

Weapons Release Systems Shop. FAC: 2151

CATCODE: 215552

OPR: AF/A4LW

OCR: ACC/A4W

1.1. **Description.** This facility provides space for off equipment overhaul and repair of aircraft gun systems and weapons release systems that include, but are not limited to, bomb ejection racks, weapons pylons, and missile rotary launchers. The facility includes a maintenance area with work benches, gun and/or ejector unit cleaning room, maintenance offices, dispatch office, bench stock room, and storage space for alternate mission equipment (AME), mobility equipment, test sets, and support equipment.

1.2. **Requirements Determination.** The facility maintains aircraft weapons release systems, gun systems, and associated equipment. For support of aircraft with gun systems installed, the facility requires a secure room/vault for storage of aircraft guns. Obtain additional information from AF/A4LW through ACC/A4WM.

1.3. **Scope Determination.** Space requirements are as follows.

1.3.1. Single wing of aircraft not equipped with multiple ejector racks (MER): 980 m² (10,530 ft²).

1.3.2. Single wing of aircraft equipped with MER: 1,070 m² (11,500 ft²).

1.3.3. Storage space, including office space for four people: 560 m² (6,000 ft²).

1.3.4. Additional space for storage of mobility support equipment (when authorized) in high threat areas.

1.3.5. Twelve PAA B-52 bomber units tasked with Heavy Stores Adapter Beams and cluster racks: 557 m² (6,000 ft²), with an additional 465 m² (5,000 ft²) for each subsequent 12 PAA B-52 unit added. This facility includes a 9,070 kg (10 ton) monorail hoist.

1.3.6. Twelve PAA B-1B conventionally tasked unit: 465 m² (5,000 ft²), with an additional 279 m² (3,000 ft²) for each subsequent 1 PAA added. This facility requires a 9,070 kg (10 ton) monorail hoist and floor capable of 1,720 kPa (250 psi) tire footprint, 22,700 kg (50,000 pound) trailer weight, and drive-through capability with 3.65 m x 3.65 m (12 ft x 12 ft) overhead doors.

1.3.7. Twelve PAA B-1 unit: See requirements in paragraph 1.3.6 above.

1.3.8. F-22 and F-35 fighter units require larger AME storage space than legacy fighters. Refer to each aircraft's facilities requirements plan or document to properly size the AME storage area. Factor-in additional storage space for large containers/crates frequently used to ship AME and gun systems managed under the two-level maintenance concept.

1.4. **Dimensions.** See paragraph 1.3 above.

1.5. Design Considerations.

1.5.1. Locate facilities to comply with explosives safety standards (see DoD 6055.9Std and AFMAN 91-201 for further guidance).

1.5.2. Adequate ventilation is necessary in the weapons cleaning room.

1.5.3. Provide floor drains in maintenance areas as required. The floor drain in the cleaning room should be connected to an oil-water separator.

1.5.4. Provide explosion-proof fixtures as required.

1.5.5. A minimum clear ceiling height may be required in the maintenance and storage areas to allow for fire protection systems and/or installation of an overhead monorail hoist.

1.5.6. Provide sufficient compressed air outlets throughout the maintenance area.

1.5.7. Test equipment may have special electrical requirements. Provide grounding, surge protection, and lightning protection system.

1.5.8. Facilities storing aircraft guns require a secure room/vault with high security locks; size is dependent on number of assets stored and caliber of weapons.

1.5.9. An intrusion detection and alarm system may be required in accordance with AFI 31-101.

1.5.10. Large (garage-type) roll-up or sliding doors may be required to facilitate entry of equipment into the maintenance and storage areas.

1.5.11. This facility should be located in close proximity to the operational parking apron and be accessible to vehicles transporting weapons release and gun system components to and from the flight line.