

2.6.1.3. (Added) 75 CES/CEOP reconnects North BAK-12 cable as soon as traffic permits.

2.6.1.4. (Added) Tower lowers North BAK-12/14 cable to retracted position.

2.6.2. (Added) Changeover procedures (Runway 32 to Runway 14) by step:

2.6.2.1. (Added) Tower raises South BAK-12/14. Runway 14 becomes active runway.

2.6.2.2. (Added) 75 CES/CEOP removes North BAK-12 cable as soon as traffic permits.

2.6.2.3. (Added) 75 CES/CEOP reconnects South BAK-12 cable as soon as traffic permits.

2.6.2.4. (Added) Tower lowers South BAK-12/14 cable to retracted position.

2.7. (Added) Control of Changeover Actions:

2.7.1. (Added) Positive control of all personnel will be maintained by the Hill Control Tower via two-way radio.

2.7.2. (Added) The 75 OSS/OSAMB will have a representative on the airfield to close the active runway (as applicable) while 75 CES/CEOP personnel are repositioning cables. Tower will advise incoming aircraft on the runway status.

2.7.3. (Added) Tower will advise the following supervisor's of flying (SOFs) if the approach end BAK-12 is in the OR position: 388th Fighter Wing (388 FW), 419 FW, 514th Flight Test Squadron (514 FLTS), arriving F-16 aircraft, and the USDA Forest Service Tanker Base Operations and their respective aircraft Supersedes AFI 32-1043/Hills1, 26 May 1998t, as applicable.

2.7.4. (Added) Aircraft will be cleared for takeoffs and landings at tower's discretion and pilot's concurrence during any of these procedures if the 75 OSS/OSAMB representative on the airfield concurs and reopens the runway.

2.7.5. (Added) Before completion of barrier change operations, the 75 CES/CEOP supervisor will notify tower all equipment is clear of the runway.

2.8. (Added) Scheduled Barrier Maintenance. 75 CES/CEOP will conduct mandatory preventative maintenance two weekends each month in coordination with 75 OSS/OSAM. In addition, Barrier Maintenance will utilize these dates to train and certify 75 CEG/CEF Fire Department and 419 FW Power Production personnel on specific post arrestment and periodic maintenance actions. Exceptions to these dates are authorized through coordination with 75 OSS/OSAM (Airfield Management) for local flying as requested by tenant flying organizations. 75 OSS/OSAMB will restrict the runway as required.

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