

**BY ORDER OF THE COMMANDER
934TH AIRLIFT WING**

**934 AIRLIFT WING INSTRUCTION
21-112**



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Maintenance

HANGAR DOOR OPERATIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col. Erik D. Sutcliffe)

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*. This instruction extends the guidance of Air Force Instruction (AFI) 21-101 AFRC Supplement, *Aircraft and Equipment Maintenance Management*; AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*. It provides safety guidelines and designates responsibility for training, qualification, and documentation for personnel who operate hangar doors. It applies to all users and maintainers of this equipment. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force Form 847, *Recommendation for Change of Publication*; route AF Form 847s 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 Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>

SUMMARY OF CHANGES

This publication has been rewritten and must be completely reviewed. AFI 21-101 changes, process clarifications including facility maintenance and training incorporated.

1. Responsibilities:

1.1. Commanders and Supervisors will ensure only properly trained and qualified personnel operate hangar doors.

1.2. Mission Support Group (MSG)/Civil Engineer (CE)

1.2.1. MSG/CE will be responsible for the installation and repair of signage, floor safety markings, and repair of hangar doors including electrical, mechanical, and all warning devices.

1.2.2. The MSG/CE facility maintenance section will conduct annual inspections to ensure all mechanical and electrical components are operating correctly.

1.2.3. For door maintenance issues, call MSG/CE trouble desk at extension 713-1918.

2. General.

Table 1. This Air Wing Instruction (AWI) applies to the following hangar doors:

Building	Office of Primary Responsibility
821 North/South	Building Manager (Primary/Alternate)
870 South	Building Managers (Primary/Alternate)

2.2. All operators must be trained by a qualified trainer annually. Training must include physical operation of hangar doors prior to certification of each specific hangar door.

2.3. Hangar door trainers are personnel who are qualified to operate powered doors. They must be thoroughly familiar with all Air Force Instructions, Operating Instructions, and all precautions pertaining to safe hangar door operations.

2.4. Written door operating instructions will be posted next to all door control switches.

3. Training.

3.1. Awareness training is required for personnel routinely working in hangars 821/870 or require access through hangars 821/870 hangar doors. Awareness training will highlight hazards, precautions taken during door operation, and operational safety. Awareness training is not operator training.

3.1.1. Awareness training plan is MS PowerPoint presentation, maintained by Maintenance Group Training office (MXG/MXOT).

3.1.2. Awareness training for MXG personnel will be documented in Maintenance Information System (G081) using course code SAFE001101.

3.1. 3 Awareness training is an annual requirement.

3.2. Hangar door operator training is for personnel engaged in hangar door operations.

3.2. 1 Operator training consists of lesson plans maintained by MXG/MXOT, hangar door safety awareness training, this AWI, and AFI 91-203.

3.2.1. Operator training for MXG personnel will be documented in G081 using course code MARB000821 for hangar 821 north and south doors, MARB000870 for hangar 870 south doors.

3.3. Non-MXG personnel may request hangar door operator training through MXG/MXOT and MXQ/QA.

3.3.1. Requests for training will include a written formal request identifying individual(s), will provide a justification statement, and will be addressed from requestor's squadron commander to the MXG/CC.

4. Procedures.

4.1. All operators will refer to and comply with detailed checklists posted on the applicable hangar door (See attachment 2 for building 821 and attachment 3 for building 870). Each building door listed has specific operating characteristics and has a different course code assigned in G081.

4.1.1. If automatic power door opener fails to operate contact building manager and/or MSG/CE Trouble desk at 713-1918.

ANTHONY G. POLASHEK, Colonel, USAFR
Commander

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

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

AFI 21-101, AFRC SUP 1, Aircraft and Equipment Maintenance Management, 24 August 2015

AFI 91-203, Air Force Consolidated Safety Instruction, 15 June 2012

AFMAN 33-363, Management of Records, 1 March 2008

Adopted Forms

AF Form 797, Job Qualification Standard Continuation

AF Form 847, Recommendation for Change of Publication

AF Form 2426, Training Request and Completion Notification

Abbreviations and Acronyms

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AWI—Airlift Wing Instruction

CE—Civil Engineer

GO81—Maintenance Information System

MSG—Mission Support Group

MXG—Maintenance Group

MXOT—Maintenance Group Training

QA—Quality Assurance

OPR—Office of Primary Responsibility

POC—Point of contact

RDS—Records Disposition Schedule

Attachment 2

HANGAR DOOR OPERATION CHECKLIST

HANGAR 821 NORTH AND SOUTH DOORS
ALL PERSONNEL WILL BE QUALIFIED/TRAINED PRIOR TO HANGAR DOOR OPERATION
OPENING HANGAR DOORS BUILDING 821
NOTE: If door malfunctions, contact building manager and /or MSG/CE Trouble desk 713-1918.
CAUTION: Hazardous noise area hearing protection required during operation.
CAUTION: Never use vehicles to open or close hangar doors.
CAUTION: During winter months do not open North and South hangar doors at the same time. To prevent inadvertent activation of fire alarm and freezing of water lines only open hangar doors necessary to move aircraft and equipment, close doors immediately after movement.
Pre-Operations Checklist
1. Locate and inspect pinch points and crush point areas for obstructions.
2. Inspect hangar door tracks for debris and both doors and tracks for damage.
3. Ensure area is clear of equipment, aircraft, and personnel both inside and out.
4. Ensure all personnel entry doors are closed and latched.
5. Ensure Tail door is down/closed prior to operation of main doors.
NOTE: Doors will begin to move approximately 5 seconds after alarm sounds if main door alarm does not sound contact MSG/CE trouble desk at extension 713-1918.
CAUTION: While doors are moving, continually monitor to ensure doors are clear of obstructions, personnel, equipment, and aircraft.
NOTE: Main Doors must be fully open before opening Overhead tail door.
<u>Open Hangar Doors Building 821</u>
1. At main door center section push appropriate control button identified by arrows.
2. To ensure safety of personnel hangar doors must be opened a minimum of 10 feet and brought to a complete stop prior to entering or exiting through doors.
3. Open main horizontal doors fully to wing tip clearance line before aircraft movement

through door area.
4. <u>Overhead tail door controls are on the west wall of hangar 821 south, east wall 821 north.</u> Open overhead tail door fully before aircraft movement through door area, ensure red alignment marks match up on outside of tail door.
CLOSING HANGAR DOORS BUILDING 821
NOTE: If door malfunctions contact the building manager and /or MSG/CE Trouble desk 713-1918.
CAUTION: Hazardous Noise Area Hearing Protection Required During Operation.
CAUTION: Never use vehicles to open or close hangar doors.
Pre-Operation Checklist
1. Locate and inspect pinch points and crush point areas for obstructions.
2. Inspect hangar door tracks for debris and both doors and tracks for damage.
3. Ensure area is clear of equipment, aircraft, and personnel both inside and out.
4. Ensure all personnel entry doors are closed and latched.
5. Ensure Tail door is down/closed prior to operation of main doors.
NOTE: Doors will begin to move approximately 5 seconds after alarm sounds if main door alarm does not sound contact MSG/CE trouble desk at extension 713-1918.
CAUTION: While doors are moving, continually monitor to ensure doors are clear of obstructions, personnel, equipment, and aircraft.
<u>Close Hangar Doors Building 821</u>
<u>Overhead tail door controls are on the west wall of hangar 821 south, east wall 821 north</u>
1. Close overhead tail door fully before closing main hangar doors.
2. At main door center section push appropriate control button identified by arrows, hold button until door is closed; if door is to remain partially open ensure minimum of 10 foot clearance and door has stopped moving prior to passing through door opening.
EMERGENCY PROCEDURES FOR OPERATING DOORS IN HANGAR 821
In the event of electrical failure hangar doors can be operated manually by building manager or CE personnel.
Main door manual procedures
1. Open panels located on each center door section.
2. Pull clutch disengage handle located on each side of the center door.
3. Manually push doors into position.

Overhead door manual procedures
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| 1. Gain access to the hangar roof, move to a position above the overhead door. |
| 2. Pull cable to engage chain drive. |
| 3. Pull chain until overhead door is in the fully open position. |

Attachment 3

HANGAR DOOR OPERATION CHECKLIST

HANGAR 870 DOORS
ALL PERSONNEL WILL BE QUALIFIED/TRAINED PRIOR TO HANGAR DOOR OPERATION
OPENING HANGAR DOORS BUILDING 870
NOTE: If door malfunctions contact building manager and /or MSG/CE Trouble desk 713-1918.
CAUTION: Hazardous noise area hearing protection required during operation.
CAUTION: Never use vehicles to open or close hangar doors.
CAUTION: Hangar 870 has a low temperature alarm for water deluge system; during winter months open hangar doors necessary to move aircraft and equipment, close doors immediately after movement to prevent inadvertent activation of fire alarm and freezing of water lines.
Pre-Operation Checklist
1. Locate and inspect pinch points and crush point areas for obstructions.
2. Inspect hangar door tracks for debris and both doors and tracks for damage.
3. Ensure area is clear of equipment, aircraft, and personnel both inside and out.
4. Ensure all personnel entry doors are closed and latched.
5. Ensure alcoves are clear of equipment and personnel.
6. Ensure tail door is up/open prior to operation of main doors.
NOTE: Doors will begin to move approximately 5 seconds after alarm sounds. If main door alarm does not sound, contact MSG/CE trouble desk at extension 713-1918.
CAUTION: While doors are moving, continually monitor to ensure doors are clear of obstructions, personnel, equipment, and aircraft.
<u>Open Hangar Doors Building 870</u>
1. Open overhead tail door a minimum one foot prior to opening main horizontal doors.

2. Overhead tail door controls are on the east wall of hangar 870 push appropriate control button, identified by arrows.
3. Open overhead tail door to full open position before aircraft movement through door area.
4. At main horizontal doors center section push appropriate control button identified by arrows.
5. Open main horizontal doors fully to wing tip clearance line before aircraft movement through door area.
6. To ensure safety of personnel hangar doors must be opened a minimum of 10 feet and brought to a complete stop, prior to entering or exiting through doors.
CLOSING HANGAR DOORS BUILDING 870
NOTE: If door malfunctions contact building manager and /or MSG/CE Trouble desk 713-1918.
CAUTION: Hazardous noise area hearing protection required during operation.
CAUTION: Never use vehicles to open or close hangar doors.
Pre-Operation Checklist
1. Locate and inspect pinch points and crush point areas for obstructions.
2. Inspect hangar door tracks for debris and both doors and tracks for damage.
3. Ensure area is clear of equipment, aircraft, and personnel both inside and out.
4. Ensure all personnel entry doors are closed and latched.
5. Ensure tail door is up/open prior to operation of main doors.
NOTE: Doors will begin to move approximately 5 seconds after alarm sounds. If main door alarm does not sound, contact MSG/CE trouble desk at extension 713-1918.
CAUTION: While doors are moving, continually monitor to ensure doors are clear of obstructions, personnel, equipment, and aircraft.
<u>Close Hangar Doors Building 870</u>
1. Open overhead tail door a minimum one foot prior to closing main horizontal doors.

2. Overhead tail door controls are on the east wall of hangar 870 push appropriate control button identified by arrows.
3. At main door center section push appropriate control button identified by arrows.
4. Close overhead tail door fully after fully closing main hangar doors.
5. To ensure safety of personnel hangar doors must remain open minimum of 10 feet and brought to a complete stop, prior to entering or exiting through doors.
EMERGENCY PROCEDURES FOR OPERATING DOORS IN HANGAR 870
In the event of electrical failure hangar doors can be operated manually by building manager or CE personnel.
<u>Main door manual procedures</u>
1. Open appropriate center door panel.
2. Pull clutch disengage handle.
3. Manually push door into position.
CAUTION: Only in an emergency situation where tail door chains cannot be reached will the main doors be opened or closed while the overhead door is closed.
<u>Overhead tail door manual procedures</u>
1. Gain access inside bottom of tail door.
2. Pull cable to engage chain drive.
3. Pull chain until overhead door is in position.