

DoD Space Planning Criteria for Health Facilities

Information Management

2.4.1. PURPOSE AND SCOPE:

This document specifies the space planning criteria for information systems in DoD military facilities. These criteria provide the space necessary to adequately accommodate information systems management operations, telephone switchboard, central control and computer center.

2.4.2. DEFINITIONS:

Active Data Storage Room - Area where tape or removable disk backups of active data files are stored.

Ambulatory Data System (ADS) - Provides ambulatory data as a by-product of the health care delivery process. Captures patient specific encounter, diagnostic, and treatment data.

Archived Storage - Secured area for storage of inactive media such as microfiche and tapes used as backup. Also included in this area are original copies of PC software.

Audiovisual Distribution System – A separate communications equipment room, with sufficient space for personnel circulation and equipment maintenance, will be provided in hospitals and medical centers for the head end equipment, such as television, public address and program distribution, radio, and data communications equipment room. This room should be adjacent to the telephone systems equipment room. This function will be supported by a communications room in clinics.

Central Alarm Room: A central room for wall mounted graphic displays, annunciator displays and other monitoring and control equipment.

Central Reproduction – A central copy area for the entire medical facility, for large scale reproduction requirements not normally performed in smaller department copy areas.

Centralized Credentials and Quality Assurance System (CCOAS) - A system, which supports DoD's quality assurance program by maintaining the credentials status of DoD healthcare providers.

CHAMPUS Detail Information System (CDIS) - Supports online, near real-time accessing and retrieval of individual detailed CHAMPUS information.

Communications Room – A telecommunications room is the termination of horizontal and backbone cables to compatible connecting hardware. A telecommunications room also provides a controlled environment to house telecommunications equipment, connecting hardware, and splice closures serving a portion of the building. The telecommunications room provides for the administration and routing of the equipment cable/cords from the horizontal cross connect to the telecommunications equipment.

Composite Health Care System (CHCS) - A DoD-wide Automated Information System (AIS) that includes the following modules: Patient Appointment System (PAS), Patient Administration (PAD), Laboratory (LAB), Radiology (RAD), Clinical Dietetics, Pharmacy (PHARM), and Nursing.

Composite Health Care System II (CHCS II) - Designed to replace CHCS, this composite system will provide integrated support to the clinical delivery processes within MHS MTF's including all aspects of ancillary, order entry, and documentation in peacetime and wartime.

Computer Room - Space where the main computers and associated peripherals (e.g. tape drives, disk drives, line printer, etc.) are housed.

Note: The following is not a comprehensive list, but includes some items. There are other items that may be included. Verify the latest systems. Some of the systems that may be included in the computer room are:

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SNPMIS (Special Needs Program Management Information System), PHCA (Preventative Health Care Application), NMIS (Nutrition Management Information System), DVIS (Defense Vision Information System), DOEHRS (Defense Occupational and Environmental Health readiness System), DBSS (Defense Blood Standard System), CIS (Clinical Information System), CHCS II (Composite Health care System II), and CCEP (Comprehensive Clinical Evaluation Program).

Defense Medical Logistics Standard System II (DMLSS II) - This composite system will provide integrated support to all logistics functions within the MHS environment including all aspects of facilities, equipment, and materiel management across the operational continuum.

Defense Medical Human Resource System (DMHRS) - Provides automated system support for calculating military and civilian labor time and cost for DoD health care activities.

Emergency Power - A system of electrical feeders and branch circuits meeting the requirements of the National Fire Protection Agency (NFPA 70), National Electric Code, and intended to supply alternate power to a limited number of prescribed functions vital to the protection of life and safety, with automatic restoration of electrical power within 10 seconds of power interruption.

Local Area Network (LAN) - A means of connecting personal computers and/or terminals and sharing application programs, data and email through various cabling and switching themes so that users can communicate with each other or share common information. A LAN typically exists in a single building, hence the term "local."

Medical Expense and Performance Reporting System Expense Assignment System, Version IV (MEPRS EAS IV) - Provides support to standardized reporting of expenses, manpower, and workload data at the work center level within DoD facilities.

Medical Information Systems - An integrated computer system consisting of individual specialty applications modules; for example: Pharmacy, Radiology, Laboratory, Financial Management, and Records Management.

Multimedia Self-Help Area - An area used by all hospital staff in creating a wide variety of graphic materials such as posters, flyers, overhead transparencies, photographic slides. Typically this area would have PC's with appropriate graphics applications software to produce charts and graphs, as well as appropriate peripheral devices such as color printer/plotters, laser printers, page readers, etc.

PC Configuration Area - The area in which personal computers are assembled, tested, and repaired. Testing software is accomplished in this area as well.

Multiplexor - A device that transmits two or more signals on a single circuit or frequency.

Personal Computer (PC) - A computing system designed for individual use.

Peripheral Device - Any accessory device such as a printer or modem that is externally connected to a computer.

Uninterruptible Power Supply (UPS) - A system of batteries and capacitance power storage devices to preclude failure of critically important information processing systems. During an electrical power failure, it provides continuous power to a computer system, as well as and other essential building components, for a specified period of time.

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2.4.3.POLICIES:

Communication Rooms: Include these rooms as programmed space (separate from electrical or mechanical areas) and provide sufficient quantity throughout every medical facility. "EIA/TIA 569" (or most current regulation) requires 110 nsf of communications room per 10,000 gross square feet of building area.

Central Alarm Room: A central alarm room will be provided in hospitals and medical centers. This room size will be based on the quantity of wall mounted graphic displays, annunciator displays and other monitoring and control equipment. Some examples of equipment in this room are: EMCS, elevator monitor, fire protection alarms, security systems, and medical gas alarms.

Central Computer Area: Network as many departments into one central computer area as possible, including dictation, lab, pharmacy, radiology services, and patient records systems. This would help consolidate staff and computer support areas. Other areas that may also be located in Information management are: paging, and teleconference rooms (VTC). Refer to Section 5.4 for Radiology and Nuclear Medicine computer requirements, as well.

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.1.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for Section 2.1, General Administration.

2.4.4. PROGRAM DATA REQUIRED:

Program Data for Communications and Information:

Computer Room

List all approved systems which require a central server and/or a computer in a central computer room under the control of the MTF Information Management Officer.
Estimated square footage of each system listed above (note some systems can be loaded onto the same computer).

Are computers configured and is software installed and tested on computers at this MTF?

How many personal computers are projected to be in the MTF?

Is training on computer systems and/or software provided in this facility?

How many separate types of software require that MTF personnel receive training (CHCS, DMLSS, etc)?

Does this facility include a requirement for data archiving?

Is there a need for uninterruptible power supply (UPS)? How many UPS components?

Storage (types of requirements? Explain).

Is there a multimedia self-help area?

If training facility, projected number of classes per year?

If training facility, average number of students per class.

Will the help desk/tech. support be on site or at a remote location?

Will radiology/nuclear medicine computer systems (PACS/DINPACS) be located in Information Management or in Radiology/Nuclear Medicine?

Will there be a need for a central reproduction room for the entire medical facility?

Will there be a need for a separate diagnostic video tele-conferencing room (VTC)?

Is there a requirement for emergency power in the main computer room, in the communications room, in the central alarm room, in the audiovisual distribution systems room?

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2.4.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>Administration</u>			
Chief Information Management	11.15	120	One per MTF when FTE projected.
Secretary	11.15	120	When FTE projected. Includes waiting area
Information System Security Officer	11.15	120	One per MTF when FTE projected.
NCOIC/LCPO/LPO Office	11.15	120	Provide one per FTE projected.
Computer Operator(s) Office(s)	5.57	60	Minimum, or 60 nsf per projected FTE operator.
Help Desk/Tech.	5.57	60	60 nsf per each FTE projected, if located on site.
Hospital Information Volunteer Coordinator			Refer to Patient Services, Chapter 5.8, for criteria.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
<u>Staff Support</u>			
Conference Room/Library	23.25	250	Provide separate conference room only if there are 14 or more FTEs assigned. If less than 14 FTEs, delete conference room and add 150 NSF to lounge and combine conference/lounge in to one space.
Central Reproduction	11.15	120	Minimum. Add 20 nsf for every 100 FTEs' (for entire facility) or fraction thereof, above the first 100 FTEs. Provide one per MTF. Refer to Section 2.1: provide one central reproduction area in either this section or Section 2.1, but not both.
Office Automation Support Room	11.15	120	Location for Information Management department copy machine, fax machine, printer, file cabinet and supplies.
Forms and Storage	13.94	150	One per MTF. Includes space for forms and DoD/Using Service manual storage.
Forms Clerk	5.57	60	60 nsf per each FTE projected, if assigned.
Equipment Supply Storage	9.29	100	Minimum. Add 20 nsf for every 100 FTEs' or fraction thereof above the first 100 FTEs.
Active Data Storage Room	9.29	100	One per MTF.

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	m ²	nsf	
Staff Support (continued):			
Archive Storage	9.29	100	If archiving is accomplished in the MTF.
Computer Equipment Storage	18.58	200	Minimum, if computer configuration and repair occurs at the MTF. Add one nsf for each computer in the MTF over 200.
PC Configuration / Repair Area	9.29	100	Minimum. One station when personal computers are configured at the MTF. Add an additional 50 nsf for every 50 personal computers in the MTF in excess of 100. Maximum 300 nsf.
Staff Lounge		varies	See section 6.1.
Staff Lockers		varies	See section 6.1.
Staff toilets		varies	See Section 6.1
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See section 6.1.
Computer Room:			
Medical Information Systems	92.91	500	Minimum. Provide 500nsf for MTF's less than 40,000 gsf. Provide an additional 35 nsf for each additional 1,000 gsf of MTF building area greater than 40,000 gsf. 2000 nsf maximum.
Radiology Computer Systems (PACS)	37.16	400	Minimum. Provide 400 nsf for MTF's with 6 or less radiology rooms. Add 50 nsf for each additional radiology room. Determine location of system, either in this department or in the Radiology/Nuclear Medicine.
Computer Room Support:			
Computer Training Class			See section 2.3 Education and Training.
Storage Area	9.29	100	One for training material.
Multimedia Self-Help Area	14.87	160	Provide only if required. For use by all staff in creating presentations.
Telephone Switch Room	37.16	400	Provide if telephone switch programmed.
Communications Room	10.22	110	Minimum. Distributed throughout the facility. 1 room per 10,000 nsf of building space. Consult EIA/TIA 569. Maximum runs to this room should not exceed 295 feet.
Audiovisual Distribution System	11.15	120	Minimum. Design of the room including utility support shall be in accordance with EIA/ TIA 568/569. A separate audiovisual distribution system room will be provided in hospitals and medical centers only.

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Computer Room Support (cont'd):			
UPS Area	5.57	60	Minimum. Provide 60 nsf per each UPS component. Verify if UPS required. Typically provided within the computer room.
Central Alarm Room	11.15	120	Minimum. Provide in hospitals and medical centers. Also refer to Sections 3.5 and 5.2. Provide this room in only one location. If function is required, a special study is recommended to ensure that all required functions can be accommodated in recommended space.