

**BY ORDER OF THE COMMANDER  
UNITED STATES AIR FORCES IN EUROPE**

**AIR FORCE OCCUPATIONAL SAFETY AND  
HEALTH STANDARD 91-100**



**UNITED STATES AIR FORCES IN EUROPE  
Supplement 1**

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**Safety**

**AIRCRAFT FLIGHT LINE--GROUND  
OPERATIONS AND ACTIVITIES**

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**AFOSH STD 91-100, 1 May 1998, is supplemented as follows:**

This supplement applies to all United States Air Forces Europe (USAFE) units, including US Air Force Reserve personnel and Air National Guard personnel when assigned to USAFE units. **EXCEPTION:** USAFE personnel using host-nation hangar facilities (i.e. munitions support squadron (MUNSS) and collocated operating bases [COBS]) will seek permission from the host before making any modifications required by this standard to host-owned facilities. Should host-nation officials disapprove the request; units will comply with training, testing, and inspection requirements of this standard. Additionally, the unit will develop operating instructions as required by this standard. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule*.

7.2.2. An aircraft hangar is defined as a building or other structure inside any part of which aircraft are housed or stored, and in which aircraft might undergo service, repairs, or alterations. (Reference NFPA 409).

7.2.3.1.1. (Added) A danger sign (in both English and host nation language) must be mounted next to all hangar door controls to indicate the associated hazard. All sign dimensions, coloring and lettering must conform to AFOSH Standard 91-501, *Air Force Consolidated Occupational Safety Standard*, paragraph 21.4.4.5., Figure 21.1. For signs mounted on hangar doors adjacent to controls, the overall sign dimension will be a minimum of 7 inches x 10 inches (17.8 cm x 25.4 cm) "Danger" must be printed in the upper panel in 1-7/16 inch (3.7 cm) white font. The lower panel of the "Danger" sign must contain the following statement using black font on a white background, "only qualified personnel authorized by their squadron commander or designated representative may operate hangar doors." The lower panel will also refer to this instruction, "IAW AFOSH Std 91-100, paragraph 7.2.3.4."

7.2.3.1.2. (Added) Identification of hazards: All areas posing a potential pinch point or crush hazard must be marked to ensure no one enters the area during door operation. A 5-ft. (153 cm) clear zone must be out-

lined on the floor with a 3-in. (7.6 cm) wide yellow and black striped line. The area inside the clear zone must have identical diagonal lines as required by AFOSH Std 91-501, *Air Force Consolidated Occupational Safety Standard*, paragraph 7.3.1.1.1. All sides visible when approaching hazard area must have a minimum 14-inches x 20 inches (35.6 cm x 51 cm) "Danger" sign painted (in English and host nation language) on the floor just outside of the lined area as required by AFOSH Std 91-501, paragraph 21.4.4.5, Figure 21.1. The sign must be placed so that it can be read when approaching the hazard area. "Danger" must be printed in the upper panel with 2-7/8 inches (7.3 cm) white font. The lower panel of the "Danger" sign must contain the following statement (in English and host languages), "Hazardous area--stand clear during door operations."

7.2.3.1.3. (Added) Where host-nation personnel are employed, ensure hangar door controls and safety features comply with host nation safety requirements when they provide a greater degree of protection than required by AF directives. Additionally, ensure all required host nation inspections are conducted and documented by qualified personnel. When safety features are found inoperative, coordinate with the installation safety office for assistance in developing temporary work around procedures and assignment of a risk assessment code.

7.2.3.3.1. (Added) Publish a wing-level operating instruction outlining responsibilities and procedures for safe operation of electrical and manual hangar door. Develop operating checklists and post checklists at each hangar door control panel. Checklists must clearly outline all safety precautions to be followed during door activation. Coordinate the instruction and checklists through the wing safety office and base civil engineering. AF Form 2510, **All Purpose Checklist**, may be used for development of checklists.

7.2.3.4.1. (Added) Squadron commanders must enforce hangar door training requirements, "only qualified personnel approved by the squadron commander or designated representative will be authorized to operate the hangar doors. Operators will be thoroughly familiar with operating instructions and precautions necessary for safe operation." All personnel requiring access through the hangar doors (not personnel doors) in the performance of routine duties (maintenance, supply and equipment deliveries, etc.) must meet minimum training requirements. All personnel who routinely work in hangar facilities, regardless of Air Force specialty code (AFSC) or duties, must receive training on the hazard associated with the doors as part of their safety, fire protection and health on the job training (commonly referred to as job safety training).

7.2.3.4.2. (Added) Squadron commander or designated representative will ensure a standardized hands-on, on-the-job training (OJT) program is developed for all personnel who operate electric and manual hangar doors. As a minimum, qualification training will include hangar door hazards, emergency procedures, and hangar door operations. Due to the large amount of injuries sustained by personnel manually opening doors, particular attention should be paid to instruct personnel on the proper method for manually opening doors.

7.2.3.4.3. (Added) Ensure shop supervisors update their safety, fire prevention, and health on the job training (commonly referred to as job safety training) outlines to address the hazards associated with hangar door operations and the safety procedures to be followed according to AFOSH Std 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*, paragraph 7.3.

7.2.3.4.4. (Added) Document hangar door operator training in the Core Automated Maintenance System (CAMS) for maintenance personnel with a local course code for each type of hangar door training. Document hangar door operator training on AF Form 797, **Job qualification Standard Continuation/Command JQS**, for nonmaintenance personnel (i.e., personnel not tracked in cams).

7.2.3.4.5. (Added) Squadron commanders will ensure all building custodians conduct and document monthly operational test of door movement, controls and safety features (warning horn, warning light, pressure sensor and limit switches where installed) for electrically-operated doors. Documentation as a minimum will consist of the name of the individual who conducted the test and date conducted. Documentation may be kept in a log, computerized, or affixed next to the hangar door controls. For manually-operated doors the inspection frequency shall be determined locally and include in the wing-level operating instruction. Contact local CE or safety office if unsure about any safety requirements. Submit AF Form 332, **Base Civil Engineering Work Request**, for any deficiencies noted.

7.2.3.4.6. (Added) Periodic inspections of the hangar programs shall be conducted at least annually by a qualified ground safety inspector to ensure compliance. The inspection shall include as a minimum, an assessment of the program's procedures and training requirements, and also, if applicable, the inspection criteria.

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