

**ANNEX J**  
**TRANSITION PLAN**

## **TRANSITION PLAN**

**Developed By:**

**The U.S. Army Corps of Engineers (USACE) Finance Center**

**31 July 1998**

**CORPS OF ENGINEERS ENTERPRISE MANAGEMENT  
INFORMATION SYSTEM  
(CEEMIS)**

**TRANSITION PLAN**

**TABLE OF CONTENTS**

	<u>Page</u>
<b>SECTION 1.0 INTRODUCTION</b>	
1.1 Purpose .....	1-1
1.2 Scope.....	1-1
1.3 References .....	1-1
1.4 Project Classification.....	1-1
1.5 Transition Background.....	1-2
1.5.1 Interfaces .....	1-2
1.6 Objectives .....	1-2
<b>SECTION 2.0 STRATEGY</b>	
2.1 Strategic Planning .....	2-1
2.1.1 Hardware .....	2-1
2.1.2 Software .....	2-2
2.1.3 Database .....	2-2
2.1.4 Automated Data Processing Telecommunication (ADP/T) .....	2-2
2.1.4.1 Software Support Resources .....	2-2
2.1.4.2 Consumable Resources.....	2-3
2.1.5 Facilities and Security.....	2-3
2.1.6 Staffing .....	2-3
2.1.7 Training .....	2-3
2.2 Security Considerations.....	2-3
2.3 Personnel .....	2-5
2.4 Documentation.....	2-5
2.5 Deployment .....	2-6

**TABLE OF CONTENTS**  
**(Continued)**

	<u>Page</u>
<b>SECTION 3.0 TRANSITION CONTROL AND SCHEDULE</b>	
3.1	Transition Control and Milestone ..... 3-1
3.2	Control Mechanisms ..... 3-1
3.2.1	Acceptance Testing ..... 3-1
3.2.2	System Validation Review (SVR)..... 3-1
3.2.3	Independent Verification and Validation (IV&V) ..... 3-1
3.2.4	Project Reviews ..... 3-2
3.3	Transition Schedule..... 3-2

**LIST OF FIGURES**

<u>Figure No.</u>	<u>Page</u>
1-1	CEEMIS INTERFACES ..... 1-3

## SECTION 1.0 INTRODUCTION

**1.1 Purpose.** This Transition Plan provides the information and guidance for managing the implementation to the Corps of Engineers Enterprise Management Information System (CEEMIS). CEEMIS was approved initially as a replacement to the existing upward reporting capabilities in the Corps of Engineers Management Information System (COEMIS) Finance and Accounting (F&A) automated information system (AIS). However, since COEMIS-F&A is no longer a viable Corps system, this transition plan does not address the conversion from one to the other, but the preparation required to ensure readiness for deploying the system at the various sites.

**1.2 Scope.** CEEMIS will be developed to provide the following improvements:

- Communicate with legacy systems in legacy file formats
- Handle multiple external file formats
- Preserve linkages between financial data integrity and accounting and reporting systems
- Supplant some existing report transmissions
- Handle interfund transactions
- Perform Treasury reporting.

**1.3 References.** The Corps is affected by a number of laws, executive orders and agency regulations which control federal Information Resource Management (IRM). The following laws and regulations affect CEEMIS:

- Public Law 96-511 - The Paperwork Reduction Act of 1980
- Public Law 99-500 - Paperwork Reduction Reauthorization Act of 1986
- Public Law 100-235 - Computer Security Act of 1987
- Federal Information Resources Management Regulation (FIRMR)
- Federal Acquisition Regulation (FAR).

Additionally, AR 25-3, Army Life Cycle Management of Information Systems and ER 25-1-2, Life Cycle Management of Automated Information Systems (AIS) provide overall policies, guidelines, and responsibilities for the development and management of information systems that comprise the Information Mission Area (IMA). It also details the Life Cycle Management (LCM) phases and the commensurate, required management reviews.

**1.4 Project Classification.** CEEMIS is a Class VI(a) system which indicates a cost threshold of 1 to 2.5 million dollars in program cost. The program manager is Thomas L. Brockman and other program proponents include:

- CEEMIS Proponent – Stanley Wrenn
- Materiel Developer - ???

With appropriate maintenance, CEEMIS can expect a functional life span of ten (10) years. After such time, any system will require major rewrites and/or upgrades to reflect the new technological advances that are available.

**1.5 Transition Background.** CEEMIS is fulfilling requirements that were partially reformed by systems that are no longer viable. As a consequence, there will not be a formal transition, per se.

**1.5.1 Interfaces.** CEEMIS will interoperate with other systems via automated interfaces. Each interface system will operate independently of CEEMIS. Data will be automatically transferred to and from CEEMIS, where applicable, as depicted in Figure 1-1. CEEMIS will offer electronic interface capability with the following systems:

- Corps of Engineers Financial Management System (CEFMS)
- Project and Resource Information System (PRISM)
- Defense Finance and Accounting System (DFAS)
- Program Budget Accounting System (PBAS)
- ELECTRA
- Government On-line Accounting Link System (GOALS)

**1.6 Objectives.** CEEMIS will provide comprehensive capabilities to manipulate financial data and interface with other automated information processing systems. Objectives will be geared toward two mission areas:

- To provide an initial upward reporting financial information capability. The automated system will consolidate, standardize, simplify, and improve automated financial reporting support for all CE Field Operating Activities (FOA's), Major Subordinate Commands (MSC's) and the OA level. CEEMIS will supplant the many systems throughout CE that currently support this business function.
- To receive and share data and information beneficial to F&A processes with other major business systems, agencies and entities.

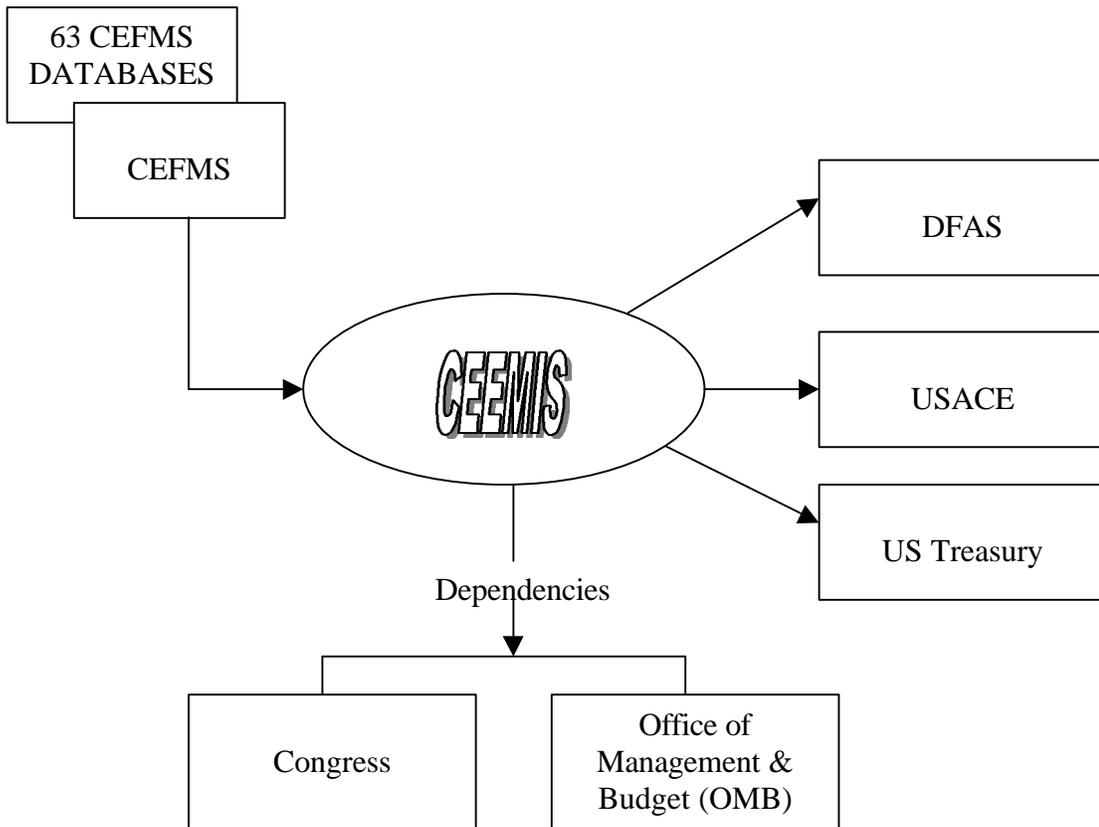


Figure 1-1. CEEMIS INTERFACES

## SECTION 2.0 STRATEGY

**2.1 Strategic Planning.** The CEEMIS design will serve as a corporate-level database ensuring the timeliness and integrity of financial data and providing simple access to one common location for all Corps financial reports, execution data, and managerial performance indicators. CEEMIS will provide the capability for CEEMIS sites to generate and submit financial reports via database table-to-table transfers without the need for data files or human intervention. Reports will be generated directly from CEEMIS databases.

This system will be designed to provide essential and accurate data. It will significantly speed up the flow of complete and accurate electronic upward reported financial information transactions through its mechanized pipeline, while eliminating the paper flow of hard copy vouchers and reports from financial reporting to accountable centers. CEEMIS will provide visibility to all Corps of Engineers (CE) activities while significantly reducing operating costs.

CEEMIS will be comprised of three increments. The first increment is Phase 1 and it will be developed to provide an initial upward reporting financial information capability with the goal of improving the quality of upward reported financial information data and reducing cycle time, paper flow, and handling costs. Increment Phase 2 will provide a complete financial reporting capability that will develop and implement a complete system that handles all CE-level financial reporting core functions. Increment B-1 is the third increment that will provide a reengineered (P2) system using Oracle's Designer 2000 CASE tool suite.

There are seven distinct planning areas that require constant review to ensure a smooth implementation. These areas include:

- hardware
- software
- database
- interface automated data processing/telecommunication (ADP/T)
- facilities and security
- staffing
- training

The paragraphs below provide an explanation of the role each component plays in the implementation of CEEMIS.

**2.1.1 Hardware.** CEEMIS will operate in the existing Corps of Engineers Automation Plan (CEAP-IA). This network links two regional processing centers and creates a data communications network used for all Corps digital communication traffic. This network consists of a backbone segment, which acts as a highway connecting the major nodes on the network to the three processing centers, and "tail circuits". The tail circuits will connect the remote Corps locations to the backbone segment and provide them with processing capability. The following hardware is necessary to support CEEMIS:

- SUN 2000 at CPC23

- IBM Pentiums
- CE Local Area Network (LAN) running Novell Netware
- Laser printers
- High-Speed line printers.

**2.1.2 Software.** The development of the CEEMIS application imposes the following requirements:

- New code will be structured for maximum maintainability. This will be accomplished through the use of modern structured techniques, with emphasis on embedded comments.
- Complete life cycle documentation will be developed based on AR 25-3 and ER 25-1-2 and other prescribing Department of Defense and Army regulations.
- Planned CEEMIS functions and capabilities will be added during post-deployment. Additional functions, features and enhancements will be incrementally added, subject to the decision of the Configuration Control Board (CCB)

**2.1.3 Database.** The initial CEEMIS database will result from a live execution of CEEMIS programs to extract desired data from CEFMS.

**2.1.4 Automated Data Processing/Telecommunication (ADP/T).** The CEEMIS architecture is designed to meet the following interface requirements:

- Enhanced operability via local area networking at each site
- Added capability of intrasite operability between each site and its regional processing center.

Components of the CEEMIS architecture include a data communications network to be used for all Corps digital communications traffic. The CEAP-IA network will link together the two Corps-owned Processing Centers (PCs), Central (Vicksburg, MS) and Western (Portland, OR). The network is composed of a backbone segment and "tail circuits". The backbone is essentially the data communication highway connecting major nodes on the network and the regional processing centers. The tail circuits provide more remote locations or nodes with connectivity to the backbone.

**2.1.4.1 Software Support Resources.** The following software and communications are necessary to support CEEMIS.

- ORACLE 7.3 Relational Database Management System (RDBMS)
- TCP/IP Protocol
- Graphical User Interface (GUI)
- Powerbuilder 5.03
- PFC
- PL/SQL, Cognos Impromptu, Powerplay

**2.1.4.2 Consumable Resources.** In addition to the resources mentioned in paragraph 2.1.4.1, other consumable resources include:

- 3.5" Floppy Diskettes
- Paper (132 Column)
- Laser Cartridge/Printer Ribbon.

**2.1.5 Facilities and Security.** No facility changes should be necessary since the CEEMIS required hardware already exist as part of the Corps of Engineers Automation Plan (CEAP-IA) platform.

**2.1.6 Staffing.** The U.S. Army Corps of Engineers Finance Center will continue to analyze personnel requirements against current and projected mission and workload. Any change recommendations will be documented with review and approval.

**2.1.7 Training.** TBP

**2.2 Security Considerations.** CEEMIS will serve as the Army Corps of Engineers upward reporting system. It also will allow system interfaces to electronically exchange data with existing and legacy government information systems thus supporting time and resource conservation.

a. System Environment and Special Considerations:

- (1) Sensitivity Designation: Unclassified-Sensitive Two (US-2).
- (2) Operational Factors Affecting Security: To access CEEMIS, user IDs must be obtained from the User ID Password System (UPASS) Administrator. Additionally, a password must be granted to "log in" CEEMIS.

b. Protection Requirements:

- (1) Integrity - Primary
- (2) Availability - Primary

d. Security Mode of Operation: System High Mode

e. Minimum Trusted Class. IAW AR 380-19, Information Systems Security, and DoD 5200-28 STD, DoD Trusted System Evaluation Criteria, minimum trusted system class C2 for the Automated Information System (AIS) is met.

To restrict unauthorized modification of cost-sensitive information and to help preserve the integrity of the data, the following internal system controls have been established:

- Each prospective user must have a valid USERID/PASSWORD which is obtained from the local terminal area security officer (TASO), Information Systems Security Officer

(ISSO), or the UPASS Administrator

- Users must be approved by the activity responsible employee as a valid CEEMIS user after the user logs on CEEMIS and establishes the user ID information and requests access
- Users are restricted use of CEEMIS menu options other than option 2 to request access or option 1 to exit until approval by the responsible employee. All users approved for access to CEEMIS will be given an access level depending on the level of information needed to access. This places the security on the data being reported to the individual(s) that have a “need to know”.

All users will be given one of the following levels of access:

- District Level (1) – A user granted district level access will have the capability of creating/updating, viewing, and generating report data for their responsible field operating activity (FOA). The district level team member will be required to maintain the points of contact table for their responsible reports. The CEEMIS POC for the field activity will be required to maintain the FOA table for their applicable FOA.
- Division Level (2) – A user granted division level access will have the capability of viewing and generating report data for the districts within their division. An operating division team member that will be creating/updating report data for their districts will need to be identified as a district level employee.
- Command Level (3) – A user granted command level access will have the capability of viewing and generating report data for the entire command. The USACE Finance Center (UFC) team members will be given the UFC indicator and thus will have the capability of creating/updating, viewing and generating report data for any activity within the command. The UFC team member will be required to maintain all system command tables such as appropriations, and FOA codes.
- Database Administrator Level (4) – A user granted database administrator (DBA) level will have the capability of performing any all functions within the system. The DBA will be the owner and manager of all tables within the system.

A user granted a level 3 or 4 will also be granted an additional indicator as to whether or not they are employed at the UFC or the Headquarters, U.S. Army Corps of Engineers (HQUSACE).

CEEMIS has been designed to allow team members to generate reports for a specific District (FOA), an entire Division, a Laboratory or the entire Command based on the permissions granted. Report levels are based on the “need to know” requirement.

CEEMIS has been designed to work via menu choices or using a smart code to go directly to the point on entry. Smart code use is much more efficient. The user will need to utilize the F4 list from the smart code field until familiar with the application.

A risk analysis will be performed to assess the vulnerabilities of the system:

- Due to strict operating procedures and other security measures in place, all data is considered to be within an acceptable degree of risk. All economically feasible actions have been implemented to provide maximum protection for hardware, software, files, site-generated material and material storage.
- If changes occur and create risks in the computer's area, the ISSO will decide whether to continue operations. The ISSO has the authority to terminate operations if there is an unacceptable security risk. The Information Systems Security Manager (ISSM) will be notified of such instances.
- Any planned changes to the physical structure, relocation or additions to this AIS will be reported to the ISSO and the ISSM.
- Personnel will be familiar with and comply with the Standard Operating Procedure (SOPs). The strict access control policy (the areas monitored by the ISSO and/or TASOs) provides additional security of the AIS and data.

**2.3 Personnel.** The primary group of users is located at sites that supply upward reported financial information transactions to CEEMIS. They have explicit roles, tasks, and needs that necessitate the use of CEEMIS to complete their job functions. These users may be physically located at a center, financial reporting office, or entitlement stations, but are affiliated with financial reporting or accounting areas.

- Primary functional user roles include:
  - Paying Center User
  - Financial Reporting Station User
  - Accounting Center User
  - Financial Reporting Center User
  - Security Assistance User
  - HQ User
- Primary supporting user roles include:
  - Interface File Manager
  - Center Reference Table Administrator
  - CEEMIS System Administrator
  - CEEMIS Center Administrator

**2.4 Documentation.** Currently, there is a CEEMIS Users Manual which includes the following sections:

- CEEMIS Requirements
- CEEMIS Login Procedures

- CEEMIS Main Menu
- CEEMIS Access Request
- CEEMIS Access Approval/Revocation
- Statement of Transactions
- Statement of Accountability
- Embassy Report
- Accounts Receivable Due from the PUB
- Civil General Ledgers
- Prompt Pay Report
- State Pay Report
- Check Issue Report
- Financial Position/Balance Sheet (ENG3017) Report
- Results from Operations/Income Statement (ENG3021)
- Warehouse Activities (ENG3046)
- PRIP Report
- FOA Data Manager Functions
- Report on Budget Execution (SF133)
- Statement of Accountability & Transactions (SF224)
- Natural Resource & Recreation Management Cost Report (RCS-DAEN-RMF-22)
- Status of Civil Work Allowances (ENG3011A)
- HQUSACE Command Level Reports
- UFC Data Manager Functions
- HAF 7111 Air Force Report
- HAF 7801 Air Force Report
- Information Cost Report (IMCOST) 66B
- Revolving Fund Cost Report (RFCOST)
- Plant Replacement Increment Report (PRIP)
- Civil Works Construction Report (CIVCON)
- ENG3011B
- Schedule - D
- Supervision and Administration (S&A) Report
- Problem Reporting System

**2.5 Deployment.** All CEEMIS sites will be fielded for Beta testing by September 1998. After Milestone III approval, these sites will be considered formally deployed sites.

## SECTION 3.0 TRANSITION CONTROL AND SCHEDULE

**3.1 Transition Control and Milestone.** Because CEEMIS does not replace any major automation system in the CE, the following standard phases of transition are not applicable:

- Phase I – Current Environment
- Phase II – Preparation for Installation
- Phase III – Initial Installation
- Phase IV – Production Environment
- Phase V – Application Software Migration
- Phase VI – Software Rehost and Cut Over
- Phase VII – Capacity Upgrade
- Phase VIII – System Upgrade

**3.2 Control Mechanisms.** The control mechanisms being applied to this “transition” include:

- Acceptance Testing
- System Validation Review
- Independent Verification and Validation (IV&V)
- Project Reviews
- Independent Operational Test & Evaluation (IT&E)

These control mechanisms are consistent with the requirements and directions provided in the Project Management Plan, Acquisition Plan and the Test and Evaluation Master Plan.

**3.2.1 Acceptance Testing.** As each site comes on-line, a preliminary test for functional processing capability should be conducted. An informal test on randomly selected processes will be performed. Any deficiencies will be documented and corrected prior to live production.

**3.2.2 System Validation Review (SVR).** An SVR will be conducted after the application software has been fielded. This review will ensure efficiency of services to the functional users. At this review, all reports and the tests results will be analyzed to ensure deficiencies and discrepancies are corrected.

**3.2.3 Independent Verification and Validation (IV&V).** An IV&V should be performed to ensure that CEEMIS meets the functional and technical requirements as specified. The software components to be included in the IV&V review include:

- Control and support software
- Off-the-shelf software and tools that are purchased
- Internal software systems.

The IV&V technical analysis responsibilities will be as follows:

- Requirements analysis
- Design analysis
- Traceability analysis to ensure the requirements are reflected in the design and the code
- Interface analysis at all levels
- Analysis and development of test documentation
- Unit analysis and testing in the form of code walkthroughs and performance analysis
- Integration analysis and testing.

Support tools will be utilized by the IV&V contractor as directed. The IV&V activities that these tools will support include:

- Risk analysis
- Requirements traceability
- Data base design verification
- Data element definition verification
- Source code verification
- Message data transfer simulation
- Test data and test scenario generation.

**3.2.4 Project Reviews.** Reviews have been mandatory and necessary throughout the CEEMIS life cycle. Presently, routine review procedures include In-Process Reviews (IPR) which are held on an as needed basis. Additionally, the status of the seven planning areas (identified in Section 2.0 of this document) is reported at these reviews were applicable. Any issues or concerns will be addressed and corrective actions will be proposed. These reviews will occur on an as needed basis.

Additionally, the Independent Operation Test & Evaluation (IOT&E), will test and evaluate CEEMIS from an operational perspective. Prior to testing, an operational test readiness review (OTRR) will be held. Other readiness reviews will occur prior to the Independent Operational Test (IOT). Future project reviews will concentrate on anticipated areas of change including:

- Database:
  - Oracle Version 7
  - Graphical User Interface (GUI)
- Hardware:
  - SUN 2000 at CPC23
- CEEMIS software: Modernization

**3.3 Transition Schedule.** The “transition” schedule is the same as the deployment schedule.