

**BY ORDER OF THE COMMANDER
8TH FIGHTER WING**

8TH FIGHTER WING INSTRUCTION 91-301



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Safety**

**PROTECTIVE AIRCRAFT SHELTER (PAS)
AND HANGAR DOOR OPERATION**

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This instruction implements AFD 91-3, Occupational Safety and Health, AFI 21-101, Aerospace Equipment Maintenance Management, and AFOSHSTD 91-100, Aircraft Flight Line-Ground Operations and Activities. It is intended to reduce or eliminate injury to personnel during manual and powered Protective Aircraft Shelter (PAS) and hangar door operation. This instruction applies to all assigned, attached and associated units to the 8th Fighter Wing supported by a support agreement on Kunsan Air Base, Republic of Korea. This publication establishes minimum responsibilities for commanders, functional managers, supervisors, unit safety representatives and 8 Fighter Wing agencies. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication; route AF Form 847s from the field through Major Command (MAJCOM) publications/forms managers. 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 Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This revision reflects safety concerns while operating manual and powered PAS and hangar doors. Major changes include adding operating procedures for manual and powered PAS and hangar door operating procedures (paragraph 6). This instruction updates and clarifies training procedures (paragraph 3).

1. Definitions. For the purposes of this instruction, the term —doors refers to the large main aircraft PAS, hangar, or Aircraft Hush House (hush house) doors that aircraft and equipment pass through. Personnel doors and manually operated overhead doors that do not pose a substantial pinch or crush hazard are not subject to this instruction.

2. Training. All supervisors are responsible for ensuring their personnel are trained prior to operating manual and powered PAS, hangar, and hush house doors. Training is required for all personnel expected to operate, or work in the immediate vicinity of these doors.

2.1. 8th Maintenance Operations Squadron, Maintenance Training Flight (8 MOS/MXOT) will conduct PAS, hangar, and hush house door safety and awareness training for all personnel who work in or around PAS, hangars, or hush houses as a part of maintenance orientation training. As a minimum, door safety and awareness training will include door operation hazards, warnings and cautions, and emergency procedures.

2.2. Squadron commanders will ensure units conduct in-house, hands-on operation qualification training for all personnel expected to operate manual and powered PAS, hangar, and/or hush house doors. As a minimum, training will include door hazards, operations, and emergency procedures.

2.3. Maintenance Supervision with custodian authority will develop procedures for manual door operations in the event that powered PAS, hangar, or hush house doors fail to operate. See LCL-8 MXG-012 for manual PAS door operation, 8 MXG Form 15 for manual hangar doors and 8 MXG Form 16 for normal PAS door operation.

2.4. Training will be documented in the Integrated Maintenance Data System (IMDS). For those personnel not loaded in the IMDS data base, training will be documented on AF Form 797 and AF Form 55. The IMDS course codes will be as follows:

2.4.1. 36-Month PAS, Hangar, and Hush House Door Awareness training-29110.

2.4.2. Hands-On Manual Hangar Door Training-032373.

2.4.3. Hands-On Powered PAS and Hangar Door Operation-29111.

2.4.4. Hands-On Hush House Door Operation-000064.

3. Door Operational Checkout.

3.1. Squadron commanders will ensure all building custodians perform monthly inspections of PAS, hangar and hush house door operations and safety features in accordance with (IAW) AFOSHSTD 91-100.

3.2. All discrepancies will be noted and work orders submitted to 8th Civil Engineer Squadron (8 CES). Ensure that doors that are found to be unsafe or unusable to operate are identified and locked out IAW AFOSHSTD 91-501.

3.3. Additionally, building custodians will schedule annual 8 CES inspection and preventive maintenance visits to ensure door mechanisms and safety features are properly maintained.

3.4. Cold Weather Hangar Door Operation.

3.4.1. Upon notification of freezing conditions these actions will be complied with for facilities with Aqueous Film Forming Foam (AFFF). The list of facilities affected is as follows:

BUILDING S-20, POL
BUILDING 2257, FUEL BARN
BUILDING 2820, PAINT BARN
BUILDING 2827, WASH RACK

3.4.2. Temperatures between 0 to 32 degrees Fahrenheit; bay doors will remain open no longer than 30 minutes and remain closed for 30 minutes before re-opening.

3.4.3. Temperatures below 0 degrees Fahrenheit, bay doors will remain open no longer than 15 minutes and remain closed for a minimum of 60 minutes before re-opening.

3.4.4. Heaters may be applied to the aircraft bay to shorten the recovery time.

4. Identification of Hazards. All areas that pose a potential pinch or crush hazard must be marked to ensure no one enters that area during door operation. This will be designated the clear zone. It is the responsibility of the door operator(s) to ensure the area remains clear of non-essential personnel during door operation. The clear zone will be identified as follows:

4.1. Powered PAS, hangar, or hush house doors will always be opened to a width of at least ten feet. For special operations, such as during extreme weather conditions, the door may be opened less than ten feet only if the door control switch is locked off or out and remains locked out until the door can be opened to ten feet or more or be closed. (See AFOSHSTD 91-66, General Industrial operations, for lockout requirements.)

4.2. Manually operated doors have no minimum opening distance requirement, but a —clear zone exists. A clear zone will be defined for any area that creates a pinch or crush hazard.

4.3. For all doors, the clear zone must be established on the floor inside and on the ground outside with a three-inch-wide yellow and black striped line. Ensure that the clear zone provides the minimal safe distance required to prevent injury. Additionally, ensure that a clear zone is defined for each door, as in multiple door situations.

5. Manual and Powered PAS and Hangar Door Operating Procedures.

5.1. Maintenance Supervision with custodian authority will develop operational procedures peculiar to each type of manual and powered PAS and hangar door and post at each of the door control panels.

5.1.1. Procedures will be coordinated through 8 MXG/MXOT and 8 MXG/MXQ prior to 8 MXG/CC approval. The procedures will be reviewed annually. See LCL-8MXG-012 for manual PAS door operation, 8 MXG Form 15 for manual hangar doors and 8 MXG Form 16 for normal PAS door operation.

6. Signage Requirements. Proper signage, in both English and Hangul (Korean) languages, will be posted as a minimum requirement for all aircraft hangar and PAS doors. The following signs are required:

6.1. A 7 by 10 DANGER sign will be posted at the door control and or grab area. It will display the word —DANGER in a 1-7/16 white font on a red oval background, with the statement, —ONLY QUALIFIED PERSONNEL AUTHORIZED BY THEIR SQUADRON COMMANDER MAY OPERATE HANGAR/SHELTER DOORS IAW AFOSHSTD 91-100, Aircraft Flight Line - Ground Operations And Activities, para 7.2.3.4. printed below it. (See Attachment 2, Door Control Sign Example).

6.2. A 14 by 20 DANGER sign will be posted at a location clearly visible to personnel approaching the hazard area. It will display the word —DANGER in a 2-7/8 white font on a red background, with the statement, —HAZARDOUS AREA – STAND CLEAR DURING DOOR OPERATIONS printed below it. (See Attachment 3, Clear Zone Sign Example).

6.3. Ensure directional arrows are placed next to the door controls that clearly indicate the direction of door travel for each corresponding switch or button. Directional arrows must be luminescent or reflective, IAW AFOSHSTD 91-100, para 7.2.3.2.

6.4. Additionally, each powered PAS door will have a placard posted adjacent to the door controls that indicates the door's serviceability. A green placard with the words, —DOOR OPERATIVE will be used to identify serviceable, operative doors. A red placard with the words, —DOOR INOPERATIVE will be used to identify unserviceable, inoperative doors, and will have the CE work order number annotated. For those doors that are inoperative, lockout or tagout requirements remain

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Commander

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

AFPD 91-3, Occupational Safety and Health, 27 Sep 1993

AFI 21-101, Aircraft and Equipment Maintenance Management, 29 Jun 2006

AFOSHSTD 91-66, General Industrial Operations, 1 Oct 1997

AFOSHSTD 91-100, Aircraft Flight Line – Ground Operations and Activities, 1 May 1998

AFOSHSTD 91-501, Air Force Consolidated Occupational Safety Standard, 7 Jul 2004

LCL-8 MXG-012, Local Checklist for Manually Opening and Closing of PAS Doors with Inoperative Motors

Adopted Forms

AF Form 847, Recommendation for Change of Publication

AF Form 55, Employee Safety and Health Record

AF Form 797, Job Qualification Standard Continuation/Command JQS

Abbreviations and Acronyms

AFFF—Aqueous Film Forming Foam

AFRIMS—Air Force Records Information Management System

IAW—In Accordance With

IMDS—Integrated Maintenance Data System

MACOM—Major Command

OPR—Office of Primary Responsibility

PAS—Hardened Aircraft Shelter

RDS—Records Disposition Schedule

Attachment 2

DOOR CONTROL SIGN EXAMPLES

Figure A2.1. English Version



English language "Door Control" sign dimensions: 7"x10"
 "DANGER" in 1-7/16" white font

Figure A2.2. Korean Version



Korean Language "Door Control" sign dimensions: 7" x 10"
 "DANGER" in 1-7/16" white font

Attachment 3

CLEAR ZONE SIGN EXAMPLES

Figure A3.1. English Version



English language "Clear Zone" sign dimensions: 14" x 20"
"DANGER" in 2-7/8" white font

Figure A3.2. Korean Version



Korean Language "Clear Zone" sign dimensions: 14"x20"
"DANGER" in 2-7/8" white font