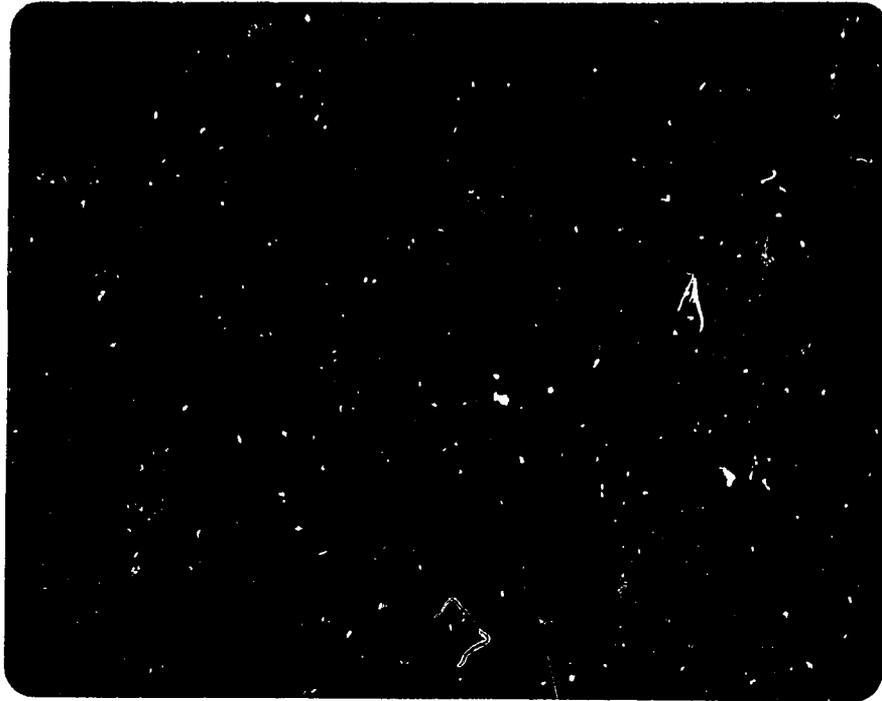


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DEPARTMENT OF  
ECONOMIC COOPERATION WITH U.S.A.

**U.S. ASSISTANCE MONITORING  
ANALYSIS STUDY**

**IMPLEMENTATION PLAN TASK REPORT**

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## I. INTRODUCTION

### A. Background

The United States of America (U.S.A.) has maintained a large foreign aid program with the Arab Republic of Egypt (A.R.E.) since 1975. From that time to date, the U.S.A. has obligated funds in the range of \$7.2 billion for assistance to Egypt. The yearly obligation is about \$1 billion. The assistance being provided varies from delivery of millions of metric tons of food, materials and equipment, to the performance of many large-scale development projects. Currently, 70 large-scale assistance projects are active, and the delivery of over \$4 billion worth of commodities is planned or under way.

Until recently this assistance effort was managed by the U.S. Agency for International Development (USAID), which worked directly with individual ministries and other organizations within the A.R.E. in initiating and monitoring the various assistance activities. Both governments have agreed that Egypt should play a larger management role in the initiation and execution of U.S. assistance, and the Ministry of Investment and International Cooperation (MIIC) was given the task of coordinating this assistance. Within the MIIC, the Department of Economic Cooperation with U.S.A. (DECUSA) is to perform the direct coordination function. DECUSA is performing the U.S. assistance monitoring functions, but currently needs additional facilities to perform its mission adequately.

A contract was let to JWK International Corporation (JWK) to study the DECUSA mission requirements and develop an overall long-term approach to a successful DECUSA operation. The contract calls for four tasks to be accomplished, each providing a separate report. The first task is to study the DECUSA requirements, the second task is to review the existing capabilities available to DECUSA, the third task is to develop a long-range operating concept, and the fourth task is to develop an implementation plan. This report is the result of that task.

In executing the contract, the plan was for JWK to perform the first two tasks concurrently, and deliver the resulting reports to DECUSA for comments and guidance. After the guidance had been received, JWK would use the approved and verified information to perform the two remaining tasks of the contract. JWK delivered the two reports to DECUSA on August 30, 1982, and discussed the contents of the reports at length with DECUSA and USAID. Although the two initial reports were well received, some minor changes were made to information contained within. Also, since the start of the study, DECUSA has devised an overall organization structure effort which it plans to use. That structure has impacted the analysis of the study. In addition, after having studied the DECUSA monitoring requirements in depth, JWK was ready to obtain specific guidance from DECUSA as to what its relationship would be with USAID in performing certain monitoring activities in concert. In the August/September 1982 meetings

DECUSA provided specific guidance as to its role in certain areas of assistance monitoring versus that of USAID. That guidance is a major source of information relating to the study. Finally, JWK had access to additional information during the August/September visit to Cairo regarding computer equipment manufacturer capabilities, which caused other information in the earlier reports to be obsolete. As a result, although the two earlier reports served as a very effective vehicle to specify DECUSA requirements and to determine the DECUSA operating environment, sufficient changes to that information are currently known that the earlier reports should be adjusted to project an up-to-date picture. Rather than adjust the earlier reports, JWK has elected to synthesize pertinent information of the earlier reports into chapters, and incorporate those chapters into the last two reports of the study.

With the information collected earlier in Tasks 1 and 2 of the study, and with the more recent guidance received from DECUSA, JWK proceeded on Task 3 of the study and derived a future DECUSA operation concept. A report has been prepared from Task 3 and is being delivered along with this report to DECUSA. In contrast to the obsolescence of the reports resulting from Tasks 1 and 2, the reading of the Task 3 report is critical to the understanding of this report, the result of Task 4, which discusses an implementation plan of the specific recommendations and overall DECUSA operations concept described in the Task 3 report. Without having read the Task 3 report, especially Section V of that report labeled "Recommended DECUSA Operating Concept", the discussions in the Task 4 report will have only obscure meaning to the reader, and a knowledge of that report was assumed in the development of the text herein.

#### B. Task Methodology

Upon completing the Task 3 analysis and preparing the accompanying report, JWK started Task 4 by performing an analysis on different implementation approaches. It soon became apparent that the scope of the recommendations made in Task 3 regarding DECUSA's future operation concept were far-reaching, and implementing this future DECUSA operation will be a sizeable effort which would require a significant duration of time. Also, a number of decisions should be made by DECUSA regarding both the operation concept itself and overall strategies for implementation before any recommended detailed implementation plan could be drawn up.

JWK then analyzed the total work effort involved, derived an optimum implementation plan regarding time of implementation, and determined the implementation requirements needed to execute that optimum plan. JWK also derived contingency implementation approaches which DECUSA might consider if implementation requirements could not be met, and specified decisions which should be made before any implementation plan would begin. The optimum implementation plan, implementation requirements, contingency considerations and necessary decisions have been documented in this report.

### C. Outline of Report

Besides this Introduction, the report contains three sections. Section II discusses overall plan considerations and enumerates requirements, contingency considerations, and decisions to be made. Section III, in contrast, describes known task efforts which must be accomplished for the recommended future DECUSA operation concept to be implemented. Section IV defines an optimum implementation plan.

## II. OVERALL PLAN CONSIDERATIONS

### A. General

A detailed description of the long range DECUSA operating concept has already been provided in an accompanying document;\* however, this overview description highlights the new functions to be performed by DECUSA, important changes required to DECUSA's existing operation, and general associated activities required for implementation.

In the future recommended operation concept, DECUSA will perform increased functions in U.S. assistance budget preparation, monitor planned versus actual expenditures of assistance activities, provide both English and Arabic reports to USAID and user agencies of U.S. assistance regarding activity status and funding, and become heavily involved in day-to-day liaison with all user agencies.

These increased monitoring activities will cause DECUSA to make major changes in its current operating environment and take a number of implementation steps. Before all these steps can be taken, certain implementation requirements must be satisfied regarding space, personnel, funding, and USAID cooperation; and certain decisions must be made as to the extent of the recommended DECUSA operation concept to be implemented, the availability of funding, the new DECUSA location and timing of relocation, and phasing of personnel augmentation. If any of the requirements cannot be satisfied, or adverse decisions are made due to other priorities, any implementation plan developed at this writing would become obsolete. However, it is a valuable planning tool to develop a tentative schedule for the implementation of the future DECUSA operation under optimum conditions, and point out the conditions and decisions needed for actual implementation. JWK has developed such a plan, along with implementation requirements, contingency considerations, and decisions to be made.

The implementation plan schedule described in detail in later sections, starts with an initial time of reference being DECUSA's approval of the recommended future DECUSA operation concept developed by JWK. If this concept is approved in the immediate future, and no obstacles are encountered, the following events will take place. Within the next year, DECUSA will be moving to new office space, installing a minicomputer system to perform word processing and data processing functions, developing procedures to perform more detailed U.S. assistance monitoring and budget preparation functions than currently, implementing the first phase of an automated management information system of the newly installed minicomputer, and undergoing a

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\* For a detailed description of the recommended long range DECUSA operation concept, read Section V of the "Operating Concept Development Task Report" the third document produced in this study.

major reorganization and staff increase from 30 to 67 people. Also required will be an extensive development of procedures documentation, training of both current and new personnel, and development of an up-to-date U.S. assistance activity data base.

In the following year, DECUSA will implement the second phase of the management information system and undergo a period of refining procedures developed during the first year. By the end of the two years of active change, DECUSA will have implemented a sophisticated, thorough U.S. assistance monitoring operation, in conjunction with USAID, which will be totally effective in providing optimum use of U.S. assistance funds to A.R.E.

One area which requires clarification in the optimum plan is what capabilities will be provided in the initial phase of the management information system and what capabilities will be held back until the second phase. JWK envisions that the capability to produce all the detailed reports of individual activities should be provided initially. With this capability, DECUSA monitoring personnel would become acquainted with the automated system, and learn to submit additions and adjustments to the U.S. assistance information database and become familiarized with those reports pertaining to individual program/projects and commodity letters of credit. The first phase would also include developing software from the USAID system regarding training monitoring.

Once the DECUSA monitor personnel are sufficiently familiarized with the data submission and detailed reporting review procedures, the second phase of the plan would be initiated. This second phase would include the capability of producing summarized reports, and perhaps overall management reports in graphic form. These summarized reports would be used for funding monitoring and reporting to the user agencies. Also, any unique requirements of the budget preparation reporting process would be included in the second phase of the system.

The rationale for segmenting the implementation of the management information system into two phases was related to two reasons, 1) increased credibility of information being ultimately provided to users, and 2) the opportunity to "streamline" and formalize the data preparation/update function of the system before the management reporting capability was implemented. During the first phase of operation, a number of changes predictably will be required to the data preparation/update procedures, which could only be conceived while the actual operation is being observed. These changes can be implemented without system problems and inefficiencies impacting upper echelon management and user agencies.

Another area in the optimum plan which needs amplification is the projected installation of computer equipment. JWK has set up a planned installation time of six months from the date of approval of the future DECUSA operating concept, and that time was derived with three factors in mind: (1) time must be given to locate new DECUSA office space, (2) development of detailed specifications and a computer procurement will require at least three months duration, and (3) manufacturers are quoting a minimum delivery of three months after contract award. Accordingly, six months from the time

of DECUSA operation concept approval is the shortest time in which computer equipment can be installed. It is pertinent to point out that the word processing capability of the planned computer equipment will be immediately available and of use to DECUSA with minor training as soon as the equipment is installed. Thus, the initial installation date of the equipment is not contingent on the availability of future DECUSA management information software. The optimum plan assumes that the computer word processing capability will be in use for about six months prior to the availability of the future management information system.

A third area of discussion in the optimum plan is the sequencing of both analysis and procedures development prior to computer installation and software development. Initial development of monitoring assistance and budget preparation methodology procedures should take place prior to computer systems analysis regarding the future management information system in order to be used in the detailed computer systems requirements analysis. Feasibility study methodology analysis should be performed in conjunction with the budget preparation methodology development, and the computer equipment procurement effort must be performed as soon as possible after approval of the future DECUSA operations concept.

#### B. Implementation Requirements

Although a number of contingency measures can be considered\* regarding manner of approach, certain activities, provisions, and decisions eventually will be required for a successful implementation of the future DECUSA operating concept described in an accompanying report. These requirements are categorized and set forth below.

##### 1. Space Availability

The current DECUSA office space is not sufficient in size and environmental controls to house the planned computer equipment. New offices must be obtained with sufficient power, air conditioning and space to house both the new computer system and over double the number of current DECUSA employees.

##### 2. Personnel

Two types of additional personnel are needed: (1) implementation people to develop procedures, computer software, etc., and (2) operational personnel to perform the ultimate increase in the monitoring workload. Regarding implementation personnel, it is difficult to assess the exact number of people

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\* Contingency considerations are discussed in paragraphs under Section II C which follow.

required to develop the future DECUSA operational procedures and computer software. Definite work requirements can only be defined accurately after the computer equipment is known. For planning purposes, three management analysts and four computer systems analyst and programmer personnel will be required during the first year, and two management analysts and two computer systems analyst personnel will be required during the second year of implementation. These estimated figures only refer to developing procedures and an automated management information system, and do not include an extensive work effort to prepare planning information for current programs. The estimates also do not include any management or administrative support which would be needed in developing operational procedures and computer software.

Regarding the need for additional operational personnel, DECUSA will have to increase the current staff of 30 (20 professionals and 10 administrative), to 67 (50 professionals and 17 administrative) in two years. In this two year period, these people will need to be recruited, hired, and trained. Some of the additional professionals can be hired in the very near future and used to develop planning estimates for the existing programs in the next year; however, the training effort required to develop these new people will be extensive because procedures will not be developed and in place for at least six months after procedure development has been initiated.

### 3. Funding

DECUSA will need additional funding to increase its capability both in initial expenditures and in ongoing operational costs. Regarding initial expenditures, the following general cost ranges are applicable:

<u>Type of Equipment</u>	<u>Initial Equipment Costs</u>
Computer equipment	LE 145,833 (\$175,000)
Uninterruptable Power Supply	LE 41,667 (\$ 50,000)
Microfiche equipment	LE 41,667 (\$ 50,000)
Air Conditioning	LE 4,167 (\$ 5,000)
Office furniture, misc.	LE 41,667 (\$ 50,000)
<u>Equipment Costs</u>	<u>LE 275,000 (\$330,000)</u>

Included in the "Office furniture, misc." category above are: desks, chairs, and lamps for new employees; conference room furniture, slide projectors, chalk boards, etc. for conference work with user agencies; storage and filing cabinets; and computer media storage facilities, magnetic tapes, etc. to be used in the computer operation area.

The figures above only include initial costs for equipment and do not consider costs to develop procedures, procure equipment, design and develop a management information system, provide initial training, convert existing manual data, and develop detailed planning estimates for existing assistance programs. If this work effort were to be contracted by an American firm, approximately LE 1,666,666 (\$2,000,000) would be required to have the future DECUSA operating environment become totally operational in two years. A

valid initial investment cost estimate for both equipment and services to implement the future DECUSA operation is approximately LE 2,000,000.

Ongoing operational costs consist of computer equipment maintenance, power, computer paper and supplies. An estimated monthly cost for the above listed items is LE 1,250 (\$1,500). Not included in this estimate are costs for additional power for lighting, normal office supplies, etc. over and above such costs currently expended for DECUSA's present operation.

#### 4. USAID Assistance

Integral to the future DECUSA operation concept is the "close-knit" cooperation with USAID and support from USAID in providing machine-readable data currently or planned to be developed at USAID. Also, a part of the optimum implementation plan is to use USAID-developed software, to the extent possible, to produce training monitoring reports. An overall assumption is that USAID will agree to support DECUSA in the future monitoring operation. There is no reason to believe that USAID would not support DECUSA as defined in the future DECUSA operations concept derived by JWK; however, it is an impact on the USAID workload, and USAID agreement to provide such support is required.

### C. Contingency Considerations

#### 1. New DECUSA Office Space Availability

Regarding DECUSA office space, two contingency considerations are important for plan implementation: (1) the knowledge of the space location and environmental characteristics, and (2) the actual availability of the space. In order to be able to plan a computer installation and procure equipment, space characteristics must be known. If the optimum implementation plan is to be met, the knowledge of the general environmental characteristics must be known two months after any positive decision regarding the future operation concept is made.

The actual availability of the new DECUSA space will be needed four months after a decision is made that the optimum plan schedule is to be met. This requirement is postulated on the target of having some of the capabilities of a management information system developed and operational within a year after a decision has been made, and assumes that the future DECUSA computer system will be the management information system development system, as well as the operational system. If either of these factors change, a later availability date can be made without jeopardizing the ultimate schedule.

#### 2. Computer Equipment Installation

As has been alluded to in previous paragraphs, the installation time of computer equipment may be flexible without impacting the schedule if careful planning takes place. In the event that Wang computer equipment is to be procured (and a sole source justification for such an action is quite possible), the Wang equipment at USAID might be used, with permission from

USAID for software development purposes. A second approach to slipping computer delivery without schedule impact is partial delivery or temporary lease of equipment at another installation to be used for software development. The developed software would then be installed at a later time on the ultimate computer system. This approach would be quite valid if Wang equipment is not to be procured. In summary, a number of viable alternatives can be made regarding computer installation and minimal impact to the planned schedule will be felt.

### 3. Schedule for Hiring Additional Personnel

A number of different implementation approaches can occur regarding the schedule of hiring of new employees. The development of milestone scheduling and expenditure planning estimates for current program/project assistance activities can be performed by contractor personnel. Another approach to reducing data preparation requirements is an active phase-out and deobligation of old program/project activities so that mostly new assistance activities will be automatic. A third approach to phase staffing would be to implement the automation support of program/project activities by sector, so that all the new DECUSA people would not be needed by one year after any decision is made. A fourth approach would be to implement facets of the future automated management information system function one at a time, and stagger hiring accordingly. Training monitoring would be implemented first, then commodity monitoring, followed by program/project activity monitoring, then funding monitoring, and finally budget preparation using automation support. Again, as in the case of computer system installation, a number of reasonable alternative approaches are available to DECUSA regarding phasing in new people.

#### D. Decision Requirements

##### 1. Acceptance of Long Range Operation Concept

The basic decision facing DECUSA which has resulted from this study is whether or not to implement the operation concept as presented by JWK. A number of determinations are needed, along with that basic decision. For example, planned versus actual program/project activity and funding monitoring is recommended. That monitoring capability entails a significant amount of initial development and ongoing effort, and its specific inclusion in the future operation should be examined. Also, JWK has recommended scheduled monthly monitoring of assistance activities. This recommended procedure also will require significant manpower resources to be expended on a continuing basis. In addition, JWK has recommended an Arabic/English reporting capability so that DECUSA will act truly in a liaison role between USAID and user agencies. This capability also will require extensive ongoing manpower resources and should be considered and agreed upon for inclusion in the future DECUSA operation. In conclusion, DECUSA has certain decisions regarding the future operation concept which should be considered carefully.

## 2. Space Decisions

Three decisions are required regarding space: (1) location, (2) time of relocation, and (3) extent of space needed. JWK envisions a requirement of three to four times the amount of the current space being used, and strongly recommends central air conditioning be installed in computer equipment space.

## 3. Funding Decisions

In an earlier paragraph, a figure of LE 2,000,000 has been estimated for implementation costs for the recommended long range DECUSA operation concept. This funding is not needed immediately after any general decisions have been made; however, over a two year period much of the estimated funding will be needed if the operation concept is to be implemented. Alternative approaches such as equipment leasing and phasing of different monitoring activities can be made which will impact funding requirements. Computer and other equipment features might be trimmed to reduce costs and subsequent capabilities. For example, the cost estimate of \$50,000, for microfiche equipment to satisfy archival data reduction requirements, might be reduced to as low as \$25,000 if a microfilm reduction technique would be used. Although such a capability would be more cumbersome, and long term operational costs and space costs might be increased, the start-up funding requirement would be reduced. After decisions have been made regarding system capabilities, types of equipment, desired features, and future office space, a funding budget plan will need to be devised.

## 4. Personnel Decisions

A number of approaches can be taken regarding the method of augmenting the current DECUSA staff of 30 people to 67 people in one or two years. After all other decisions have been made regarding inclusion of any/all operational capabilities, space, and funding decisions, the staging of personnel hiring will have to be decided upon. Many of the particulars of this decision-making process will be based on the availability of office space and phasing of various operational capabilities.

### III. DISCUSSION OF TASKS

#### A. General Considerations

After reviewing the total work effort involved in implementing the future DECUSA operational concept described in the accompanying document in this study, JWK arrived at the conclusion that a number of beneficial specific implementation approaches can be taken. As has been mentioned in previous paragraphs and described in Section IV, JWK has developed an optimum schedule for the implementation of the future DECUSA operational concept; however, that schedule assumes optimum conditions for timely implementation without concern for budgets and personnel complement ceilings. Also, a number of decisions are required before a detailed schedule of well-defined tasks should be drawn up. In addition, the majority of the future DECUSA professional personnel who will be implementing the future operational concept are not even current DECUSA employees. Accordingly, JWK was not able to honestly define a detailed schedule of specific tasks, with named individuals to be responsible for the completion of specific deliverable products. The optimum schedule in Section IV is a sought-after objective rather than a detailed plan with a guarantee of success regarding timeliness of implementation.

Although a detailed plan can not be defined, the overall implementation work effort scope is definable and general functional tasks can be specified which will be required under any implementation approach. JWK has formulated ten general functional tasks which encompass the general work effort needed to implement the defined future operational concept, and provided a separate treatment of each such task in paragraphs following. In each treatment, besides a task description, are considerations regarding both schedule and personnel. The schedule considerations are included to describe how aspects of the individual task execution may impact the defined optimum schedule. With the information contained within as a starting point, detailed task schedules can be derived when more specific information is known and specific decisions are made in the future. Much of the information herein will assist in providing additional insight in making important decisions regarding specific tactical implementation approaches.

#### B. Individual Task Descriptions

##### 1. Perform Detailed Organization Study

##### a. Description

This study task will review the general DECUSA organization concept defined in an accompanying document\* and further define that organization

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\* See Section V.B of the "Operating Concept Development Task Report" the third document produced in this study.

in regard to missions of each central directorate and division, and the responsibilities of each job category in DECUSA. Also described will be channels of command and work flow within and among the central directorates and divisions. Finally, after the detailed analysis of DECUSA work flow has been performed, the study will examine the amount of work required in the various job categories and derive official DECUSA personnel complement with numbers for each job category in each division. The task will result in a final study report which will be preceded by interim analysis results, detailed job descriptions, and working papers regarding various personnel classification topics. Included in the task activities will be continuing interviews with DECUSA personnel, and consultations to solicit guidance from DECUSA management.

b. Scheduling Considerations

The organization study tasks should be initiated as soon as possible after a decision has been made regarding implementation of the future DECUSA operation concept. The task will be completed within a six-month period with a heavy concentration of analysis performed at first, and documentation being developed in months four and five. The study will be performed in conjunction with three other study tasks: Tasks 4, 5, and 6 which are described under the appropriate paragraph numbers.

c. Personnel Considerations

This task will require six work months effort of a management analysts time.

2. Plan and Execute Relocation of DECUSA

a. Description

This task will entail finding available government office space for DECUSA with air conditioning and sufficient electric power, planning specific office arrangements within the space, arranging terms of lease, and coordinating relocation. Also, included in this task will be procurement of additional office furniture needed in the new space.

b. Scheduling Considerations

This task should be performed as soon as possible after a decision has been made regarding the future DECUSA operation concept.

c. Personnel Considerations

This effort will require the direct participation of one of the DECUSA undersecretaries for two work months over a four month period.

### 3. Procure Computer Equipment

#### a. Description

The first step in the procurement of computer equipment will be to develop computer specifications which will define functional requirements for both word processing and data processing activities. These requirements would include among others: the number of concurrent word processing operators expected in operation, size of allowable immediate document storage, availability requirements of hard copy after preparation, data processing storage requirements, on-line data base storage requirements, and expected available compilers and software capabilities.

The next step to be performed in this task will be to determine whether a sole source justification is warranted with Balsam Engineering, Inc., the suppliers of Wang Computer equipment. Because USAID and DECUSA will be working so closely together and will be sharing data and most possibly computer programs, a sole source justification is certainly possible. Computer backup relationship possibilities with USAID further reinforce a sole source justification for DECUSA equipment to be provided by Balsam Engineering.

In the circumstance that a sole source justification is not applicable, a full solicitation and advertisement would be performed, with at least formerly solicited vendors notified of the procurement action. In any event, computer specifications would be incorporated into a Request for Proposal document which would be distributed to interested vendor(s). All proposals would be evaluated, and an award would be made.

Afterward, preparations would be made to install the equipment in DECUSA space. Computer manuals would be received, site preparation would take place, operator and word processing personnel would be trained, and detailed procedures would need to be developed regarding use and operation of the equipment.

Upon installation, acceptance testing would take place and a "shake-down" period would occur when detailed procedures regarding signing on the computer system, allocation of disk storage space, etc., would become formalized. After the system has finally become operational, a report will be prepared regarding the procurement proceedings and installation events which occurred.

#### b. Scheduling Considerations

From task initiation to final acceptance of installed equipment, the duration will be seven months, without any delays, with a computer being installed by six months after start of the task. This duration could be shortened by about one month if a sole source justification is applicable, and a delivery order could be initiated before the third month after task initiation. Another major consideration of this task will be the availability

of the new DECUSA office space. The task execution might entail a procurement activity being performed initially, with an extended duration occurring before equipment is ultimately installed.

c. Personnel Considerations

The extent of task effort required will depend upon the number of vendors evaluated in the selection of the successful bidder. A valid estimate is that the task will require six work months of effort total with two personnel involved at varying levels of participation over a seven month period.

4. Develop Feasibility Study Methodology

d. Description

This task will be executed in three separate steps and will last for an entire year. The first step will be to analyze one or more existing U.S. assistance feasibility studies and derive guidance regarding cost analysis and other aspects of feasibility assumptions related to Egypt and the U.S. assistance program.

The next step will be to prepare a feasibility study methodology manual with step-by-step procedures and guidelines for each process defined in the study methodology. Included in the manual will be guidelines and procedures to assess whether a feasibility study is needed, general contents expected, certain types of assumptions which should be considered, and methods of evaluation of the study results. The feasibility study methodology manual will be prepared in intermediate draft level form after a representative feasibility study has been analyzed and a representative feasibility study document is available as an example.

The last step will be to check out the developed methodology by studying the activities of a second feasibility study which will be performed using methodology developed in the initial phase of the study. A final version of the feasibility study methodology manual will be prepared after insights have been gained from the exercise of actually using the methodology. The final version will contain example documentation of the study used.

b. Scheduling Considerations

This task will be performed over a years duration with the major effort performed in the first six months. The task can be performed in a somewhat independent fashion although a certain amount of coordination should be involved in reviewing the requirements being defined in Task 6 concerning the budget preparation methodology development.

c. Personnel Considerations

This task would require nine work months, of management analyst effort, with full time participation during the first six months and half time participation in the last six months.

5. Develop Methodology for Monitoring U.S. Assistance Activities

a. Description

This task will be concerned with devising distinct methodologies and procedures for performing day-to-day U.S. assistance monitoring activities. The task will result in a manual which will be segmented into separate chapters for various types of monitoring activities. Program/project, ESF Commodity, P.L.-480 commodity, training and funding monitoring will all be treated in separate chapters.

For each type of monitoring activity, the methodology will be associated with the management information system to be available, and will prescribe what reporting activities will be required from each monitor, and what information filing requirements will be necessary. Also included in the methodology will be steps to be taken by the monitor at each type of milestone in the life of an activity.

Regarding project activity monitoring of ESF Programs the methodology will be segmented for various types of projects, and the project monitoring methodology chapter will have different subsections specifically devoted to different types of projects or programs. Included in these subsections will be guidelines as to what courses of actions should be taken in certain typical anticipated circumstances. The project monitoring methodology chapter will be developed in an incremental fashion, with guidelines being added as general policies are formulated.

b. Scheduling Considerations

This task should be initiated as soon as possible after a decision has been made regarding the future DECUSA operation concept. The task will last a duration of 18 months, with the major effort being performed in the first six months. After the first six months, an initial version of the U.S. assistance monitoring methodology manual will be prepared. After 18 months, a final version (with provisions for continuing adjustments) will be developed. This task will be closely coordinated with the management information system design and development tasks.

c. Personnel Considerations

This task will require an estimated 18 work months of effort with the two management analysts involved on a full time effort during the first six months, and one-fourth time effort in the last 12 months.

## 6. Develop Methodology for Budget Preparation

### a. Description

This task will produce a formalized methodology for preparing the annual U.S. assistance budget. The methodology will be concerned with those functions which are necessary to collect the necessary reporting information to make budget decisions rather than being concerned with the budget decisions themselves. The budget preparation methodology manual will pinpoint all necessary steps to collect both planning and proposal information, and produce reports for the budget decision process. The manual will reference reports to be prepared by the management information system, and coordination will be required by persons performing this task with designers of that system.

### b. Scheduling Considerations

This task should be performed during two separate budget preparation exercises, and should not be completed until monitoring report portions of the management information system have been in operation.

### c. Personnel Considerations

This task should require about four work months of a management analyst's time.

## 7. Word Processing Training

### a. Description

This task would be performed during the time that the computer system is initially installed, and would consist of two separate functions. The first function would constitute training typists in the general procedures required to use the generalized word processing package to be provided by the computer equipment manufacturer. This function would be performed directly by the manufacturer's representatives. The second function would be to develop specific procedures to use word processing capabilities at DECUSA, and would be performed by DECUSA personnel with assistance from the manufacturer. This second function would entail establishing sign-on conventions, document storage regulations, data storage backup procedures, and any other necessary guidelines required by either terminal typist or computer operations personnel.

### b. Scheduling Considerations

DECUSA word processing procedures would be developed about one month before the computer system is to be installed and operational. Training would take place both after the computer equipment is initially installed and whenever new terminal typists are hired.

c. Personnel Considerations

One work month will be required to develop DECUSA word processing use procedures.

8. Develop Management Information System

a. Description

This task will require the longest duration of the tasks described, and will extend, in varying degrees of effort, over much of the two-year period JWK estimates will be required for the complete operation concept to be implemented. The largest portion of the effort would be performed in the initial stages of the task. Data input, files, and reports will be formulated from known monitoring requirements, and a system will be devised to be operational on equipment to be procured. A systems design document of the future DECUSA management information system will be prepared first, followed by the development of program specifications of individual computer programs to be developed.

The software development effort might be able to begin before a computer equipment contract has been signed; however, many facets of the software development effort will require some knowledge of the computer configuration environment on which the management information system will reside. One major factor in the software development effort will be the use of DBMS and other generalized packages. If the computer manufacturer is not known, much of the design with the use of generalized package can not be performed. Once the manufacturer and associated packages are known, detailed software design and programming can be initiated. During the time of software development, a user manual would be developed.

JWK has determined that the installation of the management information system should be done in two phases. This determination is based on the premise that DECUSA will not have the level of data processing oriented personnel to become totally operational in one step. By allowing the monitor personnel to become familiarized with a detailed reporting function before sending management and overall status reports to outside user agencies, the long-term credibility of the system (and DECUSA) will be intact.

b. Schedule Considerations

The implementation schedule for this task is affected by many factors. Software requirements, design, and specification documentation should be complete by six months after the task has started; however, design decisions require the knowledge of specific computer equipment, and software requirements are affected by the methodologies defined for monitoring activities and funding, and preparing budgets.

Depending upon availability of the computer equipment, the actual software development activity could be performed in six months after detailed specifications have been developed and approved. This six month

period does include the development of a user manual but not Programmer documentation. Programmer documentation and operations training would be made available at a later period after the system is in operation.

c. Personnel Considerations

At this writing, the scope of the total software effort, with the use of a DBMS package, is estimated to be six work years with a varied mix of personnel. This estimate includes design, development, documentation, and training. The estimate is also based on the use of both a DBMS package and some of the currently developed USAID application software.

9. Prepare and Convert Data

a. Description

After the management information system software has been developed, existing U.S. assistance activity and other data will need to be converted into machine-readable form and input to the computer data base. The major work effort of the conversion/preparation activities is to review the current 70 program/projects, and prepare accurate milestones and expenditure estimates. Each activity would have to be analyzed, and estimates would require coordination with user agencies and USAID. Regarding other data conversion activities, the work effort is not sizeable and, a portion of the data can be obtained in machine readable form from USAID.

b. Scheduling Consideration

A variety of scheduling considerations are available regarding developing planning information tracking for program/project activity status and funding expenditures. This topic has been covered in an earlier paragraph concerning contingency considerations in Section II.

c. Personnel Considerations

An estimated 140 work months will be required to do a totally effective job of estimating planned status and funding of the current 70 program/projects. In regard to conversion of other data, the work effort involved will be less than two work months of clerical time and one work month of programmer time.

10. Recruit New DECUSA Personnel

a. Description

This task will be a major part of the DECUSA management work effort during the first year after any decision is made regarding the future DECUSA operational concept. Not only will applicants for 37 positions have to be interviewed but also extensive training will be required.

b. Schedule Considerations

This topic has been already discussed in Section II.C.3 of this document. A number of different approaches may be used to fill the future DECUSA personnel complement.

c. Personnel Considerations

It is difficult to assess the extent of effort required to recruit, hire, and train 37 personnel. At least two work years would be expended in such an activity.

## IV. OPTIMUM SCHEDULE DISCUSSION

### A. Description

The optimum schedule devised by JWK for the implementation of the DECUSA long-range operation concept would require two years to complete from the time of the initial decision of approval by DECUSA. Of the two year duration, the first six months would be spent in analysis and design, and the next six months would be spent in software development. By the end of the first year, the software would have been implemented and the operation of the management information would have started. The first six months of the second year would be spent in refining the necessary details of the operation of the management information system, and the last six months would be used to promote overall DECUSA operational efficiency with the recommended changes in place.

In the schedule, five different times are significant and the important milestones occur in those periods. They are below:

- Month 3 - Computer equipment contract awarded  
- Delivery of management information system design document
- Month 4 - Relocation of DECUSA offices
- Month 6 - Development of methodologies for operation  
- Development of detailed organization  
- Computer equipment delivered
- Month 12 - First phase management information system
- Month 15 - Second phase management information system

In Figure IV-1, the optimum schedule is depicted specifying the ten general implementation tasks described in Section III.B of this report with the last paragraph numeral within Section III.B designating the task number (i.e., III.B.1 describes Task 1). For each task, one or more milestones are depicted, with each milestone number specified within a triangle on the chart. The first digit of a milestone number in the triangle designates the task, and the second number the milestone, in ascending chronological sequence. Milestone names are listed in the following paragraph.

### B. Milestone Discussion

JWK reviewed all the tasks described in Section III.B and endeavored to determine what would be the most important milestones of each task and what would be the optimum and most practical target time for each. It must be stated that in the actual implementation of the described tasks, additional milestones should be designated and tracked. It is not a wise

DECUSA OPERATION CONCEPT  
IMPLEMENTATION  
OPTIMUM SCHEDULE

(MONTHS)

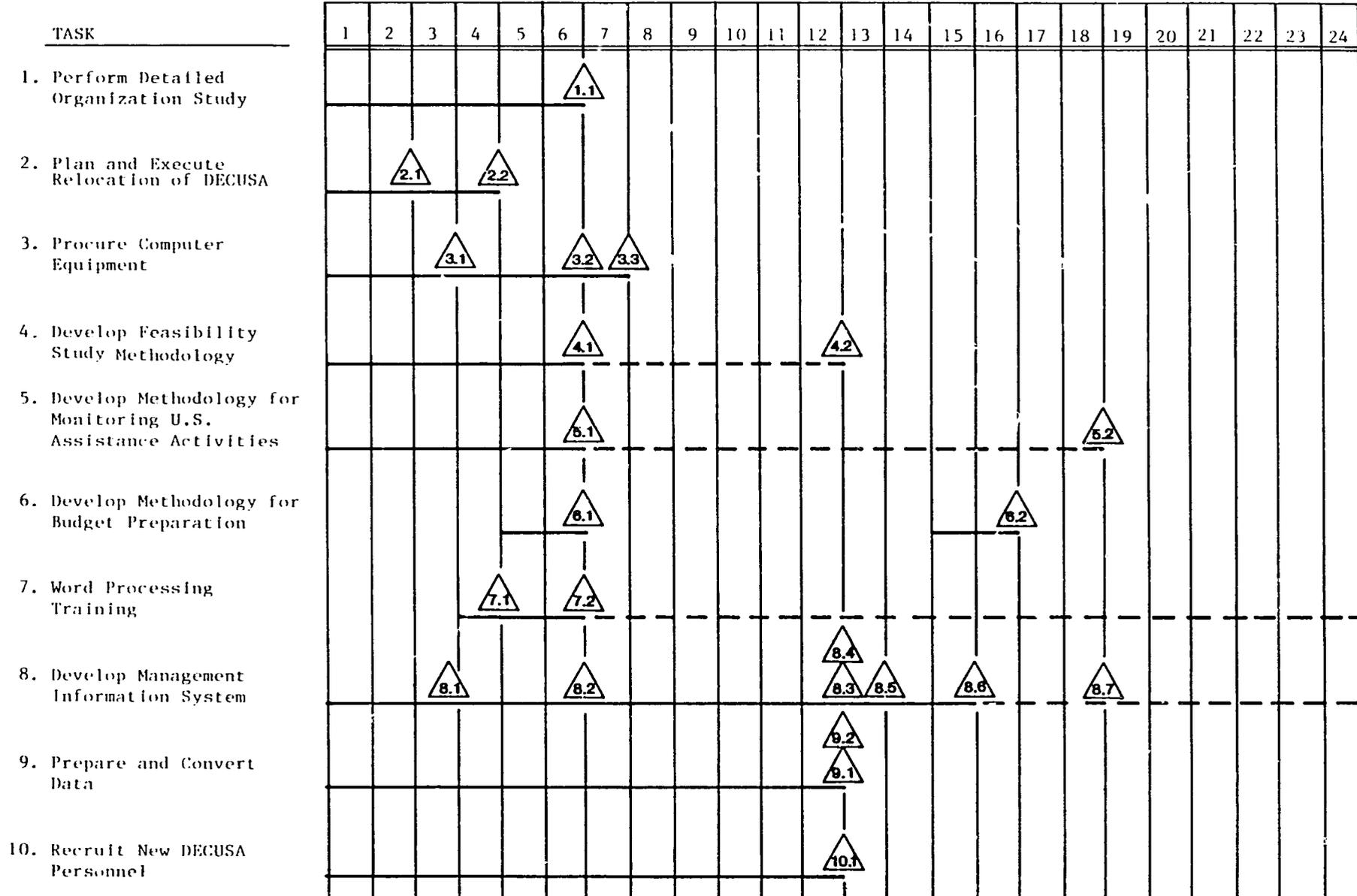


FIGURE IV-1

management practice to allow more than two months to pass without scheduling at least one milestone for management tracking. The important task milestones are listed in Figure IV-2 with milestone numbers designated in Figure IV.1.

FIGURE IV.2

DECUSA OPERATION CONCEPT  
OPTIMUM SCHEDULE MILESTONE LIST

<u>Task</u>	<u>Milestone Number</u>	<u>Description</u>	<u>Time (Months From Start)</u>
1	1.1	Deliver organization study report	6
2	2.1	Select new DECUSA office site	2
	2.2	Relocate DECUSA to new offices	4
3	3.1	Award computer equipment contract	3
	3.2	Deliver computer equipment	6
	3.3	Accept computer equipment	7
4	4.1	Deliver draft feasibility study methodology document	6
	4.2	Deliver final feasibility study methodology document	12
5	5.1	Deliver draft activity monitoring methodology manual	6
	5.2	Deliver final activity monitoring methodology manual	18
6	6.1	Deliver draft budget preparation methodology manual	6
	6.2	Deliver final budget preparation methodology manual	16
7	7.1	Deliver word processing procedures manual	4
	7.2	Major word processing training	6
8	8.1	Deliver design document	3
	8.2	Deliver program specifications	6
	8.3	Install first phase of management information system	12
	8.4	Deliver users manual	12
	8.5	Deliver operations manual	13
	8.6	Install second phase of management information system	15
	8.7	Deliver programmer maintenance manuals	18
9	9.1	Develop planned milestone and funding schedules for program/projects	12
	9.2	Convert funding and description activity data	12
10	10.1	Complete recruiting of full DECUSA complement	12