1.1. **Description.** This facility provides a central location for the common user communications system for intra- and inter-base communications as well as other required communications (exclusive of hardware for navigational aids).

1.2. **Requirements Determination.** Organizations developing requirements for new facilities should request pre-technical assistance from the supporting engineering and installation Command, Control, Communications, and Computers (C4) organizations in accordance with AFI 33-104. During the technical assistance, communications engineers identify the special purpose space requirements for the proposed equipment and facility. For new installations, the Base Private Branch Exchange (PBX) Switching Center (commonly referred to as the base telephone switch) may be leased from a telephone company or it may be government owned. HQ USAF or DoD will determine whether leased or government wired telephone equipment/facilities are used.

1.3. **Scope Determination.** Size of the telecommunications facilities varies with the type of operation and equipment used. Define space requirements in accordance with site concurrence procedures defined in AFI 33-104. The space required to accommodate telecommunications equipment varies with the design and manufacture of the equipment.

1.4. **Dimensions.** The wing communications unit, the STEM-B, and/or STEM-C (MAJCOM) will provide assistance to develop the floor plans and engineering drawings for the equipment, to include the telephone switching equipment room; inside and outside plant test, maintenance, repair, and supply rooms; switchboard room; plant-in-place records and publications room; emergency power room; DISN operations area; an operators lounge; and data communications and networking hardware, to include wiring, data routers, computer file servers, and wire and/or fiber optic patch panels, etc., as required on a case-by-case basis. (T-1).

1.5. **Design Considerations.** Various types of cable from the base transmitter and receiver, as well as other base communications systems, are normally fed through this structure. Control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, teletype, DISNET, etc.) may be exercised from this facility. The building may include space for:

1.5.1. Telephone Exchange 1 (PBX Switching Center). The switching center is composed of switchboard positions, electromechanical and/or electronic switching equipment, emergency power plant, terminal equipment, distributing frames, relay racks, inside cable, wiring, cable vault, Uninterruptible Power Supply (UPS), back-up generator, and other operating appliances.

1.5.2. Defense Switched Network (DSN) Equipment.

1.5.3. Administrative Functions. Includes space for the communications officer and assistants, intra-base radio management, the base message distribution center, crypto storage vault, crypto accounting, commercial communications offices, storage space
for record communications, magnetic tape, data cards, message paper, and message tape. See Chapter 6 of this Manual for administrative space standards.

1.5.4. Maintenance Functions. Includes space for Chief of Maintenance/Chief of Systems Flight, training of systems/support flight personnel, training of maintenance and operations personnel, and programming personnel. See Chapter 6 of this Manual for office and training space standards.

1.5.5. Weather communications equipment where applicable.

1.5.6. Additional equipment required in the base Communications/Computer Facility/Base Network Control Center (BNCC); data communications and networking hardware, to include wiring, data routers, computer file servers, wire and/or fiber optic patch panels, etc.

1.5.7. Maintenance functions require protected parking for general purpose and specialized government owned vehicles and a cable yard.