

Communications Facility. FAC: 1311

CATCODE: 131111

OPR: Air Force Network Integration Center (AFNIC)

OCR: N/A

1.1. Description. This facility provides a central location for the Communications Squadron and the base Communications Focal Point (CFP), common user communications systems for intra- and inter-base communications, other required data and communications systems (exclusive of hardware for navigational aids, transmitter or receiver stations, relay facilities, broadcast radio facilities, or other associated equipment – See **CATCODES 131114 through 134511**).

1.2. Requirements Determination. The CFP often centralizes many communications links and services, both internal and external, that are essential to base operations as a whole. Early planning and preparation are key. Organizations developing requirements for new facilities should request pre-technical assistance from the supporting engineering and installation Command (**38 CEIG/ES**). During the technical assistance, communications engineers identify the special purpose space requirements for the proposed equipment and facility. For new installations, the Voice Over IP (VoIP) switching equipment (commonly referred to as the base telephone switch) for the Switching Center 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. Other requirements for this CATCODE may include commercial Point of Presence (PoP) or Demarcation Point, and data center functions such as server rooms and/or Base Area Network switching equipment. This CATCODE will also provide the central Information Transfer Building (ITB) for the installation, requiring a substantial number of outside plant fiber optic cables and distribution panels.

1.3. Scope Determination. Size of the communications facilities varies with the size of the squadron, and the type of operation and equipment used. Define telecommunications equipment and operations space requirements in accordance with site concurrence procedures defined in **Methods and Procedures Technical Order (MPTO) 00-33A-1001**. The space required to accommodate telecommunications equipment varies with the design and manufacture of the equipment. Table 1.1 below provides space requirements for the Communications Squadron.

1.4. Design Considerations. Special Purpose Spaces required for the Communications Squadron include waiting/reception areas, customer service/support areas, professional staff offices, administrative offices, meeting rooms, break area, classified and unclassified storage, Secret Internet Protocol Routed (SIPR) room, and other specialty spaces as needed. Various types of cable from the base transmitter and receiver, as well as other base communications systems, are normally fed through this structure and generally require significant power conditioning and backup, climate control capacity and security measures. 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. During design phase, the Civil Engineer should require the Architecture and Engineering firm developing and managing overall design to have a Registered Communications Distribution Designer (RCDD) review the final design and drawings.

The wing communications unit, the CSI-B (Base), and/or CSI-C (MAJCOM) will provide assistance to develop the floor plans and engineering drawings for the equipment, to include the switching equipment room; inside and outside plant test, maintenance, repair, and supply rooms; 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 cable and patch panels, etc., as required on a case-by-case basis. Table 1.1 below provides space requirements for the Communications Squadron administrative requirements. The building may include space for:

1.4.1. Telephone Exchange/VoIP: The switching center is composed of the Local Session Controller and Session Boarder Controller Equipment, Commercial Point of Presence, emergency power plant, terminal equipment, and racks, inside cable, wiring, cable vault, Uninterruptible Power Supply (UPS), back-up generator, and other operating appliances.

1.4.2. Information Transfer Building (ITB). Includes cable vault and fiber optic cable distribution panels as part of the overall base fiber optic cable plant.

1.4.3. Defense Switched Network (DSN) node Equipment.

1.4.4. Administrative Functions. Includes space for the communications officer and assistants, intra-base radio management, the Communications Security (COMSEC) processing center (including cryptographic storage vault and COMSEC accounting), commercial communications offices, storage space for record communications. See Table 1.1 below and Chapter 6 of this manual for administrative space standards.

1.4.5. 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.

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

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

Table 1.1. Space Requirements for Communications Squadrons

Offices/Functions	Office Type ¹
Private Offices	
Commander/Director, Deputy	C
Flight Chiefs	D
Squadron Superintendent or CEM, 1 st Sgt	D

Open Office Space		
Key Supervisors	E	
Design Engineer	E	
Full Time Staff	F	
1 Task Station for 4 IMAs	H	
Telephone Operator Services Shift Position	H	
Special Purpose Spaces – also see Tables 1.3 and 1.4	m²	ft²
Waiting Area (per waiting space)	1.9	20 sf
Break Room/Kitchen Vending (per staff member, min 50 SF)	0.28	3 sf
Meeting Space (includes conference and team rooms)	See Table 6	
SIPR Room (20 sf/position or 80 sf min)	1.9	20 sf
Mail Room (user justified)		
Large Format Plotter (D size 60 sf EA)	5.57	60 sf
Workbench (as needed for IT or System Maintenance activities)	5.57	60 sf
Server Racks (4 sf each, double racks at 8 sf each)	0.37	4 sf
Classroom (up to 25 people – 30 sf/person)	2.79	30 sf
Classroom (25 – 50, up to 75 people – 25 sf/person)	2.32	25 sf
Computer Training Classroom (30 sf/per person)	2.79	30 sf
Classified Destruct Room (user justified)		
Data Center (user justified)		
Equipment/System/Cable Storage (user justified)		
Computer Secure Staging and Storage Area (user justified)		
GSA Safes (6 sf EA)	0.56	6 sf
Document/Oversize File Storage (user justified)		
Storage – non administrative (user justified)		
Crypto Vault (user justified)		
Systems Maintenance (Satellite, VIIDS, etc.) (user justified)		
CFP (Maintenance Operations) Desk / Help Desk (user justified)		
Cable Vault (user justified)		
Switch Gear (user justified)		
Main Distribution Frame (user justified)		
UPS (user justified)		
NOTES:		
1) See FC-6, CG-61 Admin Overview Tables 1.3, 1.4 and 6		