



U.S. Army Corps
of Engineers
Huntsville Center

Army Facilities Components System

Background

It became apparent during WWII that the Army needed an improved emergency construction support system to enhance planning and execution of the construction missions in the theater of operation. The ultimate goal was to develop standard designs and provide a common base for planning, logistics support, and construction.

In 1951, the Office of the Chief of Engineers was tasked to develop a system to facilitate planning and to serve as a construction guide to engineer field units. Later that year, the Engineer Functional Components System—later Army Facilities Components System (AFCS)—was established as a set of standard facility designs managed and supported at CE Headquarters. The AFCS design and support mission was transferred to Huntsville Center in 1978. Program management remains at CE Headquarters.

Mission

The AFCS is an engineering construction support program for Army mission construction in a theater of operations and for other OCONUS requirements. It also supports emergency construction during disaster relief in any area when required.

It provides planning guidance, construction drawings, bills of material, and labor and equipment estimates. The system also addresses different climatic conditions and construction standards ranging from initial engagement through prolonged conflict and sustainment.

The Center's mission is to maintain and modernize the AFCS information contained in the system and to distribute it to all military engineer units on the distribution list or that request the system and express a valid need.

Because of the large volume of design and logistics data, AFCS is supported by extensive automation for both CAD (computer aided design) and database management requirements. Until 1995, the AFCS designs and related information were provided to the military engineers in a series

of eleven Army Technical Manuals. All the information from the Technical

This system provides a standard for construction and engineering for theater of operations and other OCONUS requirements.

manuals is now provided on a CD ROM that can be set-up and used on common office computer equipment. This new user system is titled Theater Construction Management System (TCMS). In addition to the AFCS design drawings and related data, TCMS includes commercial software and government-developed programming to facilitate the functions of planning, logistics coordination, design, site adaptation, communication, construction management, and reporting.

Since its inception, AFCS has grown into a military engineering construction support system that includes construction drawings, and computerized information for about 4,400 facility designs and 750 installation designs. Some of the designs included in the system are troop camps, hospitals, bridges, marine terminals, port facilities, petroleum storage and distribution facilities, and ammunition storage facilities.

Huntsville Center's responsibilities include:

- developing budgets;
- preparing and conducting industrial advancements in technology;
- planning projects and programs;
- arranging and monitoring periodic exercises of the system;
- developing and coordinating detailed scopes of work for additions and revisions;
- negotiating and awarding design contracts;
- coordinating work with Corps labs;
- preparing designs, bills of material, and labor and equipment estimates;
- reviewing designs for technical and functional adequacy;
- automation support for AFCS and TCMS Programs;
- working with other Army and Department of Defense agencies on common designs and logistic data, and
- distribution and user introduction for TCMS.

Broad Customer Base

The system is used by the Joint Chiefs of Staff, major Army commands, agencies and schools, the Navy, Air Force, Marines, and others for their planning, estimating, training, stockpiling, and actual construction activities.

Another significant use of the AFCS is to help determine the engineer force structure requirements to support the planned tactical forces within a theater of operations.



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