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UNITED STATES ARMY

COMPUTER SYSTEMS COMMAND

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⑥ MANAGEMENT INFORMATION SYSTEMS.

INTEGRATED FACILITIES SYSTEM (IFS). Volume I.
ASSETS ACCOUNTING (AA) SUBSYSTEM
FACILITIES ENGINEERING MANAGEMENT SUBSYSTEM (FEMS).
REAL PROPERTY MAINTENANCE ACTIVITIES (RPMA) SUBSYSTEM.

EXECUTIVE SUMMARY

17 Aug 78

FORT BELVOIR, VIRGINIA 22060

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MANAGEMENT INFORMATION SYSTEMS

INTEGRATED FACILITIES SYSTEM (IFS)

(EXECUTIVE SUMMARY)

This volume defines the objectives of the IFS-I System. A subsystem
narrative is given with an overview chart to provide an under-
standing of the system purpose.

CONTENTS

1.1   TITLE.   INTEGRATED FACILITIES SYSTEM (IFS).

1.2   SCOPE.   IFS is a Standard Army Multicommand System. It was
functionally designed by the Army Corps of Engineers and techni-
cally developed by the US Army Computer Systems Command. IFS
records and reports estimated and actual costs associated with the
maintenance and operation of army installation facilities. In-
cluded is an inventory of installation facilities, conditions,
statistical data, and a history of maintenance and operational
costs relative to these facilities. Also a data base is maintained
for vertical reporting of installation level operation and main-
tenance requirements as well as status and performance in the
planning, programing, budgeting and accounting of projected and
actual expenditures for the operation and maintenance of army real
property. There are three subsystem functions within IFS, Assets
Accounting (AA), Facility Engineering Management Subsystem (FEMS),
and Real Property Maintenance Activities (RPMA).

1.3   TERMS EXPLAINED.

1.3.1   INDIVIDUAL JOB ORDER (IJO).   A work-authorizing document
used for all maintenance and minor construction projects which
exceed the scope of service orders, and do not exceed the statutory
limitations of $300,000 for maintenance or $50,000 for minor
construction.

1.3.2   JOB ORDER REQUEST (JOR).   A statement of a work requirement
based on known deficiencies or on special requirements for an
occupied facility.

1.3.3   SERVICE ORDER (SO).   A work-authorizing document used for
minor maintenance and new work jobs which do not exceed a 16 man-
hour or $350 total cost limitation.

1.4   OBJECTIVES.

1.4.1   The Assets Accounting subsystem will provide the facilities
managers and planners with comprehensive information on which to
base decisions regarding force and mission structure pertaining
to facilities. It will also provide financial information on the
cost of maintenance for each facility during its life span. Data
will be accumulated by each component for recurring maintenance.
This will provide the capability in time to determine specific
component recurring maintenance cost on any facility. Data will
also be accumulated on deficiency requirements by component within
each facility and on the amount of deficiency dollars expended on

each component within a facility.

1.4.2 FEMS is designed to process data resulting from routine DFAE work processes in order to record and report information relative to the status of all work requested; such as, new work requests, work in progress, and completed work. These data are recorded as the events they represent occur. This subsystem is the basic module of IFS-I and consists of a daily cycle for file maintenance and daily reporting; a weekly cycle, which produces the weekly report; and a monthly cycle, which produces the remaining reports deemed necessary to fully identify the status of all engineering work requirements at the installation level.

1.4.3 RPMA is to furnish structured information for more effective management of Army real property, which is currently estimated to be worth approximately $60 billion. Specifically, RPMA will provide a guidance and reporting system which supports the planning, programing, budgeting, execution and review cycle related to the operation and maintenance of real property resources at all continental United States (CONUS) command echelons, from installation through Headquarters, Department of the Army (HQDA). It will furnish details essential to support efficiently managed facilities engineering activities at installation level and accomplish near-optimal real property maintenance throughout the Army.

1.5 OPERATION. The reporting system will encompass the four Army echelons within CONUS; i.e., Installation, Major Subordinate Command, Major Army Command, and DA/executive levels. The principal automation will be accomplished at the installation level.

CHAPTER 2

SUBSYSTEM DESCRIPTION

2.1 SYSTEM NARRATIVE. The Assets Accounting (AA) module
functions as the master reference and data base of the Integrated
Facilities System (IFS). All other portions of the system inter-
face in some manner with Assets Accounting, either by obtaining
data, providing data, or verifying data. No work may be recorded
in the Facilities Engineering Management System (FEMS) until a
record of the facility exists in Assets. Real Property Maintenance
Activities (RPMA) cannot inspect a facility which does not exist
in Assets. The Assets portion of the system also provides reports
in the areas of inventory, utilization, and force and mission plan-
ning.

2.1.1 The objectives of the Assets Accounting module are:

2.1.1.1 Provide a single source data base for IFS, including:
inventory of all real property by installation; facility-related
base data; history of expenditures by facility by event; utili-
zation of facilities; and condition of facilities.

2.1.1.2 Provide facility planners and managers with: facility-
related information regarding force and mission planning; available
capacities; availability of facilities by type; and installation
facility readiness.

2.1.1.3 The Assets Accounting portion of the system will operate
at all levels. The primary data bases will be at installation
level with quarterly update of the data base at Commands, Major
Command, and Office of the Chief of Engineers (OCE). Hard-copy
reports will also be transmitted from the installation quarterly
and on request.

2.1.2 The best method to explain the Assets Accounting module is
to describe the output and interface functions in terms of the
various cycles. The input to the data base consists of forms
which are selectively input depending on the nature of the facility
being reported. The files are built by converting existing Real
Property Inventory (RPI) files through an automated process and
then manually updating the files. Updating is normally on a
monthly basis.

2.1.3 The daily cycle is primarily a FEMS function; however, each

day's work is verified against the data base to check the validity
of the facility number and pick up information to be included in
the FEMS files.

2.1.4 The monthly cycle serves the purposes of validating inspec-
tions in RPMA and then storing the validated results in the data
base. During this cycle, actual costs relating to K and L work
are transferred from FEMS and stored in the data base. The month-
ly cycle is also the time when manual inputs update the data base
and a series of installation level reports are produced. The most
significant of the reports produced each month is the Facility
Description Report. This report is the most detailed level of
reporting in the system and is designed to be the master reference
document at installation level. The report is produced in two
versions; Buildings and Other Than Buildings. Other reports
generated during the monthly cycle are the Space Utilization Report
by facility number and by user. These reports provide the facili-
ties engineer organization and the buildings assignments function
with a quick reference to associate buildings and users. The
monthly process also produces an exception list identifying mis-
takes in the input. This error list is a major improvement. Un-
der the current inventory system, it takes up to three (3) months
to verify a change to the data base. Under IFS, the real property
section will know if a change has "taken place" within as little
as twenty-four (24) hours after it is submitted.

2.1.5 The quarterly cycle is the primary higher headquarters
reporting cycle within the Assets Accounting function. Reports
are produced in two different areas at the end of each quarter.
These are Installation Management and Mission Planning. The
Installation Management reports include the Real Property Inven-
tory and Building Information Schedule (RPI/BIS), which are largely
unchanged from the present format, and the Real Property Facilities
Disposal Report, which is a new report. The report records the
progress of disposal actions. In the Force and Mission Planning
area, a series of reports exists in two different types. The
first type of report includes one product, the Tabulation of
Existing and Required Facilities, which serves as the engineer
input to the Army Stationing and Installation Plan (ASIP). The
second type consists of a series of reports that deal with specific
types of facilities on an installation. This series of reports
includes reports on the following types of facilities: ranges,
maneuver area, airfields, bachelor housing, storage facilities,
academic facilities, and miscellaneous training facilities.
There is also a one-page summary report on installation data and
training suitability. Copies of these reports are forwarded to

Major Commands (MACOM) and OCE, and an extract of the files allowing update of the MACOM and DA data bases is transmitted by tape or AUTODIN.

2.1.6 The semiannual cycle produces the Fire Protection Report—which provides an inventory of buildings with fire protection and alarm systems on the installation and gives the percentage of the area protected. Copies of this report are forwarded to higher headquarters.

2.1.7 The annual cycle produces the Recurring and Deficiency (R&D) Dollar Report. This report is produced in two formats—Buildings and Other Than Buildings. This reflects actual expenditures incurred during the year in accomplishment of the RPMA mission.

2.1.8 The Real Property Maintenance Activities (RPMA) cycle is an interface cycle which takes place at the time major RPMA reports are prepared. During this cycle, estimated and actual dollar expenditures are extracted from the data base for reports to higher headquarters.

2.1.9 Higher headquarters reporting consists of an automated update of the MACOM and HQDA data base at the time of the installation quarterly reports. Reports are then prepared from these data bases to meet headquarters requirements. The headquarters data base will have the capability of extracting special reports on an as-required basis and is planned to have an inquiry/response capability.

2.1.1Ø Provisions exist in the data base for interface with other inventory management systems and add-on modules of the IFS, such as, Facilities Engineering Equipment Maintenance and Pavement Management.

2.2 The Facilities Engineering Management Subsystem (FEMS) is designed to provide the tools that are necessary for the effective day-to-day management of the Facilities Engineering work force at the installation level. It is structured to support the concepts that are defined in DA Pam 42Ø-6, and consequently will not affect the current procedures for processing work. The source documents required by FEMS, although somewhat different in appearance from existing forms, will serve the same purpose and replace many of the old forms. The reports produced by FEMS will replace many existing manually produced reports and provide additional information as well. These reports will be generated at daily, weekly, monthly, and yearly intervals.

2.2.1 The best method to explain the FEMS module is to describe
the inputs and outputs in relation to the function of work manage-
ment. These functions equate to the processes required to
accomplish work and are as follows:

> Work Reception
> Estimating
> Engineering Design
> Scheduling
> Work Accomplishment
> Performance Evaluation
> Financial Control

2.2.2 All work requests will be received by the work receptionist.
Large requirements (individual job orders) will be submitted on the
Facilities Engineering Work Request by the customer; small requests
(service orders) will be phoned in by the customers and recorded by
the work receptionist on the FEMS SO form. FEMS produces reports
to assist the work receptionist, especially in answering customers'
queries on work orders.

2.2.3 The JOR/IJO Status Report contains a listing of all in-
complete, individual job orders and provides information concerning
the current status of the job (i.e., which of the processes listed
above have been completed).

2.2.4 The Service Order Register Report provides a list of all
SO's received during the reporting period.

2.2.5 The Facility Reference Report will provide the work
receptionist with a list of all work documents initiated since
the beginning of the fiscal year, in facility number sequence.
This will provide a cross-reference between document numbers and
facilities for the purpose of assisting with job queries.

2.2.6 After work orders are received and recorded, they are for-
warded for approval to the appropriate authority. Upon approval
they may be forwarded to either the estimator or the engineering
design section. Request for in-house work that does not require
design will be forwarded to the estimator, who will prepare work
and cost estimates on the Facilities Engineering Work Order source
document. This establishes the detailed job record, which will be
used for all further processing against a job.

2.2.7 Work requests requiring engineering design and/or accom-
plishment through contract, rather than in-house, will be for-

warded to the design section. The DFAE will prepare a source
document, (Engineering Design Estimate) for each design project
containing an estimate of the design requirements and other per-
tinent design data. From this information, the Engineering Design
Status Report will be produced containing all design projects
outstanding by type of design; such as, electrical/mechanical,
etc., as well as their state of completion. All work that is to
be contracted will be estimated and recorded on the Contract Data
form. This data, in turn, will be reflected on the Contract Status
Report, which displays all incomplete contracts with information;
such as, procurement status, contractor information, work progress,
and payments made.

2.2.8 Work to be performed by the assigned DFAE personnel will be
processed through the material coordinator and scheduler after it
has been estimated. Material not in stock will be ordered and
subsequently monitored via the IJOs Awaiting Material Report. This
report contains a list of all jobs that cannot be started because
materials are not available, as well as the length of time they
have been delayed. The Awaiting Material Report and Master Sched-
ule Report will replace two visual display boards that are now
manually maintained. The Shop Backlog and Work Force Distribution
report will replace its existing counterpart. The scheduling
function will be assisted by reports.

2.2.8.1 The Master Schedule Report produces a list of all jobs
that are either in the shops and partially completed or waiting
release to the shops. Each job is broken out by shop and craft,
as well as by estimated, actual, and remaining hours, which will
enable the scheduler to allocate the proper amount of shop time to
do each job for the upcoming week.

2.2.8.2 The Shop Schedule Report produces the same information in
shop sequence, which allows the shop foremen to plan their work for
the upcoming week, once a determination has been made as to which
jobs will be completed.

2.2.8.3 The Shop Backlog and Workforce Distribution Report will
display information about the utilization of time by each shop;
such as, time spent on IJOs, SOs, SOOs, leave, nonproductive time,
and so on. The scheduler must know this so that any one craft will
not be overscheduled for the week in consideration.

2.2.8.4 The Service Order Backlog Report groups unaccomplished
SOs by craft and facility, thus enabling the scheduler to group
SOs to be completed at the same time.

2.2.9 Work accomplishment is recorded by FEMS from input prepared
by shop personnel. Labor time and equipment usage will be entered
on the Labor and Equipment source document. The Labor and Equip-
ment source document also provides a special technique for initi-
ating Preventive Maintenance (PM) and Emergency Service Order work
without supporting documentation. This will help to eliminate
unnecessary administrative work. FEMS will utilize existing supply
issues and turn-ins to accumulate material costs and consequently
will not appreciably change supply operations. The Equipment
Maintenance Shop will submit FEMS Equipment Downtime source
documents to record the length of time Engineer M&S equipment is
unserviceable during any given month. The Preventive Maintenance
Report will reflect PM work accomplished against each facility by
shop. The labor and equipment portion, previous day to shop, will
enable shop foremen to review the data and correct the errors or
deficiencies.

2.2.10 Completed work must be analyzed to determine the effective-
ness of Facilities Engineering operations. Four reports are gen-
erated specifically for this purpose, while others, previously
mentioned, partially serve this function.

2.2.11 The Shop Performance on Completed IJOs Report gives a
rundown of hours actually spent to completion of work, as opposed
to the time it should have taken, based upon engineering standards.

2.2.12 The Shop Performance on Service Orders Report provides an
analysis of actual time spent on routine recurring tasks, as op-
posed to the time it should have taken, based on previously
established standards for these tasks.

2.2.13 The Equipment Utilization Report shows how long equipment
was unavailable for use because of repairs and maintenance, as well
as how much it was used during the time it was available.

2.2.14 The Mission Support Report provides information concerning
time spent by engineering shops on work not related to facilities
engineering but required to support the installation mission.

2.2.15 Several other reports produced by FEMS reflect cost and
status information.

2.2.16 The Special Project/IJO Report provides a daily update
of all expenditures against these types of work in order to avoid
cost overruns where job expenses have been certified.

2.2.17 The Functional Group Cost Report displays total Fiscal Year (FY) expenditures for the fiscal year to date to insure compliance with budget limitations.

2.2.18 To support billing procedures, the Reimbursable Job Costs Report provides a list of all work, itemized by job, that is reimbursable from various customers.

2.2.19 The Standing Operations Order Report contains the FY-to-date costs for all standing operations; such as, utility operations, trash removal, etc.

2.2.20 The Minor Construction and Alteration Report displays costs, structured by construction category, to insure that budget limitations for new work are not exceeded.

2.2.21 The Family Housing Cost Report displays family housing expenses in Army Management Structure (AMS) code sequence.

2.2.22 The Family Housing Prestige Quarters Report satisfies the family housing costs requirements and displays all work accomplished each month, by job, against specifically designated quarters.

2.2.23 The History Report, generated in the yearly cycle, depicts those jobs that have been completed and purged to the history file.

2.2.24 As a result of the editing features of FEMS, an error list is provided to depict erroneous transactions. The EFO Error List is a daily report and is divided into two sections. One is referred to as the Transaction Error List and contains all transactions (except for FM1, FM2, FR1 and FU1 transactions) that are in error. The other is referred to as the Labor Transaction portion of the report and depicts all FM1, FM2, FR1, and FU2 transactions whether in error or not.

2.2.25 In addition to the inputs and reports discussed above, there are file-build and file-maintenance transactions, as well as reports used to show the transactions input, those that were in error and an audit of those not in error. These reports have little impact on the Facilities Engineer.

2.3 One of the basic functions of FEMS is to automatically interface with other existing command systems. At U.S. Army Material Development and Readiness Command (DARCOM) installations, FEMS will interface with three systems: System Project for Electronic Equip-

ment at Depots Extended (SPEEDEX); Test, Evaluation Analysis, and
Management Uniformity Plan (TEAM-UP); and Army Industrial Fund
(AIF). At the U.S. Army Training and Doctrine Command (TRADOC) and
the U.S. Army Forces Command (FORSCOM) installations, FEMS will
interface with three systems: Base Operating Information System
(BASOPS II); Standard Finance System (STANFINS); and Standard Army
Intermediate Level Supply (SAILS). There are two methods that will
be used to accomplish these interfaces.

2.3.1 DARCOM installations will utilize current Labor and
Material reporting techniques and allow work costs to be processed
through the existing command finance systems. These costs will
then be passed into IFS for reporting purposes.

2.3.2 The TRADOC and FORSCOM installations will utilize the IFS
source documents for reporting labor, equipment and material usage.
The costs will be computed in IFS and transmitted to the installa-
tion finance system by detailed element of expense (e.g., base pay,
premium pay allowances, etc.). It is important to note that not
all costs will be automatically perpetuated to the finance system
for TRADOC and FORSCOM installations. All costs other than labor,
material, and equipment rental must be transmitted on a manual
basis.

2.4 There are several areas of cost computation that vary
significantly from the existing methods. The most important is
Civilian Labor Costs. IFS computes labor cost on a basis of actual
pay rates rather than shop effective rates. An employee file is
maintained with hourly pay rates for each individual. The file
is accessed each time a labor card comes in for this person, to
determine a rate to be applied to the work he is performing. If
the individual is receiving environmental, hazardous duty, or any
other supplementary pay, it is also charged to the work performed.
All facilities engineering civilian labor will be charged against
a single "K" suspense account by the installation finance system.
As work is accomplished, costs will be distributed out of this
suspense account to the accounts (via account processing code
(APC)) related to the work performed. There will be one APC code
for each J, K, L, and M account, one for each of the accounts used
outside of the RPMA area, and one corresponding to each of the
Family Housing AMS codes. The automated interface will perpetuate
them to finance as required on a daily basis relating to work per-
formed. The cost of all materials drawn against the Shop Stock
Standing Operations Order will be prorated to all SOs and FM work
based on an hourly rate rather than on an "item used" basis.

2.5 To gain an insight into the Real Property Maintenance
Activities (RPMA) module, one must understand the Management con-
cepts of IFS-I. Accordingly, system concepts will be first dis-
cussed, followed by a description of the subsystem itself.

2.5.1 CONCEPTS.

2.5.1.1 In the management environment, it is imperative that the
total unconstrained requirements are known so as to permit effec-
tive application of resources to requirements. At the present time,
total requirements for the maintenance of facilities Army-wide
are not known. In the reports produced heretofore, budget guidance
restrictions were imposed so that a true picture could not be pre-
sented of the resources that are actually required to bring the
facilities up to technical standards.

2.5.1.2 Total requirements must be defined in the context of the
accounts with which the Facilities Engineer deals. These accounts
are in the base operations area, and are made up of the Operations
of Utilities (J Account), Maintenance and Repair (K Account), Minor
Construction (L Account), and Other Engineering Services (M Ac-
count). There is no particular problem projecting the cost of
utilities whether purchased or produced in the budget year. This
is done now by performance factors such as the population served,
and is outlined in Engineer TB 259. In Other Engineering Services,
items such as snow and ice removal, fire protection, and design can
be projected. In the minor construction area, 18-21 months out, a
firm requirement cannot be established for projects because they
are normally done in response to mission changes, mission require-
ments, and changes in the facility requirements. Arbitrarily,
this account is represented as a percentage of the maintenance
and repair account.

2.5.1.3 This leaves the maintenance and repair, or Direct "K"
Account, and this is where there are major problems in identifying
unconstrained requirements. The amount of money spent in each
Army Management Structure (AMS) category for maintenance and re-
pair from a resources standpoint is known. However, to determine
the functional expenditures, exhaustive research would have to
be conducted at each installation. It is necessary to know two
things about facility maintenance and repair. Firstly, what does
it cost to routinely maintain a facility? This refers to the
need to keep the building in good shape with proper maintenance,
but does not address the need to correct any deficiencies. These
recurring requirements are defined as the resources required to
support routine and emergency maintenance repair work which

minimizes facility deterioration. Secondly, facilities engineers should know the resources required to restore a deteriorated facility to original or current DA standards. This is called correction of deficiencies. The routine maintenance requirements are called Recurring Maintenance Dollars (R$), and the correction of deficiencies is Deficiency Maintenance Dollars (D$).

2.5.1.4 One of the urgent facilities engineer problems is the communications gap which exists between engineers and users of engineer services; therefore, it is imperative that a common denominator be established which can be understood by both. In the Routine Recurring Maintenance area, the question is how do we define, in simple and commonly understood terms, the task of keeping the facility in good repair. After analysis, a dollar per standard unit of measure was chosen as the common denominator. The tasks necessary to routinely maintain a facility and its components were analyzed and costed and a dollar per unit of measure developed. Three studies have been conducted on this subject. The first was conducted in 1969 by the Engineering Division of Military Construction, the second in 1970 by Facilities Engineering Division, and the third in 1971 by the IFS Branch. When brought to a common base (1970 dollars), the studies correlated very well. By using standard units of measure like square footage, miles, or systems, and multiplying them by dollars per unit of measure, a dollar assessment required to routinely maintain any facility on any installation can be established. For example, at one installation the "R" requirements for 1973 were $4.38 million. The actual budget which consisted of both R&D and OMA in 1971 was $4.2 million. This resulted in a short-fall of $180,000 for R dollars alone. What this indicated is that the installation did not have enough money to hold the facilities on the installation in their present condition, much less to make major repairs to them.

2.5.1.5 Deficiency requirements most accurately indicate the condition of an installation's facilities. For a Facility Engineer to effectively utilize his work force in improving facility conditions, he must first identify the deficiencies in some manner, whether by inspection, shop foreman reports, or customer complaints. As individual facility deficiencies are too broad in scope for the information system to handle, facilities have been subdivided into components so as to permit identification of deficiencies at a higher level. For example, components of a building are roofing, interior and exterior painting, floor covering, structural, heating, air conditioning, plumbing and electrical. The condition of each of these components, determined by inspection, can be graded satisfactory, marginal, or unsatis-

factory. Based upon these inspection results, certain types of deficiencies can then be grouped into work projects (either by component or individual facility requirements). Mission guidance is then applied, actual projects developed, an order of priority established, and resources expended in the order of priority.

2.5.1.6 The validity of the data in the system is most important. At present, there is a credibility gap on the dollar amount of the maintenance backlog. IFS is based on a complete inspection of all components and all facilities, followed by a cyclic reinspection based on the original condition rating. An inspection card is used by the inspector for the recording of deficiencies and determination of condition. A satisfactory condition requires no ADP support in terms of deficiency identification. Marginal and unsatisfactory conditions are input to the data base as requirements. These require a written description on which an estimate is based for resources necessary to upgrade the component. The inspection card input is used to provide the Deficiencies Requirement Listing by facility and by components. It also supports the RPMA reports to higher headquarters.

2.5.1.7 Coupled with unconstrained requirements is the overall condition of facilities. Army-wide, there is no knowledge whatever of the conditions of our facilities by any measurement standard. In the Real Property Inventory there is an indication whether the building is usable or not usable. This is not satisfactory for evaluation of the overall condition of its components. A matrix has been developed to weigh these components with reference to the functional mission of the building (i.e., floor covering would not normally force a building into an unsatisfactory condition, unless it was used as a warehouse where forklifts could not operate, thus hampering the mission). The definitions are also written so that a building or a component in a satisfactory condition would require only routine maintenance. A component with a marginal or unsatisfactory rating requires a correction of a deficiency in addition to routine maintenance.

2.5.1.8 The integration of mission, functional, and fiscal guidance is of utmost importance. At the present time, the budget guidance goes through one chain, the technical guidance through another, and mission guidance through a third. This is a fragmented way to communicate the mission requirements to the working level. The mission, functional, and fiscal guidance will be provided in the same document under IFS. Each would expand on this guidance and pass it to the subordinate commands, who again, keeping in mind their mission and knowing the requirements of the

installations, could then provide much better fiscal, and functional guidance to the individual installations. At the installation, the commander, who is the most knowledgeable of the mission and activities supported, will give specific guidance to the facility engineer on exactly what needs to be done to support his mission from the standpoint of facilities.

2.5.1.9 In the facilities area, there is an RPMA Management Cycle, and it directly relates to the planning, programing, budgeting, and execution review (PPBER) cycle. To start this cycle, total requirements must be known because everything else is dependent on this. The ability must exist to show the impact of various funding levels as applied to the total requirements and to record the accomplishments achieved with the reports in this cycle. This procedure does not exist in the present manual system. The system must contain flexibility since the facility engineer and the commander must utilize the available resources in the most effective way to support the mission. Condition of all facilities must be a requirement. Changes to facility conditions that result from resources expended must also be depicted.

2.5.1.10 A series of reports has been designed to support the RPMA management and PPBER cycle. Actions are taken by the Secretary of Defense and the Secretary of the Army within this cycle. It is tied to mission and force levels which come out of the strategic sets of plans. The Army Station and Installation Plan provides guidance from which information is derived for the preparation of the 5-year plan, which subsequently is disseminated to the installation level. All the information originates at the installation, which provides the basis for the system. With the guidance received from the 5-year plan, the facilities engineer, based on an inspection, compiles the Unconstrained Requirements Report (URR) with the overall condition of facilities. This is submitted in time to interface with the Program Objectives Memorandum (POM). At the present time, there is no input from the installation into this particular document. The present system is based on allocations from last year and previous years, plus the deferred maintenance or backlog of essential maintenance that is known to exist. This cycle also supports Program 11. The information is "fed" into Program 11 and portrays all Operations and Maintenance, Army, (OMA), and other fund sources required for facilities. This informs the major program directors what the total requirements are. This is about 18-21 months out from the budget year, and is much earlier than actual facility data is input at the present time. After review, the level of funding is set, and the guidance is sent down to the installations where they use

the Financed/Unfinanced Requirements Report (FURR) to show the impact of the unfinanced portion in the functional manner. This is reviewed, adjustments are made, and finally, the annual operation budget and budget-year guidance is sent down to the installation level. The Budget Year Report (BYR) is a review-type report, and as a result of this review, some allocations and reallocations of funds take place. Finally, the Prior-Year Performance Report (PYPR), which is provided at the end of the Fiscal Year, reports back to the managers where the money was spent and gives the measurement of performance against the UR that were originally stated. These reports are separately discussed in the subsystem description.

2.5.2   SUBSYSTEM DESCRIPTION

2.5.2.1   This module is the headquarters report generator of the IFS. Data that is input to FEMS and accumulated historically in Assets Accounting (AA) is combined with direct input from the facilities engineer to automatically support the PPBER cycle. Initial inspection data to determine the condition of individual facility components is input. Along with this, for purposes of determining UR, data for outyear maintenance and deficiency requirements, equipment requirements, and work packaging are also collected. Other inputs that support other phases of the cycle are utilities performance targets, budget guidance, work force data, performance, and base data.

2.5.2.2   To assist the facilities engineer in determining the actual condition of the facilities on an installation, RPMA includes an inspection processing cycle. By correlating facility condition information in the data base with a table of proper inspection intervals for each facility component, this module creates a recommended inspection schedule monthly. From the inspection results, dollar estimates by deficiencies are produced by component and by facility.

2.5.2.3   The first report in the RPMA cycle is the URR. It has no constraints on it from a financial standpoint and shows the requirements that exist against facilities. These facilities functionally translate component deficiencies and recurring maintenance requirements. There is a difference between resource cost and functional cost. The resource cost is made up of the classic elements of expense (personnel, supplies, contracts, etc.) that are used by the Comptroller. The functional cost is the cost to categorize an item of work. Each uses the same type resources except they are added in a slightly different manner and applied

in a different way. The URR is prepared annually, 18-21 months in advance of the budget year, and is comprised of detail, summary, and consolidation data on projected requirements for the J, K, L, and M accounts. It also contains Equipment List and Work Project Requirements. This provides input to the planning phase of the cycle and supports the POM. The URR is the engineer long-range plan.

2.5.2.4 The programing and baseline phases are supported by the FURR, which is prepared annually, 8 months prior to the Budget Year. This is the second report in the cycle and is based upon the URR and shows what is financed and unfinanced among the total requirements in a functional manner. It contains summary and consolidation data for all accounts and supports the command operating budget which is a justification for the allocations of resources to the Army. The Summary Annual Work Plan (SAWP) is a marked-up version of the FURR (not automated) and is in response to the actual funding level that is received. It is tied directly to the base level and is in the same terms as total requirements.

2.5.2.5 The third automated report in the cycle is the BYR, which supports the budget year execution review. When 4 months of the Budget Year have been executed, or when required, the BYR is prepared at the same level of detail as the FURR. This allows for an interim review of cost data so that execution progress can be assessed in the same terms as programing and budgeting.

2.5.2.6 The final report in the series is the PYPR, which is produced after the Budget Year has been fully executed. The PYPR will replace the two current execution reports, Technical Data Report and Command Analysis of Utilities Report, which are prepared manually. The level of detail of the PYPR is consistent with the URR, thus permitting an analysis of performance in relation to requirements estimated well in advance of the Budget Year.

2.5.2.7 Finally, the RPMA module will have a URR Change Report cycle. This will provide facilities managers the capability to automatically compare and contrast one-year's URR with that of another, thus measuring the progress in the improvement of the condition of Army real property assets.

2.6 ADDITIONAL INFORMATION. If further assistance is required, the following offices may be contacted.

HQDA (DAEN-FEM)
Forrestal Building
Washington, D.C.   2Ø314

Commander
USACSC Support Group (Fort Lee)
ATTN: CSCS-SGL-DFS-EF
Fort Lee, Va.   238Ø1

OCE Field Support and Training Branch
Building T-112Ø6 (Upstairs)
Fort Lee, Virginia 238Ø1

2.7 RESTRICTIONS.

2.7.1 Hardware. IFS-I will be implemented on existing equipment
at the installations. Each data processing installation (DPI)
where IFS-I is extended will have sufficient capability for
programs and provide reports within the parameters established
by the Detailed Functional System Requirements. The hardware
environments for IFS include the following:

2.7.1.1 Base Operating System (BASOPS) - IBM 36Ø/4Ø/5Ø.

2.7.1.2 Test, Evaluation, Analysis, and Management Uniformity
Plan (TEAM-UP) - IBM 36Ø/4Ø/5Ø.

2.7.1.3 Commodity Command Standard System (CCSS) - IBM 36Ø/65.

2.7.1.4 System Project for Electronic Equipment at Depots
Extended (SPEEDEX) - 36Ø/5Ø.

2.8 DOCUMENTS AND FORMS. The following is a list of the docu-
ments/forms used to support the system.

2.8.1 FORMS.

2.8.2 DA Form 4294-R, Inflation Update Input Transaction (RIØ)

2.8.3 DA Form 4295-R, Inspection Schedule Control Input Trans-
action (RI1)

2.8.4 DA Form 4295-1-R, Inspection Results Input Transaction (RI2)

2.8.5 DA Form 4296-R, One-Time Inspection Requirement Input
Transaction (RI3)

2.8.6 DA Form 4297-R Actual Resource Input Transactions (ROA)

2.8.7 DA Form 4297-1-R, Actual Resource Input Transactions (ROB)

2.8.8 DA Form 4297-2-R, Obligated Resource Input Transactions (ROC)

2.8.9 DA Form 4298-R, Fuel Input Transactions (ROD)

2.8.10 DA Form 4299-R, Work Package Input Transactions (RP1)

2.8.11 4282-R, Installation Header and Training Suitability

2.8.12 4274-R, Real Property Facility Disposal Report

2.8.13 4275-R, Building Information Schedule

2.8.14 4276-R, Inventory of Military Real Property

2.8.15 4277-R, R&D Dollars Facility Data Card

2.8.16 4279-R, 4279-1-R, Facilities Description Report - Parts A and B.

2.8.17 4280-R, Fire Protection Report

2.8.18 4281-R, Tenant Data for Space Utilization

2.8.19 Integrated Facilities System (IFS) ADP Systems Resources Analysis (ASRA), dated May 1972.

2.8.20 Current Detailed Functional Systems Requirements (DFSR).

2.8.21 Project Master Plan (PMP), Integrated Facilities System, Increment 1, (IFS-I), revised.

2.9 SUBSYSTEM OVERVIEW CHART. Figure 2-1 describes the primary functions to be accomplished by the IFS-I.
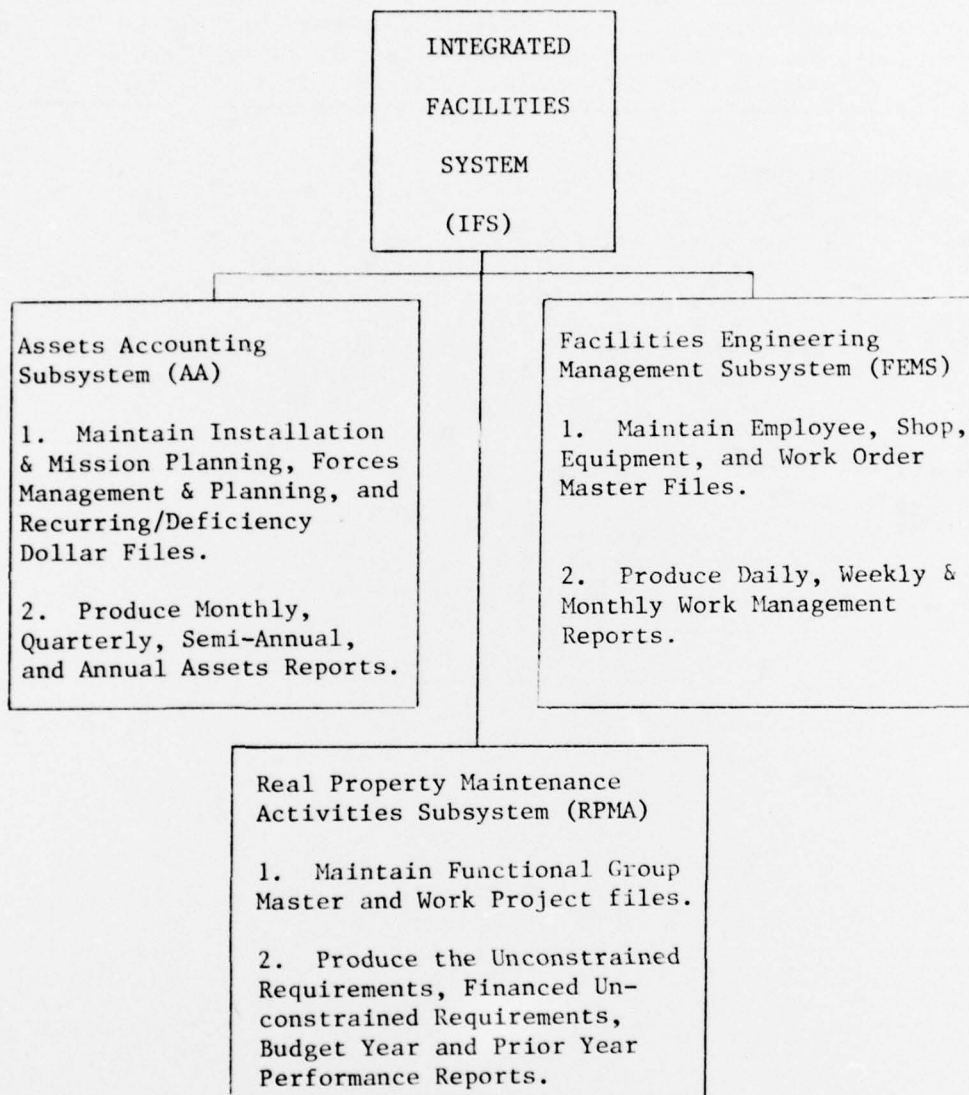
IFS SYSTEM OVERVIEW CHART

```
┌─────────────────┐
│   INTEGRATED    │
│                 │
│   FACILITIES    │
│                 │
│     SYSTEM      │
│                 │
│     (IFS)       │
└─────────────────┘
```

Assets Accounting Subsystem (AA)

1. Maintain Installation & Mission Planning, Forces Management & Planning, and Recurring/Deficiency Dollar Files.

2. Produce Monthly, Quarterly, Semi-Annual, and Annual Assets Reports.

Facilities Engineering Management Subsystem (FEMS)

1. Maintain Employee, Shop, Equipment, and Work Order Master Files.

2. Produce Daily, Weekly & Monthly Work Management Reports.

Real Property Maintenance Activities Subsystem (RPMA)

1. Maintain Functional Group Master and Work Project files.

2. Produce the Unconstrained Requirements, Financed Unconstrained Requirements, Budget Year and Prior Year Performance Reports.

FIGURE 2-1

PAGE 1 OF 1

The proponent agency of this manual is the USACSC Support Group,
Fort Lee, Virginia. Users are invited to send comments and sug-
gested improvements on DA Form 2028 (Recommended Changes to Pub-
lications) direct to Commander, USACSC Support Group (Fort Lee),
ATTN: CSCS-SGL-DCF-SM (IFS Project Officer), Fort Lee, VA 23801.

FOR THE COMMANDER:

OFFICIAL:

JOHN E. PATTON
Major, AGC
Adjutant General
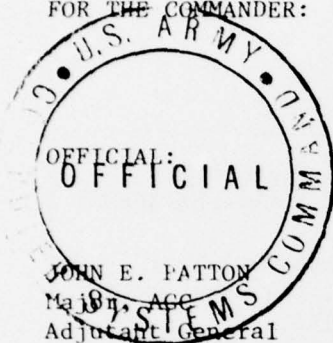
A. R. PEDE
Colonel, GS
Chief of Staff