

Combat Arms (CA) Building. FAC: 1718

CATCODE: 171476

OPR: AFSFC/SFXW

OCR: 575 CBSS/ WR-ALC, AFCEC/CFT, AFCEC/COS

1.1. **Description.** This building supports the activities of a CA section.

1.2. **Requirements Determination.** This contains space for classroom instruction, program administration and weapons maintenance, weapons cleaning and degreasing, alarmed weapons and ammunition storage, latrine facilities, and miscellaneous storage. It is used in conjunction with a ground weapons range system.

1.3. **Scope Determination.** The basic facility supports a Small Arms Range System, (CATCODE 179475) with up to 21 firing points. The minimum net space requirement is 167 m² (1,800 ft²). (See ETL 11-1.) Facility components and net space criteria are:

1.3.1. **Classroom.** This is a demonstration/performance classroom. It requires sufficient space to provide each student attending handgun, rifle, shotgun, or submachine gun training with a chair and a table work surface of at least 610 mm x 915 mm (24 in x 36 in). Provide space for each student attending machine gun or mortar training with a work surface of at least 865 mm x 1145 mm (34 in by 45 in). The minimum size classroom is 84 m² (900 ft²).

1.3.2. **Administrative Space.** It provides space for program administrators and combat arms personnel. See [Chapter 6](#) for further guidance on administrative space standards. This Manual supersedes other references for developing administrative space requirements for Air Force facilities.

1.3.3. **Weapons Simulator Room.** This room is specifically designed for commercially purchased projection-based weapons simulators. A five-lane system requires a room approximately 10.7 m x 5.3 m (35 ft x 17.5 ft). A ten-lane system requires approximately 10.7 m x 10.7 m (35 ft by 35 ft). The room should have at least a 2.7 m (9 ft) ceiling height and no windows.

1.3.4. **Weapons Maintenance Shop.** The weapons maintenance shop requires space for workbenches, hand tools, power tools, equipment, and spare parts storage. A range that supports fewer than 5,000 weapons requires a 28 m² (300 ft²) shop. An installation that supports over 5,000 weapons requires 37 m² (400 ft²). Provide a lavatory with potable water in the immediate area.

1.3.5. **Weapons Cleaning/Degreasing Room.** This room accommodates workbenches, degreasing tanks, and spray hoods. Special design requirements include exhaust and ventilation air, vapor-proof electrical fixtures, compressed air service, and solvent-resistant wall and ceiling finishes. The minimum space requirement is typically about 12 m² (130 ft²). A lavatory with potable water should be in the immediate area.

1.3.6. **Alarmed Weapons and Ammunition Storage Room.** The vault provides secure storage for all weapons for which the CA section is responsible and a less-than-30-day supply of each type of ammunition is used on the range. A gross floor area of 14 m² (151 ft²) is usually adequate. Ensure room construction satisfies the

requirements of DoD 5100.76-M, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*, AFI 31-101, and UFC 4-020-01, *Security Engineering: Project Development (FOUO)*, for construction materials and specifications. In general, vault construction should provide a minimum ten minutes of forced entry delay. Typical vault construction features walls, floors, and roofs of 200 mm (7.9 in) concrete reinforced with two layers of number 4 rebar on 225 mm (9 in) centers, fitted with a class V door.

1.3.7. Latrines (Sanitary Facilities). Provide facilities for both men and women. Provide additional cold water hand-washing stations at the entrance to the CA building and at the firing range. The size of sanitary facilities depends upon the class size at that particular installation. Typically, the women's latrine need only accommodate about one-fourth the number of people as the men's latrine. Because instructors have daily contact with lead/heavy metals and may transfer these contaminants by casual contact, hand-washing stations, showers, changing areas, laundry facilities, and lockers should be provided for instructors to remove lead contamination.

1.3.8. Miscellaneous Storage. This provides space for storage of administrative supplies, training aids, classroom equipment, tools, and other miscellaneous items. The size of this area is directly related to the type and quantity of training the CA section conducts.

1.3.9. Student Weapons Cleaning Area/Room. This provides space for students to clean their weapons after completion of firing. It may be an outside covered area or a room large enough to accommodate cleaning tables/benches and cleaning materials for normally expected student loads. If a room is provided, ensure it is well-ventilated.

1.3.10. Range Target Storage and Repair Building. This facility provides space for the secure storage and repair of targets. Provides an electrical power source for operating power tools.

1.4. Dimensions. See [Chapter 6](#) for administrative space standards and ETL 11-18 for operational and special purpose space requirements.

1.5. Design Considerations. A facility supporting a small arms range system of more than 21 firing points requires a proportionately larger classroom and latrine than provided above. Likewise, a facility supporting more than one range system or type of range requires a larger weapons and ammunition storage room. See ETL 11-18 for additional information and guidance.