



**US Army Corps
of Engineers**
Construction Engineering
Research Laboratory

USACERL TECHNICAL REPORT P-90/04, VOL I
March 1990

2

AD-A220 950

Evaluation of the Consolidation of Real Property Maintenance Activities (RPMA) in the U.S. Army Engineer Activity, Capital Area (USAEA,CA), Volume I: Executive Summary

by
James Harold Johnson

The U.S. Army Engineer Activity, Capital Area (USAEA,CA) is a test organization for demonstrating the centralization of Real Property Maintenance Activities (RPMA) in the National Capital Region. This report reviews the development and operation of USAEA,CA, evaluates performance of the total organization, and analyzes its functional components, including financial, supply and procurement, information service, and RPMA management. This analysis covers USAEA,CA for its first 8 years of operation (1980-88), during which Phases I and II have been implemented.

A benefit of the centralized RPMA provided by USAEA,CA has been its potential for sustained support to both planned and unplanned levels of customer needs. A centralized RPMA will always have command of a greater depth of resources than is possible with locally maintained RPMA programs; the marshalling of this advantage should be the goal of regulation writers and engineer activities managers in a consolidation environment.

DTIC
ELECTE
APR 25 1990
S D D
Co

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b RESTRICTIVE MARKINGS	
2a SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.	
2b DECLASSIFICATION/DOWNGRADING SCHEDULE		5 MONITORING ORGANIZATION REPORT NUMBER(S)	
4 PERFORMING ORGANIZATION REPORT NUMBER(S) USACERL Technical Report P-90/04, Vol I		7a NAME OF MONITORING ORGANIZATION	
5a NAME OF PERFORMING ORGANIZATION U.S. Army Construction Engr Research Laboratory	6b OFFICE SYMBOL (if applicable) CECER-FS	7b ADDRESS (City, State, and ZIP Code)	
6c ADDRESS (City, State, and ZIP Code) PO Box 4005 Champaign, IL 61824-4005		9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER Reimbursable order NACCD 87-26 dated August 1987	
8a NAME OF FUNDING/SPONSORING ORGANIZATION USAEA, CA	8b OFFICE SYMBOL (if applicable) CENAC-SA	10 SOURCE OF FUNDING NUMBERS	
8c ADDRESS (City, State, and ZIP Code) Arlington, VA 22211-5050		PROGRAM ELEMENT NO	PROJECT NO
		TASK NO	WORK UNIT ACCESSION NO
11 TITLE (Include Security Classification) Evaluation of the Consolidation of Real Property Maintenance Activities (RPMA) in the U.S. Army Engineer Activity, Capital Area (USAEA,CA), Volume I: Executive Summary			
12 PERSONAL AUTHOR(S) Johnson, James Harold			
13a TYPE OF REPORT Final	13b TIME COVERED FROM _____ TO _____	14 DATE OF REPORT (Year, Month, Day) 1990, March	15 PAGE COUNT 10
16 SUPPLEMENTARY NOTATION Copies are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.			
17 COSATI CODES		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	Real property maintenance	
15	05	Real Property Maintenance Activities	
		U.S. Army Engineer Activity, Capital Area.	
19 ABSTRACT (Continue on reverse if necessary and identify by block number) The U.S. Army Engineer Activity, Capital Area (USAEA,CA) is a test organization for demonstrating the centralization of Real Property Maintenance Activities (RPMA) in the National Capital Region. This report reviews the development and operation of USAEA,CA, evaluates performance of the total organization, and analyzes its functional components, including financial, supply and procurement, information service, and RPMA management. This analysis covers USAEA,CA for its first 8 years of operation (1980-88), during which Phases I and II have been implemented. A benefit of the centralized RPMA provided by USAEA,CA has been its potential for sustained support to both planned and unplanned levels of customer needs. A centralized RPMA will always have command of a greater depth of resources than is possible with locally maintained RPMA programs; the marshalling of this advantage should be the goal of regulation writers and engineer activities managers in a consolidation environment.			
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED-UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a NAME OF RESPONSIBLE INDIVIDUAL DANA L. FINNEY		22b TELEPHONE (Include Area Code) (217)352-6511 (x389)	22c OFFICE SYMBOL IMT-E

FOREWORD

This work was performed for the U.S. Army Engineer Activity, Capital Area (USAEA,CA), under reimbursable order NACCD 87-26 dated August 1987. The USAEA,CA Technical Monitors were D. Adams and C. Candelaria (CENAC-SA).

The study was conducted by the U.S. Army Construction Engineering Research Laboratory (USACERL) Facility Systems Division (FS). Dr. Michael J. O'Connor is Chief, FS. The USACERL technical editor was Dana Finney, Information Management Office.

COL Carl O. Magnell is Commander and Director of USACERL, and Dr. L. R. Shaffer is Technical Director.



Accession For	
NTIS ORSAI	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

EXECUTIVE SUMMARY

This report evaluates the origin, operating environment, performance, and potential of the U.S. Army Engineer Activity, Capital Area (USAEA,CA). Managers and planners who wish to design a centrally managed Real Property Maintenance Activity (RPMA) for a consolidated area should find this information valuable.

Background

The decision to create an organization with a centralized RPMA mission was preceded by many studies and coordination activities evaluating this concept. The most important study for USAEA,CA development was the feasibility and geographic limits report generated by the U.S. Army Engineer Studies Center (USAESC). On 1 October 1979, the Vice Chief of Staff for the Army ordered that USAEA,CA be created as a test organization in the National Capital Region (NCR). USAEA,CA began operations on 1 October 1980.

Planning Phase

Three command-level groups were formed to control and monitor USAEA,CA's organizational development. The Steering Committee (SC) monitored and evaluated progress. Gaining approval of the baseline studies was the responsibility of the Study Advisory Group (SAG). The Implementation Planning Group (IPG) developed the USAEA,CA organization and operating plans to consolidate facility engineer (FE) functions in the three posts under the Military District of Washington (MDW).

Department of the Army (DA) policy and major command (MACOM)/installation requirements influenced how USAEA,CA was organized. Key decisions were to:

1. Implement USAEA,CA as a test organization; make the SC verify the success of USAEA,CA consolidation phases and direct the continuance of the test organization.
2. Place responsibility on the commander/director of USAEA,CA to also serve as Deputy Chief of Staff for Engineering and Housing (DCSEH) for the MDW.
3. Charter USAEA,CA as a totally reimbursable organization funded by the USACE revolving account.

Manpower/TDA spaces and personnel prior to activation were supported by the MDW, the U.S. Army Corps of Engineers (USACE), and to a lesser extent by other installations.

Activation and Operation

USAEA,CA was organized as a part of the USACE North Atlantic Division (NAD). The Baltimore District provided manpower/TDA, commercial activities (CA), engineering, procurement, contract, legal, and financial management support.

The Phase I consolidation was implemented on schedule in two steps. The initial step placed the RPMA operations of the three MDW posts (Cameron Station, Fort Myer, and Fort McNair) under USAEA,CA management, with operations beginning on 1 October 1980. One year later, the second step of Phase I, consolidating the two Intelligence and Security Command (INSCOM) installations (Arlington Hall and Vint Hill Farms) commenced.

During Phase 1, USAEA,CA provided cost-effective RPMA services successfully to five MDW and INSCOM posts in a consolidated resources environment that operated on a reimbursable basis independent of installation control.

Current Status of the Test

Implementation has been completed for Phases I and II; Phase III remains to be scheduled.

USAEA,CA Organization

The USAEA,CA organization was initially developed in accordance with the original IPG plan. Since then, USAEA,CA has redistributed some functions to improve productivity.

Structure

USAEA,CA is modeled on the standard Directorate of Engineering and Housing (DEH) structure, with the following important differences:

1. The commander/director is also the MDW DCSEH.
2. MDW manages Family Housing with Property Book Office (PBO) and furnishings support from the Supply Management Division of USAEA,CA.
3. USAEA,CA Headquarters services multiple field real property maintenance offices (RPMOs).
4. Work is performed by USAEA,CA either through an in-house workforce or by a contractor.
5. Real Property Maintenance Managers (RPMMs) at RPMOs on MDW posts serve in two capacities: as the RPMM for USAEA,CA and as the engineer for the post commander. RPMM performance is rated by the post commander with the USAEA,CA commander/director as senior rater.

District Support

The support from the Baltimore District (BDE) is extensive, extending to basic services and the responsibility for releasing funds for all services performed by USAEA,CA. BDE field support includes EACA dedicated resources located at Cameron Station and Fort Belvoir procurement/contracts offices, which are backed by the accounting and legal offices at the BDE headquarters.

General Impact

During Phase 1, the support from the District, the skill and retention of the USAEA,CA workforce (no adverse personnel actions resulted from the organizational changes), and the guidance and personal involvement by USAEA,CA management made the program flourish. USAEA,CA's primary accomplishment was to develop and execute a centralized operation that provides excellent RPMA services with limited resources.

USAEA,CA Operational Effectiveness

USAEA,CA continued to refine its operations after the last of the Phase I consolidations in FY82 by addressing the changing needs of its operating environment. Major upgrades were implemented that crossed over organizational lines and encouraged a total operations perspective; these included:

1. Productivity--evaluation/improvement of in-house RPMA productivity for operations with fixed crew size and a workload that varies in the number, size, and complexity of jobs.
2. Individual Job Order (IJO) Support--OMD/RPMO/SMD redistribution of interface functions which reduced IJO delay times by 45 percent.
3. Upgraded Interfaces--ECD/BDE cooperative procedures for improving job design routes.
4. Automation Support--creation of the Automated Systems Office (ASO), which was succeeded by the Information Management Office (IMO); this office developed the programs needed for USAEA,CA operations.
5. Improved Methods--establishment of an ASO system for integrated job data records and cost tracking.
6. More Accurate Charges--determination of actual RPMA expense and maintenance of low customer charges by monitoring expenditures and applying economies and new approaches to traditional tasks.
7. Contracted RPMA--Commercial Activities (CA) contracting of RPMA at Fort Belvoir under Phase II consolidation improved from a Cost Plus Award Fee (CPAF) to a Firm Fixed Price Plus Indefinite Delivery (FFP/ID) mode; this task required a comprehensive work statement and defined workload to qualify this new, innovative type of contract for RPMA services.

USAEA,CA Unit Operations

Automation Support

The automatic data processing (ADP) service supported a 65 percent increase in transactions and a fourfold increase in user access time. This improvement occurred despite a two-thirds reduction in support allocations from planned costs.

Supply

SMD and BDE procurement staffs at CS consistently developed improved procedures to support in-house RPMA requirements after a Phase I consolidation. Availability of on-hand stock was improved from some serious deficiencies in FY83 to the well managed state in FY86 that continues to the present.

Consistent improvement in SMD warehouse procedures decreased zero-balance line items, improved stock listings, and increased storage efficiencies. IJO delay time for materials decreased by 40 percent while warehouse space was reduced by more than 50 percent since FY81.

The SMD setting has been conducive to fielding and verifying advanced, innovative systems. Between 1981 and 1982, this USAEA,CA division was a test site for the prototype Facility Engineer Supply System (FESS) before it was assigned to FE supply duty in Europe. SMD is currently

scheduled to serve as a test installation for the Bar Coding Information System (BARCIS), which will be used for Army property inventory and control.

Resources Management

Revolving Fund (RF) availability to USAEA,CA has avoided funding delays and the subsequent slowing in operations. The close RF management applied is illustrated by the reduction in year-end carryover adjustments to fund repayment. Fiscal year carryover of RF debits was significant, with \$603K in FY85 and none in FY87. Orderly year-end closeouts allow carryover projects to be screened for continued need and corresponding RF accounts to be continued. This achievement reflects the attention given to the carryover problem and the estimation and computational improvements applied.

Operations and Maintenance Division (OMD)

The Service Order Desk now handles an increased volume of requests with fewer errors. OMD improved its special support actions to Army elements and researched industry for competitive energy sources and better control over all utility costs.

Real Property Maintenance Offices

In-house performance levels of RPMA for the MDW and AHS installations was maintained during record demand. Phase I RPMO productivity records include the following:

- USAEA,CA handled in-house service orders throughout Phase I at just over 20,000 per year, with an ontime record of around 70 percent.
- In-house IJO productivity remained at around 500 per year for 3 years. (Requests for improved response times for particular IJOs were made, and IJO response time was generally improved after RPMO operations and SMD supply services were upgraded and better coordinated.)
- A study conducted by E. L. Hamm and Associates identified Cameron Station as the most efficient facility engineer service of all Army installations surveyed.

During Phase II, the Fort Belvoir operations have been enhanced by USAEA,CA through development of an improved CA contract, planned implementation of an Automated Quality Assurance Surveillance Plan (AQASP) for the contracted RPMA, and test bed support for a quality assurance inspection scheduling system developed under the Commercial Activities Management Scheduling System (CAMS).

Lessons Learned

For installations planning future consolidations, the important lessons learned are described below.

Pre-IPG Activities and Planning

A steering committee should be organized first to guide the IPG training/organization/planning and the proposed organization through activation and test operations.

Initial Actions. The SC should develop qualification/selection criteria for the IPG, originate a policy for member recognition, and arrange for early general and specialized training.

Status Determination. All installations that may be consolidated should be required to prepare and maintain current operating information and manpower status for baseline and IPG use. Feasibility and initial baseline studies can be performed in conjunction with the ongoing IPG activity. Firm funding and personnel policies for activating the consolidated RPMA function should be developed by the IPG and approved by SC.

IPG Formation

Organization. A variable IPG membership should be considered. Generally, the shorter the term of service needed, the more readily available experienced personnel become. Phasing IPG sessions and membership can result in a better staff and participation by more specialists than if this group is limited to a few personnel.

Support Services. A local documentation support service should be provided for the IPG action teams to record the logic behind plans and procedures generated.

IPG Epilog Team

Senior IPG members should remain in service after the USAEA,CA activation to provide continuity during the consolidation and to explain and facilitate modifications in the planning requirements.

DISTRIBUTION LIST

Chief of Engineer
ATTN: CEIM-SL (2)
ATTN: CECC-P
ATTN: CECW-O
ATTN: CEMP
ATTN: CEMP-C
ATTN: CEMP-E
ATTN: CERD
ATTN: CERD-L
ATTN: CERD-C
ATTN: CERD-M
ATTN: CERM

CEHSC
ATTN: CEHSC-ZC
ATTN: DET III 79906
ATTN: CEHSC-F 22060
ATTN: CEHSC-TF 22060

USAEA,CA

US Army Engr Divisions
ATTN: Library
Europe 09757
Huntsville 35807
North Atlantic 10007
North Central 60605
Pacific Ocean 96858
South Atlantic 30335
South Pacific 94111
Southwestern 75242

US Army Europe
ODCS/Engineer 09403
ATTN: AEAEN-FE
ATTN: AEAEN
V Corps
Dir, Engr & Hsg 09079 (12)
VII Corps
Dir, Engr & Hsg 09154 (16)
21st Support Command (12)
USASETAF
ATTN: AESE-EN-D 09019

ROK/US Combined Forces Command 96301
ATTN: EUSA-HHC-CFC/Engr

USA Japan (USARJ)
ATTN: Facilities Engineer 96343
ATTN: DEH-Okinawa 96331

416th Engineer Command 60623
ATTN: Facilities Engineer

US Military Academy 10966
ATTN: Facilities Engineer
ATTN: MAEN-A

AMC - Dir., Inst., & Svcs.
ARRADCOM 07801
ATTN: DRDAR-PSE
Harry Diamond Laboratories 20783
ATTN: Library
Natick R&D Center 01760
ATTN: STRNC-DF/DEH
Pueblo Army Depot 81001
ATTN: SDSTE-PUI-F

Redstone Arsenal 35809
ATTN: DESMI-KLF
Rock Island Arsenal 61299
ATTN: SMCRI-DEH
White Sands Missile Range 88002
ATTN: STEWS-IS/DEH

DLA ATTN: DLA-WI 22304

DNA ATTN: NADS 20305

FORSCOM
FORSCOM Engineer, ATTN: Spt Det.

HSC
Walter Reed AMC 20307
ATTN: Facilities Engineer

INSCOM - Ch, Instl. Div.

USA AMCCOM 61299
ATTN: AMSMC-RI

Military Dist of Washington
ATTN: DEH
Cameron Station (3) 22314
Fort Lesley J. McNair 20319
Fort Myer 22211
Fort Belvoir 22060

Military Traffic Mgmt Command
Falls Church 20315
Oakland Army Base 94626
Bayonne 07002
Sunny Point MOT 28461

NARADCOM, ATTN: DRDNA-F 01760

TARCOM, Fac, Div. 48090

TRADOC
HQ, TRADOC, ATTN: ATEN-DEH 23651

CECRL, ATTN: Library 03755

CEWES, ATTN: Library 39180

NAVFAC
ATTN: Division Offices (11)
ATTN: Facilities Engr Cmd (9)
ATTN: Naval Civil Engr Lab (3)

Engineering Societies Library
New York, NY 10017

National Guard Bureau 20310
Installation Division

US Government Printing Office 22304
Receiving/Depository Section (2)

Defense Technical Info. Center 22314
ATTN: DDA (2)

130
11/89