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ANALYSIS AND DEVELOPMENT OF MANAGEMENT INFORMATION
SYSTEMS FOR PRIVATE MESSES AFLOAT

by

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and

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This thesis examines the design and development of an automated information system to support the records keeping and reporting functions for private messes afloat. A system life cycle methodology was used to develop the program, Private Mess Accounting System (PMAS). This program was then demonstrated for potential users and statistical information was gathered and analyzed on the program's potential impact. *Keywords:*

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Analysis and Development of Management Information Systems
for Private Messes Afloat

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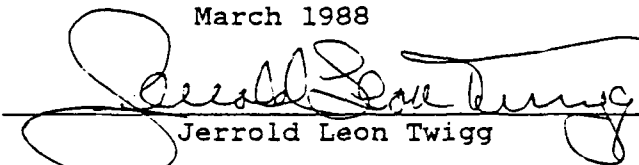
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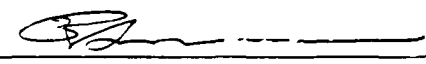
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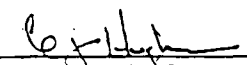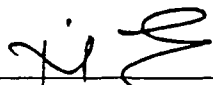
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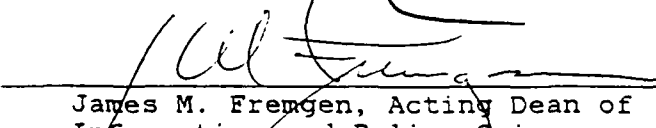
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ii

ABSTRACT

This thesis examines the design and development of an automated information system to support the records keeping and reporting functions for private messes afloat. A system life cycle methodology was used to develop the program, Private Mess Accounting System (PMAS). This program was then demonstrated for potential users and statistical information was gathered and analyzed on the program's potential impact.

iii

TABLE OF CONTENTS

I. INTRODUCTION

A. BACKGROUND

The dining facilities aboard naval vessels, generally referred to as messing facilities, are grouped into the two distinct categories of General Messes and Private Messes. This thesis is directed towards automating the transaction processing in the area of Private Messes and generally providing improved decision support to the Mess Treasurer. Officers and Chief Petty Officers are authorized to establish private messes and today every naval vessel maintains at least one and sometimes several private messes. The membership of these messes is restricted by regulation and the costs of operation are borne by the membership on a prorated basis. As will be discussed later, the methods for such prorating of costs can vary from one mess to another. The assets held by each mess can range in value from several hundred dollars in small messes to several thousand dollars in the larger ones. The financial management of the mess is performed by an elected Mess Treasurer, from within the membership of the mess. In some cases, however, enlisted personnel meeting regulatory requirements may be appointed.

B. PROBLEMS WITH THE CURRENT SYSTEM

On the vast majority of ships the position of Mess Treasurer is held as a collateral duty for officers already burdened with other responsibilities. Most officers assigned as Mess Treasurer also have responsibilities as division officers, underway and inport watchstanders, as well as professional

1

development requirements. The problem of maintaining accurate records has been further aggravated by the frequency with which the job is rotated and the time required to become proficient at performing the associated tasks. The financial records keeping function is currently based on a manual system requiring long hours of repetitious and tedious data entry followed by cumbersome report generation. The Mess Treasurer function involves many issues such as inventory management, procurement, billing, cash collection and disbursement of funds. In most cases the officer assigned to the function has little theoretical background or operational training in these areas resulting in inaccurate financial statements, improper safeguarding of assets and excessive time and energy spent in an effort to properly correct and maintain the financial records.

C. OBJECTIVES

This thesis examines in close detail the structure and design for an automated system that can be used to maintain the financial records of all private messes aboard ship. Issues concerning regulatory requirements and the technical publications describing procedures to accomplish those requirements were explored to determine the true nature of the system. Based upon a graphical representation of the system structure and functions as shown in Appendix A, decisions were made as to automation boundaries and development schedules. The proposed design, designated PMAs, was prototyped using database development language. The test and evaluation phase used this prototype to provide data necessary in answering the research questions and supporting the recommendations and conclusions.

2

D. THE RESEARCH QUESTIONS

The thesis research is directed at seven specific questions of interest and concern to the Mess Treasurer. These questions include:

- What information can be provided to support improved financial management? Is information available but not in a form usable to the Mess Treasurer?

- Can the level of expertise required to operate the system be significantly reduced. Will automation of some or all functions make the system more user friendly and easier to master?

- Is a significant level of improvement in the accuracy of the financial records attainable? Will the automation of some or all of the system increased reliability in the financial statements while providing an audit trail for error detection/correction?

- What are the automation boundaries in a proposed system? What functions should be automated and which should remain manual?

- Is management information provided in a more timely manner? Is the Mess Treasurer able to produce financial reports faster as well as produce information useful in decision making while it is still current?

- Will the proposed system provide support to menu planning? Will system output provide financial information useful to the mess caterer for planning purposes?

- Test the following null hypotheses to determine possible impact of the proposed system on the Mess Treasurer function:

  H1: Understanding of the current private mess records keeping system by the Mess Treasurer's is generally limited.

  H2: Performance of the Mess Treasurer task significantly impacts the Treasurer's primary duty.

  H3: Mess records turned over during the relieving process are not generally complete and inspection ready.

  H4: Mess Treasurers believe there are significant gains to be realized from automating the records keeping process.

  H5: Automating the records keeping process improve the Mess Treasurer disposition toward the required tasks.

3

H6: The automated system will produce significant savings of time for the Mess Treasurer.

H7: Use of the automated system will improve the accuracy and timeliness of report submission in the opinion of the treasurer.

H8: The automated system is easy to understand and not complicated to operate.

H9: PMAs will be of significant use to a Mess Treasurer.

E. SCOPE

This thesis is concerned with the development of an automated management information system for the financial reporting and record keeping functions required by private messes afloat. Within these boundaries a two phased approach was taken starting with system development and then moving into test and evaluation. In the development phase emphasis was placed on a three step approach starting with an analysis of the requirements as established by regulation then developing a design of the logical system without regard to possible methods of implementation and finally implementing the system in preparation for test and evaluation. This implementation was constrained by a development language requirement established by the thesis sponsor. The implementation must be accomplished through the use of FOXBASE data base development language. The second phase will be devoted to the system evaluation focusing on three primary areas of interest:

- Timeliness of information in support of management decision making.

- Level of technical expertise required to master the new system.

- Accuracy of records and reports as compared to the manual system.

4

F. RESEARCH METHODOLOGY

Within the development phase of the project a structured systems analysis and design methodology was utilized as the development model. To assist in developing system requirements interviews with appropriate personnel within the Navy Food Service Systems office and a review of applicable publications were performed. The use of questionnaires and interviews with afloat supply officers assisted in establishing a baseline against which the performance of the newly developed systems was measured. The second phase of the project was conducted as an iterative process to test, demonstrate, and incorporate recommended changes. Upon completion of this prototyping process, testing of the automated system against the old system was conducted to develop the statistics necessary to address the research questions.

G. SUMMARY OF FINDINGS

Upon completion of the development and evaluation phases the results were compared against the original questions to draw conclusions and make recommendations.

- Concerning additional financial information, the automated system generates a transaction listing to provide an audit trail and assist in error detection, a recommended mess bill and a meal price list for the next month. Additionally, the system produces a complete trial balance to assist in financial statement preparation.

- Data collected indicates that a significant amount of time will be saved using the automated system as compared to the manual system.

- To provide more conclusive evidence that improvements in accuracy result from implementing this system, more time than is available would be required. However, some conclusions can be drawn to support improved accuracy from the tests conducted.

5

- As a preliminary evaluation the prototype system was tested among 25 individuals. The findings discussed in Chapter 4 indicate both a favorable and statistically significant result.

- In all situations the improvements in timeliness and accuracy of report submission were anticipated to be significant.

H. ORGANIZATION OF STUDY

The main body of the thesis is divided into five chapters with the next three addressing the issues described above and ending with a fifth chapter for conclusions and recommendations. A brief description of these chapters is as follows: Chapter II–an in-depth description of the system as it exists in it's logical form; Chapter III–the logical design of the proposed system to include the dataflow diagrams and module specifications for source code development; Chapter IV–a performance evaluation of the automated system as opposed to the manual system currently in use; and Chapter V–a discussion of findings and recommendations.

II. ANALYSIS

A. INTRODUCTION

The introductory chapter described, in general terms, the framework of the private mess information system project, establishing boundaries and defining system objectives. In this chapter, a more in-depth analysis of the system is conducted to develop a logical model of what the system accomplishes given the system inputs and outputs. This analysis focuses on what the system is to accomplish and not on the specifics of how it is to be accomplished. The system will be described in terms of data flow diagrams using a functional approach for the high level views and turning to a data driven approach for the analytical discussions at the data element level. This approach is based on structured analysis and design techniques and will take the data elements found in the system output and trace them back through the system to determine their origin. Along the way these data elements are examined to identify data stores, algorithms and input requirements. Upon completion of this phase of the system development, certain exit criteria were required to be met. These criteria consist of a graphical representation of the system presented in the form of data flow diagrams, a data dictionary identifying the data elements that occur in the system and a list of the algorithms used to generate the system output.

B. DATA FLOW DIAGRAM LEVELING

An examination of the system on a broad scope reveals two major functional areas. The first area to be considered was the recording of the daily transactions into the system. The mess treasurer is daily faced with a variety of transactions dealing with funds collection, funds disbursements, establishment of accounts receivables or payables, and changes in the mess membership. All the daily transactions must be properly recorded and posted to the appropriated accounts. These transactions represent the inputs to the system. The second major functional area is that of generating monthly operating statements. The mess is required by regulation to provide a monthly financial operating statement along with a variety of supporting documentation in the form of summary ledgers. These ledgers are prepared for the following accounts: (1) accounts receivable; (2) accounts payable; (3) record of expenditures; (4) record of collections; (5) a listing of current mess members; (6) mess bills owed by the members, etc. These reports generated by the financial system represent the outputs. The data flow diagram in Figure 1, illustrates the process of transactions entering the system and being assigned to data stores and then at the end of the month the financial reports are processed and distributed to the membership of the mess. Each of the major functional areas will be decomposed into its component parts in an effort to identify the processes necessary to accomplish the major functional objectives.
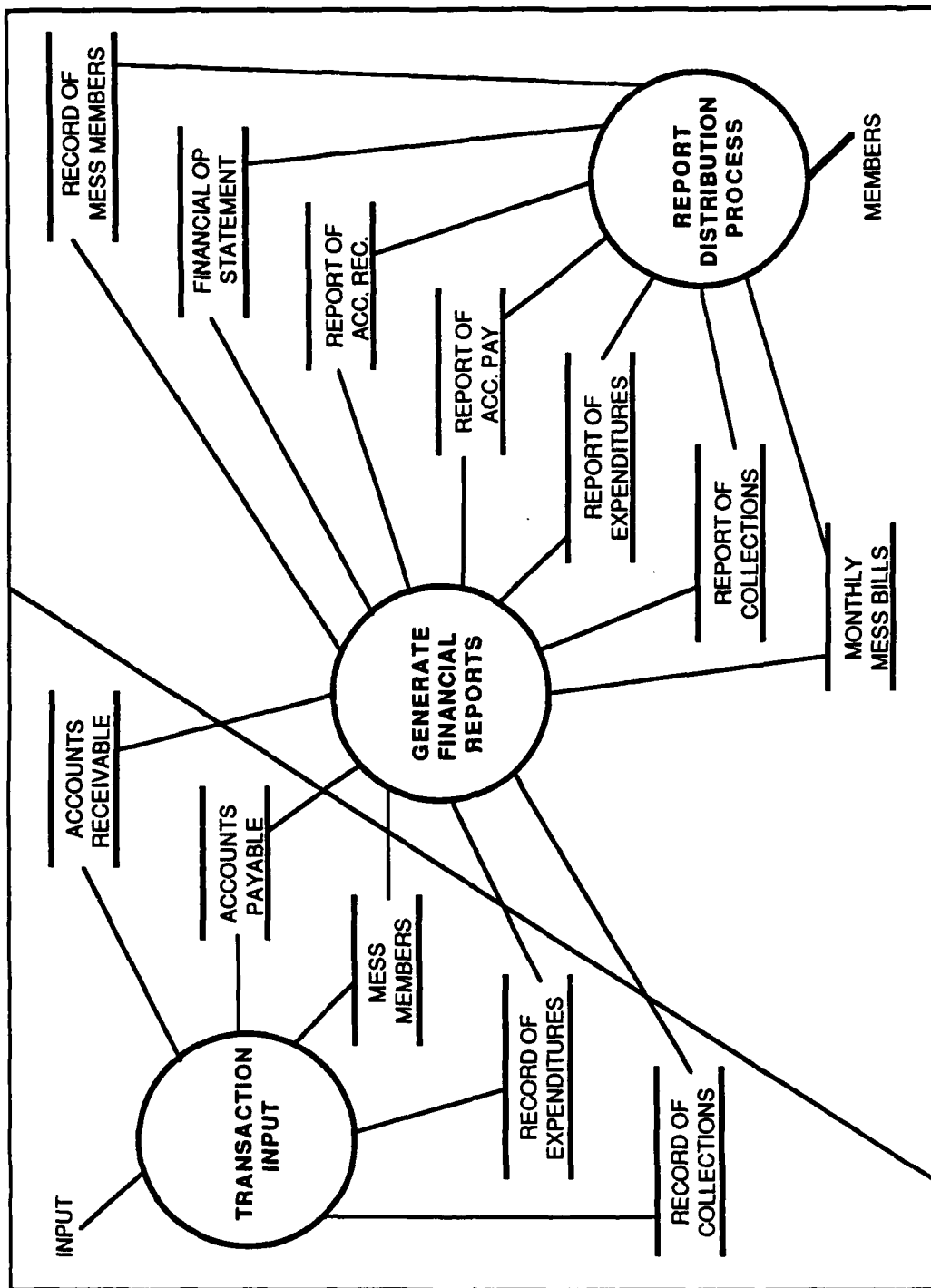
Figure 1. Level 1 DFD

9

C. FUNCTIONAL DECOMPISITION

At this point it is still not clear as to exactly what the system is doing. To get a better feel for the system requirements it is necessary to break down the major function areas into more easily understood functions. The first major area of transaction processing actually represents several smaller functions as described below:

- Accounts receivable: the system must be able to account for amounts due from its members as well as any outside agencies.

- Accounts payable: the system must also track amounts owed by the mess for items such as provisions and supplies to support the mess operations.

- Cash collections: cash collected by the mess treasurer must be properly entered into the accounting system.

- Cash disbursements: cash disbursements made by the mess treasurer against mess obligations must also be posted into the system.

- Changes in membership: both additions and deletions from the membership rolls must be recorded accurately to ensure proper billing and/or refund.

- Handling non-members: from time to time non-members such as technical representatives will eat in the mess. The billing of these people must be addressed.

Figure 2 represents the decomposition of the transaction function.

The second major area for decomposition is the report generation function. This function can be broken down into six different sub-functions as described below.

- Financial Statement: The Navy Food Service Systems Manual requires that a NAVSUP Form 1368 be prepared monthly for all afloat private messes. This statement contains information on the cash accounts, balance sheet accounts, mess share value, provisions consumed, and cost per man calculation.

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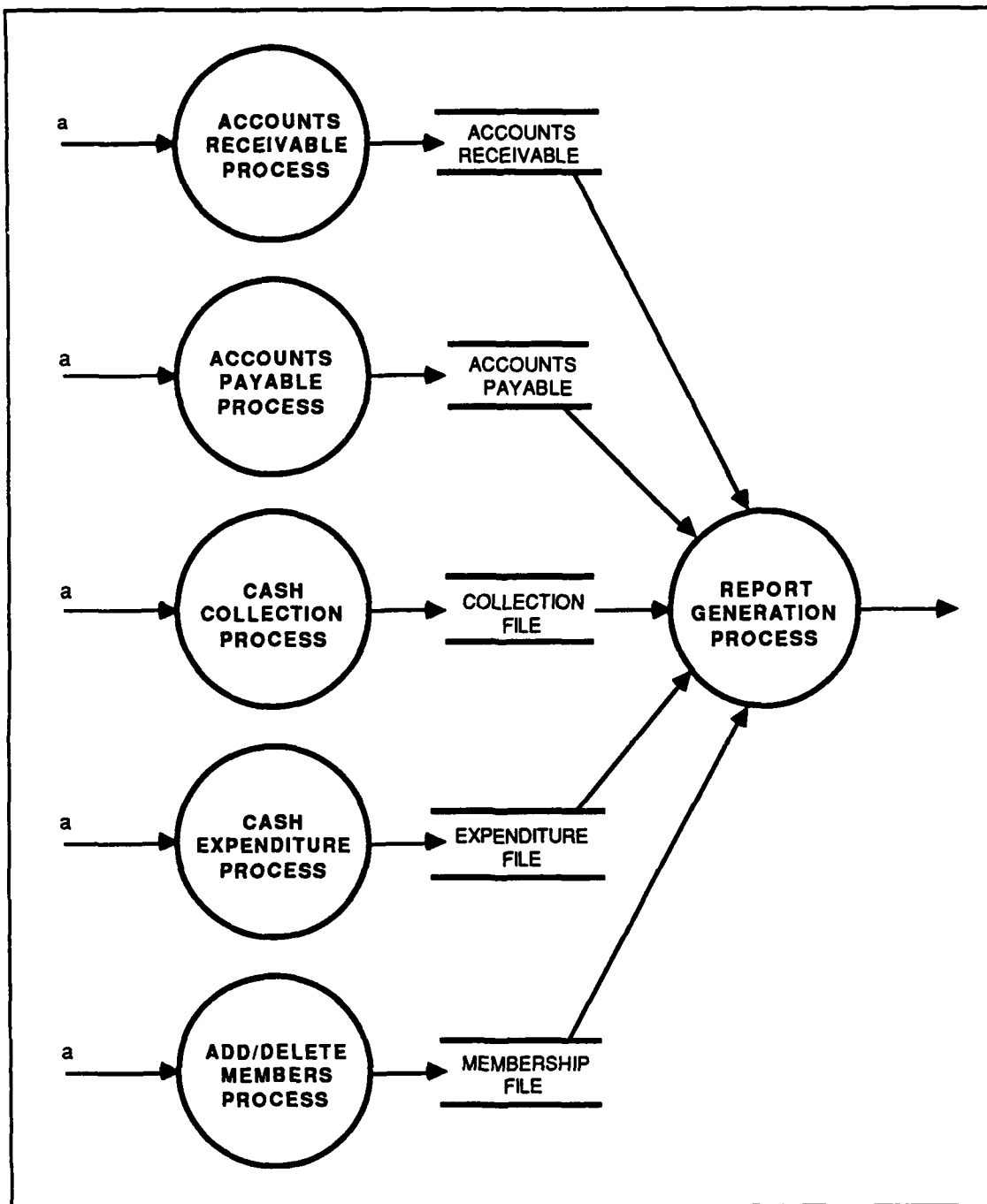
Figure 2. Decomposition of Transaction Functions

- Statement of Accounts Receivable: In support of the financial statement a listing of all outstanding accounts receivable is to be prepared and attached.

- Statement of Accounts Payable: A list of all current accounts payable will also be attached to the financial statements.

- Record of Collections: A record of all cash collections made by the mess for the current month will be attached to the monthly financial statement.

- Records of Expenditures: Additionally a record of all disbursements made in the name of the mess for the current month will be attached to the financial statement.

- Monthly Mess Bills: At the end of every month the system must produce a mess bill for all members of the mess as well as any non-members subsisting out of the private mess.

- Record of Mess Members: Attached to the financial report package is to be a listing of all current mess members containing information as described below.

Figure 3 illustrates the decomposition of the report generation process.

D. DATA DRIVEN ANALYSIS

Now that the functions to be performed by the system have been identified and discussed, the emphasis is directed to analyzing the flow of data through the system from the point of system output back to the point of system input. This analysis is performed using a data driven approach. In this approach the output of the system is examined and the data elements are traced back to determine their origin and make up. Appendix B contains the results of this analysis. During this process the algorithms used to manipulate the data are identified, described, and recorded. All system output such as the financial statements and the monthly reports were

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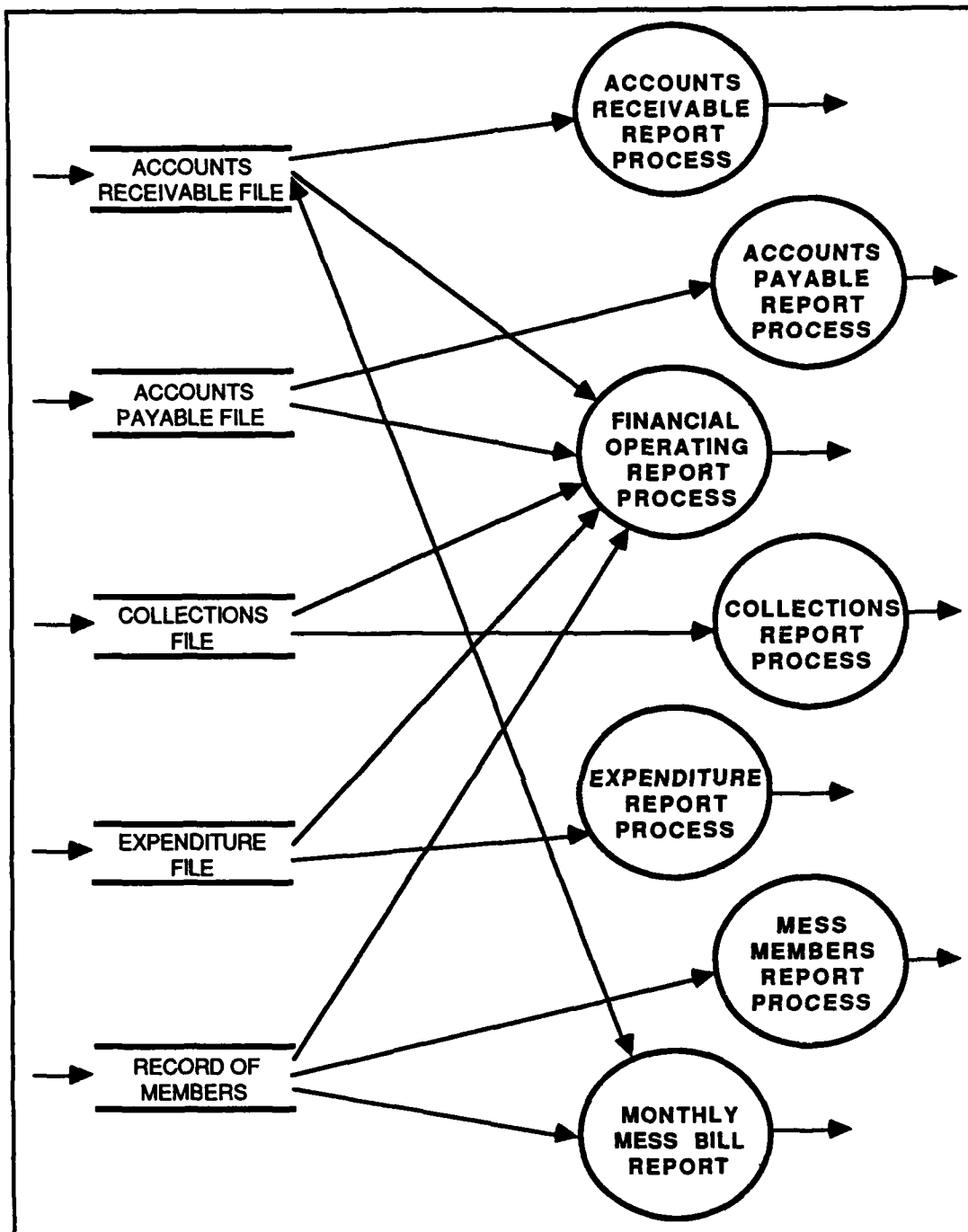
Figure 3. Decomposition of Report Generation Function

examined to identify all data elements and their source. This analysis represents all the data elements necessary for the system to function.

E. ALGORITHMS

In the case of many of the data elements identified above, the source is not necessarily a data store but rather is the result of a data manipulation process. To have a proper understanding of the system these algorithms must be identified. Appendix C contains the results of this process. This represents the first effort at identifying the systems algorithms. As the development process continues, other algorithms will be uncovered and incorporated into the development program.

F. CONCLUSION

Now that the system has been analyzed to determine the logical components and functions, certain generalizations about the system can be made. On a high level the input-process-output functions are represented by the transactions, report generation, and report distribution processes respectively. A decomposition of the transaction process shows the input to the system can come from many different sources such as bills for provisions bought both from the supply officer and outside vendors, bills for supplies such as plaques and pins, credit memo's from suppliers, collection of receivables for both mess bills and other receipts, expenditures by the mess to pay its bills and finally changes in the mess membership over the course of time. The report generation process can be decomposed into seven different sub-functions to include the financial operating statement, record of collections, record of expenditures, accounts receivable, accounts payable,

14

record of mess members, and finally the monthly mess bills. Decomposing the major functional areas into sub-functions allows for a more detailed view of what processes are required to accomplish the system objectives. Additionally the individual data elements have been identified along with their source. By considering what data is required at the output point of the system and tracing each element back to its origin data stores and required algorithms are identified. By the application of the above technique in an iterative manner the vast majority of necessary data is believed to have been identified. At this point, the development effort can proceed to the design phase for the development, coding, and testing of the proposed system.

III. DESIGN

A. INTRODUCTION

Moving from the analysis phase into the design phase is one of moving from discussing what is to be done to a discussion of how to implement the proposed system. Chapter II provided a view of the logical system for private messes afloat. This chapter will be concerned with the developing of the physical design of the proposed system and the designing of an evaluation mechanism to address the thesis hypotheses stated in Chapter I. The system design situation is one of applying the information gathered in the analysis phase to a physical design within the constraints established by the thesis sponsor. This transition will involve developing physical data flow diagrams to represent the data flow in the proposed system, module boundaries/specification, structure charts, and file structures. These tools help illustrate the manner in which the system was implemented. The system design phase also addresses issues of human interference and ergonomic principles as discussed below. In designing the evaluation mechanism the decision was made to administer a questionnaire to as many mess treasurers as possible. The design of the questionnaire was concerned with measuring the Mess Treasurer's opinion of the environment and of the proposed system.

B. DESIGN APPROACH

The development of this system was based on the adoption of certain design philosophies leading to the implementation of a system providing the maximum amount of training in the input environment that requires selection of alternatives as opposed to direct input of commands and data. Although this limits the flexibility of the system, it was a conscious decision based on the low level of experience and short duration of the assignment to the position of mess treasure. By allowing the system to perform all calculations and a large amount of data input the opportunity for error or improper data entry is reduced to a minimum. All requests for data made by the system are accompanied by an opportunity for error correction in the form of screen verification. A major design goal was to develop a system that would allow an individual with a minimum understanding of the private mess accounting system and micro computers to successfully operate the system and generate the required reports. This reduction in required technical expertise should improve the overall quality of the financial records. Another design consideration was to allow for error correction when generating the end of the month reports. This is to be accomplished through a trial balance system that allows as many opportunities as necessary to generate accurate end of the month reports. The possibility of paper reduction was also a consideration in the design of the system. The mess treasurer will no longer maintain manual ledgers and records necessary to the generation of the required reports. This information will be system generated when it is required.

C. SYSTEM DESIGN

The design of the system was constrained by several restrictions imposed by the sponsor. The system must be developed using FOXBASE+ database development language to interface with other food service system programs and the system must operate in the MS-DOS environment to be compatible with the equipment provided to the Mess Treasurers. With these constraints in mind the basic structure of the system was developed breaking down the major functions into the three broad areas of utilities transactions and report generation. Figure 4 represents this first level structure.

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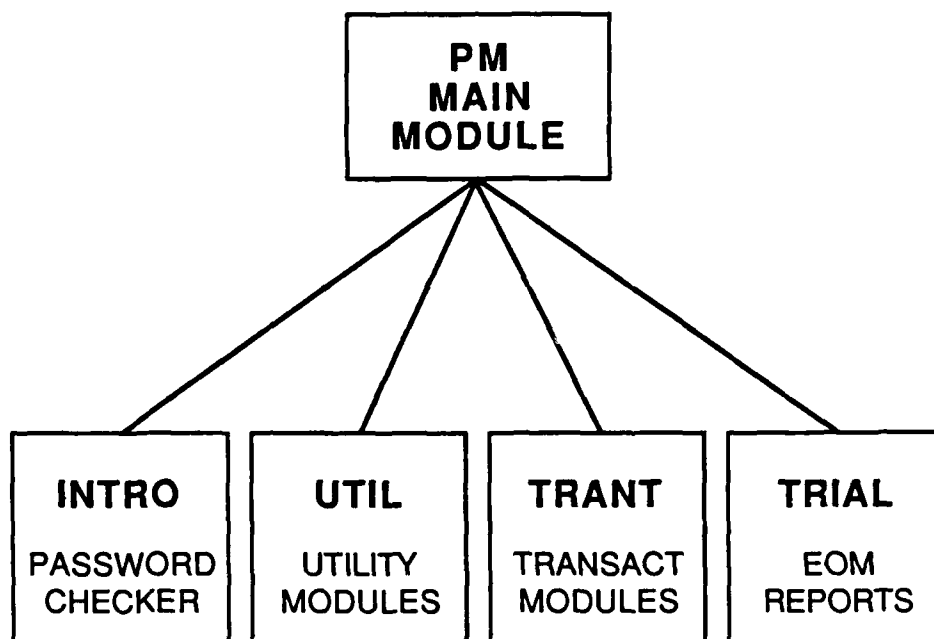
Figure 4. First Level Structure

18

D. UTILITIES

The utilities modules are not identified in the analysis phase since they represent functions not specifically provided for in the manual system. These are functions that now need to be addressed.

1. SETUP

Private messes operate in several different manners. Some subsist from general mess while others prorate costs equally over the membership. Additionally, there are several types of messes afloat such as wardroom, CPO, Commanding Officer, and others. To allow the system to be generic, and at the same time permit customization to each situation, these several other parameters must be captured. The SETUP module accomplishes these tasks.

2. JUMP

When a private mess attempts to convert from a manual system to this automated system a vehicle must be provided to facilitate the transfer to the new system. The current operating statistics such as accounts receivable/payable, the current membership roster, and others must be properly installed to ensure a smooth transition. The JUMP series of programs guides the user through all the necessary steps.

3. NEWPASS

The move to an automated system raises issues concerning security of the financial information. This system is equipped with password protection to reduce the risk of unauthorized access to the records. With this scheme comes a requirement to be able to change the password

at regular intervals to further reduce these risks. The NEWPASS module uses an algorithm to scramble the new password and store it in a data file.

4. RECOVERY

The possibility always exists that a power outage or other system failure could occur. The RECOVERY module is designed to deal with these contingencies and provide a means to reconstruct the system as it was at the beginning of the current session. The archives disk is accessed and all database structures and records are rebuilt.

5. PRT-FILE

At different times throughout the month questions will arise as to whether a given transaction has been entered. The PRT-FILE module prints out the current contents of the transaction file and members file for diagnostic purposes. Figure 5 shows the structure of the utilities functions within the system design.

E. TRANSACTIONS

A major design consideration in the transaction area was to combine all transactions into one file and use type codes to identify which transactions are accounts receivable, which are collections, and so on. This improved performance and greatly simplified the transaction processing functions. Data elements used as record identifiers are entered into the transaction base only one time to ensure data integrity. As with the utilities functions the transactions functions are divided into several subfunctional areas.

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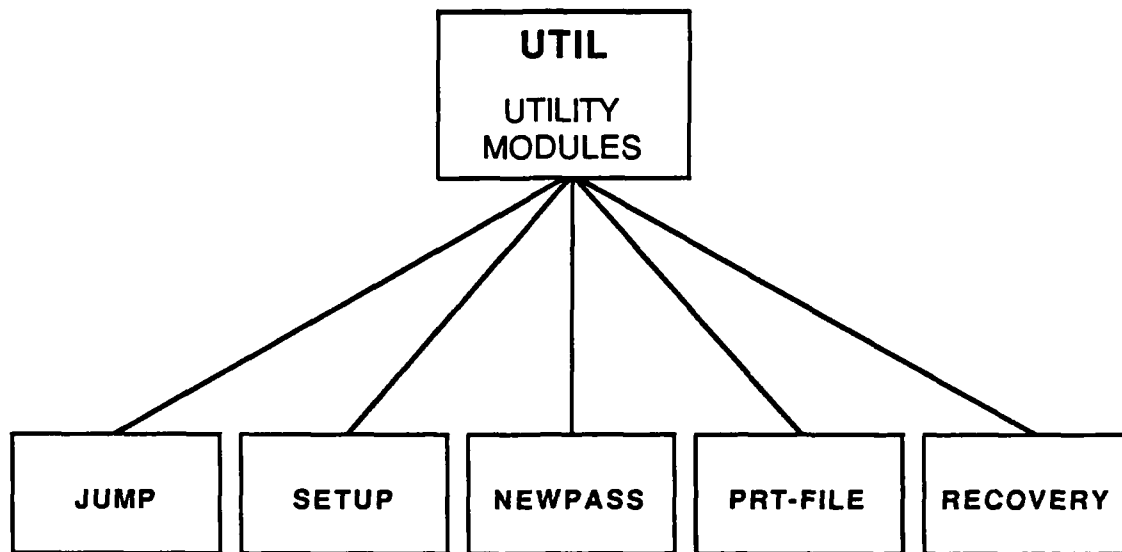
Figure 5. Utility Functions Structure

1. TRANSREC

Accounts receivable are recorded into the transactions file and identified as a type 'AR' for future processing. This module automatically inputs many of the data elements automatically.

2. TRANPAY

Accounts payable are recorded into the transaction file as type 'AP' for future processing. This module also inputs the purpose of the transaction for the user to insure the input is correct.

3. TRANSCOL

Recording collections in the system requires a matching receivable. The type code is verified then the purpose codes are matched, and finally the receivable entry in the transaction file is converted into a collection by changing the type to 'CL' and adding a date paid.

4. TRANEXP

Expenditures are handled in the same fashion as collections. A matching account payable must be in the file prior to making an expenditure. the expenditure module asks the user for data to match against a specific payable and then the conversion is made.

5. TRANSMBR

Through the life of the mess, members will join and depart on a regular basis. Upon joining the mess the member may be assessed a partial mess bill and/or a mess share. This module considers the type of private mess by examining the setup information and creates the appropriate transactions. Likewise when a member departs certain charges and/or refunds may be required. These transactions are created through an interactive dialog with the user. The member is not removed from the file until all debts have been settled.

6. SRIDER

It is a common occurrence on all ships for non-members to eat occasional meals in the private mess for which they must pay. Technical representatives are a good example of this situation. The system provides this module to handle this situation and ensure bills are prepared and collections recorded. An interactive dialog assists the treasurer through the required transactions. Figure 6 shows the relationship of all the transaction modules and submodules.
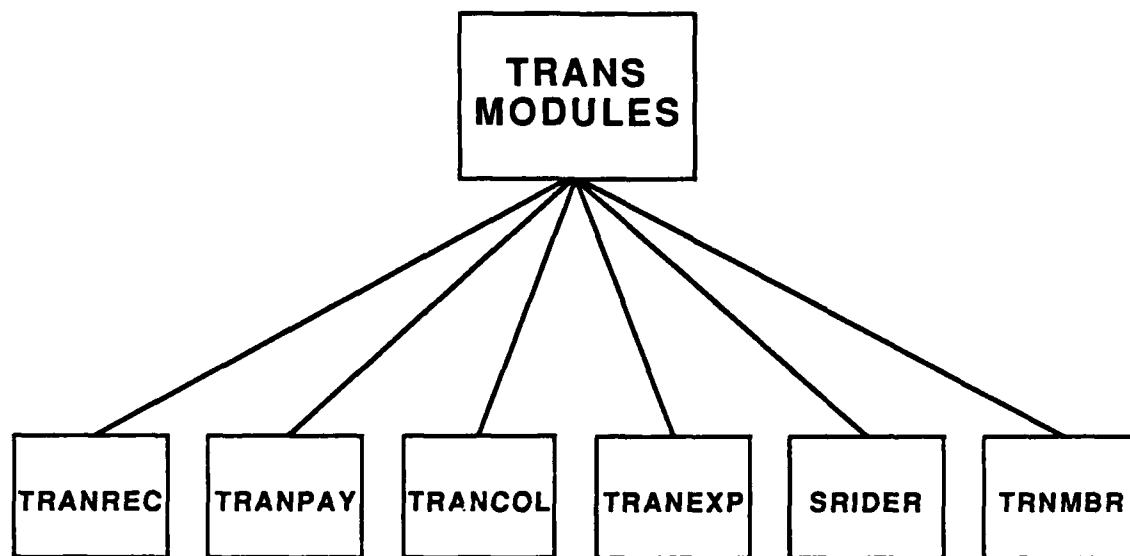
Figure 6. Transaction Functions Structure

F. REPORT GENERATION

This major functional area transitions from the menu-driven format to a query based format. As the reports are being generated information will be requested from the Treasurer. As with the menu approach, all entries have input verification/correction capabilities on the screen. A major design consideration was to allow the Treasurer to produce a trial set of reports to verify for accuracy. Correcting entries may then be made and another trial performed. This process continues until the correct reports are produced and then the smooth final reports are generated. The two major processes in this functional area are the TRIAL module and the EOM module.

1. **TRIAL**

The system examines the transaction file and segregates all the transactions into their appropriate financial statement headings. No alternations are made to the source entries rather temporary files are established pending the final smooth reports. Sub-functions include generation of mess bills, accounting for members on leave, and determining any special assessments to be charged.

2. **EOM**

Once the treasurer is satisfied with the financial reports the system generates smooth reports with the appropriate headings and dates. This module is additionally responsible for resetting all the database files to start the new month. All collection and expenditure transactions are dropped and the accounts receivables and payables are coded as prior month transactions. Members who have detached the mess are deleted and all temporary holding files are set to null positions. Figure 7 shows the major process in the report generation area. The primary design goals were to provide a user friendly system to the Mess Treasurer that required a minimum amount of input and a minimum amount of technical expertise. To this end an ergonomics study was conducted on the system to evaluate this criteria. Appendix D is a copy of the study. The conclusions of the report suggest that while user friendliness was achieved, improvements in the area of help screens and error correction would enhance the usability of the program for novice users.

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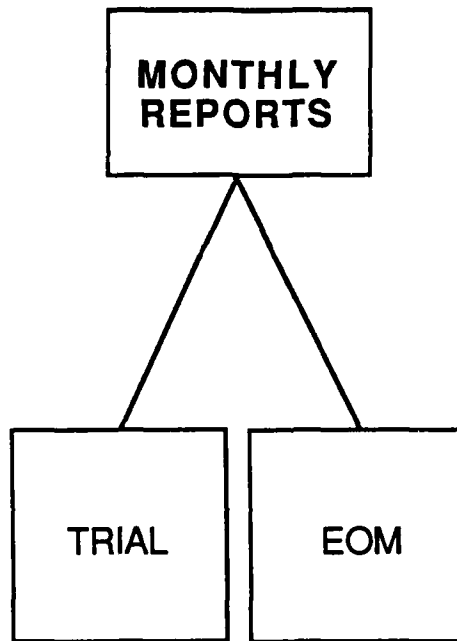
Figure 7. EOM Functions Structure

G. EVALUATION DESIGN

The design of the questionnaire involved developing questions that would provide data to examine and evaluate the original thesis hypotheses. Each was considered and a corresponding null hypothesis was developed. The set of null hypotheses are as follows:

H1: Understanding of the private mess records-keeping system by a Mess Treasurer is comprehensive.

H2: Performance of the Mess Treasurer's duties does not impact the treasurer's primary duties.

H3: Mess records turned over during the relieving process are complete and inspection-ready.

H4: The Mess Treasurer believes there is nothing to be gained from automating the records-keeping process.

H5: Automating the records-keeping process will not increase the Mess Treasurer's job satisfaction.

H6: The automated system produces no significant savings of time for the Mess Treasurer.

H7: Use of the automated system will not improve the accuracy and timeliness of submission of mess records in the opinion of the Mess Treasurer.

H8: The automated system is difficult to understand and complicated to use.

H9: PMAS will be of no use to the Mess Treasurer.

From these nine null hypotheses the questionnaire in Appendix E was developed.

H. CONCLUSION

The implementation of this automated system within the design criteria described above when accomplished, provided a functioning system capable of addressing all operational requirements. In addition to performing these requirements, the system provides features not available in the manual system. The Mess Treasurer is not responsible for any calculations and must input only the minimum amount of data. All reports are generated automatically, reducing the risk of transposition type errors. Improvements in security are provided in the form of password protection, and all data is archived at the close of each session. Appendix E is a listing of the source code for this system and Appendix F is the user's manual that supports the system.

IV. EVALUATION

A. INTRODUCTION

The system design discussed in Chapter III was used to develop a functional system that models the Private Mess Accounting System for afloat units. With the completion of this phase, attention was turned to evaluating the usefulness of the system in a shipboard environment. To accomplish this, a target group of individuals was identified to participate in the evaluation and provide feedback data for system improvements. This data was used to evaluate the null hypotheses and draw conclusions and make recommendations about the system. A random sample of 25 individuals working in the Private Mess Accounting System participated in the evaluation and the responses were statistically analyzed using the statistical analysis program. Table 1 provides a summary of the results.

B. HYPOTHESIS TESTING

Prior to the actual shipboard testing, it appeared that the proposed system would, in fact, be of significant value to the afloat Mess Treasurer. As can be seen in the design of the original hypotheses, this was a presumption from the beginning.

1. Research Setting

It was considered essential that all testing be performed in the environment in which it must function if adopted for general use. With the assistance of Commander Surface Forces Pacific Fleet, a number of ships inthe Northern California area were made available for testing of the

27

TABLE 1. SUMMARY OF RESULTS

H1: Each Mess Treasurer has a comprehensive understanding of the current private mess accounting system. — *REJECTED*

H2: Performing the Mess Treasurer's functions does not impact on the Treasurer's primary duty. — *REJECTED*

H3: Mess records turned over during the relieving process are complete and inspection ready. — *REJECTED*

H4: Mess Treasurers are indifferent as to automating the current manual accounting system. — *REJECTED*

H5: Automating the records-keeping process will not increase the Mess Treasurers job satisfaction. — *REJECTED*

H6: The automated system produces no significant savings of time for the Mess Treasurer. — *REJECTED*

H7: Use of the automated system will not improve the accuracy and timeliness of report submission. — *REJECTED*

H8: The automation system is difficult to understand and complicated to operate. — *REJECTED*

H9: The automated system will be of no use to the Mess Treasurer. — *REJECTED*

proposed system and data gathering. All tests were performed under typical shipboard conditions. The environmental factors such as excessive noise, repeated interruptions, and competing priorities for the Mess Treasurer's time were all experienced and therefore played a part in the evaluation. The questionnaire used in the evaluation phase consisted of 16 questions related

28

to the data gathering. A five point Likert Scale ranging from zero to four was used to quantify the participants responses in evaluating the null hypotheses.

2. Subjects

The subjects selected to participate in running the demonstration program and completing the questionnaire were individuals currently serving as a Mess Treasurer or had served in that position earlier in their career. This experience and familiarity with the domain was considered essential for evaluating the automated system in a thorough manner.

3. Statistical Testing

The statistical analysis was conducted after making certain assumptions. For instance the hypothesis testing was done using a one-tailed test. That is, it was presumed that the automated system would only serve to improve and not impair the mess treasure function. A two-tailed test would be concerned with both improvement and impairment. The null hypotheses were assigned the extreme value of possible responses that would best represent that view. All tests were conducted using a 90% confidence interval and an alpha value of .01. Since the sample size was less than 30 the T-statistic was used to accept or reject the null hypothesis.

4. Tasks

The test subjects were requested to complete the first part of the questionnaire followed by the running of a sample demonstration of the proposed automated system using a simulated database of mess members. During the testing the subjects were directed to perform utility functions to tailor the system to their particular ship. After completion of this, a series of

normal transactions were performed in the areas of accounts receivable, accounts payable, collections, and expenditures. Additionally, several new members were added to the database and several others were deleted. All transactions followed the script provided in Appendix G. When all the transactions were finished a complete set of financial returns were generated by the test subject using the automated system.

5. Results and Conclusions

The results of the hypothesis testing summarized in Table 1 overwhelmingly suggest that the proposed system is viewed by the test subjects in a very positive manner. All nine of the null hypotheses are rejected and in most cases by a significant amount. Using the survey questionnaire in Appendix F as a reference, the following conclusions can be made about the original hypotheses:

H1: The sample data indicates that the understanding level of a Mess Treasurer ranged from limited (1 on the Likert Scale) to basic (2 on the scale). The average level was 2.6 on the scale. The 95% confidence interval was between 2.08 and 3.12 and the T-statistic was -5.56, leading to a rejection of the null hypothesis. Figure 8 contains all pertinent data. Thus it is apparent that a system requiring less technical understanding of the system would be of benefit.

H2: The sample data show that the impact of the Mess Treasurer's tasks ranged from some impact (2 on the scale) to noticeable impact (3 on the scale). The average response was 2.6 on the scale and the 95% confidence interval was from 2.31 to 2.73 with a T-statistic of 24.7, leading to a rejection of the null hypothesis. Thus the Mess Treasurer function has an impact on the Treasurers primary duty and thereby reducing their overall productivity. Figure 9 provides the statistical data.

Sample Statistics:	Number of Obs	25
	Average	2.6
	Variance	1.58333
	Std. Deviation	1.25831
	Median	3

| Confidence Interval for Mean: | | 95 percent |
| | Sample 1 | 2.08047 3.11953 24 D.F. |

Confidence Interval for Variance: 0 percent

Hypothesis Test for HO:	Mean = 4	Computed T-statistic = -5.56304
	vs Alt: LT	Sig. Level = 5.03442E-6
	at Alpha = 0.01	so reject HO.

Figure 8. Statistics for Null H1

Sample Statistics:	Number of Obs	25
	Average	2.52
	Variance	0.26
	Std. Deviation	0.509902
	Median	3

| Confidence Interval for Mean: | | 95 percent |
| | Sample 1 | 2.30947 2.73053 24 D.F. |

Confidence Interval for Variance: 0 percent

Hypothesis Test for HO:	Mean = 0	Computed T-statistic = 24.7106
	vs Alt: GT	Sig. Level = 0
	at Alpha = 0.01	so reject HO.

Figure 9. Statistics for Null H2

H3:   The responses to this question suggest that some attempt at proper records-keeping was made but not all requirements were met. The average response was 1.6 on the scale. The 95% confidence interval was 1.2 and 1.99 with a T-statistic of -12.53, leading to a rejection of the null hypothesis. Figure 10 provides the statistical data.

```
Sample Statistics:      Number of Obs    25
                        Average          1.6
                        Variance         0.916667
                        Std. Deviation   0.957427
                        Median           2

Confidence Interval for Mean:            95 percent
                        Sample 1         1.2047   1.9953   24 D.F.

Confidence Interval for Variance:        0 percent

Hypothesis Test for HO: Mean = 4         Computed T-statistic = -12.5336
                 vs Alt: LT              Sig. Level = 2.52587E-12
                 at Alpha = 0.01         so reject HO.
```

Figure 10. Statistics for Null H3

H4:   The summary of responses clearly indicate it was believed that a
      noticeable improvement by automating the financial system can be
      realized. The average score of 3.16 on the scale supports this view.
      The 95% confidence interval was between 2.85 and 3.47 on the scale
      with a T-statistic of 21.18, leading to a rejection of the null
      hypothesis. Figure 11 provides supporting statistical data.

```
Sample Statistics:      Number of Obs    25
                        Average          3.16
                        Variance         0.556667
                        Std. Deviation   0.746101
                        Median           3

Confidence Interval for Mean:            95 percent
                        Sample 1         2.85195   3.46805   24 D.F.

Confidence Interval for Variance:        0 percent

Hypothesis Test for HO: Mean = 0         Computed T-statistic = 21.1768
                 vs Alt: GT              Sig. Level = 0
                 at Alpha = 0.01         so reject HO.
```

Figure 11. Statistics for Null H4

H5: The view of the Mess Treasurers toward the automated system was that it would in fact make a bothersome collateral duty more bearable. This is supported by an average response of 3.12 on the scale. The 95% confidence interval was 2.82 to 3.42 with a T-statistic of 21.5, leading to a rejection of the null hypothesis. Figure 12 provides supporting data.

Sample Statistics:	Number of Obs	25
	Average	3.12
	Variance	0.526667
	Std. Deviation	0.725718
	Median	3
Confidence Interval for Mean:		95 percent
	Sample 1	2.82037 3.41963 24 D.F.
Confidence Interval for Variance:		0 percent
Hypothesis Test for HO: Mean = 0		Computed T-statistic = 21.496
vs Alt: GT		Sig. Level = 0
at Alpha = 0.01		so reject HO.

Figure 12. Statistics for Null H5

H6: An examination of the results indicates that the respondents felt that the adoption of an automated system would result in a considerable savings in time. The average response of 3.48 on the scale supports this position. The 95% confidence interval was 3.19 to 3.77 with a T-statistic of 24.36, leading to a rejection of the null hypothesis. Figure 13 provides supporting data.

H7: The results of the survey indicate that the Mess Treasurers felt that anywhere from significant to major improvements will occur in with the timeliness an accuracy of report submission by converting to an automated system. The average response of 3.6 on the scale supports this conclusion. The 95% confidence interval was 3.36 to 3.84 with a T-statistic of 31.18, suggesting a rejection of the null hypothesis. Figure 14 provides the supporting data.

33

```
Sample Statistics:        Number of Obs      25
                          Average            3.48
                          Variance           0.51
                          Std. Deviation     0.714143
                          Median             4

Confidence Interval for Mean:                95 percent
                          Sample 1           3.18515   3.77485   24 D.F.

Confidence Interval for Variance:            0 percent

Hypothesis Test for HO:  Mean = 0            Computed T-statistic = 24.3649
                          vs Alt: GT         Sig. Level = 0
                          at Alpha = 0.01    so reject HO.
```

Figure 13. Statistics for Null H6

```
Sample Statistics:        Number of Obs      25
                          Average            3.6
                          Variance           0.333333
                          Std. Deviation     0.57735
                          Median             4

Confidence Interval for Mean:                95 percent
                          Sample 1           3.36162   3.83838   24 D.F.

Confidence Interval for Variance:            0 percent

Hypothesis Test for HO:  Mean = 0            Computed T-statistic = 31.1769
                          vs Alt: GT         Sig. Level = 0
                          at Alpha = 0.01    so reject HO.
```

Figure 14. Statistics for Null H7

H8:   This hypothesis was concerned with user friendliness. The survey
      indicated that the system was viewed as both understandable and
      easy to operate. The average response was 3.4 on the scale
      indicating a high degree of user friendliness. The 95% confidence
      interval was 3.13 and 3.67 with a T-statistic of 26.34, suggesting re-
      jection of the null hypothesis. Figure 15 provides the supporting

```
Sample Statistics:      Number of Obs     25
                        Average           3.4
                        Variance          0.416667
                        Std. Deviation    0.645497
                        Median            3

Confidence Interval for Mean:             95 percent
                        Sample 1          3.13349   3.66651   24 D.F.

Confidence Interval for Variance:         0 percent

Hypothesis Test for HO:  Mean = 0         Computed T-statistic = 26.3363
                vs Alt: GT                Sig. Level = 0
                at Alpha = 0.01           so reject HO.
```

Figure 15. Statistics for Null H8

H9: The automated system was viewed as having great potential and
     was perceived as being very useful in the financial management of a
     private mess. The position was supported by an average response of
     3.48 on the scale. The 95% confidence interval was 3.24 with a
     T-statistic of 29.70, resulting in the rejection of the null hypothesis.
     Figure 16 provides the supporting data.

```
Sample Statistics:      Number of Obs     25
                        Average           3.48
                        Variance          0.343333
                        Std. Deviation    0.585947
                        Median            4

Confidence Interval for Mean:             95 percent
                        Sample 1          3.23808   3.72192   24 D.F.

Confidence Interval for Variance:         0 percent

Hypothesis Test for HO:  Mean = 0         Computed T-statistic = 29.6955
                vs Alt: GT                Sig. Level = 0
                at Alpha = 0.01           so reject HO.
```

Figure 16. Statistics for Null H9

C. CORRELATION TESTING

In addition to hypothesis testing, correlations were performed on all the variables to look for any significant interrelationships. The eight variables used were understanding (of the system), waste (of Treasurers time), impact (on Treasurer's primary duties), condition (of the records), acceptability (of the new system), bearable (job satisfaction), savings (in time and effort), timeliness and accuracy (of report submission), ease (of running the new system), and usefulness (of the new system). No strong correlations appeared between any of the variables. This would indicate that no questions overlapped and no significant relationships exist among them. It appears all the subjects felt the automated system would be a better method for financial records-keeping. The perceived savings in time and effort was not tied to prior computer experience, suggesting that computers are generally viewed as providing a positive impact on most manually operated systems.

D. CONCLUSIONS

The evaluation of the proposed system conducted in the normal operating environment by those most familiar with the system suggests its potential. Not only the responses to the questionnaire, but the attitude and comments of the participants indicated a strong desire to have this system available to assist in maintaining the private mess financial records. In all areas of interest the statistical testing process indicates the system is seen as helpful to the Treasurer to better utilize his time. The responses also suggest that reports could be both more timely in submission and accurate in content with the use of this system.

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

With the completion of the statistical analysis it is time to direct attention to the conclusions that can be drawn from this project. The focus is now directed back to the original thesis questions to make appropriate comments concerning the impact made by the proposed system. The first question was concerned with what information can be provided to support improved financial management. The system will provide transactions listings at any time and a complete financial picture can also be generated at any time by performing a trial balance. The next issue involved reducing the level of expertise required to operate the system. The statistical analysis indicates that the level can in fact be reduced by the implementation of the automated system. The third thesis question addressed the possibility of a significant level of improvement in the accuracy of the financial records. The Mess Treasurers involved in the testing expressed an opinion that not only would improvements be realized but they would also be quite significant. The next area to be addressed is one of defining the automation boundaries. The system was designed such that the boundaries start at the transaction input process and continue through to the report generation process. The fifth thesis question was aimed at providing management information in a more timely manner. This would appear to be influenced both by the system and the time frame in which the Mess Treasurer utilizes the system. Given the same starting time, the automated system is significantly faster in

transaction processing and report generation. An area of interest was the possibility of the system providing support to menu planning. This support occurs only to the extent that the mess' financial position can be determined at any time. This information could be used to determine whether a cut back in meal costs or increase is necessary to maintain the desired financial position. Some additional conclusions concerning the project are also presented for consideration. It was interesting to note that to be a user of the system did not imply an understanding of how the system performed the required tasks. It was common to find Mess Treasurers who had a very limited understanding of the basic assumptions behind the manual system, however managed to maintain a set of financial records. In the area of project management, estimating the project size was a more difficult task than originally expected. All phases of the project took much longer than originally anticipated. The design and development phase was originally expected to last approximately six weeks. This phase, however, in fact took 80% longer, lasting almost ten weeks. Also, developing a test plan revealed the difficulty in providing a complete system test. This phase also expanded in time by 50% and was reduced in scope as it became evident that a comprehensive test plan to test every system function for proper execution could take many months. Finally, it was noted that a significant saving in manpower can be realized with the implementation of this system. The questionnaire indicated that an average of 8.1 hours per month were expended in the maintenance of the financial records. Although military personnel are not paid on an hourly basis, a monetary value can be attached

to this savings in time. When this is calculated across the total number of private messes the savings would be significant.

B. RECOMMENDATIONS

Based on the responses provided by the questionnaire and the statistical evaluation of those responses it appears that the proposed system should be pursued for shipboard use. A second recommendation is to consider developing a system to assist the Mess Caterer and interface with PMAS. This would automate the entire private mess system and interface with the automated food service system. It is also recommended that the automated system be implemented on a test group of ships to provide the necessary testing prior to full distribution. Along with this, provide future enhancements such as help screens and improved error correction capabilities. Finally, this system should be certified for shipboard use as soon as practicable.

The Automated Private Mess Accounting System, when implemented, will provide significant improvements to the current manual system of records-keeping.
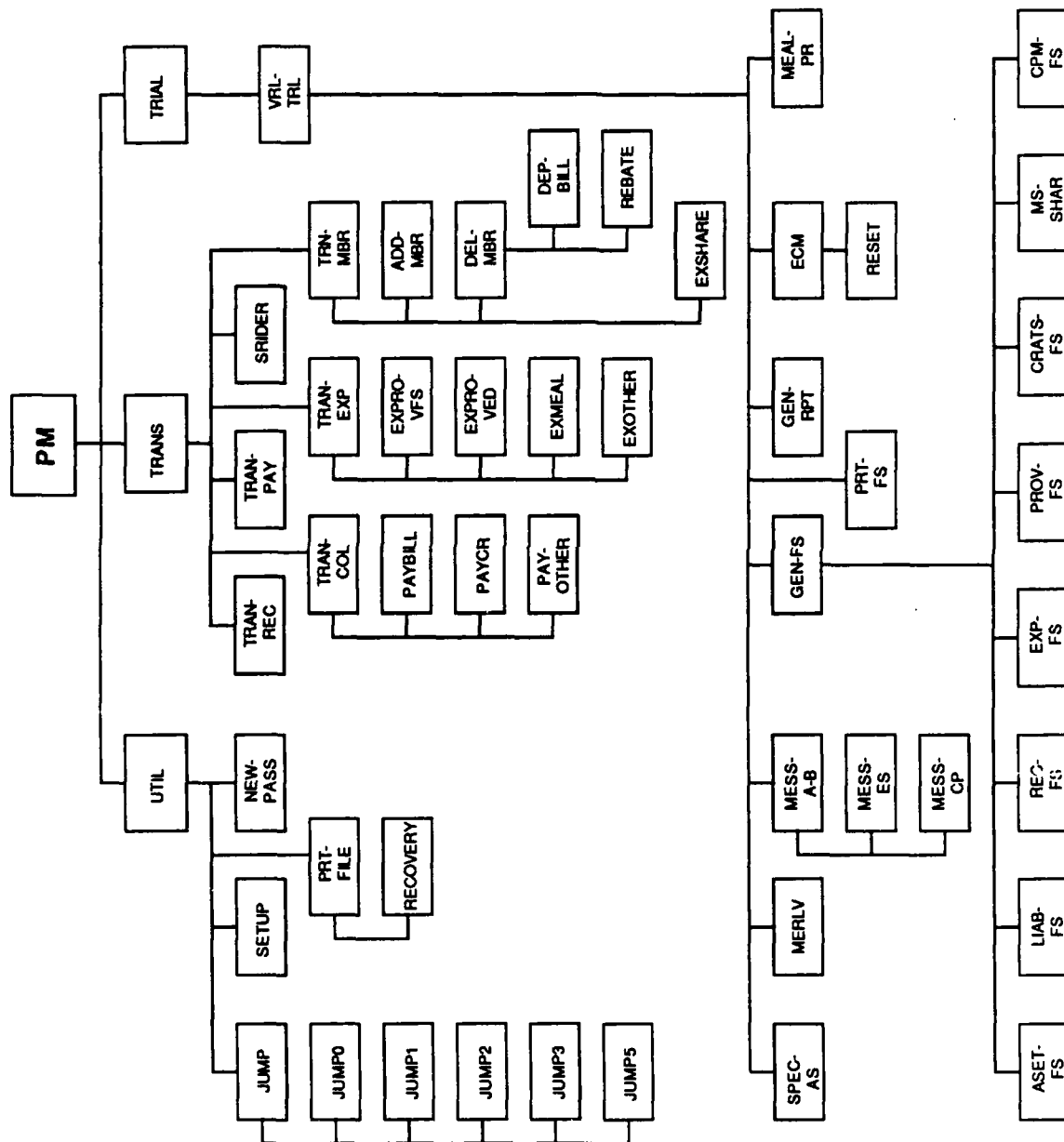
APPENDIX B

The Data Destination: The Mess Members

FORM OF OUTPUT: FINANCIAL STATEMENT

DATA ELEMENT	SOURCE
Cash Brought Forward	Previous Months Statement
Mess Bills Previous Months	Record of Collections
Mess Bills Current Month	Record of Collections
Mess Bills Next Month	Record of Collections
Mess Shares Sold	Record of Collections
Commuted Rations Collected	Record of Collections
Mess Bills Refunded	Record of Expenditures
Mess Shares Refunded	Record of Expenditures
Provisions from FSO	Record of Expenditures
Provisions from Vendors	Record of Expenditures
Meals Purchased from FSO	Record of Expenditures
Commuted Rations Rebated	Record of Expenditures
Other Receipts	Record of Collections
Total Receipts	Column Total
Total Expenditures	Column Total
Cash on Hand End of Month	Mess Treasurer
Mess Bills Uncollected	Accounts Receivable Report
Mess Shares Uncollected	Accounts Receivable Report
Commuted Rations Uncollected	Accounts Receivable Report

DATA ELEMENT	SOURCE
Inventory Provisions	Physical Inventory Document
Inventory Non-Provisions	Physical Inventory Document
Other Assets Accounts	Receivable Report
Mess Bill Refunds Owed	Accounts Payable Report
Mess Share Refunds Owed	Accounts Payable Report
Provisions from FSO Owed	Accounts Payable Report
Provisions from Vendors Owed	Accounts Payable Report
Meals Purchased from FSO Owed	Accounts Payable Report
Other Liabilities	Accounts Payable Report
Net Worth	Total Liability - Total Assets
Total Liabilities	Column Total
Total Assets	Column Total
Total Liabilities and New Worth	Column Total
Number of Members	Record of Mess Members
Current Value of Mess Share	Number of Members Divided by Net Worth
Previous Month Mess Share	Previous Month Statement
Changes in Mess Share Value	Difference Between Past and Current Values
Previous Months Provisions Inventory	Previous Month Statement
Provisions Received	Receipt Documents
Provisions Consumed	Beginning Inventory + Receipts - Ending Inventory
Average Number of Officers Subsisted	Meals Served Record -1046
Average Number of Enlisted Subsisted	Meals Served Record -1046
Total Subsisted from the Mess	Total

DATA ELEMENT	SOURCE
Cost Per Man	Provisions Consumed/ Total Subsist

FORM OF OUTPUT: ACCOUNTS RECEIVABLE REPORT

DATA ELEMENT	SOURCE
Date	Date of Transaction
Name	Input Document
Purpose	Input Document
Amount	Input Document

FORM OF OUTPUT: ACCOUNTS PAYABLE REPORT

DATA ELEMENT	SOURCE
Date	Input Document
Name	Input Document
Purpose	Input Document
Amount	Input Document

FORM OF OUTPUT: RECORD OF COLLECTIONS REPORT

DATA ELEMENT	SOURCE
Date	Cash Receipt Slip
Name	Cash Receipt Slip
Purpose	Cash Receipt Slip
Amount	Cash Receipt Slip

FORM OF OUTPUT: RECORD OF EXPENDITURES REPORT

DATA ELEMENT	SOURCE
Data	Expenditure Voucher
Name	Expenditure Voucher
Purpose	Expenditure Voucher
Amount	Expenditure Voucher

FORM OF OUTPUT: RECORD OF MESS MEMBERS

DATA ELEMENT	SOURCE
Name of Member	Mess Member
SSN	Mess Member
Date Joined	Current Date
Date Detached	Current Date
Value of Share When Joined	Previous Month Statement
Value of Share When Detached	Previous Month Statement

FORM OF OUTPUT: MONTHLY MESS BILL STATEMENT

DATA ELEMENT	SOURCE
Name	Record of Mess Members
SSN	Record of Mess Members
Mess Share Due	Accounts Receivable Report
Mess Bill Due	Calculation
Past Mess Bills Due	Accounts Receivable Report
Special Assessments	Mess President
Total Due	Total of Above

APPENDIX C

DATA ELEMENT	ALGORITHM
Total Receipts	Total all entries on the receipt side of the cash account
Total Expenditures	Total all entries on the expenditure side of the cash account
Total Assets	Total all entries on the asset side of the balance sheet
Total Liabilities	Total all entries on the liabilities side of the balance sheet
New Worth	Difference between total assets and total liabilities
Total Liabilities and Net Worth	Net worth plus total liabilities
Number of Members	Total the number of mess members from the record of mess members
Current Value of the Mess Share	Divide the net worth by the number of mess members
Change in Share Value	Compute the difference between the current value and last months mess share value
Provisions Received	Total the value of all receipts from both the FSO and any vendors
Provisions Consumed	Add beginning inventory and provisions received and then subtract ending inventory
Average Number of Officers Subsisted	Number of meals during the month divided into the total number of meals consumed by officers and guests

DATA ELEMENT	ALGORITHM
Average Number of Enlisted Subsisted	Number of meals during the month divided into the total number of meals consumed by enlisted personnel
Total Subsisted From the Mess	Sum of average enlisted subsisted
Cost Per Man	Provisions consumed divided by total subsisted
Past Mess Bills Due	Total of all unpaid mess bills carried forward from previous months. Found on accounts receivable statement
Current Mess Bill Due	Calculation depends on the type of proration used by the mess: - Subsist: Cost of individual meals consumed by the member - Equal Share: Total cost of operating the mess divided by number of mess members
Total Mess Bill Due	Total of old bills, current bill, mess share owed, and special assessment

C O G N I T I V E   E R G O N O M I C S

A STUDY IN

USER FRIENDLINESS

PRESENTED BY:
JEFFERY P. BENNETT
DECEMBER 8, 1987

"Congratulations, you are the wardroom's new Mess Treasurer." Few collateral duties, within the shipboard environment are more dreaded and susceptible to failure. Can a computer come to the rescue? A current thesis proposal undertakes to automate the reports and record keeping requirements of the Mess Treasurer.

As early as 1970 professionals in the computer industry predicted the lack of understanding of psychological processes would be the main impediment to future interactive computer program development.[1] An analysis of the interactive program, designed for this thesis, was conducted in terms of cognitive ergonomics or "user friendliness". In computer programing, user friendliness is anything that improves the quality of the interaction, reduces the probability of catastrophic mistakes or makes it easier for users to obtain help from the system.[2] The human factors guidelines for this paper were taken from a German research paper published in <u>Lecture Notes in Computer Science, Vol 110</u>. Specifically, the human-machine interface was evaluated in terms of five objectives:

1. Dialogue Flexibility
2. Transparency
3. Ease of Learning
4. Ease of Use
5. Reliability[3]

MISSION DEFINITION

The computer program, <u>Accounting Systems for Private Messes Afloat</u>, was developed following guidelines established by the

1

48

Navy Food Service Systems Office (thesis sponsors) and Navy Supply Publication 486, volume 2. The program will ultimately be used by all ship types on a hard disk configured micro computer. Rapid turnover of Mess Treasurers and the lack of any formal training dictated a computer program that would be both easy to understand and operate.

With this background, the goal during software development was to write a program that could both handle any one of the seven different authorized accounting methods and be operated by a truly naive user. This type of user usually seeks to minimize the amount of learning, time, and effort devoted to using a computer program and assumes the system is fool proof.[4] Additionally, the user was projected as not having a deep knowledge of accounting practices, Supply Corps terminology, or computer technology.

DIALOGUE FLEXIBILITY

> THE SYSTEM DOES NOT BEHAVE IN A RIGID AND UNCHANGEABLE WAY BUT IT CONSIDERS DIFFERENT NEEDS AND SKILLS OF THE USER.[5]

The program interacts with the user through a series of menus. Selection of activities through menus when working with data bases is the preferred programming method over such others as form filling, question and answer, and prompting methods. It does not require users to generate commands from memory, an important consideration.

2

Program activities are selected by entering a number called the selection code and system response is immediate. The enter or return key does not have to follow. The program consists of three basic types of screens; menus, data input, and information. Examples of these screen formats are provided in Illustrations 1, 2, and 3.

An important aspect of dialogue flexibility is to ensure system activities are determined by the user. This was accomplished by having at least two alternatives on each menu. Additionally all menus have seven or fewer alternatives, staying within the upper limit of short term memory.

```
+------------------------------------------------------------+
|                   UTILITY PROGRAMS MENU                    |
|                                                            |
|              SELECTION                          CODE       |
|                                                            |
|     SET UP PROGRAM PARAMETERS--------------- 1             |
|                                                            |
|     INITIALIZE DATABASES-------------------- 2             |
|                                                            |
|     CHANGE PASSWORD------------------------- 3             |
|                                                            |
|     PRINT CURRENT DATA FILES---------------- 4             |
|                                                            |
|     DATA FILE RECOVERY---------------------- 5             |
|                                                            |
|                                                            |
|     RETURN TO MAIN MENU--------------------- 6             |
|                                                            |
+------------------------------------------------------------+
```

ENTER SELECTION CODE:

ILLUSTRATION 1

3

TR-012

```
┌─────────────────────────────────────────────────────────────┐
│                   NEW MEMBER INFORMATION                      │
│                                                               │
│ NAME OF NEW MEMBER:                                           │
│                          LAST, FIRST MI                       │
│                                                               │
│                                                               │
│ SSN NUMBER:                              STATUS:              │
│                                                  (M,E)        │
│                                                               │
│ DATE JOINED:    /  /                     RANK:                │
│              MM DD YY                                         │
│                                                               │
└──────────────IS THE ABOVE INPUT CORRECT? (Y/N)───────────────┘
```

ILLUSTRATION 2

```
┌───────────────────────────────────────┐
│   ONCE YOU PASS THIS POINT THE OLD     │
│                                        │
│    SET-UP FILE WILL BE ERASED !!!      │
└───────────────────────────────────────┘
```
ARE YOU SURE YOU WANT TO CHANGE THIS FILE? (Y,N)

ILLUSTRATION 3

The ability to adapt to a user's skill level is an important area of dialogue flexibility that was not incorporated into this software package. The use of menu formatting does not facilitate this, as it is slow to use for people who can specify precisely what they want without being led through a series of explicit choices.

RECOMMENDATION: No changes in terms of dialogue flexibility are recommended. The program is designed to offer a fixed set of activities. The premise that over the long run the program will be used by a novice is a good one. This negates the need for a system with extension functions that will offer different modes of input, user initiated modification of program structure, or screen output in different levels of detail.

TRANSPARENCY

> THE SYSTEM BEHAVIOR IS TRANSPARENT TO THE USER. THAT MEANS THAT THE USER CAN DEVELOP A CONSISTENT MODEL OF THE SYSTEM WHEN WORKING WITH IT. BY THIS MODEL, THE SYSTEM BEHAVIOR BECOMES PREDICTABLE AND INFLUENCEABLE FOR THE USER.[6]

The program requires input of a minimal amount of information relating to financial transactions. From there records are updated and reports generated. Each user response or input produces the next set of options. The user does not have to specify such things as what reports the information is for or what records should be updated.

The treatment of ship riders that become temporary members of the wardroom (eat their meals in the wardroom) is an effective use of program transparency. The Mess Treasure is only concerned with these individuals when they are about to depart and must pay

5

their Mess Bill. Concurrently the program does not require any actions concerning ship riders until they are ready to depart. Menu screens are used that are similar to those for adding new mess members and generating monthly bills. This standardized interface, showing equal behavior in equal situations, is typical throughout the program and contributes to system predictability.

One difficulty in transparency experienced during testing was immediately corrected by the program developers. The confusion occurred at the end of the utility program. After completing the last task in the "set up program parameters" option, the program automatically returned to the main menu. No indication was provided that the input was successful or set up completed. This part of the program was changed to display a message screen which advises the user that the "set up program is complete" (Illustration 4).

| SETUP PROGRAM COMPLETE |

PRESS ANY KEY TO CONTINUE...

ILLUSTRATION 4

6

An important aspect of transparency is knowing or having the ability to find your location in the program at any time. The program uses an identification number in the top left corner of each screen (<u>M-O</u> in Illustration 1). Although this does not completely identify to the user their exact location, it does provided a coding system for location in a users manual or flow chart.

RECOMMENDATION: The use of a more descriptive, plain language, format for screen identifications (in the top left corner) would allow the program to better identify its location.

EASE OF LEARNING

> TO OPERATE THE SYSTEM IS EASY TO LEARN AND REQUIRES NO ADDITIONAL MEANS -- THE' USER CAN LEARN IT BY USING THE SYSTEM. SIMPLE TASKS REQUIRE NO SPECIAL QUALIFICATIONS OF THE USER.[7]

Program operation extremely easy to learn. The program steps a user through each option, requesting all the necessary information. No special knowledge or introductory courses should be required for a first time user. The system supports learning by doing.

Additional expert help for the program will be available through Navy Food Management Teams. This assistance is envisioned as being provided primarily over the telephone, requiring only problem symptoms and appropriate screen numbers.

RECOMMENDATION: Provide a practice set for the first time user. This should contain sample data input opportunities and be completed before assuming Mess Treasurer duties.

7

RECOMMENDATION: Offer online access to the user manual.

EASE OF USE

> THE SYSTEM IS A PRACTICAL TOOL FOR THE USER WHICH DOES NOT
> FRUSTRATE. IT IS DESIGNED IN A WAY THAT IT CAN BE HANDLED
> ACCORDING TO NEEDS AND QUALIFICATION; IT PROVIDES HELP AND
> REACTS TOLERANTLY TO USER MISTAKES.[8]

Ease of use encompasses both ease of program operation and the tolerance of errors. The difference between this category and the previous, Ease of Learning, is most important. Frustration can occur at both ends of program structure. A program that is too simplistic can be as frustrating as one that is too complicated. This program remains simplistic, it does not evolve with the user as he gains experience in operating the system. This simplicity, though likely to frustrate advanced users, is a necessity for a user population projected to be constantly changing and always with fewer than six months experience.

Help menus, a critical function when considering software for novice users, were still being developed and not available for testing. This feature is an additional requirement to online access to the user's manual.

The program does not force the user into hasty actions. The computer tells the user when it is their turn by changing to a new screen. Every data input is followed by a request for command confirmation. The question "IS THE ABOVE INPUT CORRECT? (Y/N)" is displayed at the bottom of the input screen, in a

8

different color and requires a response. Default keys (any key other than Y or N) register "No". The use of command confirmations and default keys to "undo" mistakes enhance the programs usability. Illustrations 5 and 6 demonstrate a typical sequence of command confirmation screen displays.

Error prevention and recognition were also stimulated by using previous input on the next display screen. The matching of social security numbers to name is an example of this transparent and effective error protection feature. All Mess member transactions were initiated by social security numbers. After social security number input and verification the next screen would contain the members name or both the social security number and the members name.

In analyzing program response to errors against the current state of the art, this program does not assume responsibility for errors, as may be found in more sophisticated software. Some very helpful error messages are provided. These include messages that prevent overpayment of Mess Bills and warnings of data base deletion during program set up. Errors that are not detected by command confirmation and enter the data base can be very difficult to correct. The program does not attempt to use artificial intelligence or some other state of the art system to overcome garbage in, garbage out.

RECOMMENDATION: Complete development of help menus for each screen and include explanations for both general problems and situation dependent problems.

RECOMMENDATION: Provide a way to correct numeric errors. If incorrect data passes command confirmation, corrections can only

9

```
+------------------------------------------------------------------+
|                    NEW MEMBER INFORMATION                        |
|                                                                  |
|NAME OF NEW MEMBER:           MADDEN, MICHAEL T.                   |
|                              LAST, FIRST MI                       |
|                                                                  |
|                                                                  |
|SSN NUMBER:      ███████████              STATUS:   M             |
|                                                    (M,E)         |
|                                                                  |
|DATE JOINED:    12/24/88                  RANK:   LT              |
|                MM DD YY                                          |
|                                                                  |
|_____IS THE ABOVE INPUT CORRECT? (Y,N)_____ |
+------------------------------------------------------------------+
```

ILLUSTRATION 5

```
+------------------------------------------------------------------+
|                    NEW MEMBER INFORMATION                        |
|                                                                  |
|NAME OF NEW MEMBER:           MADDEN, MICHAEL T.                   |
|                              LAST, FIRST MI                       |
|                                                                  |
|                                                                  |
|SSN NUMBER:      ███████████              STATUS:   M             |
|                                                    (M,E)         |
|                                                                  |
|DATE JOINED:    12/24/88                  RANK:   LT              |
|                MM DD YY                                          |
|                                                                  |
|_____IS THE ABOVE INPUT CORRECT? (Y,N)_____ |
+------------------------------------------------------------------+
```

ILLUSTRATION 6

be made by a counter balancing entry or by erasing all inputs during that session. This was done to protect the data base however, it will likely cause unnecessary work for the user who desires error free records or frustrate the user who does not have an accounting background.

RECOMMENDATION: Include hints for correction in error messages.

RELIABILITY

> THE SYSTEM IS DESIGNED IN A WAY THAT THE USER CAN DO HIS WORK WITH IT IN A RELIABLE MANNER.[9]

During testing unexpected tasks or results were not encountered. The use of a micro computer, instead of time sharing on a ships main frame, should provide the independence necessary to maintain acceptable user availability. Response time for the most part was very good, though certain functions took up to 30 seconds.

Reliability can also be measured by the amount of security and data protection provided by the program. Pass word entry, shown in Illustration 7, is used during program start-up. Data protection is offered in many ways, several which have already been presented (command confirmation, default keys, etc.). In addition data bases cannot be changed after final monthly reports are generated. Another feature that significantly improves system reliability is the automatic back-up of all data onto a floppy disk at the end of each session, shown in Illustration 8.

RECOMMENDATION: No changes in terms of reliability are recommended.

11

```
THE PASSWORD WILL NOT APPEAR WHEN TYPED!
```

```
ENTER YOUR PASSWORD :
```

ILLUSTRATION 7

```
INSERT FORMATTED ARCHIVE DISK IN DRIVE A
```

ILLUSTRATION 8

PHYSICAL INTERFACE

Physical interface refers to the media by which information is passed between the user and the computer. On the computer's side are such thing as keyboards, printer, and visual displays. On the user's side are, primarily, eyes, ears, and fingers.[10] Cognitive ergonomics and physical interface are not independent functions. The "user friendliness" of a program can be significantly influenced by the visual displays it has.

Although an in depth study was not conducted on physical interface, three aspects of visual displays were noted and a brief discussion follows:

LETTERING - Studies have shown that lower case lettering is more legible than texts printed all in capitals. In an elaborate research program it was found that text printed in capitals was read on average about 14% more slowly than lower case text.[11] All upper case lettering was used in this program. However, the

12

programers felt double spaced, capital lettering would be more readable in the underway shipboard environment.

COLORS - With color monitors installed in most of the shipboard systems, decisions on which color combinations to use had to be made. The use of opposite ends of the color wavelength spectrum in blue and red were good decisions for two reasons. First, the obvious contrast of these two colors, using two different cones, achieves the instant recognition desired for a highlighted area and these colors are discernable by those with color blindness.[12] The use of yellow lettering to record input over a solid red background does not provide a contrast and is difficult to read.

RECOMMENDATION: Change the input lettering to a dark color.

TEXT DISPLAY - Text is centered on the screen and the user's eyes tend to fall in that area when each new screen appears. Display of input differs between the "two finger typist" and the experienced typist. Location of typed input to minimize head movement for the "two finger typist" would be at the bottom of the screen (keyboard to monitor movement) while the design eye position would favor the experienced typist. The program favors an experienced typist and no changes are recommended.

SUMMARY

Even though the five objectives used to evaluate the cognitive ergonomics of this program were not originally considered by the programers, userfriendliness was achieved. The programmers took their ideas from other programs they felt were user-friendly.

Help screens are the one feature, not yet available but under development, that current literature specifies must be incorporated into software when programming for the novice user.

When evaluating this program against the standards available from current technology, some deficiencies exist. However, when considering the projected typical user, the latest in extension functions and multiple modes of input would do little to improve "user friendliness".

13

1. Nickerson, Raymond S. Using Computers: The Human Factors of Information Systems. Cambridge: The MIT Press 1986.

2. Ibid., p. 149.

3. Goos, G. and J. Hartmanis. Lecture Notes in Computer Science, Volume 110. Germany: Springer-Verlag 1981.

4. Ibid., pp. 90-91.

5. Ibid., p. 95.

6. Ibid., p. 96.

7. Ibid., p. 98.

8. Ibid., p. 96.

9. Ibid., p. 99.

10. Nickerson, p. 89.

11. Monk, Andrew. Fundamentals of Human-Computer Interaction. Academic Press 1984.

12. Ibid., p. 14.

APPENDIX E

```
*****************************************************************
*                         ADD-MBR                              *
*****************************************************************

PROCEDURE ADD-MBR
*****************************************************************
* NAME:     ADD-MBR.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                      *
*          LT M.T.MADDEN                                       *
* PURPOSE: ADDS NEW MEMBERS TO THE DATABASE AND ASSESES ANY    *
*          NECESSARY CHARGES.                                  *
*****************************************************************

* LISTING:
STORE ' ' TO TMESS
STORE " " TO ANS
STORE ' ' TO CHOICE
STORE ' ' TO TSTAT
STORE 000.00 TO TSHAR
STORE SPACE (20) TO TNAME
STORE DATE() TO MDATE
STORE 0000.00 TO TEMPA
STORE 0000.00 TO TEMPB
STORE 000.00 TO TBILL
STORE 00 TO TDAY
STORE 00 TO TMON
STORE 0000 TO TREC
SELECT D
USE SETCAT
TMESS = MESS
SELECT A
USE INV
TSHAR = VAL_FWD
CHOICE = 'Y'
DO WHILE UPPER(CHOICE) = 'Y'
    ANS = 'N'
    SELECT B
    USE MEMBERS
    APPEND BLANK
    DO WHILE UPPER(ANS) <> 'Y'
        SET FORMAT TO MBR-SCREEN.FMT
        EDIT
        SET COLOR TO W+/R,,
        a 20,20 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
        CLOSE FORMAT
    ENDDO
    CLEAR
    SKIP -1
    TNAME = SSN
    TSTAT = STATUS
    TREC = RECNO()
    GOTO TOP
    LOCATE FOR (TNAME = SSN) .AND. (RECNO() <> TREC)
    IF FOUND()
        GOTO TREC
        DELETE
```

```
            PACK
            CLEAR
            a 10,10 TO 14,68 DOUBLE
            SET COLOR TO W+/R,,
            a 12,25 SAY [ MEMBER IS ALREADY IN THE FILE ! ]
            SET COLOR TO W+/B,,
            a 15,1 SAY [ ]
            WAIT TO CONT
ELSE
GOTO TREC
IF (STATUS = 'M') .AND. (TMESS <> 'E')
            REPLACE SHAREIN WITH TSHAR
            REPLACE SHAREOUT WITH 0.00
ELSE
            REPLACE SHAREIN WITH 0.00
            REPLACE SHAREOUT WITH 0.00
ENDIF
IF (STATUS = 'M') .AND. (TMESS <> 'E')
            SELECT C
            USE TRANS
            APPEND BLANK
            REPLACE TTYP WITH 'AR'
            REPLACE DATE_IN WITH MDATE
            REPLACE AMT WITH TSHAR.
            REPLACE NAME WITH TNAME
            REPLACE PURPOSE WITH 'MESS SHARE'
            REPLACE DATE_PD WITH 'CM'
ENDIF
IF TMESS <> 'E'
SELECT D
USE SETCAT
TBILL = SUG_BILL
IF TSTAT = 'M' .AND. METHOD = 'B' .AND. SUBSIST <> 'Y'
            SELECT E
            USE DYSWKD
            APPEND BLANK
            SET FORMAT TO DYS.FMT
            ANS = 'N'
            DO WHILE UPPER(ANS) <> 'Y'
                EDIT
                SET COLOR TO W+/R,,
                a 15,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                SET COLOR TO B/B,,
                WAIT ' ' TO ANS
                SET COLOR TO W+/B,,
            ENDDO
            CLOSE FORMAT
            SKIP -1
            TDAY = WORKD
            TMON = MONDYS
            DELETE ALL
            PACK
            CLEAR
            TEMPA = TBILL / TMON
            TEMPB = TEMPA * TDAY
            SELECT C
            APPEND BLANK
            REPLACE TTYP WITH 'AR'
            REPLACE DATE_IN WITH MDATE
            REPLACE AMT WITH TEMPB
```

63

```
               REPLACE NAME WITH TNAME
               REPLACE PURPOSE WITH 'MESS BILL'
               REPLACE DATE_PD WITH 'CF'
          ENDIF
          ENDIF
          ENDIF
CLOSE ALL
CLEAR
@ 8,12 TO 12,59 DOUBLE
SET COLOR TO W+/R,,
@ 10,15 SAY [ DO YOU WISH TO ADD ANOTHER MEMBER? (Y/N) ]
SET COLOR TO B/B,,
WAIT ' ' TO CHOICE
SET COLOR TO W+/B,,
ENDDO
CLEAR
RETURN
* END ADD-MBR.PRG
```

```
****************************************************************
*                          ADET-MBR                           *
****************************************************************

PROCEDURE ADET-MBR
****************************************************************
* NAME:     ADET-MBR.PRG                                       *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE:  PRINT SUMMARY BILL FOR DETACHING MEMBER.          *
****************************************************************

* LISTING:
a  2, 23   SAY "_____"
a  4, 26   SAY "SUMMARY FOR A DETACHING MEMBER"
a  5, 23   SAY "_____"
a  7, 23   SAY "NAME:"
a  7, 35   SAY  MEMBERS->NAME
a  9, 23   SAY "RANK:"
a  9, 29   SAY  MEMBERS->RANK
a  9, 45   SAY "SSN:"
a  9, 51   SAY  MEMBERS->SSN
a 12, 23   SAY "_____"
a 13, 23   SAY "MESS SHARE REFUND"
a 14, 23   SAY "OWED TO MEMBER:"
a 14, 54   SAY  MEMBERS->SHAREOUT
a 16, 23   SAY "MESS BILL OWED BY"
a 17, 23   SAY "MEMBER TO THE MESS:"
a 17, 54   SAY  MEMBERS->BILL_OUT
a 18, 23   SAY "_____"
* END ADET-MBR.PRG
```

```
*************************************************************
*                        ASET-FS                           *
*************************************************************

PROCEDURE ASET-FS
*************************************************************
* NAME:      ASET-FS.PRG                                    *
* AUTHORS:  LCDR J.L.TWIGG                                  *
*           LT M.T.MADDEN                                   *
* PURPOSE:  CALCULATES ASSET TOTALS FOR THE FINANCIAL STATEMENTS.*
*************************************************************

* LISTING:
STORE 000000.00 TO TEMP1
STORE 000000.00 TO TEMP2
STORE 000000.00 TO TEMP3
STORE 000000.00 TO TEMP4
STORE 000000.00 TO TEMP5
STORE 000000.00 TO TEMP6
STORE 000000.00 TO TEMP7
STORE 000000.00 TO TEMP8
SELECT A
USE FININC
TEMP1 = CASH_CF
SELECT B
USE TRANS
DO WHILE .NOT. EOF()
    IF TTYP = 'AR'
        DO CASE
            CASE PURPOSE = 'MESS BILL'
                TEMP2 = TEMP2 + AMT
            CASE PURPOSE = 'MESS SHARE'
                TEMP3 = TEMP3 + AMT
            CASE PURPOSE = 'COMRATS DUE'
                TEMP4 = TEMP4 + AMT
            OTHERWISE
                TEMP5 = TEMP5 + AMT
        ENDCASE
    ENDIF
    SKIP 1
ENDDO
SELECT C
USE INV
TEMP6 = E_INV
TEMP7 = N_INV
TEMP8 = TEMP1 + TEMP2 + TEMP3 + TEMP4 + TEMP5 + TEMP6 + TEMP7
SELECT D
USE FINBAL
REPLACE CASH_OH WITH TEMP1
REPLACE BILLS_UN WITH TEMP2
REPLACE SHARE_UN WITH TEMP3
REPLACE COMRAT_UN WITH TEMP4
REPLACE OTHER_A WITH TEMP5
REPLACE PROV_INV WITH TEMP6
REPLACE TTL_ASS WITH TEMP8
REPLACE OTH_INV WITH TEMP7
CLOSE ALL
RETURN
*END ASET-FS.PRG
```

```
**************************************************************
*                        BAL-FS                             *
**************************************************************

PROCEDURE BAL-FS
**************************************************************
* NAME:    BAL-FS.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                    *
*          LT M.T.MADDEN                                     *
* PURPOSE: PRINTS BALANCE SHEET SIDE OF FINANCIAL STATEMENT. *
**************************************************************

* LISTING:
@ 32, 27  SAY "B A L A N C E   S H E E T"
@ 33, 27  SAY "_____"
@ 34, 16  SAY "ASSETS                              LIABILITIES"
@ 35,  2  SAY "_____
_____"
@ 36,  2  SAY "CASH ON HAND                        MESS BILL"
@ 37,  2  SAY "THIS DATE:"
@ 37, 30  SAY  FINBAL->CASH_OH
@ 37, 42  SAY "REFUNDS OWED:"
@ 37, 66  SAY  FINBAL->BILLS_OWD
@ 39,  2  SAY "MESS BILLS                          MESS SHARE"
@ 40,  2  SAY "UNCOLLECTED:"
@ 40, 30  SAY  FINBAL->BILLS_UN
@ 40, 42  SAY "REFUNDS OWED:"
@ 40, 66  SAY  FINBAL->SHARE_OWD
@ 42,  2  SAY "MESS SHARES                         PROVISIONS FROM"
@ 43,  2  SAY "UNCOLLECTED:"
@ 43, 30  SAY  FINBAL->SHARE_UN
@ 43, 44  SAY "SUPPLY OFFICER OWED:"
@ 43, 66  SAY  FINBAL->PROV_FSO
@ 44, 44  SAY "DEALERS OWED:"
@ 44, 66  SAY  FINBAL->PROV_VEND
@ 45,  2  SAY "COMMUTED RATIONS"
@ 46,  2  SAY "UNCOLLECTED:"
@ 46, 30  SAY  FINBAL->COMRAT_UN
@ 46, 42  SAY "MEALS FROM FSO OWED:"
@ 46, 66  SAY  FINBAL->MEAL_PURC  PICTURE "99999.99"
@ 48,  2  SAY "INVENTORY                           OTHER LIABILITIES:"
@ 48, 66  SAY  FINBAL->OTHER_B
@ 49,  5  SAY "PROVISIONS:"
@ 49, 30  SAY  FINBAL->PROV_INV
@ 50,  5  SAY "NON-PROVISIONS"
@ 50, 30  SAY  FINBAL->OTH_INV
@ 50, 42  SAY "TOTAL LIABILITIES:"
@ 50, 65  SAY  FINBAL->TTL_LIAB
@ 52,  2  SAY "OTHER ASSETS:"
@ 52, 30  SAY  FINBAL->OTHER_A
@ 52, 42  SAY "NET WORTH:"
@ 52, 65  SAY  FINBAL->NET_WORTH
@ 53,  2  SAY "_____
_____"
@ 54, 42  SAY "TOTAL LIABILITIES"
@ 55,  2  SAY "TOTAL ASSETS:"
@ 55, 29  SAY  FINBAL->TTL_ASS
@ 55, 42  SAY "AND NET WORTH:"
@ 55, 65  SAY  FINBAL->NW_LIAB
```

|||

```
ə 56,   2  SAY
"
* END BAL-FS.PRG
```

```
********************************************************
*                      COMRTS                         *
********************************************************

PROCEDURE COMRTS
**********************************************************************
* NAME:    COMRTS.PRG                                              *
* AUTHORS: LCDR J.L.TWIGG                                          *
*          LT M.T.MADDEN                                           *
* PURPOSE: PRINTS COMMUTED RATIONS STATEMENT.                     *
**********************************************************************

* LISTING:
a  8,  9  SAY "C O M P U T A T I O N   O F   C O M M U T E D   R A T I O N S"
a  9,  9  SAY "_____"
a 13, 19  SAY "OFFICER AND GUEST MEALS"
a 13, 55  SAY  SUMMARY->OGMEALS
a 15, 19  SAY "ENLISTED MEALS                      +"
a 15, 55  SAY  SUMMARY->ENL
a 16, 54  SAY "_____"
a 17, 19  SAY "TOTAL MEALS"
a 17, 55  SAY  SUMMARY->TMEALS
a 19, 19  SAY "ENLISTED MEALS PERCENTAGE"
a 19, 55  SAY  SUMMARY->ENPERC
a 21, 19  SAY "PROVISIONS CONSUMED            X"
a 21, 51  SAY  SUMMARY->PCON
a 22, 50  SAY "_____"
a 23, 19  SAY "ENLISTED PROVISIONS COST"
a 23, 52  SAY  SUMMARY->PRVCST
a 25, 19  SAY "AVAILABLE COMRATS"
a 25, 52  SAY  SUMMARY->MAXRATS
a 26, 19  SAY "_____"
a 28, 19  SAY "AMOUNT DUE FROM DISB. OFFICER"
a 28, 52  SAY  SUMMARY->AMTDO
a 29, 19  SAY "_____"

* END COMRTS.PRG
```

```
‖

    **********************************************************
    *                      COST-FS                           *
    **********************************************************

    PROCEDURE COST-FS
    ***********************************************************
    * NAME:    COST-FS.PRG                                    *
    * AUTHORS: LCDR J.L.TWIGG                                 *
    *          LT M.T.MADDEN                                  *
    * PURPOSE: PRINTS THE COST PER MAN STATEMENT.             *
    ***********************************************************

    * LISTING:
    a 20, 25  SAY "C O S T   P E R   M A N"
    a 21, 25  SAY "_____"
    a 23,  7  SAY "AVERAGE NUMBER OF OFFICERS SUBSISTED"
    a 23, 57  SAY  SUMMARY->OAVG
    a 25,  7  SAY "AVERAGE NUMBER OF ENLISTED PERSONNEL SUBSISTED"
    a 25, 57  SAY  SUMMARY->EAVG
    a 26, 57  SAY "_____"
    a 28,  7  SAY "TOTAL SUBSISTED FROM THE MESS"
    a 28, 57  SAY  SUMMARY->TTL_SUB
    a 30,  7  SAY "PROVISIONS COMSUMED BY THE MESS"
    a 30, 55  SAY  SUMMARY->PCON   PICTURE "999999.99"
    a 31, 52  SAY "_____"
    a 33,  7  SAY "COST PER MAN"
    a 33, 58  SAY  SUMMARY->COSTMAN
    a 34,  7  SAY "_____"
    a 35,  7  SAY "_____"
    a 37,1 SAY [Accounts Receivable / Payable are listed on attached documents.]
    a 39,1 SAY [I certify the forgoing statements to be correct, that the
    provisions]
    a 40,1 SAY [shown on the attached inventory are in good condition and carry
    their]
    a 41,1 SAY [proper value, and that the mess has no assets or liabilities other]
    a 42,1 SAY [than those listed.]
    a 44,4 SAY [ _____          _____]
    a 45,10 SAY [Date                         Mess Treasurer ]
    a 47,1 SAY [AUDITED BY:]
    a 48,15 SAY [ _____       _____]
    a 49,21 SAY [Member                 Member]
    a 51,41 SAY [_____]
    a 52,45 SAY [Senior Member]
    a 54,1 SAY [APPROVED BY:]
    a 55,17 SAY [_____       _____]
    a 56,21 SAY [ Date                Commanding Officer]
    CLOSE ALL
    RETURN
    * END COST-FS
```

```
*********************************************************
*                      CRATS-FS                        *
*********************************************************

PROCEDURE CRATS-FS
**********************************************************
* NAME:     CRATS-FS.PRG                                 *
* AUTHORS:  LCDR J.L.TWIGG                               *
*           LT M.T.MADDEN                                *
* PURPOSE:  GENERATES THE COMRATS DUE THE MESS FIGURE.   *
**********************************************************

* LISTING:
STORE 0000000 TO TEMP1
STORE 00000.00 TO TEMP2
STORE 00000 TO TEMP3
STORE 0.0000 TO TEMP4
STORE 000000.00 TO TEMP5
STORE 000000.00 TO TEMPA
STORE 00000 TO TEMPB
STORE 00000.00 TO TEMPC
STORE 00000.00 TO TEMPD
STORE DATE() TO MDATE
STORE ' ' TO ANS
STORE SPACE(25) TO TNAME
SELECT A
USE SUMMARY
REPLACE OFF WITH 00000
REPLACE GUST WITH 00000
REPLACE ENL WITH 00000
REPLACE DAYMON WITH 01
CLEAR
SET COLOR TO W+/B,,R
ANS = 'N'
SET FORMAT TO SUM-IP.FMT
DO WHILE UPPER(ANS) <> 'Y'
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 18,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
SET COLOR TO GR+/R,,N
CLEAR
a 8,10 TO 14,68 DOUBLE
a 10,18 SAY [ CONTINUING FINANCIAL STATEMENT COMPUTATIONS ! ]
a 12,32 SAY [ PLEASE STANDBY ! ]
CLOSE FORMAT
SKIP -1
TEMP1 = OFF + GUST
REPLACE OGMEALS WITH TEMP1
RATION = 3 * DAYMON
SUBSIS = TEMP1 / RATION
REPLACE OAVG WITH SUBSIS
ESUBSIS = ENL / RATION
REPLACE EAVG WITH ESUBSIS
TEMP2 = ESUBSIS + SUBSIS
REPLACE TTL_SUB WITH TEMP2
```

```
TEMP3 = TEMP1 + ENL
REPLACE TMEALS WITH TEMP3
TEMP4 = ROUND(ENL / TEMP3,3)
REPLACE ENPERC WITH TEMP4
SELECT B
USE INV
TEMP5 = PCONSUMED
TEMPA = ROUND(TEMP5 * TEMP4,2)
SELECT C
USE MEMBERS
    DO WHILE .NOT. EOF()
        DO CASE
            CASE STATUS = 'E'
                TNAME = NAME
                SELECT D
                USE DYSWKD
                SET COLOR TO W+/B,,R
                CLEAR
                ANS = 'N'
                DO WHILE UPPER(ANS) <> 'Y'
                SET FORMAT TO ASSIGND.FMT
                APPEND BLANK
                REPLACE DNAME WITH TNAME
                EDIT RECORD 1
                SET COLOR TO W+/R,,
                a 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                SET COLOR TO B/B,,
                WAIT ' ' TO ANS
                SET COLOR TO W+/B,,
                CLOSE FORMAT
                ENDDO
                CLEAR
                SKIP -1
                TEMPB = TEMPB + WORKD
                DELETE ALL
                PACK
        ENDCASE
    SELECT C
    SKIP 1
    ENDDO
SET COLOR TO GR+/R,,N
CLEAR
a 6,10 TO 16,68 DOUBLE
a 10,18 SAY [ CONTINUING FINANCIAL STATEMENT GENERATION ! ]
a 12,31 SAY [ PLEASE STANDBY ! ]
SELECT E
USE SETCAT
TEMPC = TEMPB * ERATS
TEMPD = MIN(TEMPC,TEMPA)

SELECT A
REPLACE OGMEALS WITH TEMP1
REPLACE TMEALS WITH TEMP3
REPLACE PCON WITH TEMP5
REPLACE PRVCST WITH TEMPA
REPLACE MAXRATS WITH TEMPC
REPLACE AMTDO WITH TEMPD

SELECT F
USE TRANS
```

```
APPEND BLANK
REPLACE TTYP WITH 'AR'
REPLACE DATE_IN WITH MDATE
REPLACE NAME WITH 'DISB. OFFICER'
REPLACE AMT WITH TEMPD
REPLACE PURPOSE WITH 'COMRATS DUE'
REPLACE DATE_PD WITH "CF"
CLOSE ALL
RETURN
* END CRATS.PRG
```

```
**************************************************************
*                         CPM-FS                            *
**************************************************************

PROCEDURE CPM-FS
****************************************************************
* NAME:     CPM-FS.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                    *
*           LT M.T.MADDEN                                     *
* PURPOSE:  COMPUTES THE COST PER MAN OF OPERATING THE MESS.  *
****************************************************************

* LISTING:
STORE 00000.00 TO TEMP1
STORE 000000000.00 TO TEMP2
SELECT A
USE SETCAT
IF SUBSIST = "Y"
    SELECT B
    USE SHARE
    TEMP1 = NUM_MBR
    SELECT C
    USE SUMMARY
    REPLACE OAVG WITH TEMP1
    REPLACE EAVG WITH 0
ELSE
    SELECT C
    USE SUMMARY
    TEMP1 = TTL_SUB
ENDIF
SELECT D
USE INV
COST = PCONSUMED / TEMP1
TEMP2 = PCONSUMED
USE
SELECT C
USE SUMMARY
REPLACE COSTMAN WITH COST
REPLACE PCON WITH TEMP2
CLOSE ALL
RETURN
*END CPM-FS
```

```
****************************************************************
*                          DEL-MBR                            *
****************************************************************

PROCEDURE DEL-MBR
*******************************************************************
* NAME:    DEL-MBR.PRG                                           *
* AUTHORS: LCDR J.L.TWIGG                                        *
*          LT. M.T.MADDEN                                        *
* PURPOSE: DELETE A MEMBER FROM THE MESS AND PREPARE BILL.       *
*******************************************************************

* LISTING:
CLEAR
STORE ' ' TO TMESS
STORE ' ' TO RLASON
STORE ' ' TO ANS
STORE DATE() TO MDATE
STORE ' ' TO CHOICE
STORE SPACE (9) TO TSSN
STORE SPACE (20) TO TNAME
STORE 000.00 TO TSHAR
STORE 00.00 TO BCOST
STORE 00.00 TO LCOST
STORE 00.00 TO DCOST
STORE 00.00 TO HCOST
STORE 000.00 TO TBILL
STORE 00 TO TDAY
STORE 00 TO TMON
STORE 00 TO TDIFF
STORE 0000.00 TO TSUB
STORE 000.00 TO REBATE
STORE 000.00 TO BTTL
STORE 000.00 TO LTTL
STORE 000.00 TO DTTL
STORE 000.00 TO HTTL
STORE 000.00 TO MBILL
STORE 000.00 TO TCASH
SELECT D
USE SETCAT
TMESS = MESS
SELECT A
USE INV.
TSHAR = VAL_FWD
CHOICE = 'Y'
DO WHILE UPPER(CHOICE) = 'Y'
    ANS = 'N'
    DO WHILE UPPER(ANS) <> 'Y'
        TSSN = '         '
        a 0,0 SAY [TR-015]
        a 8,6 TO 12.73 DOUBLE
        SET COLOR T  W+/R,,
        a 10,8 SAY [ ENTER THE SOCIAL SECURITY NBR. FOR DETACHING MEMBER: ] GET
TSSN PICTURE [XXXXXXXXX]
        READ
        a 12,24 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
```

75

```
      CLEAR
ENDDO
CLEAR
SELECT B
USE MEMBERS
LOCATE FOR SSN = TSSN
IF FOUND() .AND. DTOC(DETACHED) = '  /  /  '
  IF TMESS = 'E'
    REPLACE DETACHED WITH MDATE
  ELSE
    TNAME = NAME
    REPLACE SHAREOUT WITH TSHAR
    SELECT C
    USE TRANS
    APPEND BLANK
    REPLACE TTYP WITH 'AP'
    REPLACE DATE_IN WITH MDATE
    REPLACE NAME WITH TSSN
    REPLACE AMT WITH TSHAR
    REPLACE PURPOSE WITH 'MSS SHARE RF OWED'
    REPLACE DATE_PD WITH 'CM'
    SELECT D
    USE SETCAT
    IF METHOD = 'B' .AND. SUBSIST <> 'Y'
        REASON = 'D'
        DO MBRLV
        DO REBATE
    ELSE
        IF METHOD = 'A' .OR. SUBSIST = 'Y'
            DO DEPBILL
        ENDIF
    ENDIF
    TCASH = 00.00
    SELECT C
    USE TRANS
    DO WHILE .NOT. EOF()
        IF NAME = TSSN
        DO CASE
            CASE PURPOSE = 'MSS BILL RF OWED'
                TCASH = TCASH - AMT
            CASE PURPOSE = 'SPECIAL ASSES' .AND. TTYP = 'AR'
                TCASH = TCASH + AMT
            CASE PURPOSE = 'MESS BILL' .AND. TTYP = 'AR'
                TCASH = TCASH + AMT
            CASE PURPOSE = 'MESS SHARE' .AND. TTYP = 'AR'
                TCASH = TCASH + AMT
        ENDCASE
        ENDIF
        SKIP 1
    ENDDO
    CLEAR
    @ 8,10 TO 12,68 DOUBLE
    SET COLOR TO W+/R,,
    @ 10,25 SAY [ CHECK TO ENSURE PRINTER IS ON ! ]
    SET COLOR TO W+/B,,
    @ 14,1 SAY [ ]
    WAIT TO CONT
    CLEAR
    IF TCASH < 00.0
        SELECT B
```

```
                    REPLACE BILL_OUT WITH ABS(TCASH)
                    SET DEVICE TO PRINT
                    DO DET-MBR
                    EJECT
                    SET DEVICE TO SCREEN
              ELSE
                    SELECT B
                    REPLACE BILL_OUT WITH TCASH
                    SET DEVICE TO PRINT
                    DO ADET-MBR
                    EJECT
                    SET DEVICE TO SCREEN
              ENDIF
          ENDIF
      ELSE
          CLEAR
          a 8,16 TO 12,59 DOUBLE
          SET COLOR TO W+/R,,
          a 10,20 SAY [ SOCIAL SECURITY NUMBER NOT FOUND!!! ]
          SET COLOR TO W+/B,,
          a 14,1 SAY [ ]
          WAIT TO CONT
          CLEAR
      ENDIF
a 8,15 TO 12,65 DOUBLE
SET COLOR TO W+/R,,
a 10,17 SAY [ DO YOU DESIRE TO DELETE ANOTHER MEMBER? (Y/N) ]
SET COLOR TO B/B
WAIT ' ' TO CHOICE
SET COLOR TO W+/B,,
CLEAR
ENDDO
CLEAR
CLOSE ALL
RETURN
* END DEL-MBR
```

```
***************************************************************
*                         DEPBILL                            *
***************************************************************

PROCEDURE DEPBILL
***************************************************************
* NAME:    DEPBILL.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: PRODUCE MESS BILL FOR DEPARTING MEMBER.            *
***************************************************************

* LISTING:
STORE 000.00 TO BILL_TTL
CLEAR
USE SETCAT
BCOST = B_COST
LCOST = L_COST
DCOST = S_COST
HCOST = H_COST
USE
SELECT F
USE MEALS
SET FORMAT TO MEALS-FT
APPEND BLANK
REPLACE MNAME WITH TNAME
ANS = 'N'
DO WHILE UPPER(ANS) <> 'Y'
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 17,19 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
CLEAR
CLOSE FORMAT
SKIP -1
BTTL = BCOST * BR_CT
LTTL = LCOST * LU_CT
DTTL = DCOST * DI_CT
HTTL = HCOST * HO_CT
MBILL = BTTL + LTTL + DTTL + HTTL
DELETE ALL
PACK
USE
SELECT C
USE TRANS
APPEND BLANK
REPLACE TTYP WITH 'AR'
REPLACE DATE_IN WITH MDATE
REPLACE NAME WITH TSSN
REPLACE AMT WITH MBILL
REPLACE PURPOSE WITH 'MESS BILL'
REPLACE DATE_PD WITH 'CM'
USE
CLEAR
RETURN
  * END DEPBILL.PRG
```

```
****************************************************************
*                         DET-MBR                             *
****************************************************************

PROCEDURE DET-MBR
****************************************************************
* NAME:    DET-MBR                                            *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: PRINTS DEPARTING MEMBERS MESS BILL.                *
****************************************************************

* LISTING:
@  1, 21   SAY "_____"
@  3, 24   SAY "SUMMARY FOR A DETACHING MEMBER"
@  4, 21   SAY "_____"
@  7, 21   SAY "NAME:"
@  7, 32   SAY  MEMBERS->NAME
@  9, 21   SAY "RANK:"
@  9, 27   SAY  MEMBERS->RANK
@  9, 43   SAY "SSN:"
@  9, 48   SAY  MEMBERS->SSN
@ 11, 21   SAY "_____"
@ 12, 21   SAY "MESS SHARE REFUND"
@ 13, 21   SAY "OWED TO MEMBER:"
@ 13, 51   SAY  MEMBERS->SHAREOUT
@ 15, 21   SAY "MESS BILL REFUND"
@ 16, 21   SAY "OWED TO MEMBER:"
@ 16, 51   SAY  MEMBERS->BILL_OUT
@ 18, 21   SAY "_____"
* END DET-MBR.PRG
```

```
**************************************************************
*                         EOM-RPT                           *
**************************************************************

PROCEDURE EOM-RPT
***************************************************************************
* NAME:     EOM-RPT.PRG                                                   *
* AUTHORS: LCDR J.L.TWIGG                                                 *
*           LT M.T.MADDEN                                                 *
* PURPOSE: DRIVER FOR PRINTING SMOOTH FINANCIAL STATEMENTS.              *
***************************************************************************

* LISTING:
CLEAR
STORE SPACE (20) TO ANS
STORE ' ' TO REASON
SELECT A
USE SETCAT
REPLACE TRIAL WITH 'N'
REPLACE EOM WITH '    '
SET FORMAT TO EOM-IP.FMT
DO WHILE UPPER(ANS) <> 'Y'
    REPLACE EOM WITH '            '
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 17,26 SAY [ IS THIS CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
CLOSE FORMAT
SELECT A
SKIP -1
REASON = 'M'
DO CASE
    CASE MESS = 'E'
        CLOSE ALL
        DO PRT-FS
        DO GEN-RPT
        DO MEAL-PR
        DO RESET
    CASE SUBSIST = 'Y'
        .CLOSE ALL
        DO PRT-FS
        DO GEN-RPT
        DO RESET
        DO MESS-PRT
        DO MEAL-PR
    CASE SUBSIST = 'N' .AND. METHOD = 'A'
        CLOSE ALL
        DO PRT-FS
        DO GEN-RPT
        DO RESET
        DO MEAL-PR
        DO MESS-PRT
    OTHERWISE
        CLOSE ALL
        DO PRT-FS
        DO GEN-RPT

...
```

```
              DO RESET
              DO MESS-PRT
              DO MEAL-PR
ENDCASE
EJECT
CLOSE ALL
CLEAR
RETURN
* END EOM-RPT.PRG
```

```
************************************************************
*                         EXMEAL                          *
************************************************************

PROCEDURE EXMEAL
************************************************************
* NAME:      EXMEAL.PRG                                    *
* AUTHORS: LCDR J TWIGG                                    *
*          LT M MADDEN                                     *
* PURPOSE: RECORD PAYMENT FOR MEALS PURCHASED FROM FSO.    *
************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF TTYP = 'AP' .AND. PURPOSE = 'FSO MEALS OWED'
        DO PAYRATS
        SET COLOR TO W+/R,,
        a 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) = 'Y'
            REPLACE TTYP WITH 'XP'
            REPLACE DATE_IN WITH TDATE
            REPLACE DATE_PD WITH 'PD'
            REPLACE PURPOSE WITH 'FSO MEALS'
        ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,19 TO 14,61 DOUBLE
    SET COLOR TO W+/R,,
    a 12,25 SAY [ END OF FILE HAS BEEN REACHED!! ]
    SET COLOR TO W+/B,,
    a 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END EXMEAL.PRG
```

82

```
****************************************************************
*                          EXOTHER                            *
****************************************************************

PROCEDURE EXOTHER
****************************************************************
* NAME:     EXOTHER.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE: RECORD CASH EXPENDITURES FOR OTHER THAN PROVISIONS  *
*          OR MEALS PURCHASED.                                 *
****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF (TTYP = 'AP') .AND. ((PURPOSE <> 'PROV FSO OWED') .AND.(PURPOSE <> 'PROV
VENDOR OWED') .AND. (PURPOSE <> 'MSS SHARE RF OWED') .AND. (PURPOSE <> 'MSS
BILL RF OWED') .AND. (PURPOSE <> 'FSO MEALS OWED'))
        DO PAYRATS
        SET COLOR TO W+/R,,
        a 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) = 'Y'
            REPLACE TTYP WITH 'XP'
            REPLACE DATE_IN WITH TDATE
            REPLACE DATE_PD WITH 'PD'
        ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,9 TO 14,69 DOUBLE
    SET COLOR TO W+/R,,
    a 12,24 SAY [ END OF FILE HAS BEEN REACHED!! ]
    SET COLOR TO W+/B,,
    a 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END EXOTHER.PRG
```

83

```
***************************************************************
*                        EXPROVED                            *
***************************************************************

PROCEDURE EXPROVED
***************************************************************
* NAME:     EXPROVED.PRG                                      *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: RECORD PAYMENT FOR PROVISIONS PURCHASED FROM       *
*          VENDORS.                                           *
***************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF TTYP = 'AP' .AND. PURPOSE = 'PROV VENDOR OWED'
        DO PAYRATS
        SET COLOR TO W+/R,,
        a 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) = 'Y'
            REPLACE TTYP WITH 'XP'
            REPLACE DATE_IN WITH TDATE
            REPLACE PURPOSE WITH 'PROV VENDOR'
        ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,19 TO 14,61 DOUBLE
    SET COLOR TO W+/R,,
    a 12,26 SAY [ END OF FILE HAS BEEN REACHED!! ]
    SET COLOR TO W+/B,,
    a 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END EXPROVED.PRG
```

```
****************************************************************
*                        EXPROVFS                             *
****************************************************************

PROCEDURE EXPROVFS
****************************************************************
* NAME:      EXPROVFS.PRG                                      *
* AUTHORS:   LCDR J.L.TWIGG                                    *
*            LT M.T.MADDEN                                     *
* PURPOSE:   RECORD PAYMENT FOR PURCHASE OF PROVISIONS FROM    *
*            THE SUPPLY OFFICER.                               *
****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF TTYP = 'AP' .AND. PURPOSE = 'PROV FSO OWED'
        DO PAYRATS
        SET COLOR TO W+/R,,
        @ 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) = 'Y'
            REPLACE TTYP WITH 'XP'
            REPLACE DATE_IN WITH TDATE
            REPLACE PURPOSE WITH 'PROV FSO'
        ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    @ 10,19 TO 14,61 DOUBLE
    SET COLOR TO W+/R,,
    @ 12,26 SAY [ END OF FILE HAS BEEN REACHED ]
    SET COLOR TO W+/B,,
    @ 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END EXPROVFS.PRG
```

85

```
****************************************************************
*                           EXP-FS                            *
****************************************************************

PROCEDURE EXP-FS
****************************************************************************
* NAME:      EXP-FS.PRG                                                    *
* AUTHORS:   LCDR J.L.TWIGG                                                *
*            LT M.T.MADDEN                                                 *
* PURPOSE:   GENERATES TOTALS FOR THE EXPENDITURE SIDE OF THE             *
*            FINANCIAL STATEMENT.                                          *
****************************************************************************

* LISTING:
STORE 000000.00 TO TEMP1
STORE 000000.00 TO TEMP2
STORE 000000.00 TO TEMP3
STORE 000000.00 TO TEMP4
STORE 000000.00 TO TEMP5
STORE 000000.00 TO TEMP6
STORE 000000.00 TO TEMP7
STORE 000000.00 TO TEMP8
SELECT A
USE TRANS
DO WHILE .NOT. EOF()
    IF TTYP = "XP"
    DO CASE
        CASE PURPOSE = 'MSS BILL RF'
            TEMP1 = TEMP1 + AMT
        CASE PURPOSE = 'MSS SHARE RF'
            TEMP2 = TEMP2 + AMT
        CASE PURPOSE = 'PROV FSO'
            TEMP3 = TEMP3 + AMT
        CASE PURPOSE = 'PROV VENDOR'
            TEMP4 = TEMP4 + AMT
        CASE PURPOSE = 'FSO MEALS'
            TEMP8 = TEMP8 + AMT
        OTHERWISE
            TEMP5 = TEMP5 + AMT
    ENDCASE
    ENDIF
SKIP 1
ENDDO
TEMP6 = TEMP1 + TEMP2 + TEMP3 + TEMP4 + TEMP5 + TEMP8
SELECT B
USE FININC
TEMP7 = TOTAL_REC - TEMP6
REPLACE CASH_CF WITH TEMP7
REPLACE TOTAL_EXP WITH TEMP6
REPLACE TOTAL_EXPD WITH TOTAL_REC
REPLACE BILLS_RF WITH TEMP1
REPLACE SHARE_RF WITH TEMP2
REPLACE SUP_PROV WITH TEMP3
REPLACE DEAL_PROV WITH TEMP4
REPLACE SUP_MEAL WITH TEMP8
REPLACE OTHER_B WITH TEMP5
CLOSE ALL
RETURN
*END EXP-FS.PRG
```

```
**************************************************************
*                        EXSHARE                            *
**************************************************************

PROCEDURE EXSHARE
**************************************************************
* NAME:     EXSHARE.PRG                                      *
* AUTHORS:  LCDR J.L.TWIGG                                   *
*           LT M.T.MADDEN                                    *
* PURPOSE:  CLOSE OUT MEMBERS ACCOUNT UPON DETACHMENT.       *
**************************************************************

* LISTING:
CLEAR
STORE DATE() TO TDATE
STORE ' ' TO CHOICE
STORE ' ' TO ANS
STORE SPACE (9) TO TSSN
ANS = 'N'
CHOICE = 'N'
SELECT A
USE MEMBERS
INSERT BLANK BEFORE
SET FORMAT TO SHARBILL.FMT
DO WHILE UPPER(ANS) <> 'Y'
    EDIT RECORD 1 FIELDS SSN
    SKIP -1
    TSSN = SSN
    ?
    ?
    SET COLOR TO W+/R,,
    a 9,22 SAY [ IS THIS THE CORRECT SSN? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
    CLEAR
ENDDO
DELETE RECORD 1
PACK
CLOSE FORMAT
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF SSN = TSSN
        .DO SHBILL
        SET COLOR TO W+/R,,
        a 22,20 SAY [ IS THIS THE CORRECT INDIVIDUAL? (Y/N, '
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) <> 'Y'
            SKIP 1
        ENDIF
    ELSE
        SKIP 1
    ENDIF
    CLEAR
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,11 TO 14,68 DOUBLE
```

```
            SET COLOR TO W+/R,,
            a 12,22 SAY [ INDIVIDUAL NOT FOUND TO BE A MEMBER!! ]
            SET COLOR TO W+/B,,
            a 15,1 SAY [ ]
            WAIT TO CON
            CLEAR
      ELSE
            REPLACE DETACHED WITH TDATE
            SELECT B
            USE TRANS
            COPY TO TEMPBIL FOR (TTYP = 'AP' .OR. TTYP = 'AR') .AND. NAME  = TSSN
            SELECT C
            USE TEMPBIL
            DO WHILE .NOT. EOF()
                IF TTYP = 'AP'
                    REPLACE TTYP WITH 'XP'
                    REPLACE DATE_IN WITH TDATE
                    REPLACE DATE_PD WITH 'PD'
                    IF PURPOSE = 'MSS SHARE RF OWED'
                        REPLACE PURPOSE WITH 'MSS SHARE RF'
                    ELSE
                        REPLACE PURPOSE WITH 'MSS BILL RF'
                    ENDIF
                ELSE
                    REPLACE TTYP WITH 'CL'
                    REPLACE DATE_IN WITH TDATE
                    IF DATE_PD ='CF'
                        REPLACE PURPOSE WITH 'MESS BILL PM'
                    ELSE
                        REPLACE PURPOSE WITH 'MESS BILL CM'
                    ENDIF
                    REPLACE DATE_PD WITH 'PD'
                ENDIF
            SKIP 1
            ENDDO
      USE
      SELECT B
      USE TRANS
      DELETE FOR (TTYP = 'AP' .OR. TTYP = 'AR') .AND. NAME = TSSN
      PACK
      APPEND FROM TEMPBIL
      CLEAR
      CLOSE ALL
      ERASE TEMPBIL.DBF
      ENDIF
      RETURN
      * END EXSHARE.PRG
```

```
****************************************************************
*                          GEN-FS                             *
****************************************************************

PROCEDURE GEN-FS
******************************************************************
* NAME:     GEN-FS.PRG                                          *
* AUTHORS:  LCDR J.L.TWIGG                                      *
*           LT M.T.MADDEN                                       *
* PURPOSE:  DRIVER PROGRAM TO GENERATE FINANCIAL STATEMENT      *
*           INFORMATION.                                        *
******************************************************************

* LISTING:
SET COLOR TO GR+/R,,N
CLEAR
a 7,10 TO 16,68 DOUBLE
a 10,18 SAY [ FINANCIAL STATEMENTS ARE BEING COMPUTED ! ]
a 12,26 SAY [ PLEASE STANDBY TO PROVIDE ]
a 14,27 SAY [ ADDITIONAL INFORMATION ! ]
DO REC-FS
DO EXP-FS
DO PROV-CON
SELECT A
USE SETCAT
IF SUBSIST = "N"
    DO CRATS-FS
ENDIF
USE
DO ASET-FS
DO LIAB-FS
DO MS-SHAR
DO CPM-FS
CLOSE ALL
SET COLOR TO W+/B,,BG
CLEAR
RETURN
* END GEN-FS.PRG
```

```
******************************************************************
*                         GEN-RPT                              *
******************************************************************

PROCEDURE GEN-RPT
******************************************************************
* NAME:    GEN-RPT.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: GENERATES REPORTS TO SUPPORT FINANCIAL STATEMENTS.   *
******************************************************************

* LISTING:
CLEAR
@ 8,10 TO 16,68 DOUBLE
@ 10,22 SAY [ MONTHLY FINANCIAL REPORTS ARE ]
@ 12,30 SAY [ BEING PRINTED ! ]
@ 14,29 SAY [ PLEASE STANDBY !! ]
SET CONSOLE OFF
STORE 00 TO TCOUNT
STORE SPACE (11) TO TSSN
SELECT A
USE SETCAT
SELECT B
USE RECCOL
TCOUNT = 1
DO WHILE TCOUNT < 7
DO CASE
    CASE TCOUNT = 1
        APPEND FROM TRANS FOR TTYP = 'AR' .AND. (DATE_PD = 'CM' .OR. DATE_PD =
'CF')
        SELECT A
        REPLACE TITLE WITH '  ACCOUNTS RECEIVABLE REPORT  '
    CASE TCOUNT = 2
        APPEND FROM TRANS FOR TTYP = 'AP' .AND. (DATE_PD = 'CM' .OR. DATE_PD =
'CF')
        SELECT A
        REPLACE TITLE WITH '   ACCOUNTS PAYABLE REPORT    '
    CASE TCOUNT = 3
        APPEND FROM TRANS FOR TTYP = 'CL'
        SELECT A
        REPLACE TITLE WITH ' RECORD OF COLLECTIONS REPORT '
    CASE TCOUNT = 4
        APPEND FROM TRANS FOR TTYP = 'XP'
        SELECT A
        REPLACE TITLE WITH 'RECORD OF EXPENDITURES REPORT '
    CASE TCOUNT = 5
        SELECT A
        REPLACE TITLE WITH ' MONTHLY TRANSACTIONS LISTING  '
        SET DEVICE TO PRINT
        DO TITLE
        SET DEVICE TO SCREEN
        SELECT C
        USE TRANS
        REPORT FORM REC-TRNS PLAIN TO PRINT
    CASE TCOUNT = 6
        SELECT D
        USE MEMBERS
        INDEX ON NAME TO MEMBERS

    ...
```

```
            COPY TO TEMP FOR STATUS = 'M'
            SELECT A
            REPLACE TITLE WITH '    RECORD OF MESS MEMBERS    '
            SET DEVICE TO PRINT
            DO TITLE
            SET DEVICE TO SCREEN
            USE TEMP
            REPORT FORM MBR-RPT PLAIN TO PRINT
            USE
            ERASE TEMP.DBF
    ENDCASE
    IF TCOUNT < 5
        SET DEVICE TO PRINT
        DO TITLE
        SET DEVICE TO SCREEN
        SELECT B
        USE RECCOL
        SELECT C
        USE MEMBERS
        JOIN WITH RECCOL TO TEMP FOR B->NAME = C->SSN FIELDS NAME, AMT, PURPOSE,
DATE_IN, DATE_PD, SSN
        SELECT E
        USE TEMP
        DO WHILE .NOT. EOF()
            TSSN = SSN
            SELECT B
            USE RECCOL
            DELETE FOR NAME = TSSN
            PACK
            SELECT E
            SKIP 1
        ENDDO
        USE
        SELECT B
        APPEND FROM TEMP
        REPORT FORM REC-COL PLAIN TO PRINT
        DELETE ALL
        PACK
        ERASE TEMP.DBF
    ENDIF
    TCOUNT = TCOUNT + 1
ENDDO
SET CONSOLE ON
CLOSE ALL
ERASE MEMBERS.NDX
CLEAR
RETURN
* END GEN-RPT.PRG
```

```
************************************************************
*                         HEADING                         *
************************************************************

PROCEDURE HEADING
***************************************************************
* NAME:     HEADING.PRG                                       *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: OUTPUT HEADINGS FOR FINANCIAL STATEMENTS          *
***************************************************************

* LISTING:
a  0,  2  SAY "M O N T H L Y    F I N A N C I A L    O P E R A T I N G    S T A T
E M E N T"
a  2,  9  SAY "USS"
a  2, 13  SAY  SETCAT->NAME  PICTURE "XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
a  2, 44  SAY "NAME OF MESS:"
a  2, 58  SAY  SETCAT->TMESS
a  3, 52  SAY "DATE:"
a  3, 58  SAY  SETCAT->EOM
* END HEADING.PRG
```

92

```
*****************************************************************
*                           INC-FS                             *
*****************************************************************

PROCEDURE INC-FS
*****************************************************************
* NAME:    INC-FS.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                      *
*          LT M.T.MADDEN                                       *
* PURPOSE: PRINT CASH ACCOUNT SIDE OF FINANCIAL STATEMENT.     *
*****************************************************************

* LISTING:
a  5, 28  SAY "C A S H   A C C O U N T"
a  6, 28  SAY "_____"
a  7, 15  SAY "RECEIPTS                          EXPENDITURES"
a  8,  2  SAY "_____
_____"
a 10,  2  SAY "CASH BROUGHT FORWARD"
a 10, 30  SAY  FININC->CASH_BF
a 10, 42  SAY "MESS BILLS REFUNDED"
a 10, 68  SAY  FININC->BILLS_RF
a 12,  2  SAY "MESS BILLS                        MESS SHARES REFUNDED"
a 12, 68  SAY  FININC->SHARE_RF
a 13,  2  SAY "PREVIOUS MONTHS"
a 13, 30  SAY  FININC->BILLS_PM
a 14, 42  SAY "PROVISIONS FROM"
a 15,  2  SAY "MESS BILLS                        SUPPLY OFFICER"
a 15, 68  SAY  FININC->SUP_PROV
a 16,  2  SAY "CURRENT MONTH"
a 16, 30  SAY  FININC->BILLS_CM
a 16, 45  SAY "DEALERS"
a 16, 68  SAY  FININC->DEAL_PROV
a 18,  2  SAY "MESS BILLS NEXT MONTH"
a 18, 30  SAY  FININC->BILLS_NM .
a 18, 42  SAY "MEALS FROM FSO"
a 18, 68  SAY  FININC->SUP_MEAL
a 20,  2  SAY "MESS SHARES SOLD"
a 20, 30  SAY  FININC->SHARE_SOLD
a 20, 42  SAY "OTHER EXPENDITURES"
a 20, 68  SAY  FININC->OTHER_B
a 22,  2  SAY "COMMUTED RATIONS                  TOTAL EXPENDITURES"
a 22, 67  SAY  FININC->TOTAL_EXP
a 23,  2  SAY "COLLECTED"
a 23, 30  SAY  FININC->CR_COLLECT
a 24, 42  SAY "CASH ON HAND"
a 25,  2  SAY "OTHER RECEIPTS"
a 25, 30  SAY  FININC->OTHER_A
a 25, 42  SAY "END OF MONTH"
a 25, 67  SAY  FININC->CASH_CF
a 26,  2  SAY "_____
_____"
a 28,  2  SAY "TOTAL"
a 28, 29  SAY  FININC->TOTAL_REC
a 28, 42  SAY "TOTAL"
a 28, 67  SAY  FININC->TOTAL_EXPD
a 29,  2  SAY
"_____
"
* END INC-FS
```

93

```
***************************************************************
*                          INTRO                             *
***************************************************************

PROCEDURE INTRO
*******************************************************************
* NAME:    INTRO.PRG                                             *
* AUTHORS: LCDR J.L.TWIGG                                        *
*          LT M.T.MADDEN                                         *
* PURPOSE: USED TO EVALUATE PASSWORD INPUT AND VERIFY.          *
*******************************************************************

* LISTING:
STORE SPACE (10) TO TCODE
STORE ' ' TO PASS
STORE 0000000000 TO PCODE
STORE 00 TO PCOUNT
STORE 00 TO TCOUNT
STORE ' ' TO ANS
STORE ' ' TO CHOICE
STORE SPACE (10) TO TPASS
TCOUNT = 0
DO WHILE .T.
CLEAR
TPASS = '          '
a 4,6 TO 8,73 DOUBLE
a 6,18 SAY [ THE PASSWORD WILL NOT APPEAR WHEN TYPED !! ]
a 10,6 TO 14,73 DOUBLE
SET COLOR TO W+/B,R/R,N
a 12.24 SAY [ ENTER YOUR PASSWORD: ] GET TPASS PICTURE [!!!!!!!!!!!]
SET COLOR TO W+/B,GR+/R,N
READ
CLEAR
PCOUNT = 0
PCODE = 0000000000
DO WHILE PCOUNT <> LEN(TPASS)
    PCOUNT = PCOUNT + 1
    STORE SUBSTR(UPPER(TPASS),PCOUNT,1) TO PASS
    PCODE = PCODE + (ASC(PASS))
ENDDO
PCODE = (PCODE * 1000) + (PCODE + 238)
STORE STR(PCODE,10) TO TCODE
TPASS ='TCODE
USE SETCAT
IF (TPASS = PASSWORD) .OR. (TPASS = '    670908')
    SET COLOR TO W+/B,,BG
    CLOSE ALL
    RETURN
ELSE
    TCOUNT = TCOUNT + 1
    IF TCOUNT <= 3
        a 10,21 TO 14,57 DOUBLE
        a 12,28 SAY [ INVALID PASSWORD !!! ]
        a 15,5 SAY [ ]
        WAIT TO CONT
    ELSE
        a 5,10 TO 17,68 DOUBLE
        a 8,22 SAY [ YOU HAVE NOT ENTERED A VALID PASSWORD ]
        a 10,22 SAY [         IN THREE TRIES !!]
```

94

```
                    a 14,22 SAY [YOU ARE BEING REMOVED FROM THE SYSTEM !]
                    a 19,5 SAY [ ]
                    WAIT TO CONT
                    QUIT
            ENDIF
    ENDIF
    ENDDO
    CLEAR
    SET COLOR TO W+/B,,BG
    CLOSE ALL
    RETURN
    * END INTRO.PRG
```

```
***************************************************************
*                         JUMP                                *
***************************************************************

PROCEDURE JUMP
*********************************************************************
* NAME:     JUMP.PRG                                                *
* AUTHORS:  LCDR J.L.TWIGG                                          *
*           LT M.T.MADDEN                                           *
* PURPOSE:  TO CONVERT FROM A MANUAL TO THE AUTOMATED SYSTEM.       *
*           THIS IS THE MENU DRIVER.                                *
*********************************************************************

* LISTING:
STORE " " TO ANS
CLEAR
ə 0,0 SAY [UT-015]
ə 2,32 SAY [GETTING  STARTED]
ə 3,30 TO 3,50 DOUBLE
ə 4,8 TO 4,71 DOUBLE
TEXT
             TO   INITIALLY  CHANGE OVER  FROM THE   MANUAL SYSTEM TO

             THIS AUTOMATED  SYSTEM INFORMATION CURRENTLY REFLECTED

             IN THE   RECORDS MUST BE TRANSFERED OVER.   THIS SECTION

             WILL GUIDE  YOU  THRU  THOSE PROCEDURES.   FOLLOW   THE

             INSTRUCTIONS CAREFULLY TO ENSURE THAT ALL  TRANSACTIONS

             ARE PROPERLY  RECORDED.   FOR  QUESTIONS REFER  TO THE

             USER MANUAL SECTION DESCRIBING THE START-UP PROCEDURES.


             TO CONTINUE PAST THE NEXT SCREEN ALL DATABASES EXCEPT
             THE ONE CONTAINING THE MEMBERS FILE WILL BE ERASED.

ENDTEXT
ə 19,8 TO 19,71 DOUBLE
ə 22,1 SAY [ ]
WAIT TO CONT
CLEAR
ə 8,10 TO 12,68 DOUBLE
SET COLOR TO W+/R,,
ə 10,25 SAY [ DO YOU WISH TO CONTINUE? (Y/N) ]
SET COLOR TO B/B,,
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
CLEAR
IF UPPER(ANS) = 'Y'
     SELECT A
     USE TRANS
     DELETE ALL
     PACK
     CLOSE ALL
     DO JUMP0
     DO JUMP3
```

96

```
      DO JUMP1
      DO JUMP2
      DO JUMP5
ENDIF
CLEAR
CLOSE ALL
RETURN
* END JUMP.PRG
```

```
***************************************************************
*                          JUMP0                             *
***************************************************************

PROCEDURE JUMP0
*****************************************************************
* NAME:     JUMP0.PRG                                          *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE:  LOAD CARRY FORWARD INFORMATION DURING CONVERSION.  *
*****************************************************************

* LISTING:
CLEAR
STORE ' ' TO ANS
STORE ' ' TO CHOICE
SELECT A
USE INV
DELETE ALL
PACK
APPEND BLANK
SET FORMAT TO JUMP0-IP.FMT
DO WHILE UPPER(ANS) <> 'Y'
    EDIT
    SET COLOR TO W+/R,,
    a 20,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
CLOSE FORMAT
CLOSE ALL
CLEAR
RETURN
* END JUMP0.PRG
```

```
*****************************************************************
*                           JUMP1                              *
*****************************************************************

PROCEDURE JUMP1
*****************************************************************
* NAME:    JUMP1.PRG                                           *
* AUTHORS: LCDR J.L.TWIGG                                      *
*          LT M.T.MADDEN                                       *
* PURPOSE: LOAD ACCOUNTS RECEIVABLE DURING SYSTEM CONVERSION.  *
*****************************************************************

* LISTING:
STORE ' ' TO PICK
STORE ' ' TO ANS
STORE ' ' TO CHOICE
CLEAR
a 0,0 SAY [UT-016]
a 10,9 TO 16,69 DOUBLE
SET COLOR TO W+/R,,
a 12,25 SAY [ DO YOU HAVE ANY OUTSTANDING ]
a 14,21 SAY [ ACCOUNTS RECEIVABLE TO ENTER? (Y/N) ]
SET COLOR TO B/B,,
a 17,1 SAY [ ]
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
USE TRANS
DO WHILE UPPER(ANS) = 'Y'
APPEND BLANK
PICK = 'N'
DO WHILE UPPER(PICK) <> 'Y'
    PICK = 'Y'
    CHOICE = 'N'
    SET FORMAT TO JUMP1-IP.FMT
    DO WHILE UPPER(CHOICE) <> 'Y',
        EDIT
        SET COLOR TO W+/R,,
        a 23,20 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
    ENDDO
    CLOSE FORMAT
    SKIP -1
    REPLACE TTYP WITH 'AR'
    DO CASE
        CASE PURPOSE = 'A'
            REPLACE PURPOSE WITH 'MESS BILL'
        CASE PURPOSE = 'B'
            REPLACE PURPOSE WITH 'MESS SHARE'
        CASE PURPOSE = 'C'
            REPLACE PURPOSE WITH 'COMRATS DUE'
        CASE PURPOSE = 'D'
            ANS = 'N'
            SET FORMAT TO JUMP1-A.FMT
            DO WHILE UPPER(ANS) <> 'Y'
                REPLACE PURPOSE WITH ' '
                EDIT
                SET COLOR TO W+/R,,
```

99

```
                          a 12,22 SAY [ IS THE ABOVE INPUT CORRECT?  (Y/N) ]
                          SET COLOR TO B/B,,
                          WAIT ' ' TO ANS
                          SET COLOR TO W+/B,,
                     ENDDO
                     CLOSE FORMAT
                     SKIP -1
                OTHERWISE
                     CLEAR
                     a 8,18 TO 17,60 DOUBLE
                     a 11,21 SAY [ YOUR CHOICE IS NOT A VALID SELECTION ]
                     a 14,23 SAY [ PLEASE SELECT A, B, C, OR D !]
                     a 18,1 SAY [ ]
                     WAIT TO CONT
                     CLEAR
                     PICK = 'N'
          ENDCASE
          ENDDO
          IF MONTH(DATE_IN) < MONTH(DATE())
               REPLACE DATE_PD WITH 'CF'
          ELSE
               REPLACE DATE_PD WITH 'CM'
          ENDIF
          CLEAR
          a 10,8 TO 14,71 DOUBLE
          SET COLOR TO W+/R,,
          a 12,12 SAY [ DO YOU NEED TO ENTER ANOTHER ACCOUNT RECEIVABLE? (Y/N) ]
          SET COLOR TO B/B,,
          WAIT ' ' TO ANS
          SET COLOR TO W+/B,,
          CLEAR
ENDDO
CLOSE ALL
RETURN
* END JUMP1.PRG
```

```
********************************************************************
*                            JUMP2                               *
********************************************************************

PROCEDURE JUMP2
********************************************************************
* NAME:     JUMP2.PRG                                           *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: INPUT ACCOUNTS PAYABLE DURING CONVERSION.           *
********************************************************************

* LISTING:
STORE ' ' TO PICK
STORE ' ' TO ANS
STORE ' ' TO CHOICE
CLEAR
@ 0,0 SAY [UT-17]
@ 10,9 TO 16,69 DOUBLE
SET COLOR TO W+/R,,
@ 12,25 SAY [ DO YOU HAVE ANY OUTSTANDING ]
@ 14,23 SAY [ ACCOUNTS PAYABLE TO ENTER? (Y/N) ]
SET COLOR TO B/B,,
@ 17,1 SAY [ ]
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
USE TRANS
DO WHILE UPPER(ANS) = 'Y'
    CHOICE = 'N'
    APPEND BLANK
    PICK = 'N'
    DO WHILE UPPER(PICK) <> 'Y'
    PICK = 'Y'
    SET FORMAT TO JUMP2-IP.FMT
    DO WHILE UPPER(CHOICE) <> 'Y'.
        EDIT
        SET COLOR TO W+/R,,
        @ 23,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
    ENDDO
    CLOSE FORMAT
    SKIP -1
    CHOICE = 'N'
    REPLACE TTYP WITH 'AP'
    DO CASE
        CASE PURPOSE = 'A'
            REPLACE PURPOSE WITH 'PROV FSO OWED'
        CASE PURPOSE = 'B'
            REPLACE PURPOSE WITH 'PROV VENDOR OWED'
        CASE PURPOSE = 'C'
            REPLACE PURPOSE WITH 'MSS BILL RF OWED'
        CASE PURPOSE = 'D'
            REPLACE PURPOSE WITH 'MSS SHARE RF OWED'
        CASE PURPOSE = 'E'
            REPLACE PURPOSE WITH 'FSO MEALS OWED'
        CASE PURPOSE = 'F'
            DO WHILE UPPER(CHOICE) <> 'Y'
```

101

```
                    REPLACE PURPOSE WITH ' '
                    SET FORMAT TO BPAY-IP.FMT
                    EDIT
                    SET COLOR TO W+/R,,
                    @ 11,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                    SET COLOR TO B/B,,
                    WAIT ' ' TO CHOICE
                    SET COLOR TO W+/B,,
                    CLOSE FORMAT
                    SKIP -1
              ENDDO
         OTHERWISE
              CLEAR
              @ 8,18 TO 17,60 DOUBLE
              @ 11,21 SAY [ YOUR CHOICE IS NOT A VALID SELECTION!]
              @ 14,22 SAY [ PLEASE SELECT A, B, C, D, OR E !]
              @ 18,1  SAY [ ]
              WAIT TO CONT
              CLEAR
              PICK = 'N'
     ENDCASE
     ENDDO
         IF (MONTH(DATE_IN) < MONTH(DATE())) .OR. (YEAR(DATE_IN) <
YEAR(DATE()))
              REPLACE DATE_PD WITH 'CF'
         ELSE
              REPLACE DATE_PD WITH 'CM'
         ENDIF
     CLEAR
     @ 10,10 TO 14,68 DOUBLE
     SET COLOR TO W+/R,,
     @ 12,13 SAY [ DO YOU NEED TO ENTER ANOTHER ACCOUNT PAYABLE? (Y/N) ]
     SET COLOR TO B/B,,
     WAIT ' ' TO ANS
     SET COLOR TO W+/B,,
     CLEAR
ENDDO
CLOSE ALL
RETURN
* END JUMP2.PRG
```

```
*****************************************************************
*                            JUMP3                            *
*****************************************************************

PROCEDURE JUMP3
*****************************************************************
* NAME:    JUMP3.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: LOAD SETUP INFORMATION DURING SYSTEM CONVERSION.   *
*****************************************************************

* LISTINGS:
STORE ' ' TO ANS
CLEAR
SELECT A
USE SETCAT
SET FORMAT TO JUMP3-IP.FMT
DO WHILE UPPER(ANS) <> 'Y'
    EDIT
    SET COLOR TO W+/R,,
    a 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
CLOSE FORMAT
CLOSE ALL
CLEAR
RETURN
* END JUMP3.PRG
```

```
***************************************************************
*                          JUMP5                             *
***************************************************************

PROCEDURE JUMP5
***************************************************************************
* NAME:      JUMP5.PRG                                                    *
* AUTHORS:  LCDR J.L.TWIGG                                                *
*            LT M.T.MADDEN                                                *
* PURPOSE:  INPUT MEMBERS DURING SYSTEM CONVERSION.                       *
***************************************************************************

* LISTING:
CLEAR
a 0,0 SAY [UT-018]
STORE ' ' TO CHOICE
STORE ' ' TO ANS
a 10,9 TO 16,69 DOUBLE
SET COLOR TO W+/R,,
a 12,16 SAY [ DO YOU WISH TO ENTER THE MEMBERS OF THE MESS! (Y/N) ]
a 14,14 SAY [ INCLUDE ENLISTED PERSONNEL ASSIGNED TO THE MESS! ]
SET COLOR TO B/B,,
a 17,1 SAY [ ]
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
USE MEMBERS
IF UPPER(ANS) = 'Y'
    DELETE ALL
    PACK
ENDIF
DO WHILE UPPER(ANS) = 'Y'
    CHOICE = 'N'
    APPEND BLANK
    SET FORMAT TO MBR-SCREEN.FMT
    DO WHILE UPPER(CHOICE) <> 'Y'.
        EDIT
        SET COLOR TO W+/R,,
        a 20,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
    ENDDO
    CLOSE FORMAT
    SKIP -1
    CHOICE = 'N'
    DO WHILE UPPER(CHOICE) <> 'Y'
        SET FORMAT TO JUMP5-IP.FMT
        EDIT
        SET COLOR TO W+/R,,
        a 12,24 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLOSE FORMAT
        SKIP -1
    ENDDO
    CLEAR
    a 10,10 TO 14,68 DOUBLE
    SET COLOR TO W+/R,,
```

```
          a 12,18 SAY [DO YOU HAVE ANOTHER MEMBER TO ADD? (Y/N) ]
          SET COLOR TO B/B,,
          a 17,1 SAY [ ]
          WAIT ' ' TO ANS
          SET COLOR TO W+/B,,
          CLEAR
ENDDO
CLOSE ALL
RETURN
* END JUMP5.PRG
```

```
*****************************************************************
*                         LIAB-FS                              *
*****************************************************************

PROCEDURE LIAB-FS
*****************************************************************
* NAME:    LIAB-FS.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: GENERATES LIABILITIES TOTALS FOR THE FINANCIAL       *
*          STATEMENT.                                           *
*****************************************************************

* LISTING:
STORE DATE() TO MDATE
STORE ' ' TO ANS
STORE 000000.00 TO TEMP1
STORE 000000.00 TO TEMP2
STORE 000000.00 TO TEMP3
STORE 000000.00 TO TEMP4
STORE 000000.00 TO TEMP5
STORE 000000.00 TO TEMP6
STORE 000000.00 TO TEMP7
STORE 000000.00 TO TEMP8
STORE 000000.00 TO TEMP9
STORE 000000.00 TO TEMP10
SELECT A
USE TRANS
DO WHILE .NOT. EOF()
    IF TTYP = 'AP'
        DO CASE
            CASE PURPOSE = 'MSS BILL RF OWED'
                TEMP1 = TEMP1 + AMT
            CASE PURPOSE = 'MSS SHARE RF OWED'
                TEMP2 = TEMP2 + AMT
            CASE PURPOSE = 'PROV FSO OWED'
                TEMP3 = TEMP3 + AMT
            CASE PURPOSE = 'PROV VENDOR OWED'
                TEMP4 = TEMP4 + AMT
            CASE PURPOSE = 'FSO MEALS OWED'
                TEMP9 = TEMP9 + AMT
            OTHERWISE
                TEMP5 = TEMP5 + AMT
        ENDCASE
    ENDIF
    SKIP 1
ENDDO
SELECT C
USE SETCAT
IF UPPER(SUBSIST) = 'Y'
  DO WHILE UPPER(ANS) <> 'Y'
    SET COLOR TO W+/B,,
    CLEAR
    a 0,0 SAY [EM-009]
    a 4,6 TO 13,73 DOUBLE
    a 6,16 SAY [ ENTER AMOUNT OWED TO THE FOOD SERVICE OFFICER ! ]
    a 7,28 SAY [ (FOR MEALS PURCHASED) ]
    a 9,20 SAY [ THIS FIGURE IS PROVIDED BY THE FSO. ! ]
    a 11,32 GET TEMP10
```

```
READ
SET COLOR TO W+/R,,
a 13,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
SET COLOR TO B/B,,
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
CLEAR
   ENDDO
ENDIF
SELECT A
USE TRANS
APPEND BLANK
REPLACE TTYP WITH 'AP'
REPLACE DATE_IN WITH MDATE
REPLACE NAME WITH 'SUPPLY OFFICER'
REPLACE PURPOSE WITH 'FSO MEALS OWED'
REPLACE AMT WITH TEMP10
REPLACE DATE_PD WITH 'CM'
TEMP9 = TEMP9 + TEMP10
TEMP6 = TEMP1 + TEMP2 + TEMP3 + TEMP4 + TEMP5 + TEMP9
SELECT B
USE FINBAL
TEMP7 = TTL_ASS - TEMP6
TEMP8 = TEMP7 + TEMP6
REPLACE BILLS_OWD WITH TEMP1
REPLACE SHARE_OWD WITH TEMP2
REPLACE PROV_FSO WITH TEMP3
REPLACE PROV_VEND WITH TEMP4
REPLACE MEAL_PURC WITH TEMP9
REPLACE OTHER_B WITH TEMP5
REPLACE TTL_LIAB WITH TEMP6
REPLACE NET_WORTH WITH TEMP7
REPLACE NW_LIAB WITH TEMP8
CLOSE ALL
RETURN
*END LIAB-FS.PRG
```

```
*****************************************************************
*                          MBRLV                               *
*****************************************************************

PROCEDURE MBRLV
*****************************************************************
* NAME:     MBRLV.PRG                                          *
* AUTHORS: LCDR TWIGG                                          *
*          LT MADDEN                                           *
* PURPOSE: TO ACCOUNT FOR LEAVE TAKEN BY MEMBERS OF THE MESS.  *
*****************************************************************


* LISTING:
CLEAR
STORE DATE() TO TDATE
STORE ' ' TO ANS
STORE ' ' TO CHOICE
STORE SPACE (20) TO TNAME
STORE 00 TO TDAY
STORE 00 TO TMON
STORE 0000.00 TO TEMPA
STORE 000.00 TO TEMPB
STORE ' ' TO ISTHERE
CHOICE = 'Y'
@ 0,0 SAY [EM-010]
@ 6,7 TO 10,71 DOUBLE
SET COLOR TO W+/R,,
IF REASON = 'M'
    @ 8,11 SAY [ HAS A MEMBER GONE ON LEAVE OR TAD THIS MONTH ? (Y/N) ]
    STORE SPACE (9) TO TSSN
ELSE
    @ 8,9 SAY [ HAS DEPARTING MEMBER BEEN ON LEAVE OR TAD THIS MONTH? (Y/N) ]
ENDIF
SET COLOR TO B/B,,
@ 11,1 SAY [ ]
WAIT ' ' TO CHOICE
SET COLOR TO W+/B,,
DO WHILE UPPER(CHOICE) = 'Y'
    CHOICE = 'N'
    IF REASON = 'M'
    SELECT B
    USE MEMBERS
    ANS = 'N'
    TSSN = '---------'
    ISTHERE = 'N'
    DO WHILE UPPER(ANS) <> 'Y'
        @ 14,9 TO 18,69 DOUBLE
        SET COLOR TO W+/R,,
        @ 16, 11 SAY [ENTER THE SOCIAL SECURITY NUMBER FOR MEMBER: ]  GET TSSN
PICTURE [XXXXXXXXX]
        READ
        @ 18,21 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
        CLEAR
    ENDDO
    ELSE
        SELECT B
```

```
        ENDIF
        LOCATE FOR SSN = TSSN
            IF FOUND()
                ISTHERE = 'Y'
                TNAME = NAME
                SELECT F
                USE DYSWKD
                APPEND BLANK
                ANS = 'N'
                DO WHILE UPPER(ANS) <> 'Y'
                    SET FORMAT TO LV-IP.FMT
                    REPLACE DNAME WITH TNAME
                    EDIT RECORD 1
                    CLOSE FORMAT
                    SET COLOR TO W+/R,,
                    a 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                    SET COLOR TO B/B,,
                    WAIT ' ' TO ANS
                    SET COLOR TO W+/B,,
                ENDDO
                CLEAR
                SKIP -1
                TDAY = WORKD
                TMON = MONDYS
                DELETE ALL
                PACK
                USE

                SELECT D
                USE SETCAT
                TBILL = SUG_BILL
                TEMPA = TDAY * TBILL
                TEMPB = TEMPA / TMON

                SELECT C
                USE TRANS
                APPEND BLANK
                REPLACE DATE_IN WITH TDATE
                REPLACE TTYP WITH 'AP'
                REPLACE NAME WITH TSSN
                REPLACE AMT WITH TEMPB
                REPLACE PURPOSE WITH 'MSS BILL RF OWED'
                REPLACE DATE_PD WITH 'CM'
                SELECT B
            ENDIF
        IF EOF() .AND. ISTHERE = 'N' .AND. REASON = 'M'
            a 8,9 TO 12,69 DOUBLE
            SET COLOR TO W+/R,,
            a 10,20 SAY [ SOCIAL SECURITY NUMBER NOT IN DATABASE ]
            SET COLOR TO W+/B,,
            a 14,1 SAY [ ]
            WAIT TO CONT
            CLEAR
        ENDIF
    CLEAR
    IF REASON = 'M'
        a 8,6 TO 12,72 DOUBLE
        SET COLOR TO W+/R,,
        a 10,9 SAY [ DO YOU DESIRE TO RECORD LEAVE FOR ANOTHER MEMBER?    (Y/N) ]
        SET COLOR TO B/B,,
```

```
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLOSE ALL
ENDIF
CLEAR
ENDDO
CLEAR
RETURN
* END MBRLV.PRG
```

```
****************************************************************
*                         MEALS-IP                            *
****************************************************************

PROCEDURE MEALS-IP
****************************************************************
* NAME:    MEALS-IP.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                      *
*             LT M.T.MADDEN                                    *
* PURPOSE: INPUT SCREEN FOR NUMBER OF MEALS EATEN.             *
****************************************************************

* LISTING:
a  0,  0   SAY "TR-011"
a  2, 17   SAY "MEMBERS NAME:"
a  2, 34   SAY  MEALS->MNAME  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!"
a  6, 18   SAY "THE NUMBER OF BREAKFAST MEALS:"
a  6, 51   SAY  MEALS->BR_CT
a  9, 18   SAY "THE NUMBER OF LUNCH MEALS:"
a  9, 51   SAY  MEALS->LU_CT
a 12, 18   SAY "THE NUMBER OF DINNER MEALS:"
a 12, 51   SAY  MEALS->DI_CT
a 15, 18   SAY "THE NUMBER OF HOLIDAY MEALS:"
a 15, 51   SAY  MEALS->HO_CT
a 18, 18   SAY "TOTAL BILL DUE:"
SET COLOR TO W+/R,,
a 18, 40   SAY BILL_TTL
SET COLOR TO W+/B,,
a  1, 13   TO  3, 59    DOUBLE
a  4, 13   TO 21, 59    DOUBLE
* END MEALS-IP.PRG
```

```
****************************************************************
*                            MEAL-PR                          *
****************************************************************

PROCEDURE MEAL-PR
* MEAL-PR.PRG
* AUTHORS: LCDR J.L.TWIGG
*          LT M.T.MADDEN

CLEAR
@ 8,10 TO 16,68 DOUBLE
@ 10,23 SAY [ PRINTING RECOMMENDED MESS BILL AND ]
@ 12,34 SAY [ MEAL PRICES! ]
@ 14,32 SAY [ PLEASE STANDBY! ]
SET CONSOLE OFF
SELECT A
USE SUMMARY
TEMP1 = COSTMAN / DAYMON
SELECT B
USE SETCAT
    IF SUBSIST <> 'Y'
        IF TEMP1 <= 2.50
            REPLACE B_COST WITH .55
            REPLACE L_COST WITH .75
            REPLACE S_COST WITH 1.20
            REPLACE H_COST WITH 1.20
        ELSE
            TEMP2 = TEMP1 * .20
            REPLACE B_COST WITH TEMP2
            TEMP3 = TEMP1 * .40
            REPLACE L_COST WITH TEMP3
            REPLACE S_COST WITH TEMP3
            REPLACE H_COST WITH TEMP3
        ENDIF
    ENDIF
SELECT B
SET DEVICE TO PRINT
DO SUG-FS
SET DEVICE TO SCREEN
EJECT
SET CONSOLE ON
CLOSE ALL
CLEAR   .
RETURN
*MEAL-PR.PRG
```

112

```
****************************************************************
*                          MESS-B-A                           *
****************************************************************

PROCEDURE MESS-B-A
****************************************************************
* NAME:      MESS-B-A.PRG                                      *
* AUTHORS:   LCDR J.L.TWIGG                                    *
*            LT M.T.MADDEN                                     *
* PURPOSE:   COMPUTES MESS BILLS FOR A MESS SUBSISTING FROM    *
*            THE EDF.                                          *
****************************************************************

* LISTING:
CLEAR
STORE 0000.00 TO BRK_TTL
STORE 0000.00 TO LCH_TTL
STORE 0000.00 TO DNR_TTL
STORE 0000.00 TO HLY_TTL
STORE 00.00 TO BR_COST
STORE 00.00 TO LU_COST
STORE 00.00 TO DI_COST
STORE 00.00 TO HO_COST
STORE 000.00 TO BILL_TTL
STORE 00000.00 TO GTTL
STORE SPACE (20) TO LNAME
STORE SPACE (4) TO LRANK
STORE DATE() TO TDATE
STORE SPACE (9) TO TSSN
STORE ' ' TO ANS
STORE ' ' TO TSTAT
SELECT A
USE SETCAT
BR_COST = B_COST
LU_COST = L_COST
DI_COST = S_COST
HO_COST = H_COST

SELECT B
USE MEMBERS
DO WHILE .NOT. EOF()
  IF (STATUS = 'M') .AND. (DTOC(DETACHED) = '  /  /  ') .AND. (SHAREOUT = 0.00)
       .
     LNAME = NAME
     LRANK = RANK
     TSSN = SSN
     TSTAT = STATUS
     SELECT C
     USE MEALS
     ANS = 'N'
     CLEAR
     SET COLOR TO W+/B,,R
     APPEND BLANK
     REPLACE MNAME WITH LNAME
     DO WHILE UPPER(ANS) <> 'Y'
         BILL_TTL = 000.00
         SET FORMAT TO MEALS-FT
         EDIT RECORD 1
         CLOSE FORMAT
```

113

```
            SKIP -1
            BRK_TTL = BR_COST * BR_CT
            LCH_TTL = LU_COST * LU_CT
            DNR_TTL = DI_COST * DI_CT
            HLY_TTL = HO_COST * HO_CT
            BILL_TTL = BRK_TTL + LCH_TTL + DNR_TTL + HLY_TTL
            DO MEALS-IP
            SET COLOR TO W+/R,,
            @ 21,18 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
            SET COLOR TO B/B,,
            WAIT ' ' TO ANS
            CLEAR
            SET COLOR TO W+/B,,
        ENDDO
        CLEAR
        GTTL = GTTL + BILL_TTL
        IF BILL_TTL > 0.00
            SELECT D
            USE TRANS
            APPEND BLANK
            REPLACE DATE_IN WITH TDATE
            REPLACE TTYP WITH 'AR'
            REPLACE NAME WITH TSSN
            REPLACE AMT WITH BILL_TTL
            REPLACE DATE_PD WITH "CM"
            REPLACE PURPOSE WITH "MESS BILL"
        ENDIF
        SELECT C
        DELETE ALL
        PACK
        SELECT B
      ENDIF
    SKIP 1
    ENDDO
    CLOSE DATABASES
    CLEAR
    RETURN
    *END MESS-B-A
```

114

```
******************************************************************
*                           MESS-CP                             *
******************************************************************

PROCEDURE MESS-CP
******************************************************************
* NAME:    MESS-CP.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: CALCULATES MESS BILLS FOR CPO MESS.                 *
******************************************************************

* LISTING:
CLEAR
STORE DATE() TO MDATE
STORE SPACE (20) TO TNAME
STORE 00000 TO TEMPA
STORE 0000.00 TO TEMPB
SELECT A
USE MEMBERS
DO WHILE .NOT. EOF()
    IF DTOC(DETACHED) = '  /  /  '
        TNAME = NAME
        SELECT B
        USE DYSWKD
        SET COLOR TO W+/B,,R
        CLEAR
        ANS = 'N'
        DO WHILE UPPER(ANS) <> 'Y'
            SET FORMAT TO ASSIGND.FMT
            APPEND BLANK
            REPLACE DNAME WITH TNAME
            EDIT RECORD 1
            SET COLOR TO W+/R,,
            a 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
            SET COLOR TO B/B,,
            WAIT ' ' TO ANS
            SET COLOR TO W+/B,,
            CLOSE FORMAT
        ENDDO
        CLEAR
        SKIP -1
        TEMPA = TEMPA + WORKD
        DELETE ALL
        PACK
    ENDIF
    SELECT A
    SKIP 1
ENDDO
CLEAR
SELECT C
USE SETCAT
TEMPB = TEMPA * ERATS
SELECT D
USE TRANS
APPEND BLANK
REPLACE TTYP WITH 'AR'
REPLACE DATE_IN WITH MDATE
REPLACE NAME WITH 'DISB. OFFICER'
```

115

```
REPLACE AMT WITH TEMPB
REPLACE PURPOSE WITH 'COMRATS DUE'
REPLACE DATE_PD WITH 'CF'

CLOSE ALL
CLEAR
RETURN
* END MESS-CP.PRG
```

```
***********************************************************
*                        MESS-ES                         *
***********************************************************

PROCEDURE MESS-ES
***********************************************************************
* NAME:    MESS-ES.PRG                                          *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: COMPUTES MESS BILL FOR NON SUBSISTING MESS WITH      *
*          EQUAL PRORATION.                                     *
***********************************************************************

*LISTING:
STORE 0000000.00 TO TEMP1
STORE 000.00 TO TEMP2
STORE 0000 TO TEMP3
STORE 000.00 TO TEMP4
STORE 000000.00 TO TEMPA
STORE 000000.00 TO TEMPB
STORE 000000.00 TO TEMPC
STORE 000000.00 TO TEMPD
STORE ' ' TO TSUB
STORE DATE() TO MDATE
STORE SPACE (9) TO TSSN
STORE ' ' TO TSTAT
STORE ' ' TO ANS

CLEAR
SELECT A
USE INV
TEMP1 = PCONSUMED
SELECT B
USE SHARE
TEMP2 = SHAR_VAL
TEMP3 = NUM_MBR
SELECT C
USE SETCAT
TEMP4 = SET_SHARE
IF (TEMP1 = 0.0) .AND. (TSUB <> 'Y')
    REPLACE SUG_BILL WITH 0.00
ELSE
    TEMPA = TEMP1 / TEMP3
    TEMPB = TEMP4 - TEMP2
    TEMPC = TEMPA + TEMPB
    REPLACE SUG_BILL WITH TEMPC
ENDIF
TSUB = SUBSIST
TSTAT = METHOD
REPLACE SPEC_ASS WITH 0.00
SET FORMAT TO REC-MBIL.FMT
DO WHILE UPPER(ANS) <> 'Y'
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 20,21 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
```

117

```
SKIP -1
TEMPC = SUG_BILL
TEMPD = SPEC_ASS
CLOSE FORMAT
SET COLOR TO GR+/R,,N
CLEAR
a 8,10 TO 14,68 DOUBLE
a 10,19 SAY [ MEMBER'S MESS BILLS ARE BEING COMPUTED ! ]
a 12,32 SAY [ PLEASE STANDBY ! ]
SELECT D
USE MEMBERS
   DO WHILE .NOT. EOF()
      IF (STATUS = 'M') .AND. (DTOC(DETACHED) = '  /  /  ') .AND. (SHAREOUT =
0.00)
                     TSSN = SSN
                  IF TEMPC > 0.00
                      SELECT F
                      USE TRANS
                      APPEND BLANK
                      REPLACE TTYP WITH 'AR'
                      REPLACE DATE_IN WITH MDATE
                      REPLACE NAME WITH TSSN
                      REPLACE AMT WITH TEMPC
                      REPLACE PURPOSE WITH 'MESS BILL'
                      IF (TSUB = 'N') .AND. (TSTAT = 'B')
                          REPLACE DATE_PD WITH 'NM'
                      ELSE
                          REPLACE DATE_PD WITH 'CM'
                      ENDIF
                  ENDIF
                      IF TEMPD > 0.0
                          SELECT F
                          USE TRANS
                          APPEND BLANK
                          REPLACE TTYP WITH 'AR'
                          REPLACE DATE_IN WITH MDATE
                          REPLACE NAME WITH TSSN
                          REPLACE AMT WITH TEMPD
                          REPLACE PURPOSE WITH 'SPECIAL ASSES'
                          IF (TSUB = 'N') .AND. (TSTAT = 'B')
                              REPLACE DATE_PD WITH 'NM'
                          ELSE
                              REPLACE DATE_PD WITH 'CM'
                          ENDIF
                      ENDIF
                      SELECT D
         ENDIF
         SKIP 1
      ENDDO
   SET COLOR TO W+/B,,BG
   CLEAR
   CLOSE ALL
   RETURN
   *END MESS.PRG
```

```
*****************************************************************
*                         MESS-PRT                            *
*****************************************************************

PROCEDURE MESS-PRT
*****************************************************************
* NAME:     MESS-PRT.PRG                                       *
* AUTHORS:  LCDR J. L. TWIGG                                   *
*              LT M. T. MADDEN                                 *
* PURPOSE:  PREPARES AND PRINTS MONTHLY MESS BILLS.           *
*****************************************************************

* LISTING:
ERASE TEMP2.DBF
CLEAR
STORE 00000.00 TO TTL
STORE 00000.00 TO TCB
STORE 00000.00 TO TPB
STORE 00000.00 TO TMS
STORE 00000.00 TO TSA
STORE SPACE (20) TO TNAME
STORE SPACE (9) TO TSSN
STORE ' ' TO TSTAT
SET COLOR TO GR+/R,,N
CLEAR
@ 8,10 TO 14,68 DOUBLE
@ 10,19 SAY [ MEMBER'S MESS BILLS ARE BEING PRINTED ! ]
@ 12,31 SAY [ PLEASE STANDBY ! ]
SET CONSOLE OFF
SELECT F
USE SETCAT
IF TRIAL = 'Y'
TSTAT = SUBSIST
SELECT B
USE MEMBERS
DO WHILE .NOT. EOF()
IF (STATUS = 'M') .AND. (DTOC(DETACHED) = '  /  /  ')
TSSN = SSN
TNAME = NAME
SELECT A
USE TRANS
TCB = 0.00
TPB = 0.00
TMS = 0.00
TSA = 0.00
DO WHILE .NOT. EOF()
    IF NAME = TSSN
        DO CASE
            CASE PURPOSE = 'MSS BILL RF OWED'
                TCB = TCB - AMT
            CASE PURPOSE = 'MESS BILL' .AND. DATE_PD = 'NM' .AND. TTYP = 'AR'
                TCB = TCB + AMT
            CASE PURPOSE = 'MESS BILL' .AND. DATE_PD = 'CM' .AND. TTYP = 'AR'
                TCB = TCB + AMT
            CASE PURPOSE = 'MESS BILL' .AND. DATE_PD = 'CF' .AND. TTYP = 'AR'
                TPB = TPB + AMT
            CASE PURPOSE = 'MESS SHARE' .AND. TTYP = 'AR'
                TMS = TMS + AMT
            CASE PURPOSE = 'SPECIAL ASSES' .AND. TTYP = 'AR'
```

119

```
                    TSA = TSA + AMT
               ENDCASE
          ENDIF
SKIP 1
ENDDO
TTL = TCB + TPB + TMS + TSA
SELECT E
USE MSSBILL
APPEND BLANK
REPLACE MESS_SHR WITH TMS
REPLACE MESS_BILL WITH TCB
REPLACE CF_AMT WITH TPB
REPLACE SPEC_ASS WITH TSA
REPLACE NAME WITH TNAME
REPLACE SSN WITH TSSN
REPLACE TBILL WITH TTL
SELECT B
ENDIF
SKIP 1
ENDDO
SELECT F
USE SETCAT
ENDIF

REPLACE TITLE WITH " MONTHLY MESS BILL STATEMENT   "
SET DEVICE TO PRINT
DO TITLE
SET DEVICE TO SCREEN
SELECT E
USE MSSBILL
INDEX ON NAME TO MSSBILL
REPORT FORM MESS-BILL.FRM PLAIN TO PRINT
USE
SET CONSOLE ON
SET COLOR TO W+/B,,BG
CLEAR
CLOSE ALL
ERASE MSSBILL.NDX
RETURN
*END MESS-PRT.PRG
```

```
***********************************************************
*                        MS-SHAR                          *
***********************************************************

PROCEDURE MS-SHAR
***********************************************************************
* NAME:     MS-SHAR.PRG                                               *
* AUTHORS: LCDR J.L.TWIGG                                             *
*             LT M.T.MADDEN                                           *
* PURPOSE: CALCULATES THE CURRENT VALUE OF THE MESS SHARE.           *
***********************************************************************

* LISTING:
STORE 000000.00 TO TWORTH
STORE 000.00 TO TSHARE
STORE 0000 TO TCOUNT
SELECT E
USE SET~AT
IF MESS <> 'E'
    SELECT A
    USE FINBAL
    TWORTH = NET_WORTH
    SELECT B
    USE INV
    TSHARE = VAL_FWD
    SELECT C
    USE MEMBERS
    DO WHILE .NOT. EOF()
        IF STATUS = 'M' .AND. DTOC(DETACHED) = "  /  /  "
            TCOUNT = TCOUNT + 1
        ENDIF
        SKIP 1
    ENDDO
    SELECT D
    USE SHARE
    REPLACE WORTH WITH TWORTH
    REPLACE NUM_MBR WITH TCOUNT
    REPLACE SHAR_VAL WITH TWORTH / TCOUNT
    REPLACE PRE_SHAR WITH TSHARE
    REPLACE INC_DEC WITH SHAR_VAL - PRE_SHAR
    CLOSE ALL
ELSE
    SELECT D
    USE SHARE
    REPLACE WORTH WITH 00.00
    REPLACE NUM_MBR WITH 0000
    REPLACE SHAR_VAL WITH 00.00
    REPLACE PRE_SHAR WITH 00.00
    REPLACE INC_DEC WITH 00.00
    CLOSE ALL
ENDIF
RETURN
*END MESS-SHA.PRG
```

121

```
***************************************************************
*                         NEWPASS                            *
***************************************************************

PROCEDURE NEWPASS
***************************************************************
* NAME:     NEWPASS.PRG                                       *
* AUTHORS:  LCDR J.L.TWIGG                                    *
*           LT M.T.MADDEN                                     *
* PURPOSE:  TO ALLOW USERS TO CHANGE PASSWORD.               *
***************************************************************

* LISTING:
CLEAR
STORE SPACE (10) TO TCODE
STORE 00 TO TCOUNT
STORE 0000 TO PCODE
STORE ' ' TO ANS
STORE ' ' TO PASS
ANS = 'N'
USE SETCAT
DO WHILE UPPER(ANS) <> 'Y'
    REPLACE PASSWORD WITH '            '
    SET FORMAT TO PASSWORD.FMT
    EDIT
    SET COLOR TO W+/R,,
    a 14,19 SAY [ IS THE ABOVE NEW PASSWORD CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
    CLOSE FORMAT
ENDDO
SKIP -1
TCOUNT = 0
DO WHILE TCOUNT <> LEN(PASSWORD) .
    TCOUNT = TCOUNT + 1
    STORE SUBSTR(UPPER(PASSWORD),TCOUNT,1) TO PASS
    PCODE = PCODE + (ASC(PASS))
ENDDO
PCODE = (PCODE * 1000) + (PCODE + 238)
STORE STR(PCODE,10) TO TCODE
REPLACE PASSWORD WITH TCODE
CLEAR   .
CLOSE ALL
* END NEWPASS.PRG
```

```
*****************************************************************
*                          PAYBILL                             *
*****************************************************************

PROCEDURE PAYBILL
*********************************************************************
* PAYBILLS.PRG                                                      *
* AUTHORS: LCDR J.L.TWIGG                                           *
*              LT M.T.MADDEN                                        *
* PURPOSE: PROCESS CASH COLLECTIONS FROM MEMBERS.                   *
*********************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE ' ' TO ANS
STORE SPACE (9) TO TSSN
STORE 0000 TO TREC
STORE 000000.00 TO CASH
STORE 000000.00 TO TCASH
STORE 000000.00 TO SCASH
STORE 000000.00 TO RCASH
STORE SPACE (25) TO TPURPOSE
STORE SPACE (20) TO TNAME
STORE DATE() TO TDATE
CHOICE  = 'Y'
DO WHILE UPPER(CHOICE) ='Y'
     TREC = 0
     ANS = 'N'
     TSSN = '---------'
     DO WHILE UPPER(ANS) <> 'Y'
          a 6,9 TO 14,69 DOUBLE
          SET COLOR TO W+/R,,
          a 10,12 SAY [ ENTER THE SOCIAL SECURITY NUMBER FOR PAYEE: ];
          GET TSSN PICTURE [#########]
          READ
          a 14,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
          SET COLOR TO B/B,,
          WAIT ' ' TO ANS
          SET COLOR TO W+/B,,
          CLEAR
     ENDDO
     SELECT A
     USE MEMBERS
     LOCATE FOR SSN = TSSN
     IF .NOT. FOUND()
          CLEAR
          a 8,12 TO 12,68 DOUBLE
          SET COLOR TO W+/R,,
          a 10,17 SAY [ SOCIAL SECURITY NUMBER NOT IN DATA BASE! ]
          SET COLOR TO W+/B,,
          a 14,1 SAY [ ]
          WAIT TO CONT
     ELSE
          TNAME = NAME
          IF STATUS = 'R'
               TREC = RECNO()
          ENDIF
          ANS = 'N'
```

123

```
CLEAR
a 5,15 TO 9,63 DOUBLE
a 7,20 SAY [ MEMBER NAME:   ]
a 7,38 SAY TNAME
DO WHILE UPPER(ANS) <> 'Y'
    CASH = 00.00
    a 11,9 TO 15,69 DOUBLE
    SET COLOR TO W+/R,,
    a 13,15 SAY [ WHAT IS THE AMOUNT OF THE COLLECTION? ] ;
    GET CASH PICTURE [######.##]
    READ
    a 15,21 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT  ' ' TO ANS
    SET COLOR TO W+/B,,
    CLEAR
ENDDO

SELECT B
USE TRANS
COPY TO TEMP FOR ((TTYP = 'AR' .AND. NAME = TSSN) .OR. ;
(TTYP = 'AP' .AND. NAME = TSSN))
TCASH = 0.00
SCASH = 0.00
RCASH = 0.00

SELECT C
USE TEMP
IF RECCOUNT() > 0 .AND. CASH > 0.00
    DO WHILE .NOT. EOF()
        DO CASE
            CASE PURPOSE = 'MSS BILL RF OWED'
                TCASH = TCASH + AMT
                REPLACE TTYP WITH 'XP'
                REPLACE PURPOSE WITH 'MSS BILL RF'
            CASE PURPOSE = 'MSS SHARE RF OWED'
                SCASH = SCASH + AMT
                REPLACE TTYP WITH 'XP'
                REPLACE PURPOSE WITH 'MSS SHARE RF'
            OTHERWISE
                RCASH = RCASH + AMT
        ENDCASE
    SKIP 1
    ENDDO
    CASH = CASH + TCASH + SCASH

    IF CASH <= RCASH
        IF (TREC > 0) .AND. (CASH = RCASH)
            SELECT A
            USE MEMBERS
            DELETE RECORD TREC
            PACK
            SELECT C
        ENDIF
        GOTO TOP
        DO WHILE CASH > 0.0 .AND. .NOT. EOF()
          IF TTYP <> 'XP'
              DO CASE
                  CASE PURPOSE = 'MESS BILL' .AND. ;
                  DATE_PD = 'CF' .AND. TTYP = 'AR'
```

124

```
                        TPURPOSE = 'MESS BILL PM'
                    CASE PURPOSE = 'MESS BILL' .AND. ;
                    DATE_PD = 'CM' .AND. TTYP = 'AR'
                        TPURPOSE = 'MESS BILL CM'
                    CASE PURPOSE = 'MESS SHARE' .AND. ;
                    TTYP = 'AR'
                        TPURPOSE = 'MESS SHARE'
                    CASE PURPOSE = 'SPECIAL ASSES' .AND.  ;
                    TTYP = 'AR'
                        TPURPOSE = 'SPECIAL ASSES'
                ENDCASE
                IF CASH >= AMT
                    REPLACE DATE_PD WITH 'PD'
                    REPLACE PURPOSE WITH TPURPOSE
                    REPLACE TTYP WITH 'CL'
                    CASH = CASH - AMT
                ELSE
                    REPLACE AMT WITH (AMT - CASH)
                    INSERT BLANK
                    REPLACE TTYP WITH 'CL'
                    REPLACE DATE_IN WITH TDATE
                    REPLACE NAME WITH TSSN
                    REPLACE AMT WITH CASH
                    REPLACE PURPOSE WITH TPURPOSE
                    REPLACE DATE_PD WITH 'PD'
                    CASH = 0.00
                ENDIF
            ENDIF
            SKIP 1
            ENDDO
            USE
            SELECT B
            USE TRANS
            DELETE FOR (TTYP = 'AR' .AND. NAME = TSSN) .OR. ;
            (TTYP = 'AP' .AND. NAME = TSSN)
            PACK
            APPEND FROM TEMP
            ERASE TEMP.DBF
        ELSE
            CLEAR
            @ 8,10 TO 12,69 DOUBLE
            SET COLOR TO W+/R,,
            @ 10,19 SAY ;
            [ COLLECTION IS GREATER THAN AMOUNTS OWED ]
            SET COLOR TO W+/B,,
            @ 13,1 SAY [ ]
            WAIT TO CONT
        ENDIF
    ELSE
        CLEAR
        @ 8,10 TO 16,69 DOUBLE
        SET COLOR TO W+/R,,
        @ 10,24 SAY [ MEMBER HAS NO OUTSTANDING DEBTS ]
        @ 12,39 SAY [OR]
        @ 14,20 SAY [ A COLLECTION AMOUNT OF ZERO WAS ENTERED ]
        SET COLOR TO W+/B,,
        @ 17,1 SAY [ ]
        WAIT TO CONT
    ENDIF
ENDIF
```

125

```
CLEAR
@ 8,7 TO 12,72 DOUBLE
SET COLOR TO W+/R,,
@ 10,16 SAY [DO YOU WISH TO RECORD ANOTHER COLLECTION? (Y/N) ]
SET COLOR TO B/B,,
WAIT ' ' TO CHOICE
SET COLOR TO W+/B,,
CLEAR
CLOSE ALL
ERASE TEMP.DBF
ENDDO
CLEAR
RETURN
```

```
***********************************************************
*                        PAYCR                            *
***********************************************************

PROCEDURE PAYCR
***********************************************************
* NAME:     PAYCR.PRG                                      *
* AUTHORS:  LCDR J.L.TWIGG                                 *
*           LT M.T.MADDEN                                  *
* PURPOSE:  TO RECORD CASH RECEIPTS FOR COMRATS.           *
***********************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE

SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF TTYP = 'AR' .AND. PURPOSE = 'COMRATS DUE'
        DO PAYRATS
        SET COLOR TO W+/R,,
        a 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
            CLEAR
            IF UPPER(CHOICE) = 'Y'
                REPLACE TTYP WITH 'CL'
                REPLACE DATE_IN WITH TDATE
                REPLACE DATE_PD WITH 'PD'
                REPLACE PURPOSE WITH 'COMRATS'
            ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,11 TO 14,68 DOUBLE
    SET COLOR TO W+/R,,
    a 12,25 SAY [ END OF FILE HAS BEEN REACHED! ]
    SET COLOR TO W+/B,,
    a 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END PAYCR.PRG
```

```
********************************************************
*                    PAYOTHER                         *
********************************************************

PROCEDURE PAYOTHER
***********************************************************
* NAME:     PAYOTHER.PRG                                  *
* AUTHORS: LCDR J.L.TWIGG                                 *
*          LT M.T.MADDEN                                  *
* PURPOSE: TO RECORD CASH COLLECTION FROM OTHER THAN MEMBERS.  *
***********************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
SELECT A
USE TRANS
CHOICE = 'N'
DO WHILE (UPPER(CHOICE) <> 'Y') .AND. (.NOT. EOF())
    IF TTYP = 'AR' .AND. PURPOSE <> 'COMRATS' .AND. PURPOSE <> 'MESS BILL'
.AND. PURPOSE <> 'MESS SHARE' .AND. PURPOSE <> 'SPECIAL ASSES'
        DO PAYRATS.PRG
        SET COLOR TO W+/R,,
        a 20,19 SAY [ IS THIS THE CORRECT TRANSACTION? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO CHOICE
        SET COLOR TO W+/B,,
        CLEAR
        IF UPPER(CHOICE) = 'Y'
            REPLACE TTYP WITH 'CL'
            REPLACE DATE_IN WITH TDATE
            REPLACE DATE_PD WITH 'PD'
        ENDIF
    ENDIF
SKIP 1
ENDDO
IF EOF() .AND. UPPER(CHOICE) <> 'Y'
    a 10,11 TO 14,68 DOUBLE
    SET COLOR TO W+/R,,
    a 12,21 SAY [ THE END OF THE FILE HAS BEEN REACHED! ]
    SET COLOR TO W+/B,,
    a 16,1 SAY [ ]
    WAIT TO CONT
ENDIF
CLEAR
CLOSE ALL
RETURN
* END PAYOTHER.PRG
```

128

```
****************************************************************
*                          PAYRATS                            *
****************************************************************

PROCEDURE PAYRATS
****************************************************************
* NAME:     PAYRATS.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                      *
*             LT M.T.MADDEN                                    *
* PURPOSE: INPUT SCREEN FOR TRANSACTION PROCESSING.           *
****************************************************************

* LISTING:
ə  0,  0   SAY [TR-005]
ə  3, 27   SAY "TRANSACTION IDENTIFICATION"
ə  6, 20   SAY "THIS SCREEN IS USED TO IDENTIFY A DESIRED"
ə  7, 23   SAY "TRANSACTION THAT IS TO BE PROCESSED."
ə  9, 13   SAY "NAME OF TRANSACTOR:"
ə  9, 49   SAY   TRANS->NAME
ə 12, 13   SAY "DATE OF THE TRANSACTION:"
ə 12, 61   SAY   TRANS->DATE_IN
ə 14, 13   SAY "AMOUNT OF THE TRANSACTION:"
ə 14, 60   SAY   TRANS->AMT
ə 16, 13   SAY "SERIAL NUMBER IF APLICABLE:"
ə 16, 64   SAY   TRANS->REQ_NUM
ə 18, 13   SAY "PURPOSE OF THE TRANSACTION:"
ə 18, 49   SAY   TRANS->PURPOSE
ə  4, 25   TO  4, 54    DOUBLE
ə  1,  5   TO 20, 74    DOUBLE
* END PAYRATS.PRG
```

```
*****************************************************************
*                               PM                             *
*****************************************************************

PROCEDURE PM
*****************************************************************
* NAME:    PM.PRG                                               *
* AUTHORS: LCDR J. L. TWIGG                                     *
*          LT M. T. MADDEN                                      *
* PURPOSE: MAIN MENU DRIVER PROGRAM FOR THE SYSTEM.             *
*****************************************************************

* LISTING:
CLOSE ALL
CLEAR
SET BELL OFF
SET ESCAPE OFF
SET STATUS OFF
SET TALK OFF
SET SCOREBOARD OFF
STORE " " TO CHOICE
SET COLOR TO W+/B,GR+/R,R
CLEAR
    @ 2,4 TO 21,75 DOUBLE
    @ 5,26 SAY [NAVY FOODSERVICE MANAGEMENT]
    @ 6,24 TO 6,55 DOUBLE
    @ 10,19 TO 16,59 DOUBLE
    @ 12,28 SAY [ACCOUNTING SYSTEMS FOR]
    @ 14,28 SAY [PRIVATE MESSES AFLOAT]
    @ 18,38 SAY [Developed by: LCDR J.L.TWIGG, SC,USN]
    @ 19,52 SAY [LT M.T.MADDEN, SC, USN]
    @ 22,1 SAY [ ]
WAIT TO CONT
DC INTRO
CLEAR
DO WHILE .T.
    @ 0,0 SAY [M-0]
    @ 2,4 TO 20,75 DOUBLE
    @ 3,18 SAY [FINANCIAL ACCOUNTING FOR PRIVATE MESSES AFLOAT]
    @ 4,16 TO 4,65 DOUBLE
    @ 6,33 SAY [MAIN MENU]
    @ 7,31 TO 7,44 DOUBLE
    @ 10,23 SAY [SELECTION              , CODE]
    @ 11,23 TO 11,32
    @ 11,55 TO 11,58
    @ 12,20 SAY [SYSTEM UTILITIES              1]
    @ 14,20 SAY [PROCESS TRANSACTIONS          2]
    @ 16,20 SAY [GENERATE FINANCIAL REPORTS    3]
    @ 18,20 SAY [QUIT                          4]
    @ 21,1 SAY [ ]
    WAIT "           Enter your selection code: " to choice
    DO CASE
        CASE CHOICE = "1"
            DO UTIL
        CASE CHOICE = "2"
            DO TRANT
        CASE CHOICE = "3"
            DO TRIAL
        CASE CHOICE = "4"
```

130

```
              CLEAR
              a 10,9 TO 14,70 DOUBLE
              SET COLOR TO W+/R,,
              a 12,17 SAY [ INSERT FORMATTED ARCHIVE DISK IN DRIVE A ! ]
              SET COLOR TO W+/B,,
              a 15,1 SAY [ ]
              CLOSE ALL
              WAIT TO CONT
              SET COLOR TO ,,R
              CLEAR
              a 10,15 TO 14,64 DOUBLE
              a 12,28 SAY [ ARCHIVING IN PROGRESS ! ]
              ERASE A:TTRANS.DBF
              ERASE A:TMEMBERS.DBF
              ERASE A:TSETCAT.DBF
              ERASE A:TINV.DBF
              ERASE A:TSUMMARY.DBF
              USE TRANS
              COPY TO A:TTRANS.DBF
              USE MEMBERS
              COPY TO A:TMEMBERS.DBF
              USE SETCAT
              COPY TO A:TSETCAT.DBF
              USE INV
              COPY TO A:TINV.DBF
              USE SUMMARY
              COPY TO A:TSUMMARY.DBF
              CLOSE ALL
              SET COLOR TO ,,BG
              QUIT
         OTHERWISE
              SET COLOR TO GR+/B,,R
              CLEAR
              a 8,21 TO 17,57 DOUBLE
              a 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU !]
              a 14,23 SAY [PLEASE MAKE ANOTHER SELECTION !]
              a 18,1 SAY [ ]
              WAIT TO CONT
              SET COLOR TO W+/B,GR+/R,BG
              CLEAR
              LOOP
         ENDCASE
    ENDDO
    SET STATUS ON
    *END OF PRG
```

```
*****************************************************************
*                          PROV-CON                            *
*****************************************************************

PROCEDURE PROV-CON
*****************************************************************
* NAME:     PROV-CON.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                      *
*           LT. M.T.MADDEN                                      *
* PURPOSE:  GENERATES THE PROVISIONS CONSUMED INFORMATION FOR   *
*           OUTPUTTING.                                         *
*****************************************************************

* LISTING:
STORE 000000000.00 TO PCTEMP
STORE 000000.00 TO TAMT
STORE ' ' TO ANS
SELECT B
USE TRANS
DO WHILE .NOT. EOF()
    IF TTYP = "AP" .AND. (PURPOSE = "PROV VENDOR OWED" .OR. PURPOSE = "PROV FSO
OWED") .AND. DATE_PD = "CM"
        TAMT = TAMT + AMT
    ELSE
        IF TTYP = 'XP' .AND. (PURPOSE = "PROV VENDOR" .OR. PURPOSE  = 'PROV
FSO') .AND. DATE_PD = 'CM'
            TAMT = TAMT + AMT
        ENDIF
    ENDIF
SKIP 1
ENDDO
SELECT A
USE INV
REPLACE RECPT WITH TAMT
REPLACE E_INV WITH 0.0
REPLACE N_INV WITH 0.0
CLEAR
DO WHILE UPPER(ANS) <> 'Y'
    SET COLOR TO W+/B,,R
    SET FORMAT TO END-INV.FMT
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 21,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
ENDDO
SET COLOR TO GR+/R,,N
CLOSE FORMAT
CLEAR
a 6,10 TO 16,68 DOUBLE
a 10,18 SAY [ CONTINUING FINANCIAL STATEMENT GENERATION ! ]
a 12,31 SAY [ PLEASE STANDBY ! ]


SKIP -1
PCTEMP = B_INV + RECPT - E_INV
REPLACE PCONSUMED WITH PCTEMP
USE
RETURN


...
```

132

```
* END PROV-CON.PRG
```

```
************************************************************
*                         PRT-FILE                        *
************************************************************

PROCEDURE PRT-FILE
*****************************************************************
* NAME:    PRT-FILE.PRG                                         *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: PRINT MEMBERS AND TRANSACTION FILES.                *
*****************************************************************

* LISTING:
CLEAR
a 0,0 SAY [UT-019]
a 10,8 TO 18,71 DOUBLE
a 12,12 SAY [ THE TRANSACTION FILE AND MEMBER FILE ARE BEING PRINTED! ]
SET COLOR TO GR+/R,,
a 14,28 SAY [ INSURE PRINTER IS ON ! ]
SET COLOR TO W+/B,,
a 19,1 SAY [ ]
WAIT TO CONT
CLEAR
a 12,8 TO 16,71 DOUBLE
a 14,30 SAY [ PLEASE STANDBY!]
SET CONSOLE OFF
SELECT A
USE SETCAT
REPLACE TITLE WITH '       TRANSACTION FILE'
SET DEVICE TO PRINT
DO TITLE
SET DEVICE TO SCREEN
SELECT B
USE TRANS
REPORT FORM REC-TRNS PLAIN TO PRINT
SELECT A
USE SETCAT
REPLACE TITLE WITH '       MEMBERS FILE'
SET DEVICE TO PRINT
DO TITLE
SET DEVICE TO SCREEN
SELECT C
USE MEMBERS
REPORT FORM MBR-RPT PLAIN TO PRINT
CLEAR
CLOSE ALL
SET CONSOLE ON
RETURN
*END PRT-FILE.PRG
```

```
****************************************************************
*                          PRT-FS                             *
****************************************************************

PROCEDURE PRT-FS
****************************************************************
* NAME:    PRT-FS.PRG                                         *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: DRIVER FOR PRINTING FINANCIAL STATEMENTS.         *
****************************************************************

* LISTING:
CLEAR
a 8,10 TO 12,68 DOUBLE
SET COLOR TO W+/R,,
a 10,25 SAY [ CHECK TO ENSURE PRINTER IS ON ! ]
SET COLOR TO W+/B,,
a 14,1 SAY [ ]
WAIT TO CONT
CLEAR
a 8,10 TO 16,68 DOUBLE
a 10,23 SAY [ MONTHLY FINANCIAL STATEMENTS ARE ]
a 12,32 SAY [ BEING PRINTED ! ]
a 14,31 SAY [ PLEASE STANDBY !! ]
SET CONSOLE OFF
SET DEVICE TO PRINT
SELECT F
USE SETCAT
DO HEADING
SELECT A
USE FININC
DO INC-FS
SET PRINT OFF
SELECT B
USE FINBAL
DO BAL-FS
EJECT
DO SHARE-FS
SELECT E
USE SUMMARY
DO COST-FS
EJECT  .
SELECT F
USE SETCAT
IF SUBSIST = "N"
    SELECT E
    USE SUMMARY
    DO COMRTS
    EJECT
ENDIF
SET DEVICE TO SCREEN
SET CONSOLE ON
CLEAR
CLOSE ALL
RETURN
* END PRT-FS.PRG
```

```
****************************************************************
*                         REBATE                              *
****************************************************************

PROCEDURE REBATE
****************************************************************
* MANE:    REBATE.PRG                                         *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: CALCULATES REBATE OWED TO MEMBER UPON DETACHMENT.  *
****************************************************************

* LISTING:
CLEAR
SELECT D
USE SETCAT
TBILL = SUG_BILL
SELECT F
USE DYSWKD
APPEND BLANK
SET FORMAT TO DYS.FMT
ANS = 'N'
DO WHILE UPPER(ANS) <> 'Y'
    EDIT
    SET COLOR TO W+/R,,
    @ 15,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
ENDDO
CLOSE FORMAT
SKIP -1
TDAY = WORKD
TMON = MONDYS
DELETE ALL
PACK
CLEAR
TDIFF = TMON - TDAY
TSUB = TDIFF * TBILL
REBATE = TSUB / TMON
SELECT C
USE TRANS
APPEND BLANK
REPLACE TTYP WITH 'AP'
REPLACE DATE_IN WITH MDATE
REPLACE NAME WITH TSSN
REPLACE AMT WITH REBATE
REPLACE PURPOSE WITH 'MSS BILL RF OWED'
REPLACE DATE_PD WITH 'CM'
USE
CLEAR
RETURN
* END REBATE.PRG
```

```
**************************************************************
*                         RECOVERY                          *
**************************************************************

PROCEDURE RECOVERY
**********************************************************************
* RECOVERY.PRG                                                       *
* AUTHORS: LCDR J.L.TWIGG                                            *
*          LT M.T.MADDEN                                             *
* PURPOSE: RECOVER DATABASES AFTER SYSTEM FAILURE.                   *
**********************************************************************

* LISTING:
SET COLOR TO ,,R
CLEAR
a 0,0 SAY [UT-20]
a 10,11 TO 14,68 DOUBLE
a 12,28 SAY [ RECOVERY IN PROGRESS ! ]
USE TRANS
DELETE ALL
PACK
APPEND FROM A:TTRANS.DBF
USE MEMBERS
DELETE ALL
PACK
APPEND FROM A:TMEMBERS.DBF
USE SETCAT
DELETE ALL
PACK
APPEND FROM A:TSETCAT.DBF
USE SUMMARY
DELETE ALL
PACK
APPEND FROM A:TSUMMARY
USE INV
DELETE ALL
PACK
APPEND FROM A:TINV
CLOSE ALL
SET COLOR TO ,,BG
CLEAR
*END RECOVERY.PRG
```

137

```
*****************************************************************
*                        REC-FS                                *
*****************************************************************

PROCEDURE REC-FS
*****************************************************************
* NAME:     REC-FS.PRG                                         *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE:  GENERATES TOTALS FOR RECEIPTS SIDE OF THE FINANCIAL *
*           STATEMENT.                                          *
*****************************************************************

* LISTING:
STORE 000000.00 TO TEMP1
STORE 000000.00 TO TEMP2
STORE 000000.00 TO TEMP3
STORE 000000.00 TO TEMP4
STORE 000000.00 TO TEMP5
STORE 000000.00 TO TEMP6
STORE 000000.00 TO TEMP7
STORE 000000.00 TO TCASH

SELECT A
USE INV
TCASH = CASH_FWD
SELECT B
USE TRANS
DO WHILE .NOT. EOF()
IF TTYP = 'CL'
DO CASE
    CASE PURPOSE = 'MESS BILL PM'
        TEMP1 = TEMP1 + AMT
    CASE PURPOSE = 'MESS BILL CM'
        TEMP2 = TEMP2 + AMT
    CASE PURPOSE = 'MESS BILL NM'
        TEMP3 = TEMP3 + AMT
    CASE PURPOSE = 'MESS SHARE'
        TEMP4 = TEMP4 + AMT
    CASE PURPOSE = 'COMRATS'
        TEMP5 = TEMP5 + AMT
    OTHERWISE
        TEMP6 = TEMP6 + AMT
ENDCASE
ENDIF
SKIP 1
ENDDO
TEMP7 = TEMP1 + TEMP2 + TEMP3 + TEMP4 + TEMP5 + TEMP6 + TCASH
SELECT C
USE FININC
REPLACE CASH_BF WITH TCASH
REPLACE BILLS_PM WITH TEMP1
REPLACE BILLS_CM WITH TEMP2
REPLACE BILLS_NM WITH TEMP3
REPLACE SHARE_SOLD WITH TEMP4
REPLACE CR_COLLECT WITH TEMP5
REPLACE OTHER_A WITH TEMP6
REPLACE TOTAL_REC WITH TEMP7
CLOSE ALL
```

138

```
RETURN
*END REC-FS.PRG
```

```
***********************************************************
*                        RESET                            *
***********************************************************

PROCEDURE RESET
***********************************************************
* NAME:     RESET.PRG                                     *
* AUTHORS: LCDR J.L.TWIGG                                 *
*           LT M.T.MADDEN                                 *
* PURPOSE: RESETS SYSTEM TO BEGIN NEW MONTH.              *
***********************************************************

* LISTING:
STORE 00000.00 TO TCASH
STORE 000.00 TO TVAL
CLEAR
@ 8,10 TO 16,68 DOUBLE
@ 10,28 SAY [RECORDS ARE BEING SET U1 ]
@ 12,28 SAY [TO START THE NEW MONTH ! ]
@ 14,31 SAY [PLEASE STANDBY ! ]
SET CONSOLE OFF
SELECT A
USE FINBAL
TCASH = CASH_OH
DELETE ALL
PACK
APPEND BLANK
SELECT B
USE FININC
DELETE ALL
PACK
APPEND BLANK
SELECT C
USE SHARE
TVAL = SHAR_VAL
SELECT D
USE INV
REPLACE CASH_FWD WITH TCASH
REPLACE VAL_FWD WITH TVAL
REPLACE B_INV WITH E_INV
SELECT E
USE TRANS
    DO WHILE .NOT. EOF()
        IF (TTYP <> 'AR') .AND. (TTYP <> 'AP')
            DELETE
            PACK
        ENDIF
        IF DATE_PD = "CM"
            REPLACE DATE_PD WITH "CF"
        ENDIF
        IF DATE_PD = "NM"
            REPLACE DATE_PD WITH "CM"
        ENDIF
        IF (DATE_PD <> "CF") .AND. (DATE_PD <> "CM")
            DELETE
        ENDIF
    SKIP 1
    ENDDO
PACK
```

```
SELECT F
USE MEMBERS
    DO WHILE .NOT. EOF()
        DO CASE
            CASE DTOC(DETACHED) <> "  /  /  "
                DELETE
        ENDCASE
    SKIP 1
    ENDDO
PACK
CLEAR
CLOSE ALL
SET CONSOLE ON
RETURN
* END RESET.PRG
```

```
*****************************************************************
*                          SET-UP                              *
*****************************************************************

PROCEDURE SET-UP
*****************************************************************
* NAME:      SET-UP.PRG                                         *
* AUTHORS:   LCDR J.L.TWIGG                                     *
*            LT M.T.MADDEN                                      *
* PURPOSE:   INPUT FOR SYSTEM PARAMETERS REQUIRED FOR OPERATION. *
*****************************************************************

* LISTING:
STORE " " TO ANS
SET COLOR TO W+/B,,N
CLEAR
a 0,0 SAY [UT-013]
a 3,4 TO 3,74 DOUBLE
a 5.5 SAY [ ]
TEXT

                        SET-UP PROGRAM

        PRIOR TO RUNNING THIS PROGRAM SEVERAL "SET-UP" VALUES

        MUST BE ESTABLISHED.  THESE VALUES INCLUDE SUCH THINGS

        AS THE SHIP'S NAME, TYPE OF MESS AND THE MANNER IN WHICH

        MEAL COSTS ARE ASSESSED.  ONCE ESTABLISHED THEY ARE SAVED

        AND NEED ONLY BE MODIFIED WHEN THE SITUATION CHANGES.

ENDTEXT
a 20,4 TO 20,74 DOUBLE
a 21,1 SAY [ ]
WAIT TO CONT
CLEAR
a 0,0 SAY [UT-014]
a 8,21 TO 17,57 DOUBLE
a 11,23 SAY [ONCE YOU PASS THIS POINT THE OLD]
a 14,23 SAY [SET-UP FILE WILL BE ERASED !!!]
a 18,1 SAY [ ]
a 19,15.SAY [ ARE YOU SURE YOU WANT TO CHANGE.THIS FILE ? (Y,N) ]
SET COLOR TO B/B,,
WAIT ' ' TO ANS
SET COLOR TO W+/B,,
IF UPPER (ANS) <> "Y"
    a 22,28 SAY [RETURNING TO MAIN MENU !]
    WAIT TO CONT
    SET COLOR TO W+/B,,BG
    CLEAR
    RETURN
ENDIF
CLEAR
ANS = 'N'
USE SETCAT
REPLACE SET_SHARE WITH 000.00
SET FORMAT TO STARTUP.FMT
DO WHILE UPPER(ANS) <> 'Y'
```

```
         EDIT RECORD 1
         SET COLOR TO W+/R,,
         @ 22,20 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
         SET COLOR TO B/B,,
         WAIT ' ' TO ANS
         SET COLOR TO W+/B,,
    ENDDO
    CLOSE FORMAT
    ANS = 'N'
    USE
    USE SETCAT
    IF UPPER(SUBSIST) = "Y" .OR. UPPER(MESS) = "E"
         CLEAR
         SET FORMAT TO STARTUP2.FMT
         DO WHILE UPPER(ANS) <> 'Y'
              EDIT RECORD 1
              SET COLOR TO W+/R,,
              @ 17,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
              SET COLOR TO B/B,,
              WAIT ' ' TO ANS
              SET COLOR TO W+/B,,
         ENDDO
         CLOSE FORMAT
         ANS = 'N'
         CLEAR
         SKIP -1
    ENDIF
    IF UPPER(SUBSIST) = "N" .AND. UPPER(MESS) <> "E"
         CLEAR
         SET FORMAT TO STARTUP3.FMT
         DO WHILE UPPER(ANS) <> 'Y'
              EDIT RECORD 1
              SET COLOR TO W+/R,,
              @ 20,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
              SET COLOR TO B/B,,
              WAIT ' ' TO ANS
              SET COLOR TO W+/B,,
         ENDDO
         CLOSE FORMAT
         ANS = 'N'
         SKIP -1
    ENDIF
    IF UPPER(MESS) <> 'E'
         SET FORMAT TO SHR-LVL.FMT
         DO WHILE UPPER(ANS) <> 'Y'
              EDIT RECORD 1
              SET COLOR TO W+/R,,
              @ 17,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
              SET COLOR TO B/B,,
              WAIT ' ' TO ANS
              SET COLOR TO W+/B,,
         ENDDO
         CLOSE FORMAT
         ANS ='N'
         SKIP -1
    ENDIF
    IF UPPER(MESS) = 'E' .OR. UPPER(SUBSIST) = "N"
         SET FORMAT TO ERATION.FMT
         DO WHILE UPPER(ANS) <> 'Y'
              EDIT RECORD 1
```

...

```
                SET COLOR TO W+/R,,
                ∂ 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                SET COLOR TO B/B,,
                WAIT ' ' TO ANS
                SET COLOR TO W+/B,,
          ENDDO
          CLOSE FORMAT
     ENDIF
     SKIP -1
     DO CASE
          CASE MESS = 'A'
                REPLACE TMESS WITH '      FLAG OFFICER'
                REPLACE REQ_CAT WITH '05'
          CASE MESS = 'B'
                REPLACE TMESS WITH ' COMMANDING OFFICER'
                REPLACE REQ_CAT WITH '04'
          CASE MESS = 'C'
                REPLACE TMESS WITH '     UNIT COMMANDER'
                REPLACE REQ_CAT WITH '06'
          CASE MESS = 'D'
                REPLACE TMESS WITH '       WARDROOM'
                REPLACE REQ_CAT WITH '03'
          CASE MESS = 'E'
                REPLACE TMESS WITH 'CHIEF PETTY OFFICERS'
                REPLACE REQ_CAT WITH '02'
     ENDCASE
     SET COLOR TO W+/B,,BG
     CLEAR
     ∂ 10,11 TO 14,68 DOUBLE
     SET COLOR TO W+/R,,
     ∂ 12,27 SAY [ SETUP PROGRAM IS COMPLETE! ]
     SET COLOR TO W+/B,,
     ∂ 16,1 SAY [ ]
     WAIT TO CONT
     CLEAR
     CLOSE ALL
     RETURN
     *END SET-UP
```

```
*************************************************************
*                        SHARE-FS                         *
*************************************************************

PROCEDURE SHARE-FS
*************************************************************
* NAME:     SHARE-FS.PRG                                   *
* AUTHORS:  LCDR J.L.TWIGG                                 *
*           LT M.T.MADDEN                                  *
* PURPOSE:  OUTPUT FORMAT FOR .IESS SHARE AND PROVISIONS   *
*           CONSUMED STATEMENTS.                           *
*************************************************************

* LISTING:
USE SHARE
ə  1, 10  SAY "M E S S   S H A R E"
ə  1, 40  SAY 'P R O V I S I O N S   C O N S U M E D'
ə  2, 10  SAY "_____"
ə  2, 40  SAY '_____'
ə  4, 4   SAY "NET WORTH"
ə  4, 24  SAY  SHARE->WORTH
USE INV
ə  4, 41  SAY 'INVENTORY END OF'
ə  5, 41  SAY 'PREVIOUS MONTH'
ə  5, 65  SAY INV->B_INV
USE SHARE
ə  6, 4   SAY "NUMBER OF MEMBERS"
ə  6, 29  SAY  SHARE->NUM_MBR
ə  7, 24  SAY "_____"
USE INV
ə  7, 41 SAY 'PROVISIONS RECEIVED'
ə  7, 65 SAY INV->RECPT
USE SHARE
ə 9, 4   SAY "CURRENT VALUE OF"
ə 9, "1 SAY 'INVENTORY END OF'  .
ə 10,4   SAY "MESS SHARE"
ə 10, 27 SAY  SHARE->SHAR_VAL
USE INV
ə 10, 41 SAY 'CURRENT MONTH'
ə 10, 65 SAY INV->E_INV
USE SHARE
ə 12, 4   SAY "MESS SHARE END OF"
ə 12, 68 SAY '_____'
ə 13, 4   SAY "PREVIOUS MONTH"
ə 13, 27 SAY  SHARE->PRE_SHAR
ə 14, 24  SAY "_____"
ə 14, 41  SAY 'PROVISIONS CONSUMED'
USE INV
ə 14, 65  SAY INV->PCONSUMED
USE SHARE
ə 15, 4   SAY "CHANGE IN SHARE"
ə 16, 4   SAY "FROM LAST MONTH"
ə 16, 27  SAY  SHARE->INC_DEC
ə 17, 4   SAY "_____"
ə 17, 41  SAY '_____'
ə 18, 4   SAY "_____"
ə 18, 41  SAY '_____'
CLOSE ALL
RETURN
```

```
* END SHARE-FS.PRG
```

```
******************************************************************
*                          SHBILL                               *
******************************************************************

PROCEDURE SHBILL
******************************************************************
* NAME:     SHBILL.PRG                                           *
* AUTHORS:  LCDR J.L.TWIGG                                       *
*           LT M.T.MADDEN                                        *
* PURPOSE:  SCREEN FOR DEPARTING MEMBER BILL.                    *
******************************************************************

* LISTING:
a  3, 24   SAY "ENTER THE SOCIAL SECURITY NUMBER"
a  5, 27   SAY "OF THE DEPARTING MEMBER !"
a  7, 35   GET  MEMBERS->SSN
a 13, 31   SAY "MEMBER INFORMATION"
a 16, 23   SAY  MEMBERS->RANK
a 16, 29   SAY  MEMBERS->NAME
a 18, 23   SAY "MESS SHARE REFUND DUE:"
a 18, 51   SAY  MEMBERS->SHAREOUT
a 20, 23   SAY "NET MESS BILL REFUND/DUE:"
a 20, 51   SAY  MEMBERS->BILL_OUT
a  1, 19   TO  9, 59    DOUBLE
a 11, 19   TO 22, 59    DOUBLE
a 14, 27   TO 14, 52
* END SHBILL.PRG
```

```
***************************************************************
*                          SPEC-AS                           *
***************************************************************

PROCEDURE SPEC-AS
*******************************************************************
* NAME:    SPEC-AS.PRG                                           *
* AUTHORS: LCDR J.L.TWIGG                                        *
*          LT M.T.MADDEN                                         *
* PURPOSE: TO CHARGE AN ASSESMENT FOR NON-RECURRING EVENTS.     *
*******************************************************************

* LISTING:
CLEAR
STORE 000000.00 TO TSHAR
STORE 000000.00 TO TSET
STORE 000000.00 TO TSPEC
STORE ' ' TO ANS
STORE SPACE (20) TO NAME
STORE DATE() TO MDATE
SELECT B
USE SHARE
TSHAR = SHAR_VAL
SELECT C
USE SETCAT
TSET = SET_SHARE
IF (TSET > TSHAR) .AND. (MESS <> 'E')
    TSPEC = TSET - TSHAR
ELSE
    TSPEC = 0.0
ENDIF
REPLACE SPEC_ASS WITH TSPEC
ANS = 'N'
IF (METHOD = 'A') .AND. (SUBSIST <> 'Y') .AND. (MESS <> 'E')
    SET FORMAT TO REC-MBIL.FMT
    DO WHILE UPPER(ANS) <> 'Y'
        EDIT RECORD 1
        SET COLOR TO W+/R,,
        a 20,21 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
    ENDDO
ELSE
    DO WHILE UPPER(ANS) <> 'Y'
    SET FORMAT TO SPEC-BA.FMT
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    a 16,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT ' ' TO ANS
    SET COLOR TO W+/B,,
    SKIP -1
    TSPEC = SPEC_ASS
    CLOSE FORMAT
    ENDDO
ENDIF
SET COLOR TO W+/R,,
CLEAR
```

```
@ 8,16 TO 12,62 DOUBLE
@ 10,30 SAY [ PLEASE STAND BY ! ]
IF TSPEC <> 0
SELECT D
USE MEMBERS
DO WHILE .NOT. EOF()
   IF STATUS = 'M'
      TNAME = SSN
      SELECT E
      USE TRANS
      APPEND BLANK
      REPLACE TTYP WITH 'AR'
      REPLACE DATE_IN WITH MDATE
      REPLACE NAME WITH TNAME
      REPLACE AMT WITH TSPEC
      REPLACE PURPOSE WITH 'SPECIAL ASSES'
      REPLACE DATE_PD WITH 'CM'
      SELECT D
      SKIP 1
   ELSE
      SKIP 1
   ENDIF
ENDDO
ENDIF
CLOSE ALL
SET COLOR TO W+/B,,
CLEAR
RETURN
* END SPEC-AS.PRG
```

```
***************************************************************
*                          SRIDER                            *
***************************************************************

PROCEDURE SRIDER
***************************************************************
* NAME:     SRIDER.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: TO PREPARE MESS BILLS FOR NON-MEMBERS EATING IN    *
*          MESS SUCH AS TECHREPS.                             *
***************************************************************

* LISTING:
CLEAR
STORE DATE() TO MDATE
STORE ' ' TO CHOICE
STORE ' ' TO ANS
STORE SPACE (20) TO TNAME
STORE SPACE (9) TO TSSN
STORE 00.00 TO BCOST
STORE 00.00 TO LCOST
STORE 00.00 TO DCOST
STORE 00.00 TC HCOST
STORE 000.00 TO BILL_TTL
STORE 000.00 TO BTTL
STORE 000.00 TO LTTL
STORE 000.00 TO DTTL
STORE 000.00 TO HTTL
STORE 000.00 TO TDUE
CHOICE = 'Y'
DO WHILE UPPER(CHOICE) = 'Y'
ANS = 'N'
TNAME = '                      '
TSSN = '         '
TDUE = 000.00
    DO WHILE UPPER(ANS) <> 'Y'
        a 0,0 SAY [TR-014]
        a 8,3 TO 15,75 DOUBLE
        SET COLOR TO W+/R
        a 10,12 SAY [ ENTER THE SOCIAL SECURITY NUMBER FOR THE RIDER: ] GET
TSSN PICTURE [XXXXXXXXX]
        ·a 13,16 SAY [ ENTER THE NAME OF THE RIDER: ] GET TNAME PICTURE
[!!!!!!!!!!!!!!!!!!!!!!!]
        READ
        a 15,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
        CLEAR
    ENDDO

SELECT A
USE SETCAT
BCOST = B_COST
LCOST = L_COST
DCOST = S_COST
HCOST = H_COST
SELECT B
```

```
USE MEALS
ANS = 'N'
CLEAR
SET COLOR TO W+/B,,BG
SET FORMAT TO MEALS-FT.FMT
APPEND BLANK
REPLACE MNAME WITH TNAME
DO WHILE UPPER(ANS) <> 'Y'
    EDIT RECORD 1
    SET COLOR TO W+/R,,
    @ 21,18 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
    SET COLOR TO B/B,,
    WAIT  ' ' TO ANS
    CLEAR
    SET COLOR TO W+/B,,
ENDDO
CLOSE FORMAT
CLEAR
SKIP -1
BTTL = BCOST * BR_CT
LTTL = LCOST * LU_CT
DTTL = DCOST * DI_CT
HTTL = HCOST * HO_CT
BILL_TTL = BTTL + LTTL + DTTL + HTTL
DELETE ALL
PACK
IF BILL_TTL > 0.00
  SELECT C
  USE MEMBERS
  LOCATE FOR SSN = TSSN
  IF FOUND()
    SELECT D
    USE TRANS
    DO WHILE .NOT. EOF()
        IF NAME = TSSN
            DO CASE
                CASE TTYP = 'AR'
                    TDUE = TDUE + AMT
                CASE TTYP = 'AP'
                    TDUE = TDUE - AMT
            ENDCASE
        ENDIF
        SKIP 1
    ENDDO
    SELECT C
    REPLACE BILL_OUT WITH TDUE + BILL_TTL
  ELSE
    APPEND BLANK
    REPLACE NAME WITH TNAME
    REPLACE SSN WITH TSSN
    REPLACE BILL_OUT WITH BILL_TTL
    REPLACE SHAREOUT WITH 0.00
    REPLACE STATUS WITH 'R'
  ENDIF
    CLEAR
    @ 8,10 TO 12,68 DOUBLE
    SET COLOR TO W+/R,,
    @ 10,25 SAY [ CHECK TO ENSURE PRINTER IS ON ! ]
    SET COLOR TO W+/B,,
    @ 14,1 SAY [ ]
```

```
            WAIT TO CONT
            CLEAR

            SET DEVICE TO PRINT
            DO ADET-MBR
            EJECT
            SET DEVICE TO SCREEN

            SELECT D
            USE TRANS
            APPEND BLANK
            REPLACE TTYP WITH 'AR'
            REPLACE DATE_IN WITH MDATE
            REPLACE NAME WITH TSSN
            REPLACE AMT WITH BILL_TTL
            REPLACE PURPOSE WITH 'MESS BILL'
            REPLACE DATE_PD WITH 'CM'
      ENDIF
      CLOSE ALL
      CLEAR
      @ 8,12 TO 12,62 DOUBLE
      SET COLOR TO W+/R,,
      @ 10,15 SAY [ DO YOU WISH TO CALCULATE ANOTHER BILL? (Y/N) ]
      SET COLOR TO B/B,,
      WAIT ' ' TO CHOICE
      SET COLOR TO W+/B,,
      CLEAR
      ENDDO
      CLEAR
      RETURN
      * END SRIDER.PRG
```

```
****************************************************************
*                           SUG-FS                           *
****************************************************************

PROCEDURE SUG-FS
****************************************************************
* NAME:    SUG-FS.PRG                                         *
* AUTHORS: LCDR J.L.TWIGG                                     *
*              LT M.T.MADDEN                                  *
* PURPOSE: PRINTS SUGGESTED MESS BILL.                       *
****************************************************************

* LISTING:
a  2, 10   SAY "_____"
a  5, 14   SAY "RECOMMENDED MESS BILL FOR NEXT MONTH -->>"
a  5, 57   SAY  SETCAT->SUG_BILL
a  9, 17   SAY "RECOMMENDED MEAL PRICES FOR MEALS SOLD FOR"
a 10, 17   SAY "CASH DURING THE NEXT MONTH:"
a 12, 27   SAY "BREAKFAST"
a 12, 44   SAY  SETCAT->B_COST
a 14, 27   SAY "LUNCH"
a 14, 44   SAY  SETCAT->L_COST
a 16, 27   SAY "DINNER"
a 16, 44   SAY  SETCAT->S_COST
a 18, 27   SAY "HOLIDAY MEAL"
a 18, 44   SAY  SETCAT->H_COST
a 20, 10   SAY "_____"
* END SUG-FS.PRG
```

153

```
*****************************************************************
*                            TITLE                             *
*****************************************************************

PROCEDURE TITLE
*****************************************************************
* NAME:    TITLE.PRG                                            *
* AUTHORS: LCDR J.L.TWIGG                                       *
*          LT M.T.MADDEN                                        *
* PURPOSE: PRINT HEADINGS FOR FINANCIAL STATEMENTS.            *
*****************************************************************

* LISTING:
STORE 00 TO CENTER
USE SETCAT
CENTER = 40 - (INT((LEN(TRIM(NAME)) + 4) / 2))
a  1, 25  SAY  SETCAT->TITLE
a  2, CENTER  SAY "USS "
a  2, (CENTER + 4)  SAY  SETCAT->NAME
a  4, 30  SAY  SETCAT->TMESS
a  5, 38  SAY "MESS"
CENTER = 40 - (INT((LEN(TRIM(EOM)) + 15) / 2))
a  6, CENTER  SAY "MONTH ENDING:"
a  6, (CENTER + 14)  SAY  SETCAT->EOM
a  7, 10  SAY "_____"
* END TITLE.PRG
```

154

```
*****************************************************************
*                          TRANCOL                             *
*****************************************************************

PROCEDURE TRANCOL
*****************************************************************
* NAME:     TRANCOL.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE:  MENU DRIVER FOR THE CASH COLLECTION SERIES.       *
*****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
DO WHILE .T.
    @ 0,0 SAY [M-023]
    @ 2,4 TO 16,75 DOUBLE
    @ 3,28 SAY [CASH COLLECTION OPTIONS]
    @ 4,26 TO 4,52 DOUBLE
    @ 7,23 SAY [SELECTION                      CODE]
    @ 8,23 TO 8,32
    @ 8,55 TO 8,58
    @ 10,20 SAY [CASH RECEIVED FROM MEMBERS/USERS --- 1]
    @ 11,20 SAY [CASH RECEIVED FROM COMRATS PAYMENT - 2]
    @ 12,20 SAY [CASH RECEIVED FOR OTHER REASONS ---- 3]
    @ 14,20 SAY [RETURN TO PREVIOUS MENU ------------ 4]
    @ 17,1 SAY [ ]
    WAIT '            ENTER YOUR SELECTION CODE: ' TO CHOICE

    DO CASE
        CASE CHOICE = '1'
            DO PAYBILL
        CASE CHOICE = '2'
            DO PAYCR
        CASE CHOICE = '3'
            DO PAYOTHER
        CASE CHOICE = '4'
            CLEAR
            RETURN
    OTHERWISE
        CLEAR
        @ 8,21 TO 17,57 DOUBLE
        @ 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU!!]
        @ 14,23 SAY [PLEASE MAKE ANOTHER SELECTION...]
        @ 18,1 SAY [ ]
        WAIT TO CONT
        CLEAR
        LOOP
    ENDCASE
ENDDO
```

```
****************************************************************
*                         TRANEXP                             *
****************************************************************

PROCEDURE TRANEXP
****************************************************************
* NAME:     TRANEXP.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                      *
*          LT M.T.MADDEN                                       *
* PURPOSE: MENU DRIVER FOR CASH DISBURSMENT SERIES.           *
****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
DO WHILE .T.
    a 0,0 SAY [M-024]
    a 2,4 TO 17,75 DOUBLE
    a 3,28 SAY [POST PAYMENT FOR:    ]
    a 4,26 TO 4,52 DOUBLE
    a 7,23 SAY [SELECTION                     CODE]
    a 8,23 TO 8,32
    a 8,55 TO 8,58
    a 10,20 SAY [PROVISIONS BILL FROM FSO ----------- 1]
    a 11,20 SAY [PROVISIONS BILL FROM A VENDOR ------ 2]
    a 12,20 SAY [MEALS PURCHASED FROM FSO ----------- 3]
    a 13,20 SAY [OTHER EXPENDITURES ---------------- 4]
    a 16,20 SAY [RETURN TO PREVIOUS MENU ----------- 5]
    a 18,1 SAY [ ]
    WAIT '          ENTER YOUR SELECTION CODE: ' TO CHOICE

    DO CASE
        CASE CHOICE = '1'
            DO EXPROVFS
        CASE CHOICE = '2'
            DO EXPROVED
        CASE CHOICE = '3'
            DO EXMEAL
        CASE CHOICE = '4'
            DO EXOTHER
        CASE CHOICE = '5'
            CLEAR
        .   RETURN
    OTHERWISE
        CLEAR
        a 8,21 TO 17,57 DOUBLE
        a 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU!!]
        a 14,23 SAY [PLEASE MAKE ANOTHER SELECTION...]
        a 18,1 SAY [ ]
        WAIT TO CONT
        CLEAR
        LOOP
    ENDCASE
ENDDO
* END TRANEXP.PRG
```

156

```
********************************************************************
*                          TRANPAY                               *
********************************************************************

PROCEDURE TRANPAY
********************************************************************
* NAME:     TRANPAY.PRG                                           *
* AUTHORS: LCDR J.L.TWIGG                                         *
*          LT M.T.MADDEN                                          *
* PURPOSE: USED TO RECORD AMOUNTS OWED BY THE MESS.              *
********************************************************************

* LISTING:
CLEAR
STORE '   ' TO TCAT
STORE ' ' TO ANS
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
STORE ' ' TO PICK
CHOICE = 'Y'
DO WHILE UPPER(CHOICE) = 'Y'
    ANS = 'N'
    SELECT A
    USE TRANS
    APPEND BLANK
    DO WHILE UPPER(ANS) <> 'Y'
    DO WHILE UPPER(ANS) <> 'Y'
        SET FORMAT TO APAY-IP.FMT
        EDIT
        SET COLOR TO W+/R,,
        @ 19,22 SAY [ IS THE ABOVE INPUT CORECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
        CLOSE FORMAT
        SKIP -1
    ENDDO
    CLEAR
    DO CASE
        CASE PURPOSE = 'A'
            ANS = 'N'
            REPLACE PURPOSE WITH 'PROV FSO OWED'
            SELECT B
            USE SETCAT
            TCAT = REQ_CAT
            SELECT A
            DO WHILE UPPER(ANS) <> 'Y'
            REPLACE REQ_NUM WITH '000000'
            SET FORMAT TO CPAY-IP.FMT
            EDIT
            SET COLOR TO W+/R,,
            @ 15,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
            SET COLOR TO B/B,,
            WAIT ' ' TO ANS
            SET COLOR TO W+/B,,
            SKIP -1
            REPLACE REQ_NUM WITH (TCAT - TRIM(REQ_NUM))
            CLOSE FORMAT
            ENDDO
```

157

```
                CASE PURPOSE = 'B'
                    REPLACE PURPOSE WITH 'PROV VENDOR OWED'
                CASE PURPOSE = 'C'
                  DO WHILE UPPER(PICK) <> 'Y'
                    REPLACE PURPOSE WITH '      '
                    SET FORMAT TO BPAY-IP.FMT
                    EDIT
                    SET COLOR TO W+/R,,
                    a 11,22 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
                    SET COLOR TO B/B,,
                    WAIT ' ' TO PICK
                    SET COLOR TO W+/B,,
                    CLOSE FORMAT
                    SKIP -1
                  ENDDO
                  PICK = 'N'
                OTHERWISE
                    CLEAR
                    a 8,21 TO 17,57 DOUBLE
                    a 11,23 SAY [ YOUR CHOICE IS NOT ON THE MENU! ]
                    a 14,23 SAY [ PLEASE SELECT CHOICE A, B OR C ]
                    a 18,1 SAY [ ]
                    WAIT TO CONT
                    CLEAR
                    ANS = 'N'
            ENDCASE
            ENDDO
            REPLACE TTYP WITH 'AP'
            REPLACE DATE_IN WITH TDATE
            REPLACE DATE_PD WITH 'CM'
            CLOSE ALL
            CLEAR
            a 8,5 TO 12,73 DOUBLE
            SET COLOR TO W+/R
            a 10,9 SAY [ DO YOU DESIRE TO MAKE ANOTHER ACCOUNT PAYABLE ENTRY? (Y/N) ]
            SET COLOR TO B/B,,
            WAIT ' ' TO CHOICE
            SET COLOR TO W+/B,,
        ENDDO
        CLEAR
        RETURN
        * END TRANPAY.PRG
```

```
***************************************************************
*                          TRANREC                           *
***************************************************************

PROCEDURE TRANREC
***************************************************************
* NAME:    TRANREC.PRG                                        *
* AUTHORS: LCDR J.L.TWIGG                                     *
*          LT M.T.MADDEN                                      *
* PURPOSE: RECORD AMOUNTS OWED TO THE MESS OTHER THAN         *
*          MESS BILLS.                                        *
***************************************************************

* LISTING:
CLEAR
STORE ' ' TO ANS
STORE ' ' TO CHOICE
STORE DATE() TO TDATE
CHOICE = 'Y'
DO WHILE UPPER(CHOICE) = 'Y'
    ANS = 'N'
    SELECT A
    USE TRANS
    APPEND BLANK
    DO WHILE UPPER(ANS) <> 'Y'
        SET FORMAT TO AREC-IP.FMT
        EDIT
        SET COLOR TO W+/R,,
        a 16,24 SAY [ IS THE ABOVE INPUT CORRECT? (Y/N) ]
        SET COLOR TO B/B,,
        WAIT ' ' TO ANS
        SET COLOR TO W+/B,,
        CLOSE FORMAT
    ENDDO
    SKIP -1
    REPLACE TTYP WITH 'AR'
    REPLACE DATE_IN WITH TDATE
    REPLACE DATE_PD WITH 'CM'
    CLOSE ALL
    CLEAR
    a 8,5 TO 12,73 DOUBLE
    SET COLOR TO W+/R,,
    a 10,8 SAY [ DO YOU DESIRE TO MAKE ANOTHER ACCOUNT RECEIVABLE ENTRY? (Y/N)
]
    SET COLOR TO B/B,,
    WAIT ' ' TO CHOICE
    SET COLOR TO W+/B,,
ENDDO
CLEAR
RETURN
* END TRANREC.PRG
```

```
********************************************************************
*                           TRANT                                 *
********************************************************************

PROCEDURE TRANT
********************************************************************
* NAME:     TRANT.PRG                                              *
* AUTHORS: LCDR J.L.TWIGG                                          *
*          LT M.T.MADDEN                                           *
* PURPOSE: MAIN MENU DRIVER FOR TRANSACTION SERIES.               *
********************************************************************

* LISTING:
CLEAR
STORE " " TO CHOICE
DO WHILE .T.
    a 0,0 SAY [M-02]
    a 2,4 TO 21,75 DOUB'.E
    a 3,28 SAY [TRANSACTION INPUT MENU]
    a 4,26 TO 4,52 DOUBLE
    a 7,23 SAY [SELECTION                      CODE]
    a 8,23 TO 8,32
    a 8,54 TO 8,57
    a 10,20 SAY [RECORD AMOUNTS DUE THE MESS ------- 1]
    a 11,20 SAY [RECORD AMOUNTS OWED BY THE MESS --- 2]
    a 13,20 SAY [POST CASH COLLECTIONS ------------- 3]
    a 14,20 SAY [POST CASH EXPENDITURES ------------ 4]
    a 16,20 SAY [ADD / DELETE MEMBERS -------------- 5]
    a 17,20 SAY [PREPARE SHIP-RIDER BILL ----------- 6]
    a 19,20 SAY [RETURN TO MAIN MENU -------------- 7]
    a 22,1 SAY [ ]
WAIT "          Enter your selection code: " to choice
DO CASE
    CASE CHOICE = "1"
        DO TRANREC
    CASE CHOICE = "2"
        DO TRANPAY
    CASE CHOICE = "3"
        DO TRANCOL
    CASE CHOICE = "4"
        DO TRANEXP
    CASE CHOICE = "5"
        .DO TRNMBR
    CASE CHOICE = '6'
        DO SRIDER
    CASE CHOICE = "7"
        CLEAR
        RETURN
    OTHERWISE
        SET COLOR TO GR+/B,,R
        CLEAR
        a 8,21 TO 17,57 DOUBLE
        a 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU!!]
        a 14,23 SAY [ PLEASE MAKE ANOTHER SELECTION!]
        a 18,1 SAY [ ]
        WAIT TO CONT
        SET COLOR TO W/B,GR+/R,BG
        CLEAR
        LOOP
```

```
        ENDCASE
ENDDO
*END  TRANT.PRG
```

```
****************************************************************
*                          TRIAL                              *
****************************************************************

PROCEDURE TRIAL
****************************************************************
* NAME:     TRIAL.PRG                                         *
* AUTHORS:  LCDR J.L.TWIGG                                    *
*           LT M.T.MADDEN                                     *
* PURPOSE:  USED TO RUN TRAIL FINANCIAL STATEMENTS TO VERIFY  *
*           ACCURACY PRIOR TO SMOOTH FINAL STATEMENTS.        *
****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
DO VER-TRL
SET COL-R 10 W+/R,,
@ 20,22 SAY [ DO YOU WISH TO CONTINUE? (Y/N) ]
SET COLOR TO B/B,,
WAIT ' ' TO CHOICE
SET COLOR TO W+/B,,
IF UPPER(CHOICE) = 'Y'
    CLEAR
    @ 8,10 TO 16,68 DOUBLE
    @ 10,19 SAY [ A TRIAL BALANCE SET OF FINANCIAL REPORTS ]
    @ 12,29 SAY [ IS BEING PREPARED ! ]
    @ 14,30 SAY [ PLEASE STANDBY ! ]
    STORE 000000.00 TO TSBILL
    STORE 00.00 TO TS_BP
    STORE 00.00 TO TS_LP
    STORE 00.00 TO TS_SP
    STORE 00.00 TO TS_HP
    STORE ' ' TO REASON
    REASON = 'M'
    STORE ' ' TO ANS
    SELECT A
    USE FINBAL
    DELETE ALL
    PACK
    APPEND BLANK
    SELECT B
    USE 'FININC
    DELETE ALL
    PACK
    APPEND BLANK
    SELECT C
    USE TRANS
    APPEND BLANK
    REPLACE NAME WITH "START TRIAL BALANCE"
    USE
    SELECT E
    USE MSSBILL
    DELETE ALL
    PACK
    SELECT D
    USE SETCAT
    REPLACE EOM WITH '** TRIAL BALANCE **'
    TSBILL = SUG_BILL
```

```
            TS_BP = B_COST
            TS_LP = L_COST
            TS_SP = S_COST
            TS_HP = H_COST
            REPLACE TRIAL WITH 'Y'
            DO CASE
                CASE MESS = 'E'
                    CLOSE ALL
                    DO MESS-CP
                    DO SPEC-AS
                    DO GEN-FS
                    DO PRT-FS
                    DO GEN-RPT
                    DO MEAL-PR
                CASE SUBSIST = 'Y' .AND. MESS <> 'E'
                    CLOSE ALL
                    IF TSBILL > 0
                        DO MBRLV
                    ENDIF
                    DO MESS-B-A
                    DO GEN-FS
                    DO PRT-FS
                    DO GEN-RPT
                    DO MESS-ES
                    DO MESS-PRT
                    DO MEAL-PR
                CASE SUBSIST = 'N' .AND. METHOD = 'A' .AND. MESS <> 'E'
                    CLOSE ALL
                    IF TSBILL > 0
                        DO MBRLV
                    ENDIF
                    DO MESS-B-A
                    DO GEN-FS
                    DO PRT-FS
                    DO GEN-RPT
                    DO SPEC-AS
                    DO MESS-PRT
                    DO MEAL-PR
                OTHERWISE
                    CLOSE ALL
                    IF TSBILL > 0
                        DO MBRLV
                    ENDIF
                    DO GEN-FS
                    DO PRT-FS
                    DO GEN-RPT
                    DO MESS-ES
                    DO MESS-PRT
                    DO MEAL-PR
            ENDCASE
            EJECT
            CLEAR
            @ 4,12 TO 10,68 DOUBLE
            @ 6,14 SAY [ VERIFY THAT THE CASH ACTUALLY ON HAND MATCHES THE ]
            @ 8,16 SAY [ AMOUNT REPORTED AND OTHER TOTALS ARE CORRECT ! ]
            @ 12,12 TO 16,68 DOUBLE
            SET COLOR TO W+/R,,
            @ 14,15 SAY [ ARE YOU READY TO PRODUCE THE FINAL REPORTS? (Y/N) ]
            SET COLOR TO B/B,,
            WAIT ' ' TO ANS
```

```
            SET COLOR TO W+/B,,
            CLEAR
            SELECT C
            USE TRANS
            LOCATE FOR NAME = "START TRIAL BALANCE"
            IF ANS = 'Y'
                DELETE
                PACK
                DO EOM-RPT
            ELSE
                DO WHILE .NOT. EOF()
                    DELETE
                    SKIP 1
                ENDDO
                PACK
                SELECT D
                USE SETCAT
                REPLACE TRIAL WITH 'N'
                REPLACE SUG_BILL WITH TSBILL
                REPLACE B_COST WITH TS_BP
                REPLACE L_COST WITH TS_LP
                REPLACE S_COST WITH TS_SP
                REPLACE H_COST WITH TS_HP
            ENDIF
    ENDIF
    CLOSE ALL
    CLEAR
    RETURN
    *END TRIAL.PRG
```

```
****************************************************************
*                          TRNMBR                             *
****************************************************************

PROCEDURE TRNMBR
****************************************************************
* NAME:     TRNMBR.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                    *
*           LT M.T.MADDEN                                     *
* PURPOSE:  MENU DRIVER FOR ADD/DELETE MEMBER SERIES.         *
****************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
DO WHILE .T.
    @ 0,0 SAY [M-025]
    @ 2,4 TO 18,75 DOUBLE
    @ 3,28 SAY [ADD / DELETE MESS USER]
    @ 4,26 TO 4,52 DOUBLE
    @ 7,23 SAY [SELECTION                      CODE]
    @ 8,23 TO 8,32
    @ 8,55 TO 8,58
    @ 10,23 SAY [ADD A MESS USER ---------------- 1]
    @ 12,23 SAY [DETACH A MESS USER]
    @ 13,25 SAY [PREPARE DETACHING BILL--------- 2]
    @ 14,25 SAY [CLOSE OUT MEMBERS ACCOUNT ----- 3]
    @ 16,23 SAY [RETURN TO PREVIOUS MENU --------- 4]
    @ 19,1 SAY [ ]
    WAIT '            ENTER YOUR SELECTION CODE: ' TO CHOICE

    DO CASE
        CASE CHOICE = '1'
            DO ADD-MBR
        CASE CHOICE = '2'
            DO DEL-MBR
        CASE CHOICE = '3'
            DO EXSHARE
        CASE CHOICE = '4'
            CLEAR
            RETURN
    OTHERWISE
        CLEAR
        @ 8,21 TO 17,57 DOUBLE
        @ 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU!!]
        @ 14,23 SAY [PLEASE MAKE ANOTHER SELECTION...]
        @ 18,1 SAY [ ]
        WAIT TO CONT
        CLEAR
        LOOP
    ENDCASE
ENDDO
* END TRNMBR.PRG
```

```
************************************************************
*                          UTIL                           *
************************************************************

PROCEDURE UTIL
************************************************************
* NAME:     UTIL.PRG                                       *
* AUTHORS: LCDR J.L.TWIGG                                  *
*           LT M.T.MADDEN                                  *
* PURPOSE: MENU DRIVER FOR UTILITY SERIES.                 *
************************************************************

* LISTING:
CLEAR
STORE ' ' TO CHOICE
DO WHILE .T.
    a 0,0 SAY [M-01]
    a 1,4 TO 22,75 DOUBLE
    a 3,29 SAY [UTILITY PROGRAMS MENU]
    a 4,27 TO 4,52 DOUBLE
    a 6,23 SAY [SELECTION                      CODE]
    a 7,23 TO 7,32
    a 7,54 TO 7,57
    a 9,20 SAY [SET UP PROGRAM PARAMETERS --------- 1]
    a 11,20 SAY [INITIALIZE DATABASES -------------- 2]
    a 13,20 SAY [CHANGE PASSWORD ------------------- 3]
    a 15,20 SAY [PRINT CURRENT DATA FILES ---------- 4]
    a 17,20 SAY [DATA FILE RECOVERY --------------- 5]
    a 20,20 SAY [RETURN TO MAIN MENU -------------- 6]
    a 23,1 SAY [ ]
    WAIT '       ENTER SELECTION CODE: ' TO CHOICE
    DO CASE
        CASE CHOICE = '1'
            DO SET-UP
        CASE CHOICE = '2'
            DO JUMP
        CASE CHOICE = '3'
            DO NEWPASS
        CASE CHOICE = '4'
            DO PRT-FILE
        CASE CHOICE = '5'
            DO RECOVERY
        'CASE CHOICE = '6'
            CLEAR
            RETURN
        OTHERWISE
            SET COLOR TO W+/R,,
            CLEAR
            a 8,21 TO 17,57 DOUBLE
            a 11,23 SAY [YOUR CHOICE IS NOT ON THE MENU !]
            a 14,23 SAY [ PLEASE MAKE ANOTHER SELECTION !]
            a 18,1 SAY [ ]
            WAIT TO CONT
            SET COLOR TO W+/B,,BG
            CLEAR
            LOOP
    ENDCASE
ENDDO
CLEAR
```

166

```
RETURN
*END UTIL.PRG
```

```
*************************************************************
*                        VER-TRL                           *
*************************************************************

PROCEDURE VER-TRL
****************************************************************
* NAME:     VER-TRL.PRG                                        *
* AUTHORS:  LCDR J.L.TWIGG                                     *
*           LT M.T.MADDEN                                      *
* PURPOSE:  SCREEN TO ALLOW USER TO VERIFY THAT HE IS READY TO *
*           DO EOM REPORTS.                                    *
****************************************************************

* LISTING:
a  0,  0  SAY "EM-008"
a  4, 18  SAY "BEFORE A TRIAL BALANCE CAN BE PERFORMED THE"
a  6, 18  SAY "THE FOLLOWING INFORMATION MUST BE ON HAND !"
a  9, 17  SAY "1)  ALL ENDING INVENTORIES AS APPLICABLE."
a 11, 17  SAY "2)  MEAL COUNTS AS APPLICABLE."
a 13, 17  SAY "3)  ALL TRANSACTIONS ENTERED."
a 15, 17  SAY "4)  DO ANY SHIP RIDER MESS BILLS NECESSARY"
a 18, 18  SAY "SEE USER'S MANUAL SECTION 8.1 FOR DETAILS."
a  2, 10  TO 20, 69     DOUBLE
a  7, 16  TO  7, 62     DOUBLE
*END VER-TRL.PRG
```

```
*****************************************************************
*                          STARTUP.FMT                         *
*****************************************************************

PROCEDURE STARTUP.FMT
a  0,  0   SAY "UT-002"
a  1, 30   SAY "SET UP PROGRAM"
a  4,  5   SAY "1) WHAT IS THE SHIP'S NAME ?"
a  5, 29   SAY "USS"
a  5, 33   GET  SETCAT->NAME  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
a  6, 36   SAY "(INCLUDE HULL #)"
a  9,  5   SAY "2) WHAT IS THE NAME OF THE MESS ?"
a 11,  8   SAY "CHOICES:   a: FLAG                    d: WARDROOM"
a 12, 19   SAY "b: COMMANDING OFFICER         e: CPO"
a 13, 19   SAY "c: UNIT COMMANDER"
a 15, 23   SAY "ENTER THE CORRECT LETTER  CODE:"
a 15, 57   GET  SETCAT->MESS  PICTURE "!"
a 18,  5   SAY "3) DOES THE MESS SUBSIST FROM"
a 19,  8   SAY "THE GENERAL MESS ?             (Y,N)"
a 19, 57   GET  SETCAT->SUBSIST  PICTURE "!"
a  2, 28   TO  2, 45    DOUBLE


*****************************************************************
*                          END-INV.FMT                         *
*****************************************************************

PROCEDURE END-INV.FMT
a  0,  0   SAY "EM-002"
a  4, 28   SAY "ENDING INVENTORY VALUE"
a  8, 23   SAY "IN THE SPACE PROVIDED BELOW ENTER"
a 10, 23   SAY "THE VALUE OF THE ENDING PROVISIONS"
a 12, 23   SAY "INVENTORY:"
a 12, 47   GET  INV->E_INV
a 15, 23   SAY "IN THE SPACE PROVIDED BELOW ENTER"
a 17, 23   SAY "THE VALUE OF ANY ENDING NON PROVISIONS"
a 19, 23   SAY "INVENTORY:"
a 19, 47   GET  INV->N_INV
a  2, 11   TO 21, 70    DOUBLE


*****************************************************************
*                          MBR-SCRE.FMT                        *
*****************************************************************

PROCEDURE MBR-SCRE.FMT
a  0,  0   SAY "TR-012"
a  4, 28   SAY "NEW MEMBER INFORMATION"
a  8, 12   SAY "NAME OF NEW MEMBER:"
a  8, 38   GET  MEMBERS->NAME  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
a  9, 38   SAY "LAST, FIRST MI"
a 12, 12   SAY "SSN NUMBER:"
a 12, 29   GET  MEMBERS->SSN  PICTURE "999999999"
a 12, 50   SAY "STATUS:"
a 12, 62   GET  MEMBERS->STATUS  PICTURE "!"
a 13, 60   SAY "(M,E,)"
a 14, 12   SAY "DATE JOINED:"
a 14, 32   GET  MEMBERS->JOINED  FUNCTION "D"
a 15, 32   SAY "MM DD YY          RANK:"
```

169

```
a 15, 60   GET   MEMBERS->RANK   PICTURE "!!!!"
a  2,  4   TO  2, 74     DOUBLE
a  2,  4   TO  2,  4     DOUBLE
a 20,  4   TO 20, 75     DOUBLE
a  5, 28   TO  5, 49
a  2,  4   TO 20, 75     DOUBLE


****************************************************************
*                      STARTUP2.FMT                          *
****************************************************************

PROCEDURE STARTUP2.FMT
a  0,  0   SAY "UT-003"
a  5, 18   SAY "PLEASE ENTER THE CHARGEABLE MEAL PRICES AS FOUND"
a  6, 18   SAY "IN THE CURRENT NAVSUP INST. 4061.9."
a  9, 25   SAY "BREAKFAST MEAL:"
a  9, 44   GET   SETCAT->B_COST
a 11, 25   SAY "LUNCH MEAL:"
a 11, 44   GET   SETCAT->L_COST
a 13, 25   SAY "DINNER MEAL:"
a 13, 44   GET   SETCAT->S_COST
a 15, 25   SAY "HOLIDAY MEALS:"
a 15, 44   GET   SETCAT->H_COST
a  3,  9   TO 17, 69     DOUBLE


****************************************************************
*                      STARTUP3.FMT                          *
****************************************************************

PROCEDURE STARTUP3.FMT
a  0,  0   SAY "UT-004"
a  3, 21   SAY "WHAT IS THE METHOD OF CHARGING FOR MEALS?"
a  4, 21   SAY "    ( NOT APPLICABLE TO CPO MESSES! ) "
a  6, 26   SAY "A) BY INDIVIDUAL MEALS EATEN"
a  8, 26   SAY "B) EQUAL PRORATION OF COSTS"
a 12, 29   SAY "SELECT A OR B:"
a 12, 50   GET   SETCAT->METHOD   PICTURE "!"
a 14, 18   SAY "ENTER THE PRICES TO BE CHARGED FOR MEALS SOLD"
a 15, 32   SAY "TO NON MEMBERS"
a 17, 16   SAY "BREAKFAST      LUNCH       SUPPER     HOLIDAY MEALS"
a 18, 18   GET   SETCAT->B_COST
a 18, 31   GET   SETCAT->L_COST
a 18, 44   GET   SETCAT->S_COST
a 18, 57   GET   SETCAT->H_COST
a  1, 10   TO 20, 69     DOUBLE


****************************************************************
*                       SUM-IP.FMT                           *
****************************************************************

PROCEDURE SUM-IP.FMT
a  0,  0   SAY "EM-003"
a  3, 21   SAY "TOTAL MEALS EATEN DURING THE MONTH"
a  6, 19   SAY "RECORD TOTALS FOR THE CATEGORIES BELOW"
a  9, 21   SAY "OFFICER'S / OFFICER'S GUESTS:"
a 10, 21   SAY "(INCLUDES PAYING SHIPRIDERS)"
a 10, 52   GET   SUMMARY->OFF
```

170

```
ə 12, 21  SAY "GUESTS OF THE MESS:"
ə 12, 52  GET  SUMMARY->GUST
ə 14, 21  SAY "ENLISTED:"
ə 14, 52  GET  SUMMARY->ENL
ə 16, 21  SAY "NUMBER OF DAYS IN THE MONTH:"
ə 16, 55  GET  SUMMARY->DAYMON  RANGE 28, 31
ə  4, 21  TO  4, 51
ə  4, 21  TO  4, 54
ə 18, 10  TO 18, 70    DOUBLE
ə  1, 10  TO  1, 70    DOUBLE
ə  1, 10  TO 18, 70    DOUBLE


******************************************************************
*                        MEALS-FT.FMT                           *
******************************************************************

PROCEDURE MEALS-FT.FMT
ə  0,  0  SAY "TR-011"
ə  2, 17  SAY "MEMBERS NAME:"
ə  2, 34  SAY  MEALS->MNAME  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!"
ə  6, 18  SAY "THE NUMBER OF BREAKFAST MEALS:"
ə  6, 51  GET  MEALS->BR_CT
ə  9, 18  SAY "THE NUMBER OF LUNCH MEALS:"
ə  9, 51  GET  MEALS->LU_CT
ə 12, 18  SAY "THE NUMBER OF DINNER MEALS:"
ə 12, 51  GET  MEALS->DI_CT
ə 15, 18  SAY "THE NUMBER OF HOLIDAY MFALS:"
ə 15, 51  GET  MEALS->HO_CT
ə 18, 18  SAY "TOTAL BILL DUE:"
ə 18, 40  SAY BILL_TTL
ə  1, 13  TO  3, 59    DOUBLE
ə  4, 13  TO 21, 59    DOUBLE


******************************************************************
*                        SPEC-BA.FMT                            *
******************************************************************

PROCEDURE SPEC-BA.FMT
ə  0,  0  SAY "EM-006"
ə  4, 13  SAY "YOU CAN CHARGE A SPECIAL ASSEMENT TO MEET ANTICIPATED"
ə  5, 13  SAY "FUTURE NEEDS.  THE AMOUNT SHOWN BELOW IS WHAT WILL BE"
ə  6, 13  SAY "CHARGED TO EACH MEMBER OF THE MESS AS OF MONTHS END."
ə  9, 24  SAY "SPECIAL ASSESMENT"
ə  9, 44  GET  SETCAT->SPEC_ASS
ə 12, 14  SAY "YOU MAY CHANGE THE ABOVE AMOUNT OR LEAVE IT AS IT IS"
ə 13, 14  SAY "BY HITTING ENTER."
ə  8, 22  TO 10, 51
ə  1, 10  TO  1, 70    DOUBLE
ə 16, 10  TO 16, 70    DOUBLE


******************************************************************
*                        EOM-IP.FMT                             *
******************************************************************

PROCEDURE EOM-IP.FMT
ə  0,  0  SAY "EM-001"
ə  6, 20  SAY "MONTHLY REPORT TO BE PROCESSED AS OF:"
```

171

```
ə 10, 31   GET   SETCAT->EOM   PICTURE "!!!!!!!!!!!!!!!!!!!!!"
ə 11, 27   SAY "EX. 31 DECEMBER 1987"
ə  7, 24   TO   7, 52
ə  9, 25   TO 12, 52     DOUBLE
ə  2, 10   TO 17, 68     DOUBLE


*****************************************************************
*                       ASSIGND.FMT                            *
*****************************************************************

PROCEDURE ASSIGND.FMT
ə  0,  0   SAY "EM-004"
ə  6, 16   SAY "ENLISTED MEMBER'S NAME:"
ə  6, 44   SAY   DYSWKD->DNAME   PICTURE "!!!!!!!!!!!!!!!!!!!!!"
ə 12, 24   SAY "DAYS ASSIGNED TO THE"
ə 13, 24   SAY "MESS THIS MONTH"
ə 13, 53   GET   DYSWKD->WORKD   RANGE 0, 31
ə  5, 14   TO   7, 65     DOUBLE
ə  9, 14   TO 16, 65     DOUBLE


*****************************************************************
*                       REC-MBIL.FMT                           *
*****************************************************************

PROCEDURE REC-MBIL.FMT
ə  0,  0   SAY "EM-005"
ə  4, 12   SAY "THE FOLLOWING IS A RECOMMENDED MESS BILL FOR THE UPCOMMING"
ə  5, 12   SAY "MONTH:"
ə  5, 35   GET   SETCAT->SUG_BILL
ə  7, 12   SAY "BASED ON CURRENT TRENDS THE RECOMMENDED MESS BILL IS PROV-"
ə  8, 12   SAY "IDED IN ORDER TO MAINTAIN THE STATED MESS SHARE OBJECTIVE."
ə 10, 20   SAY "IF DESIRED, CHANGE AMOUNT ELSE HIT ENTER."
ə 14, 12   SAY "CONSIDERING UNUSUAL ANTICIPATED EXPENSES YOU MAY WISH TO"
ə 15, 12   SAY "CHARGE A SPECIAL ASSESMENT TO THE MEMBERSHIP.  ENTER THE"
ə 16, 12   SAY "AMOUNT OF THE SPECIAL ASSESMENT BELOW OR HIT ENTER:"
ə 18, 35   GET   SETCAT->SPEC_ASS
ə 12, 18   TO 12, 63
ə  2,  8   TO 20, 72     DOUBLE


*****************************************************************
*                       SHR-LVL.FMT                            *
*****************************************************************

PROCEDURE SHR-LVL.FMT
ə  0,  0   SAY "UT-007"
ə  4, 21   SAY "ENTER THE VALUE AT WHICH YOU DESIRE TO"
ə  5, 21   SAY "MAINTAIN THE MESS SHARE:"
ə  9, 27   SAY "MESS SHARE"
ə  9, 42   GET   SETCAT->SET_SHARE
ə 13, 19   SAY "REFER TO THE USERS MANUAL BEFORE MODIFYING"
ə  2, 10   TO 17, 70     DOUBLE


*****************************************************************
*                       ERATION.FMT                            *
*****************************************************************
```

```
PROCEDURE ERATION.FMT
∂  0,  0  SAY "UT-006"
∂  5, 21  SAY "ENTER THE VALUE FOR THE DAILY RATE FOR"
∂  6, 20  SAY "ENLISTED BASIC ALLOWANCE FOR SUBSISTANCE:"
∂  9, 36  GET   SETCAT->ERATS
∂ 14, 13  SAY "THIS RATE TO BE USED IN THE COMMUTED RATION COMPUTATION"
∂  3, 10  TO 16, 70    DOUBLE


*******************************************************************
*                           DYS.FMT                            *
*******************************************************************

PROCEDURE DYS.FMT
∂  0,  0  SAY "TR-010"
∂  4, 18  SAY "INPUT SCREEN FOR COMPUTATIONS REQUIRED IN"
∂  5, 19  SAY "ADDING OR DELETING MEMBERS OF THE MESS"
∂  9, 23  SAY "NUMBER OF DAYS MEMBER ONBOARD"
∂ 10, 23  SAY "DURING MONTH:"
∂ 10, 54  GET   DYSWKD->WORKD   RANGE 0, 31
∂ 13, 23  SAY "NUMBER OF DAYS IN MONTH:"
∂ 13, 54  GET   DYSWKD->MONDYS   RANGE 0, 31
∂  6, 19  TO  6, 56
∂  2, 10  TO 15, 68    DOUBLE


*******************************************************************
*                         BPAY-IP.FMT                          *
*******************************************************************

PROCEDURE BPAY-IP.FMT
∂  0,  0  SAY "TR-004"
∂  6, 22  SAY "FOR WHAT PURPOSE IS THE AMOUNT DUE:"
∂  9, 27  GET   TRANS->PURPOSE  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
∂  4, 19  TO 11, 58    DOUBLE


*******************************************************************
*                         AREC-IP.FMT                          *
*******************************************************************

PROCEDURE AREC-IP.FMT
∂  0,  0  SAY "TR-001"
∂  7, 18  SAY "NAME / ENTITY OWING"
∂  8, 18  SAY "MONEY TO THE MESS:"
∂  8, 45  GET   TRANS->NAME   FUNCTION "!!!!!!!!!!!!!!!!!!!!!!!!!"  PICTURE
"!!!!!!!!!!!!!!!!!!!!!!!!"
∂ 11, 18  SAY "AMOUNT OWED TO THE MESS:"
∂ 11, 56  GET   TRANS->AMT
∂ 14, 18  SAY "REASON MONEY OWED:"
∂ 14, 40  GET   TRANS->PURPOSE  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
∂  5, 15  TO 16, 67    DOUBLE


*******************************************************************
*                         APAY-IP.FMT                          *
*******************************************************************

PROCEDURE APAY-IP.FMT
∂  0,  0  SAY "TR-002"
```

173

```
ə  4, 20   SAY "BILL OWED TO:"
ə  4, 36   GET   TRANS->NAME   PICTURE "!!!!!!!!!!!!!!!!!!!!!!!"
ə  6, 20   SAY "AMOUNT OWED:"
ə  6, 36   GET   TRANS->AMT
ə  9, 25   SAY "SELECT ONE OF THE FOLLOWING:"
ə 12, 17   SAY "A. FOR PROVISIONS FROM FOOD SERVICE OFFICER"
ə 14, 17   SAY "B. FOR PROVISIONS FROM VENDORS"
ə 16, 17   SAY "C. FOR OTHER ITEMS"
ə 18, 26   SAY "ENTER SELECTION:"
ə 18, 45   GET   TRANS->PURPOSE   PICTURE "!"
ə 10, 25   TO 10, 52
ə  2, 10   TO 19, 67    DOUBLE


*************************************************************
*                     CPAY-IP.FMT                          *
*************************************************************

PROCEDURE CPAY-IP.FMT
ə  0,  0   SAY [TR-003]
ə  5, 26   SAY "THE FIRST TWO DIGITS OF THE"
ə  7, 16   SAY "REQUISITION NUMBER ARE PROVIDED BY THE SYSTEM !"
ə 13, 14   SAY "ENTER LAST THREE DIGITS OF REQUISITION NUMBER:"
ə 13, 62   GET   TRANS->REQ_NUM   PICTURE "XXX"
ə  3,  9   TO  9, 69    DOUBLE
ə 11,  9   TO 15, 69    DOUBLE


*************************************************************
*                      LV-IP.FMT                           *
*************************************************************

PROCEDURE LV-IP.FMT
ə  0,  0   SAY [EM-007]
ə  6, 19   SAY "MEMBER NAME:"
ə  6, 35   SAY   DYSWKD->DNAME   PICTURE "XXXXXXXXXXXXXXXXXXXXXXXX"
ə 10, 19   SAY "NUMBER OF DAYS MEMBER ON"
ə 11, 19   SAY "LEAVE DURING CURRENT MONTH:"
ə 11, 54   GET   DYSWKD->WORKD   RANGE 0, 31
ə 13, 19   SAY "TOTAL NUMBER OF DAYS"
ə 14, 19   SAY "IN MONTH:"
ə 14, 54   GET   DYSWKD->MONDYS   RANGE 0, 31
ə  7, 19   TO  7, 56
ə  4, 16   TO 16, 60    DOUBLE


*************************************************************
*                     SHARBILL.FMT                         *
*************************************************************

PROCEDURE SHARBILL.FMT
ə  0,  0   SAY "TR-016"
ə  3, 24   SAY "ENTER THE SOCIAL SECURITY NUMBER"
ə  5, 27   SAY "OF THE DEPARTING MEMBER !"
ə  7, 35   GET   MEMBERS->SSN
ə 13, 31   SAY "MEMBER INFORMATION"
ə 16, 23   SAY   MEMBERS->RANK
ə 16, 29   SAY   MEMBERS->NAME
ə 18, 23   SAY "MESS SHARE REFUND DUE:"
ə 18, 51   SAY   MEMBERS->SHAREOUT
```

174

```
a 20, 23  SAY "NET MESS BILL REFUND/DUE:"
a 20, 51  SAY  MEMBERS->BILL_OUT
a  1, 19  TO  9, 59    DOUBLE
a 11, 19  TO 22, 59    DOUBLE
a 14, 27  TO 14, 52
```

```
**************************************************************
*                     JUMP1-A.FMT                          *
**************************************************************
```

```
PROCEDURE JUMP1-A.FMT
a  0,  0  SAY "UT-009"
a  7, 28  SAY "ENTER THE PURPOSE OF THE"
a  8, 35  SAY "TRANSACTION:"
a 10, 28  GET  TRANS->PURPOSE  PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
a  5, 24  TO 12, 56    DOUBLE
```

```
**************************************************************
*                     JUMP5-IP.FMT                         *
**************************************************************
```

```
PROCEDURE JUMP5-IP.FMT
a  0,  0  SAY [UT-011]
a  8, 24  SAY "WHAT DID THE MEMBER PAY"
a  9, 24  SAY "FOR HIS MESS SHARE:"
a  9, 52  GET  MEMBERS->SHAREIN
a  5, 20  TO 12, 61    DOUBLE
```

```
**************************************************************
*                     JUMP1-IP.FMT                         *
**************************************************************
```

```
PROCEDURE JUMP1-IP.FMT
a  0,  0  SAY "UT-008"
a  1, 17  SAY "A C C O U N T S   R E C E I V A B L E"
a  2, 10  SAY "NAME OF ENTITY OR"
a  3, 10  SAY "PERSON OWING THE MESS:"
a  3, 37  GET  TRANS->NAME   PICTURE "!!!!!!!!!!!!!!!!!!!!!!!!"
a  4, 15  SAY "( IF A MESS MEMBER ENTER SSN ONLY )"
a  5, 10  SAY "DATE TRANSACTION"
a  6, 10  SAY "OCCURED:"
a  6, 37  GET  TRANS->DATE_IN
a  8, 10  SAY "PURPOSE:"
a 10, 15  SAY "A) MESS BILL OWED TO THE MESS"
a 12, 15  SAY "B) MESS SHARED OWED TO THE MESS"
a 14, 15  SAY "C) COMRATS DUE FROM DISBURSING"
a 16, 15  SAY "D) OTHER"
a 18, 15  SAY "ENTER YOUR SELECTION:"
a 18, 38  GET  TRANS->PURPOSE  PICTURE "!"
a 20, 10  SAY "AMOUNT OF THE TRANSACTION :"
a 20, 38  GET  TRANS->AMT
```

```
**************************************************************
*                     JUMP0-IP.FMT                         *
**************************************************************
```

```
PROCEDURE JUMP0-IP.FMT
a  0,  0  SAY "UT-007"
a  5, 23  SAY "SYSTEM INITIALIZATION VALUES"
a  8, 17  SAY "WHAT IS THE VALUE OF THE"
a  9, 17  SAY "INVENTORY BROUGHT FORWARD:"
a  9, 52  GET  INV->B_INV
a 12, 17  SAY "WHAT IS THE AMOUNT OF THE"
a 13, 17  SAY "CASH BROUGHT FORWARD:"
a 13, 53  GET  INV->CASH_FWD
a 16, 17  SAY "WHAT IS THE VALUE OF THE"
a 17, 17  SAY "MESS SHARE BROUGHT FORWARD:"
a 17, 55  GET  INV->VAL_FWD
a  6, 21  TO  6, 52
a  2, 13  TO 20, 64    DOUBLE


****************************************************************
*                      JUMP2-IP.FMT                          *
****************************************************************

PROCEDURE JUMP2-IP.FMT
a  0,  0  SAY "UT-010"
a  1, 24  SAY "A C C O U N T S   P A Y A B L E"
a  2, 12  SAY "TO WHOM OWED:"
a  2, 26  GET  TRANS->NAME   PICTURE "!!!!!!!!!!!!!!!!!!!!!!!"
a  3, 26  SAY "USE SSN FOR MEMBERS"
a  4, 12  SAY "DATE OF THE TRANSACTION:"
a  4, 37  GET  TRANS->DATE_IN
a  6, 12  SAY "PURPOSE"
a  7, 15  SAY "A) PROVISIONS PURCHASED FROM"
a  8, 18  SAY "THE SUPPLY OFFICER:"
a  9, 15  SAY "B) PROVISIONS PURCHASED FROM"
a 10, 18  SAY "AN OUTSIDE VENDOR:"
a 11, 15  SAY "C) MESS BILL REFUND OWED:"
a 12, 15  SAY "D) MESS SHARE REFUND OWED:"
a 13, 15  SAY "E) MEALS PURCHASED FROM THE GALLEY:"
a 14, 15  SAY "F) OTHER"
a 17, 35  SAY "REQUISITION NUMBER IF ANY:"
a 17, 62  GET  TRANS->REQ_NUM  PICTURE "!!!!!"
a 19, 12  SAY "ENTER SELECTION:"
a 19, 29  GET  TRANS->PURPOSE  PICTURE "!"
a 21,  5  SAY "AMOUNT OF THE TRANSACTION:"
a 21, 32  GET  TRANS->AMT


****************************************************************
*                      JUMP3-IP.FMT                          *
****************************************************************

PROCEDURE JUMP3-IP.FMT
a  0,  0  SAY "UT-012"
a  9, 24  SAY "WHAT IS THE CURRENTLY RECOMMENDED"
a 11, 32  SAY "MONTHLY MESS BILL!"
a 14, 36  GET  SETCAT->SUG_BILL
a  7, 18  TO 16, 61    DOUBLE


****************************************************************
*                      PASSWORD.FMT                          *
****************************************************************
```

```
PROCEDURE PASSWORD.FMT
a  0,  0  SAY [UT-001]
a  4, 14  SAY "YOUR OLD PASSWORD HAS BEEN REMOVED FROM THE FILE !"
a 11, 22  SAY "ENTER NEW PASSWORD:"
a 11, 43  GET  SETCAT->PASSWORD  PICTURE "!!!!!!!!!!!"
a  8, 10  TO 14, 68     DOUBLE
a  2, 10  TO  6, 68     DOUBLE
```

PRIVATE MESS ACCOUNTING SYSTEM

PRIVATE
MESS
ACCOUNTING
SYSTEM
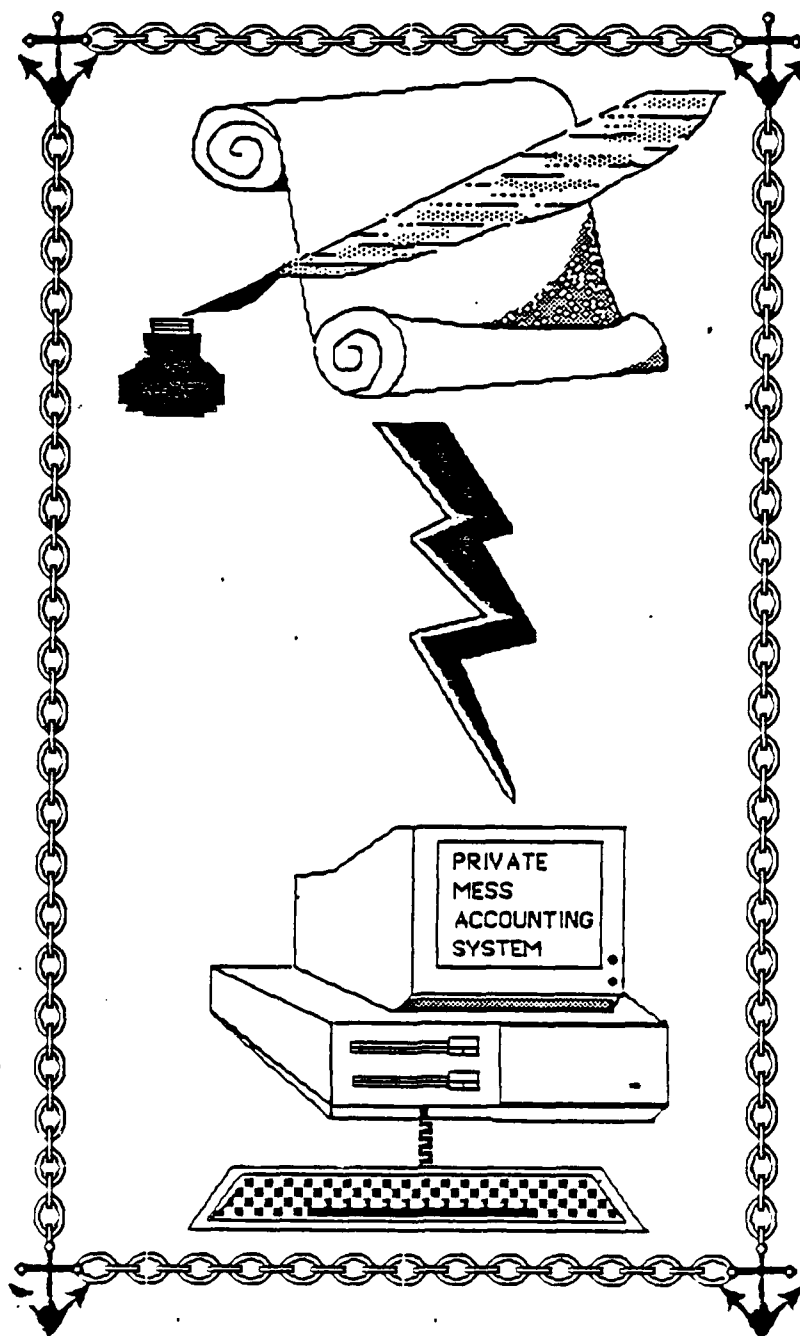
USER'S MANUAL

PRIVATE MESS ACCOUNTING SYSTEM

TABLE OF CONTENTS

i

COVER DESIGN : LT. ROBERT BIRDWELL SC, USN

iii

PRIVATE MESS ACCOUNTING SYSTEM

Welcome to the Private Mess Accounting System (PMAS). This
software application was designed to automate most aspects of
the shipboard mess treasurer's tasks. This program is a full
featured database application that allows mess member
tracking, mess bill preparation and full monthly financial
reporting. The program is menu driven and assumes limited
experience on the part of the user in mess treasurer duties.

1. EQUIPMENT REQUIRED

This application was designed to run on the following
equipment:

> IBM AT, ZENITH 248, HONEYWELL PC microcomputer or
> equivalent with:
>
>> + MS-DOS 2.11 operating system or later
>>   version.
>> + 1 360K disk drive
>> + 1 20 megabyte hard disk
>> + clock/calender card
>> + color monitor (monochrome acceptable)
>> + printer capable of handling 8 1/2 X 11
>>   inch tractor feed paper.
>> + 640K RAM space
>
> * use of the program on less than an IBM AT or
> equivalent will lead to a noticeable decrease in
> system response

2. GENERAL BACKGROUND INFORMATION

There is some general background information on specific
features and requirements of PMAS that you need to know prior
to working with PMAS.

2.1 AUTOMATIC ARCHIVING

First, PMAS has an automatic archiving feature that is
activated when you select QUIT from the MAIN MENU. This
feature takes the current data contained in the data bases on
the hard disk and copies it to a floppy disk in the A drive.
This procedure ensures that you will always have a current
copy of your data bases in the event of a hard disk failure.

1

2.1.a CREATING DATA BACKUP DISKS

To facilitate the archiving process you need to take two,
new, blank floppy disks and label them with the name of the
mess. Next, label one DATA BACKUP A and the other DATA
BACKUP B.   Write on floppy disk labels with a felt tip pen.
Since these disks are new they must be formatted.   To format
a disk put it in the A drive and at the C> type:

                    FORMAT A: <cr>

Every time you start a session with PMAS put <u>one</u> of the disks
in the A drive. Alternate between the DATA BACKUP A disk and
DATA BACKUP B disk each time you use PMAS. By rotating
between two disks you will always have a current copy of your
databases and a copy of the data as of the end of the
previous session.

2.2 PRINTER WARNING

Ensure that your printer is loaded with plenty of paper and
remains powered on during a session with PMAS. Anything that
interferes with printer operation may cause the program to
run erratically.

2.3 ERROR CHECKING USER INPUT

Great pains have been taken to ensure the user has the
opportunity to review his/her input prior to finalization.
After you input information, you will always be asked if it
is correct. This will be your chance to correct errors prior
to database acceptance.

2.4 SCREEN NUMBERING

Every data input screen is numbered in the upper left hand
corner. These numbers will be used in this manual to help
the user identify what section of the manual applies to what
screen. These numbers can also be referred to by the user
when requesting assistance over the phone or by naval
message.

2.5 PASSWORD PROTECTION

Access to the PMAS databases is protected by a user chosen
password.   Immediately after the PMAS initialization screen,
you will be requested to provide your password.   You will

2

have three opportunities to enter the correct password before
the program dumps you back out to the operating system. The
program was shipped with a preset password. This password
will be required the very first time you enter PMAS. The
preloaded password is **FORBIN**.

2.5.a CHANGING THE PASSWORD

It is recommended that at a minimum the system password
should be changed when mess treasurer turnover occurs.
Changing the password is a simple process. From the MAIN
MENU select code 1 - SYSTEM UTILITIES. You will now see the
UTILITY PROGRAMS MENU. From that menu select code 3 - CHANGE
PASSWORD. You will then be prompted to enter a new password
of up to ten alphanumeric characters. Do not use passwords
that can be easily determined. (e.g., your birthday, your
spouses name or your Social Security Number)   '

3. PMAS INSTALLATION PROCEDURES

To have input accepted during, either, the installation or
use of PMAS, the ENTER or RETURN key may have to be hit. In
places where hitting this key is required the symbol <cr>
will be used in this manual.

When using a computer equipped with a hard drive, the
operating system is normally resident on that drive. When
you turn on your computer and a C> appears, you can be fairly
certain that MS-DOS is resident and your computer is
correctly booted up. If you are prompted to insert a systems
disk or there is indication that no system is present, read
your computer's users manual and determine how to boot your
computer from the hard drive. Your computer must boot from
the hard disk (normally the C drive) before you continue!

3.1 SYSTEM CONFIGURATION

Your operating system by default allows only eight files to
be open at the same time. In order to run PMAS efficiently
and without error, MS-DOS must be configured to open twenty
files simultaneously. To accomplish this configuration we
need to create a CONFIG.SYS file.

First, we need to check to see if a CONFIG.SYS file already
exists. At the C> type:

3

You should now see all the files contained on your C drive. If a CONFIG.SYS file already exists start with STEP 1, if no CONFIG.SYS file exists, begin with STEP 2.

STEP 1. In order to view the contents of the current CONFIG.SYS file type the following at the system prompt:

TYPE CONFIG.SYS   <cr>

The contents of the file should now be displayed. If the file contains the commands FILES=20 and BUFFERS=20, then your system is already properly configured and there is no reason to do STEP 2. Otherwise, on a separate sheet of paper, copy the contents of that file exactly as it appears on the screen.

STEP 2. To create a new CONFIG.SYS file enter at the system prompt:

COPY CON:CONFIG.SYS   <cr>

then type:

FILES=20   <cr>
BUFFERS=20   <cr>

If required, add the commands that where copied to the separate sheet of paper during STEP 1. Do not add any other FILES= or BUFFERS= commands to this new file. Remember. one command per line and follow it with a <cr>. When you are done building the new CONFIG.SYS file, finish by typing:

^ Z   <cr> (note ^ = CTRL key)

Now turn off your computer, then turn it back on. This last action will put the new CONFIG.SYS file into effect. Once this file is built there is no need to repeat the above procedure. The CONFIG.SYS will automatically be in effect when the computer is turned on.

3.2 NEED FOR SUBDIRECTORIES

The PMAS software application must be run from your computer's hard disk. The program has designed into it the ability to handle several different types of messes.(e.g.

4

Wardroom, CPO, Flag or Captain's mess) In order to maintain
the financial record of several different messes on the same
microcomputer, a copy of PMAS must be installed in each of
several different subdirectories. Your C: is also known as a
root directory. Under this root directory you need to create
several subdirectories. These subdirectories will contain
the individual copies of PMAS that will be required for each
type of mess. The following names are suggested for
subdirectory titles:

> CPO
> WARRANT
> WARDROOM
> CAPTAIN
> UNIT
> FLAG

These titles will be used throughout the manual and it would
be to your advantage to adopt them also. To help in
understanding the subdirectory concept refer to Figure 1
below.

FIGURE 1
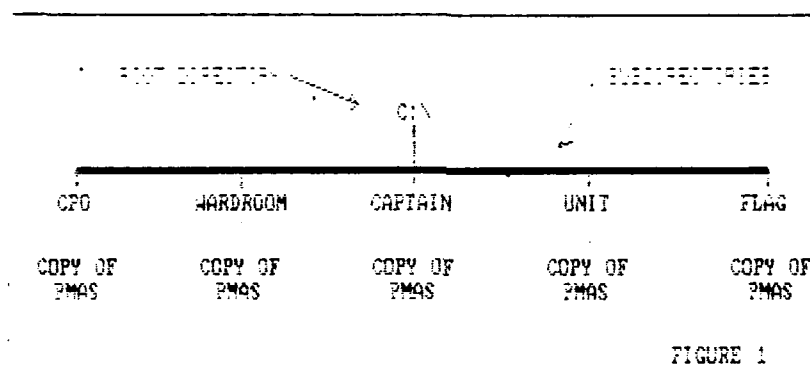
Only create the number of subdirectories that are required
for your type of ship. For example, there may be no
requirement to maintain mess records for a unit commander or
flag mess aboard your ship.

3.3 CREATING SUBDIRECTORIES

To create a subdirectory type the following at the C>:

> MKDIR <PATH>   <cr>

where <PATH> is one of the previously given set of names for
subdirectories. For example, if you need to create three
subdirectories to contain the copies of PMAS required to

5

handle the records for the Captain's, Officer's and Chief's messes then at the C> type :

```
                    MKDIR CAPTAIN       <cr>
                    MKDIR WARDROOM      <cr>
                    MKDIR CPO           <cr>
```

You can view the subdirectories you have just created by typing DIR/W at the C>.

3.4 LOADING SUBDIRECTORIES WITH PMAS

Once the subdirectories have been created on the hard disk, PMAS can be copied into them. For discussion purposes, we will assume we have created a WARDROOM subdirectory and now are going to load it. With this user's manual you should have also received two 5 1/4 inch floppy disks, one labeled #1 and the other labeled #2. Put the disk labeled #1 into the A drive of the computer. At the C> type: A: <cr>. The system prompt on the screen should now read A>. At the A> type:

```
          COPY *.* C:\<PATH>      <cr>
```

where <PATH> is the desired subdirectory destination. Continuing our wardroom example, the exact command would be:

```
          COPY *.* C:\WARDROOM    <cr>
```

At this time you should receive an indication that files are being copied to the hard disk. Next remove disk #1 from the A drive and replace it with disk #2. At the A> type the same command that was used to load disk #1. To repeat type:

```
          COPY *.* C:\WARDROOM    <cr>
```

When the file transfer is complete, the process of loading PMAS to your system's hard disk for a specific subdirectory is complete. Repeat the process of loading subdirectories for every subdirectory that you have created.

3.5 STARTING THE PROGRAM

When you first turn on your computer it should come up in the root directory for the C drive. To operate PMAS we need to be in the subdirectory for the mess for which we want to transact business. To move from the root directory to the proper subdirectory, you need to issue a change directory command at the C>. Use the following command:

6

```
                 CD <PATH>        <cr>
```

where <PATH> is the desired subdirectory destination.
Continuing our wardroom example, the command would be:

```
                 CD WARDROOM
```

Once this command is issued, you are now operating solely
within the subdirectory named WARDROOM.   To return to the
root directory after a session with PMAS type:

```
                 CD ..    <cr>
```

Once you are in the proper subdirectory (e.g. WARDROOM), just
type **MESS** at the system prompt to access PMAS.   The next
thing you will see is the PMAS initialization screen.

4.   TAILORING PMAS TO YOUR MESS

PMAS needs to be provided information about your ship and the
type of mess you operate. This information is only required
once as it is stored by PMAS for future reference.   This
information should be entered the first time you use the
program or in the event that certain facts about the mess
change. To tailor PMAS to your mess select code 1 - SYSTEM
UTILITIES from the MAIN MENU. You will now see the UTILITY
PROGRAMS MENU. From this menu, select code 1 - SET UP
PROGRAM PARAMETERS.   Input screen UT-002 will now be before
you. Most of the questions on this screen and the remaining
input screens for parameter establishment are self-
explanatory.   The next few paragraphs provide background
information on the inputs that were anticipated to raise some
questions. (NOTE: you may not be asked all of the questions
for which background information is provided.)

4.1 SUBSISTING FROM THE GENERAL MESS. SCREEN UT-002

Some Officer messes, due to lack of proper facilities or
other constraints, buy individually prepared meals from the
Food Service Officer. This type of mess is generally found
on newer and (or) smaller ships of the fleet. Messes that
buy bulk provisions and prepare their meals in wardroom
facilities do not subsist from the general mess.

4.2 STANDARD MEAL PRICES. SCREEN UT-003

Messes that subsist from the general mess buy individual
meals at a Navy standard price. These prices are published

                              7

and updated annually in NAVSUP INST 4061.9 SERIES. This instruction is available from the Food Service Officer. Remember these prices usually change annually and PMAS must be informed of these changes.

4.3 MAINTAINING MESS SHARE AT SPECIFIED LEVEL. SCREEN UT-005

This screen will ask you to input the value at which you desire to maintain the mess share. PMAS, by referring to your input, will automatically maintain the mess share at your specified level by making adjustments to mess member's mess bills. This feature prevents wild fluctuations in the mess share from month to month. A word of caution, when entering a value for this screen, you must take into account the value of the mess share as it was calculated on the last financial statement. For example, if the last calculated mess share was $38.00 and you set the mess share to be maintained at $50.00, the mess bills at the end of the current month would be increased to meet the new mess share goal. If such a large jump in the mess share was desired, it is best to accomplished this goal over a couple of months. Additionally, remember that during any one month certain transactions that affect net worth also have their impact on the mess share. When in doubt, do not vary the amount entered on this screen , unless an intentional decrement or increment is desired, from the mess share found on the last financial statement.

4.4 METHOD FOR CHARGING MEMBERS FOR MEALS. SCREEN UT-004

Messes that do not subsist from the general mess have two basic options for charging mess members for meals. The first method consists of distributing the cost of running the mess equally among all members. This option is by far the most prevalent among messes afloat. Second, these messes have the option of charging on a per meal basis. This per meal option can only be used if the mess was operated in port for the entire month. See NAVSUP PUB. 486 VOL. II para. 3111 for further details.

4.5 MEAL PRICES FOR NON-MEMBERS. SCREEN UT-004

Messes that subsist from the general mess will charge the standard meal price for meals sold to non-member. In the case of a non-subsisting mess, meal prices have to be determined. These meal prices are determined by reviewing the food cost and total meals eaten for a particular month.

8

When PMAS is first activated for a particular mess, it has no means of determining historic costs; therefore, the user must enter prices for breakfast, lunch, supper and holiday meals. After the first month of mess operations under PMAS, the program will automatically provide suggested meal prices and use them in calculating non-member mess bills.

4.6 ENLISTED BASIC ALLOWANCE FOR SUBSISTENCE. SCREEN UT-006

In a mess that does not subsist from the general mess, enlisted personnel consume provisions purchased by the mess. The mess is therefore due reimbursement based on a formula that requires the enlisted BAS rate. The current rate can be obtained from the Disbursing Officer.

5. CONVERTING MESS RECORDS FROM MANUAL TO PMAS

PMAS needs to be informed about the present financial situation of your mess. PMAS has included a specific utility program to assist you in the conversion process. The key factor to the conversion process is that the manual records must be in balance before transferring the information to PMAS. Consequently, the best time to convert to PMAS is right after the monthly close out of accounts and the preparation of the Monthly Financial Operating Statement.

5.1 BEGINNING THE PROCESS

From the MAIN MENU select code 1 - SYSTEM UTILITIES. You will now the see the UTILITIES PROGRAMS menu. From this menu select code 2 - INITIALIZE DATABASES. Next you will see a short paragraph explaining the process. [WARNING: Once you pass this point all databases except the database containing mess member information will be erased!!!]

5.1.a SYSTEM INITIALIZATION VALUE SCREEN. SCREEN UT-007

If you have decided to continue, screen UT-007 will now be on the monitor. You will prompted to provide the value of the inventory brought forward, the amount of cash brought forward and the value of the mess share brought forward. This information can be found in blocks titled, INVENTORY OF PROVISIONS, CASH ON HAND END OF MONTH, MESS SHARE END OF MONTH ,respectively, on the Monthly Financial Operating Statement.

9

5.1.b SUGGESTED MESS BILL. SCREEN UT-012

This information can be obtained from block titled
RECOMMENDED MESS BILL FOR NEXT MONTH on the Monthly Financial
Operating Statement. When this amount has been entered you
will then be asked if you have any outstanding accounts
receivable to enter. Depending on your situation enter Y for
YES or N for NO.

5.1.c ACCOUNTS RECEIVABLE ENTRY SCREEN. SCREEN UT-008

By referring to the RECORD of ACCOUNTS RECEIVABLE, finalized
during the monthly close out process, you should have a
complete list of all **OUTSTANDING** accounts receivable. Each
one of the entries on this record must be entered into the
computer. Do not batch post mess bill for a particular
month. Outstanding mess bill amounts must be posted for each
member. Note: the first block on the screen asks for the
name/entity owing money to the mess. The input into this
block is left to the user's discretion with one exception.
If the money is owed by a mess member (or ship-rider) that
block **MUST** be filled in with his/her social security number.
The input format for the social security number is 9 digits;
use no spaces or dashes. Social security numbers are
required because they are a convenient unique identifier of a
mess member (or ship-rider). You will be required to enter
the date on which the transaction occurred. Use MM/DD/YY
format. On that same screen you will see a small menu of
selections describing the purpose of the outstanding accounts
receivable. Choose one. If you choose the caption OTHER you
will be provided a small memo field to enter your own
purpose. Do not forget to include the amount of the
transaction in the block provided. The program will allow
you to continue making entries until you choose not to. You
will then be asked if you have any outstanding accounts
payable to enter. Depending on your situation enter Y for
YES or N for NO.

5.1.d ACCOUNTS PAYABLE ENTRY SCREEN. SCREEN UT-010

By referring to the RECORD of ACCOUNTS PAYABLE, finalized
during the monthly close out process, you should have a
complete list of all **OUTSTANDING** accounts payable. Each one
of the entries on this record must be entered into the
computer. Do not batch post any entries. Note: the first
block on the screen asks to whom the money is owed. The
input into this block is left to the user's discretion with
one exception. If the money is owed to a mess member (or
ship-rider) that block **MUST** be filled in with his/her social

10

security number. The input format for the social security
number is 9 digits; use no spaces or dashes. Social security
numbers are required because they are a convenient unique
identifier of a mess member (or visitor). You will be
required to enter the date on which the transaction occurred.
Use MM/DD/YY format. On that same screen you will see a
small menu of selections describing the purpose of the
outstanding accounts payable. Choose one.
Purpose E - MEALS PURCHASED FROM THE GALLEY should only be
selected by messes that subsist from the galley and buy
individual meals from the food service officer. If OTHER is
chosen, you will be provided a short memo field in which to
record your own purpose. The requisition number entry is
provided to record the serial number of provision documents
from the food service officer. Do not forget to enter the
amount of the transaction. You may continue to enter
accounts payable as long as required. Next you will be asked
if you desire to enter information concerning mess
membership. Since you are initiating PMAS for the first time
you will answer Y for YES.

5.1.e MESS MEMBER/USER ENTRY SCREEN. SCREEN TR-012

Before you actually begin to enter member information, you
must be aware of who to enter. Enter members who have paid a
mess share in the past or those who have been entered in
accordance with section 5.1.c as owing a mess share. In
other words, if someone checks during the conversion process
do not add him/her at this point. There is another process
for new member check-in!!! If you are a mess that receives
COMRATS payments for enlisted members assigned to subsist and
work in the mess, you must also add these enlisted personnel
to the computer database. When entering the social security
number, enter only 9 digits; no dashes or spaces are allowed.
In the STATUS block enter M, if the person is a mess member
or E if the person is an enlisted member assigned to work the
mess. When the last entry is made and verified to this
screen (TR-012), screen UT-011 will appear on the monitor.
This new screen will ask you to record the mess share the
member paid upon joining the mess. It may be impossible to
determine from manual records the amount the member had paid.
If this is the case leave blank. You may continue to enter
members as required. When you have completed entering your
mess members and users, the conversion process to PMAS is
complete. Further entries into PMAS will be as the result of
everyday transactions and monthly financial processing, which
are explained later in this manual.

6. MORE ON THE UTILITY PROGRAMS MENU

11

So far in this manual we have explained UTILITY PROGRAMS MENU options 1, 2 and 3. (SET UP PROGRAM PARAMETERS, INITIALIZE DATABASES AND CHANGE PASSWORD). Some discussion on the remaining two options are in order before we begin to use PMAS extensively.

6.1 PRINT CURRENT DATA FILES

From the MAIN MENU select code 1 - SYSTEM UTILITIES. You will now be viewing the UTILITY PROGRAMS MENU. From this menu select code 4 - PRINT CURRENT DATA FILES. When this selection is made, the current contents of the Transaction and Mess Member databases are sent to the printer. You may exercise this option at <u>any</u> <u>time</u> you desire to check the contents of these databases.

6.2 DATA FILE RECOVERY

By exercising this option you can return your databases to the condition they were in as of the last data archive. In section 2.1 of this manual it was stated that the PMAS databases on your hard disk were copied to your Data Backup Disk every time you exited PMAS. (ended a session with PMAS) If an unrecoverable error was generated during the <u>current</u> session with PMAS it is possible to restore your databases to the condition they were in prior to the current session. If you were following the procedures as laid out in section 2.1.a, you have a DATA Backup Disk A and a Data Backup Disk B. It is important for you to use the data disk in which the hard disk data bases were most recently copied to. Insert that disk into your A drive and complete the following. From the MAIN MENU select code 1 - SYSTEM UTILITIES. You will now be viewing the UTILITY PROGRAMS MENU. From this menu select code 5 - DATA FILE RECOVERY. When the process is complete you will be returned to the current menu.

Upon completion of this process your databases will be restored to contain the data that they held as of the last archive. At this point, it would be wise to print the current data files (code 4 on the UTILITY PROGRAMS MENU) to see the current entries in the Transaction and Mess Member databases. You will note there are no entries from the session you were working on prior to executing data recovery. Reenter the transactions as required.

6.3 CATASTROPHIC RECOVERY

Sometimes having the ability to return the databases to a previous session's condition, as described above, may not be enough. If you find yourself in a situation where simple

12

data recovery is insufficient or where a counterbalancing entry is not appropriate for correcting an error, there is a way out. Using the procedure outlined in section 5 of this manual, you could "restart" the recordskeeping process. First, you would have to return to the last correct Monthly Financial Operating Statement and use the data contained on that form as the initial input into PMAS. From there you would have to reenter all transactions required to bring you back to the present. If your last accurate financial statement was two months ago, it is easy to see that a lot of reconstructive work would have to be done. There is one feature of this type of restart procedure that differs from those procedures outlined in section 5. When you are asked if you desire to add mess members and you know that the members database was error free prior to the restart, answer N for NO. As mentioned in section 5.1, the mess member database will only be deleted if you elect to build a new database. If you respond to the prompt with an ' N for NO, then the mess member database will remain aͬ ͏ͳ. Remember, although this procedure is available, it should only be exercised in the most extreme of circumstances.

7. **TRANSACTION PROCESSING**

Once you have tailored' PMAS to your mess (Section 4) and converted from manual recordskeeping (Section 5), you are ready to conduct mess recordskeeping business using PMAS. Under the manual recordskeeping system, an event triggers an action from the mess treasurer. These events are such things as the receipt of a provisions bill from the Food Service Officer, the checking in of a new mess member or a mess member paying his/her bill. These same events can also be handled by PMAS. The remainder of this manual will show you how to handle these events within your new automated recordskeeping environment.

7.1 **TRANSACTION PROCESSING CONCEPTS**

PMAS transaction processing was designed with one basic concept in mind. This concept is simple. You can not pay a bill or collect money unless PMAS knows a bill exists or that money is due the mess. In some cases it will be your specific responsibility to make sure PMAS is aware of amounts owed by the mess (accounts payable) or is aware of amounts due the mess (accounts receivable). In other cases, PMAS creates the accounts payable or receivable based on your responses to certain questions. This concept will become clearer to you as begin to work with PMAS.

13

7.2 HOW TO PROCESS A TRANSACTION

When you desire to process a transaction, select code 2-PROCESS TRANSACTIONS from the MAIN MENU. You will now see screen M-02 TRANSACTION INPUT MENU before you. Based on the type of transaction you are trying to process select one of the six choices on the menu.

In order to best explain how to handle a specific transaction, the rest of this section of the manual will be organized by the specific events that confront mess treasurers. All directions given in this section will assume that the user is already at screen M-02, TRANSACTION INPUT MENU.

14

7.2.a NEW MEMBER CHECK-IN

DISCUSSION. Certain transactions must occur when a new member checks into the mess. Normally a mess treasurer will assess a new member a mess share (except in C.P.O. messes) and a prorated mess bill (except in C.P.O. and subsisting messes). Based on the information entered to establish program parameters,(Section 4) PMAS will automatically perform and record all the necessary assessments.

HOW TO. From the TRANSACTION INPUT MENU (M-02), select code 5 - ADD/DELETE MESS USERS. Screen M-025 ADD/DELETE MESS USERS menu will now be on the screen. From this menu select code 1 - ADD A MESS USER. Input screen TR-012 NEW MEMBER INFORMATION will appear.

Enter the information on the screen as required. Ensure the member's SSN is entered accurately. All future transactions with this member will be keyed through his/her SSN.

Input for the entry STATUS should be M. M stands for member.

If PMAS determines that the new member owes a partial mess bill, screen TR-010 will appear next. You will then be requested to provide the number of days the new member was attached to the ship during his/her check-in month and the total number of days in that month.

Once you have reached the screen that asks if you desire to add another new member, PMAS has, if appropriate, completed the following:

    Enrolled the individual as a member of the mess.

    Assessed the member a mess share.

    Assessed the member a partial mess bill.

Any money owed by the member, as a result of being checked in, will be automatically recorded to the database. These amounts due will be reflected on the monthly mess bill. If it is necessary to know these amounts immediately, you can print out the database contents in accordance with section 6.1.

15

7.2.b ADDING ENLISTED PERSONNEL TO THE DATABASE

DISCUSSION. Messes that are true private messes; that is, messes that do not subsist from the main galley, must include Mess Specialists and Mess Cooks assigned to work the mess in their database. Enlisted personnel are included so the mess can receive credit for their food costs in the form of Commuted Rations. Messes that subsist from the galley should not include enlisted personnel in their database.

HOW TO. From the TRANSACTION INPUT MENU (M-02), select code 5 - ADD/DELETE MESS USERS. Screen M-025 ADD/DELETE MESS USERS menu will now be on the monitor. From this menu select code 1 - ADD A MESS USER. Input screen TR-012 NEW MEMBER INFORMATION will appear.

Enter the enlisted person's name, SSN and rate. 'Input for the entry STATUS should be E for Enlisted. The status code E prevents the calculations of mess shares and mess bills for enlisted personnel assigned to the mess.

Upon completion of screen TR-012, you will be asked if there are any more members/users to enter. Respond Yes or No accordingly.'

16

7.2.c PREPARING FINAL BILL FOR DETACHING MESS MEMBER

DISCUSSION.   Depending on the type of mess, mess members
may be due mess share refunds, mess bill refunds or members
may   owe   partial   mess   bills.   PMAS   will   automatically
determined, based on program parameters (Section 4), what
combination   of   the   above   is   appropriate   for a detaching
member.   PMAS will request specific information in order to
perform   the   required   calculation.   In   the   case   of   a
subsisting mess, the procedure below should only be utilized
to prepare a final bill for a detaching member if the monthly
mess bill provided during the end of month financial process
is not sufficient to cover all meals that should be charged
to the member´s account. PMAS will review the database and
determine any previous amounts still owed to or owed by the
member. The bill produced is truly a final bill.   Use of
this procedure will produce a hardcopy bill on your printer.

If members are anticipated to check out early in the month
(say on the 1st), plan to complete your end of month
financial reporting for the previous month in a timely manner
so as to facilitate the member´s check out. It is important
to remember that you can not check departing members out
during a current month prior to closing out your record for a
previous month.

This procedure sets up a mess member to be deleted from the
database. To actually close out a members account refer to
section 7.2.d.

HOW TO. From the *TRANSACTION INPUT MENU (M-02)* select code 5
- ADD/DELETE MESS USER. M-025 ADD/DELETE MESS USER will now
be on the screen. Select code 2 - PREPARE A DETACHING BILL.
You will be asked to enter the SSN for the detaching member.
Enter 9 digits with no spaces or dashes.

If you are a subsisting mess, screen TR-011 will appear
requesting you provide the number of breakfast, lunch, dinner
and holiday meals chargeable during the detaching month.   If
you are preparing the member´s final bill a day or so before
he/she detaches, you should ask what meals he/she plans to
eat before departure.   Include them in the final count.
Additionally, ensure that those meals are recorded as
chargeable, so your records and the Food Service Officer´s
record agree.
If you are a non-subsisting mess, you will be asked if the
member has gone on leave during his/her detaching month. The
leave you are concerned with here is leave taken before the
detaching date.   If you respond with Y for YES, you will be
requested to provide the number of days leave taken and the
total number of days in the month. Next screen TR-010 will
appear. You will be required to enter the number of days the

17

member was attached to the ship in his/her detaching month.
Leave taken has no effect on how you respond to this
question. If a member was detached from the ship on the 20th
of the month and had taken 5 days leave, you would enter that
he/she had been assigned 20 days during the month.

18

7.2.d CLOSING OUT A MEMBER'S ACCOUNT

DISCUSSION. If the procedures outlined in section 7.2.c have been used to prepare a final bill or the monthly mess bill sufficiently covers a members account and the mess has settled with that member, use the procedures below to close out the member's account. Only close out the member's account if it has been settled in <u>full</u>. This procedure allows no provisions for partial payments to or partial collections from the member. Once this procedure has been exercised, the member will be marked for deletion from the database.

HOW TO. From the TRANSACTION INPUT MENU (M-02) select code 5 - ADD/DELETE MEMBERS. Screen M-025 ADD/DELETE MESS USERS menu will appear next. Select code 3 - CLOSE OUT MEMBER'S ACCOUNT.

You will first be asked to provide the SSN for the member whose account you wish to close out. The database will then be searched and the name and financial summary for that SSN will be displayed. You will then be asked to confirm that the member displayed is indeed the correct individual. If you respond with Y for YES, PMAS assumes that you have already made the appropriate collections (or payments) from (to) the individual. In other words, there is no need to take any further actions to notify PMAS of collection from or payment to the detached member. The member is then marked for deletion.

19

7.2.e PREPARING A BILL FOR A SHIP-RIDER

DISCUSSION.   From time to time, messes provide meals to non-members of the mess.   These non-members may be civilian technical representatives, shipyard personnel or members from other commands.   If these personnel are not specifically guests of the mess or the guest of a member of the mess they will be required to pay for their meals.

The procedure below should be used to calculate a final bill for a departing ship-rider or in the case of extended visits a monthly mess bill.   For example, let's suppose that a ship-rider reported aboard 25 June and his anticipated departure was 6 July.   In this case you would want a bill prepared for the meals chargeable for the period 25 through 30 June.   This procedure would request the number and type of meals chargeable, perform the required calculations and then produce a bill.   The ship-rider could then pay a monthly mess bill as would the members of the mess.   When it came time for the ship-rider to depart on 6 July, you would, again, utilize the procedure below to prepare a final bill.   Again, the procedure will require you to enter the number and type of meals the ship-rider should be charged for.   Of course, you would only enter information on meals chargeable for the period 1 through 6 July.   PMAS would then print a departing bill summarizing all outstanding amounts owed by the ship-rider.   If the ship-rider had failed to pay his 30 June mess bill, PMAS will automatically include that on the final bill.

PMAS uses either the Navy standard price (subsisting messes) or meal prices derived from the monthly food costs (non-subsisting messes) to calculate a ship-rider's bill.

HOW TO.   From the TRANSACTION INPUT MENU (M-02), select code 6 - PREPARE FINAL BILL FOR SHIP-RIDER.You will then be asked to provide the name and SSN for the departing ship-rider. The entry for the SSN should contain only 9 digits; use no spaces or dashes.   Keep a record of the ship-rider's SSN; as it will be required to post the cash collection.   After you provide the count of breakfast, lunch, dinner and holiday meals, a bill will be produced on your printer.

7.2.f DELETING ENLISTED PERSONNEL ASSIGNED TO THE MESS

DISCUSSION.   Messes that do not subsist from the galley, provide meals to the enlisted personnel assign to work the mess.   The meals provided to these enlisted personnel are prepared from provisions purchased by the mess.   The mess is therefore due reimbursement for those costs associated with feeding enlisted personnel.   When enlisted personnel are finished with their assignment they should be removed from the database.

HOW TO. From the TRANSACTION INPUT MENU (M-02) select code 5 - ADD/DELETE MEMBERS.   Screen M-025 ADD/DELETE MESS USERS menu will appear next. Select code 3 - CLOSE OUT MEMBER'S ACCOUNT. (NEVER select code 2 - PREPARE A DETACHING BILL when deleting Mess Specialist and Mess Cooks from the database.) Once code 3 is selected you will be required to enter the SSN for the enlisted person you desire to delete.   When entering the SSN, use no spaces or dashes. You will receive name confirmation of the person whose SSN you have entered. If you indicate that this is indeed the person you wish to delete, that person is marked for deletion.

21

7.2.g POST RECEIPT OF PROVISIONS BILL FROM FSO

<u>DISCUSSION</u>. The Food Service Officer will, on a periodic basis, bill the mess for the bulk provision that your mess has received from his/her organization. In PMAS all bills must be entered into the database before they can be paid.

<u>HOW TO</u>. From the TRANSACTION INPUT MENU (M-02), select code 2 - RECORD AMOUNTS OWED BY THE MESS. Once code 2 is selected, a data input screen will appear on the monitor. You will be requested to provide to whom the bill is owed, the amount of the bill and for what purpose. On the screen will be a small menu which will allow you to choose the option that best describes your transaction. Since we are trying to enter a provisions bill from the FSO, choose **A**. When **A** is chosen, you will be asked to provide the last three digits of the bill's requisitions number. This screen (TR-003) was included to accommodate a future change to the NAVSUP Publication 486 Volume II. Until that change is promulgated, enter any number you desire. You have properly informed PMAS that a bill exists and can now take the required steps to pay the bill. Section 7.2.j refers.

22

7.2.h POST RECEIPT OF PROVISIONS BILL FROM VENDOR

DISCUSSION.   Private messes periodically buy provisions from
outside sources.   These outside sources can be   anything from
the local   supermarket to the base commissary.   PMAS requires
all bills to be   posted to   the computer   before they   can be
paid.   For   example,   suppose   that   you   went to the local
supermarket and purchased $20.00   worth of   groceries for the
mess.   Even though   this was   a cash   transaction, you would
first follow the instructions below to   enter that $20.00 as
an amount   owed by   the mess.   Now that PMAS is aware that a
bill exists, it can   now be   paid in   accordance with section
7.2.k.

HOW TO.   From the TRANSACTION INPUT MENU (M-02), select code
2 - RECORD AMOUNTS OWED BY THE MESS.   Once code 2 is selected
a data   input screen will appear on the monitor.   You will be
required to enter to whom the bill is owed, the amount of the
bill and   the purpose   of the   account payable.   Since we are
posting the receipt of a vendor bill, select   choice B.   You
have now   properly informed   PMAS that   a bill exists and can
now take the required steps to pay that bill.   Section 7.2.k
refers.

23

7.2.i POST RECEIPT OF A MISCELLANEOUS BILL

<u>DISCUSSION</u>.   The mess   may on   occasion purchase items other
than provisions. These "other" items can range from going
away mementoes for departing members to flowers for a family
member of a member of the mess.   PMAS can   handle these type
of purchases.   Even though these purchases may be handled on
a cash bases, PMAS must be informed of the amount owed by
utilizing the procedures below.   Once PMAS is aware that a
bill exists, the bill can be paid in accordance with section
7.2.m.

<u>HOW TO</u>.   From the TRANSACTION INPUT MENU (M-02), select code
2 - RECORD AMOUNTS OWED BY THE MESS. Once code 2 is selected
an input screen will appear on the monitor. You will be
requested to provide to whom the bill is owed, the amount of
the bill and the purpose of the purchase. Since we are
posting the receipt of a miscellaneous bill, select, C. Once
you have entered C, screen TR-004 will appear providing an
input space for you to describe the purpose of the
transaction.   The information you enter on this screen will
assist you in easy recall of what the money was spent for.

24

7.2.j POST PAYMENT OF PROVISIONS BILL FROM FSO

DISCUSSION. If you have previously "informed" PMAS of an amount owed for a provision bill from the Food Service Officer in accordance with section 7.2.g, you may post the expenditure of funds used to cover that bill utilizing the procedure below.

HOW TO. From the TRANSACTION INPUT MENU (M-02), select code 4 - POST CASH EXPENDITURES. You will now see the POST PAYMENT FOR menu. From this menu select code 1 - PROVISIONS BILL FROM FSO. This will then activate a database search for all outstanding FSO bills. The bills, as they are encountered in the database, are displayed on screen TR-005. At the bottom of this screen you will be asked to confirm whether or not this is the correct transaction. If you answer Y for Yes, then the bill being displayed will be marked as paid and you will be returned to the menu. If you want to pay more bills start the procedure over again. If you answer N for NO. the next bill in the database, if any, will be displayed and you again will be asked to confirm whether or not this is the bill you want to pay.

If you reach the end of file designation without finding the bill you wanted to pay, refer to section 7.2.g.

25

7.2.k POST PAYMENT OF A PROVISIONS BILL FROM A VENDOR

DISCUSSION. If you have previously "informed" PMAS of an amount owed for a provision bill from a vendor in accordance with section 7.2.h, you may post the expenditure of funds used to cover that bill utilizing the procedure below.

HOW TO.   From the TRANSACTION INPUT MENU (M-02), select code 4 - POST CASH EXPENDITURE. You will now see the POST PAYMENT FOR menu.   From this menu   select code 2 - PROVISIONS BILL FROM A VENDOR. This will then activate a database search for all outstanding vendor provisions bills. The bills, as they are encountered in the database, are displayed on screen TR-005. At the bottom of this screen you will be asked to confirm whether or not this is the correct transaction. If you answer Y for Yes, then the bill being displayed will be marked as paid and you will be returned to the menu.   If you want to pay more bills start the procedure over again. If you answer N for NO, the next bill in the database, if any, will be displayed and you again will be asked to confirm whether or not this is the bill you want to pay.

If you reach the end of file designation without finding the bill you wanted to pay, refer to section 7.2.h.

26

7.2.1 POST PAYMENT FOR MEALS PURCHASED FROM THE FSO

DISCUSSION.   This option should only be exercised by messes
that subsist from the galley.   The amount due for meals
purchased from the FSO is entered during the end of month
financial reporting.   PMAS assumes that the mess treasurer
makes the payment after the current months financial
processing is complete. (e.g.,   June´s bill for meals
purchased is paid in July).

HOW TO.   From the TRANSACTION INPUT MENU (M-02), select code
4 - POST CASH EXPENDITURES.   You will now see the POST
PAYMENT FOR menu (M-024). From this menu select code 3-
MEALS PURCHASED FROM FSO. Selecting code 3 will initiate a
database search for the correct bill.   When the bill is
located it will be displayed on screen TR-005. You will then
be asked if the transaction displayed should be marked as
paid.Answering Y for YES will cause the transaction to be
marked as paid.   Answering N for NO will cause the
transaction to remain as an outstanding accounts payable.

27

7.2.m POSTING PAYMENT OF MISCELLANEOUS BILLS

DISCUSSION. If you have previously "informed" PMAS of an amount owed for a miscellaneous bill in accordance with section 7.2.i, you may post the expenditure of funds used to cover that bill in accordance with the procedures listed below.

HOW TO. From the TRANSACTION INPUT MENU (M-02), select code 4 - POST CASH EXPENDITURES. You will now see the POST PAYMENT FOR menu (M-024). From this menu, select code 4- OTHER EXPENDITURES. The database will then be searched for all outstanding miscellaneous bills. The bills as they are encountered in the database are displayed on screen TR-005. At the bottom of this screen you will be asked to confirm whether or not this is the correct transaction. If you answer Y for YES, then the bill being displayed will be marked as paid and you will be returned to the menu. If you want to pay more bills start the procedure over again. If you answer N for NO, the next bill in the database, if any, will be displayed and you will again be asked to confirm whether or not this is the bill you want to pay.

If you reach the end of file designation without finding the bill you wanted to pay, refer to section 7.2.i.

28

7.2.n POST COLLECTION OF CASH FROM A MESS MEMBER

<u>DISCUSSION</u>. Money will be collected from mess members as the
result of monthly mess bills, mess shares due or special
assessments due. PMAS is made aware of these amounts due by
the member check-in process, the member detaching process or
the creation of monthly mess bill process. The mess
treasurer, after using the aforementioned processes, need
only concern himself with the posting of cash collections.

Once the cash is physically collected from mess members, you
must post the amount collected to PMAS. PMAS will
automatically start the payment process with the member's
oldest debt. Additionally, PMAS will automatically track the
full history of outstanding amounts owed by a member and
report it on the monthly mess bill. In other words, PMAS
will accept partial payments on member's accounts without
forcing the mess treasurer to keep track the member's
outstanding amounts. PMAS will not allow you to post a
collection amount that is greater than what is owed by that
member. <u>Do</u> <u>not</u> use this section to post cash that has been
received by departing mess members in <u>full</u> payment of final
bills. For departing mess member collections refer to
section 7.2.d.

<u>HOW TO</u>. From the TRANSACTION INPUT MENU (M-02), select code
3 - POST CASH COLLECTIONS. You will then see screen M-023
CASH COLLECTION OPTIONS menu. From this menu, select code 1-
CASH RECEIVED FROM MEMBERS/USERS. You will then be asked to
enter the SSN for the member from which the collection was
made. When entering the SSN, use no spaces or dashes. You
will then be shown the name that corresponds with the SSN
that you have just entered. If by chance you entered the SSN
for another (wrong) member of the mess, you can enter 0.00 in
the amount collected and exit the procedure without harm.
Assuming that you have reached the correct member, post the
amount of money collected from the member in the block
provided.

29

7.1.o POST CASH COLLECTION FROM SHIP-RIDER

<u>DISCUSSION</u>. If a monthly or detaching mess bill was prepared for a ship-rider (section 7.1.e), and cash was received from the ship-rider, a collection can now be posted to PMAS. Once a ship-rider has paid in <u>full</u>, his/her account is automatically closed out and his name and SSN are dropped from the database. PMAS will accept partial payment on amounts owed, but when dealing with ship-riders it is best to accept payment in full. PMAS will prevent you from posting a collection amount that is greater than the amount owed.

<u>HOW TO</u>. From the TRANSACTION INPUT MENU (M-02), select code 3 - POST CASH COLLECTIONS. You will then see screen M-023 CASH COLLECTION OPTIONS menu. From this menu, select code 1-CASH RECEIVED FROM MEMBERS/USERS. You will then be asked to enter the SSN for the ship-rider from which the collection was made. When entering the SSN, use no spaces or dashes. You will then be shown the name that corresponds with the SSN you have just entered. If by chance you entered the SSN for another (wrong) member or ship-rider, you could enter 0.00 in the amount collected and exit the procedure without harm. Assuming that you have reached the correct ship-rider, post the amount of money collected from the ship-rider in the block provided.

30

7.1.p POST RECEIPT OF COMMUTED RATIONS PAYMENT

DISCUSSION.   Messes that do not subsist from the galley,
provide meals to enlisted personnel assigned to work the
mess.   Since these meals were produced with provisions paid
for by the mess, the mess is due reimbursement.   This
reimbursement comes in the form of a commuted rations payment
from the Disbursing Officer.   The end of month financial
close out process calculates the amount due and records it to
the database. The mess treasurer, in this case, need only
concern himself with the posting of the receipt of payment.

HOW TO.   From the TRANSACTION INPUT MENU (M-02), select code
3 - POST CASH COLLECTIONS.   Next screen M-023 CASH COLLECTION
OPTIONS menu will appear. From this menu select code 2 - CASH
RECEIVED FROM COMRATS PAYMENT. Generally, the database will
contain one outstanding Commuted Rations payment due. Just
the same, the database will be searched for all transactions
of the desired type.   When found, the transaction will be
displayed on screen TR-005. You will then be asked if the
transaction displayed is the correct one. If you respond
with a Y for YES, PMAS considers the amount listed on the
display as collected and will return you to the menu. If you
respond with N for NO, PMAS will leave the displayed
transaction as outstanding and look for the next occurrence
of the desired transaction.

NOTE: Pmas will not be aware that a Commuted Ration payment
is due until after the end of month financial reports are
completed. For example, PMAS will not be aware of an amount
due for enlisted meals eaten in the month of June, until the
June financial reports are processed.   Trying to post the
receipt of June's Commuted Rations payment prior to that
point will prove to be unsuccessful.

31

7.1.q POSTING MISCELLANEOUS AMOUNTS DUE THE MESS

<u>DISCUSSION</u>. On occasion the mess may find itself in a
situation where it is owed money from sources other than the
"normal" sources. (e.g., mess members, ship-riders, commuted
rations payment)   To illustrate, suppose that coffee mugs
were ordered using mess funds and when they arrived they were
damaged. When the vendor was contacted, he requested the you
return the mugs and he further stated that he would forward a
refund check in thirty days. That vendor now owes the mess
money. PMAS must be informed that money is due before an
actual cash collection can be posted. The procedure outlined
below will "inform" PMAS that an entity owes money to the
mess.   The posting of the actual cash collection is covered
in section 7.1.r.   NOTE: This function should only be
exercised to record unusual amounts due the mess. Accounts
receivable normally associated with running the mess; such as
mess bills due, mess shares due or special assessments due,
are handled automatically by PMAS in response to input in
specific situations.

<u>HOW TO</u>.   From the TRANSACTION INPUT MENU (M-02), select code
1 - RECORD AMOUNTS DUE THE MESS.   Screen TR-001 will now be
on the monitor.   You will be required to enter the
name/entity owing money to the mess, the amount owed and the
reason for the account receivable.

32

213

7.1.r POSTING CASH COLLECTION FOR MISCELLANEOUS REASON

DISCUSSION.   If you have previously recorded an amount due
the mess in accordance with section 7.1.q, you can post the
cash received, as the result of that amount due, utilizing
the procedure below.

HOW TO. From the TRANSACTION INPUT MENU (M-02), select code
3 - POST CASH COLLECTIONS.   You will now see the CASH
COLLECTION OPTIONS MENU (M-023) .   From this menu, select
code 3 - CASH RECEIVED FOR OTHER REASONS. The database will
then be searched for all outstanding miscellaneous accounts
receivable.   The transactions as they are encountered in the
database are displayed on screen TR-005.   At the bottom of
this screen you will be asked to confirm whether or not this
is the correct transaction. If you answer Y for Yes, then
the amount due being displayed will be marked as collected
and you will be returned to the menu. If you want to collect
more accounts receivable start the procedure over again. If
you answer N for   NO, the   next miscellaneous account
receivable in the database, if any, will be displayed and you
will again be asked to confirm whether or not this is the
amount due you want to collect.

If you reach the end of file designation without finding the
amount due you wanted to collect, refer to section 7.2.q.

33

8. PROCESSING MONTHLY FINANCIAL REPORTS

PMAS has the capability to review the database and prepare the Monthly Financial Operating Statement for Messes Afloat, NAVSUP FORM 1367 and all supporting documentation. The process of preparing this report is query based; that is, PMAS will request information not found in the databases (e.g., ending provisions inventory) from the user.

When a mess treasurer elects to process monthly financial reports, PMAS defaults to a trial balance mode. This mode allows the mess treasurer to close out his/her records and have a Monthly Financial Operating Statement prepared for <u>review</u>. The mess treasurer has an unlimited number of attempts to perfect the trial balance before selecting to make the trial balance final. This method allows the mess treasurer the opportunity to find and correct errors before allowing them to permanently affect the mess' financial status. Records must be finalized before a new month's business can be started.

PMAS will utilize the information entered during the tailoring process (section 4) to determine how to prepare your financial reports. There are several different mess "situations". For example, there are Officer and Chief Petty Officer messes. These messes may have one of the following characteristics: subsisting, subsisting but the mess also buys small amounts of bulk provisions, and non-subsisting with two mess bill payment options. PMAS recognizes this fact and tailors the records close out process based on this knowledge. The rest of this section will provide the background required for the query screens you will encounter during this process. Remember, due to the variety of mess "situations", you will not see all of the query screens for which background information is provided.

PMAS will provide the full requirement of records needed to run a private mess. Those reports generated under the trial balance mode will be so indicated with a '** TRIAL BALANCE **' in the date block. Reports generated under the finalize balance option will contain the actual date. The following reports, if appropriate, are provided as output from this process:

> Monthly Financial Operating Statement
> Computation of Commuted Ration Form
> Accounts Receivable Report
> Accounts Payable Report
> Record of Collections Report
> Record of Expenditures Report
> Monthly Transaction Report
> Record of Mess Members

34

Member's Mess Bill Report
Recommended Mess Bill / Meal Price Report

8.1 PREPARING TO PROCESS END OF MONTH REPORTS

It is important to have all the information that PMAS will require on hand prior to beginning the records close out process. Below is a check list of items to consider prior to beginning the process.

<u>All types of messes</u>

Ensure all collections and expenditures of mess funds have been posted to PMAS.

Ensure all bills received but not paid are posted to PMAS. Take special care to post all provisions bills (FSO or Vendor) for the month.

Know the current amount of cash on hand, including amounts is bank checking accounts.

Have provision and non-provision inventories for the end of the month available.

Do you need to prepare monthly mess bills for ship-riders? See section 7.2.e

Have you closed out accounts for members who have detached during the month? See section 7.2.d.

Ensure you have the names, SSN's and periods of leave/TAD taken by mess members during the month. (may not be required in all cases)

<u>SUBSISTING MESSES</u>

Do you hold the monthly bill, with supporting NAVSUP 1046, from the Food Service Officer detailing individual meals purchased?

Are the Navy Standard meal prices current? If not, see section 4.2.

<u>NON-SUBSISTING MESSES</u>

Are the enlisted personnel currently assigned to work the mess listed in the database? Have you added new arrivals, deleted departures?

35

216

Do you know the exact number of days each enlisted
member was considered as assigned to the mess?

Ensure you have total meal counts, by category, for
meals eaten by Officers, Guests of the mess and
enlisted personnel assigned to the mess.

If exercising the pay by meal option as outlined in
NAVSUP PUB. 486 Vol. II para. 3111-1(b), ensure you
have meal counts for breakfast, lunch, dinner and
holiday meals for each member.

8.2   PERFORMING THE RECORDS CLOSE OUT PROCESS

To begin the monthly financial reporting process, select code
3 - GENERATE FINANCIAL REPORTS from the MAIN MENU. You will
again be asked to confirm your desire to start the process.
This second confirmation allows you the opportunity to return
to the menu in the case of an erroneous selection.   At
certain points during the process, you will be prompted to
provide input to PMAS.   These prompt screens are discussed
below.

8.2.a MEMBER LEAVE/TAD REPORTING.   SCREEN EM-007

In situations where a mess bill rebate calculation may be
required, you will be asked if any mess members have gone on
leave/TAD during the month.   If you respond with Y for YES,
you will be required to enter the member's SSN.   SSN's are
entered with no spaces or blanks. You will then receive name
confirmation for the SSN that was entered.   Screen EM-007
will require the entry of the number of days leave/TAD taken
and the total number of days in the month. Note, if a member
is on leave/TAD over the end of a month, you should report
the number of days absent by the end of the month.   For
example, let's assume your roommate went on leave starting 15
June and plans to return 14 July.   When you process June's
financial reports, you would report that he/she had taken 15
days during the month.   Do not wait to his/her return and
report the entire 30 days leave during July's financial
processing.

8.2.b PROVISION/NON-PROVISION ENDING INVENTORIES. SCREEN EM-002

You will be prompted to provide the end of month inventory
figures for both provision and non-provision inventories.
The ending provisions inventory is usually taken by the mess
treasurer and a member of the audit board.   Individual meals

36

purchased from the Food Service Officer are not to be considered as inventory.

The entry of a non-provisions ending inventory figure allows a mess to reduce the impact of large dollar value purchases against the net worth. For example, mess members may authorize the purchase and distribution of ship's plaques to departing members. These plaques can be purchased for $40.00 each in minimum quantities of ten. A $400.00 purchase would have an adverse impact on the net worth if expensed all in one month. By utilizing the non-provisions inventory option, you can distribute that impact over the number of months. As the mess hands out plaques, you would reduce the value of the ending non-provisions inventory a corresponding amount. Note, the tracking of the non-provisions items is a manual process. PMAS only provides the ability to enter an end of month inventory figure. You should be able to justify increases or decreases in this figure with supporting paperwork.

8.2.c DETERMINATION OF MEALS SERVED. SCREEN EM-003

In order to calculate the Commuted Ration amount due the mess, the percentage of total meals eaten by officers and enlisted personnel must be known. PMAS will calculate these percentages based on the total meals eaten by officer and enlisted personnel. Screen EM-003 will require the entry of total meals eaten for the following three categories:

Officer, Officer's guest and ship-riders
(If CPO mess, count CPO meals here)

Guests of the mess

Enlisted personnel

This information can be found on NAVSUP Form 1046 or some locally prepared and maintained form.

8.2.d ENLISTED PERSONNEL TRACKING SCREEN. SCREEN EM-004

Part of the calculation for Commuted Rations requires the determination of the number of days each enlisted person was as assigned to the mess. Situations that would dictate less than a full months entry would be arrivals/departures during a month, or periods of leave/UA taken. Screen EM-004 will display, one at a time, each enlisted person that is recorded in the database and request you enter the number of days each person was assigned to the mess.

37

8.2.e RECOMMENDED MESS BILL/SPECIAL ASSESSMENT. SCREEN EM-005

PMAS will automatically produce a recommended mess bill based on provision costs and adjustments required to keep the mess share at a specified level. (see section 4.3)

For a non-subsisting mess the screen will display next month's recommended mess bill for each member of the mess.

For subsisting messes, the amount shown on the screen will only represent the equal proration of any bulk provisions purchased and any adjustments required to keep the mess share at the specified level. This recommended mess bill will be in addition to any amounts the member owes for individual meals purchased from the Food Service Officer. The aggregate amount owed by each member will be posted to the monthly Member's Mess Bill Report.

In any event, mess treasurer's may wish to round the amount displayed on screen EM-005 to the nearest dollar to facilitate cash collection.

SPECIAL NOTE: Messes that do not subsist from the galley can exercise two payment options. Option 1 is the equal mess bill option. Option 2 permits mess bills based on individual meals eaten. This option can only be exercised by messes that are to operate in port for the full calendar month. (See NAVSUP PUB. 486 VOL. II para. 3111 for details) If you are a mess that intends to operate under option 2 rules for the upcoming month, change the recommended mess bill displayed on screen EM-005 to 0.00. Remember, when financial reports are finalized, tell PMAS of the change in payment options! (section 4 applies)

If you are a mess that is currently operating under option 2 and plan to return to option 1 for the upcoming month, you will need to provide your best estimate for a recommended mess bill for that upcoming month. One method of estimation is to use a mess bill amount from a previous month with a similar operating tempo. Realize, that in this case, members will be paying a mess bill for individual meals eaten during the current month and an estimated bill for the upcoming month. Again, when financial reports are finalized, remember to tell PMAS of the change in payment options!

Screen EM-005 will also allow you to charge the membership a special assessment. Special assessments allow you to meet extraordinary expenses without negatively affecting the mess share. For example, let's suppose the mess has planned a going-away party for the Commanding Officer. In addition to the party, it was decided to present him/her with a departing

38

gift. Based on these anticipated expenses, you could charge
a special assessment to cover this event. If an amount other
than 0.00 is originally displayed in the special assessment
block, this amount is PMAS' recommendation for the minimum
special assessment that should be charged. This situation
will only occur with certain types of messes. The minimum
assessment recommendation is made by reviewing the current
value of the mess share and the level at which you specified
to maintain the mess share. (see section 4.3) In any event,
the amount entered into this block will be assessed to each
member of the mess.

8.2.f FSO BILL FOR INDIVIDUAL MEALS PURCHASED. SCREEN EM-009

In subsisting messes, you will receive a bill from the Food
Service Officer detailing the amount owed for individual
meals purchased by the mess. This bill will be accompanied
by a NAVSUP Form 1046 listing meals chargeable to mess
members, official guests of the mess and ship-riders. The
mess recoups this expense by charging the membership and
ship-riders, either, departing or monthly mess bills. The
cost of meals eaten by official guests is absorbed by the
mess.

NOTE: PMAS assumes the Food Service Officer is not charging
the mess for individual meals consumed by mess specialists
and mess cooks assigned to your mess. In a subsist
situation, enlisted personnel eat the same meals that are
being served in the galley. To charge the mess for these
meals and then reimburse the mess through a Commuted Rations
payment is an added administrative burden. If you are being
charged for these meals, other billing arrangements with the
Food Service Officer must be made. PMAS, in a subsisting
mess situation, has no way of recovering the cost of these
meals.

8.2.g MEALS CHARGEABLE TO MESS MEMBERS. SCREEN TR-011

In subsisting messes or non-subsisting messes, exercising the
pay by meal option (see section 4.4), the recording of
individual meals chargeable is necessary. PMAS will require
the number of breakfast, lunch, dinner and holiday meals
chargeable to each member for the month. Screen TR-011 will
display the members of the mess, one at a time, and request
meal total information. The mess bill will then be computed
and displayed at the bottom of the screen. Bills computed
for subsisting mess members use the Navy Standard Price.
Bills computed for non-subsisting mess members use meal
prices based on food costs. Subsisting messes should compare

39

the amount displayed on screen TR-011 with that found on the
NAVSUP Form 1046. Resolve discrepancies before continuing.

8.2.h FINALIZE END OF MONTH REPORTS. SCREEN EM-001

In PMAS you may run unlimited trial balances. When you are
convinced the trial report are accurate, you may elect to
finalize them. Screen EM-001 will ask if you desire to
finalize reports. If you decide not to finalize the trial
balance, pre-balance conditions will be restored and you will
be returned to the MAIN MENU. Since you did not finalize,
you are again operating back in the current month. If you
elect to finalize the trial balance, another set of reports
will be produced with the phrase ** TRIAL BALANCE ** removed
from the reports. You may now begin posting the business for
the new month. If an error is discovered after the final
report option is selected, you may be able to recover by
utilizing the procedures outlined in section 6.2.

8.2.i FINAL REPORT DATE. SCREEN EM-001

If you have selected to finalize the trial reports, you will
have to provide PMAS with a date for the reports. This date
should always be the last day of the month for which the
reports are being produced.

8.2.j SPECIAL ASSESSMENT. SCREEN EM-006

Screen EM-006 will allow you to charge the membership a
special assessment. Special assessments allow you to meet
extraordinary expenses without negatively affecting the mess
share. For example, let's suppose the mess has planned a
going-away party for the Commanding Officer. In addition to
the party, it was decided to present him/her with a departing
gift. Based on these anticipated expenses, you could charge
a special assessment to cover this event.

If an amount other than 0.00 is displayed in the entry block,
this amount is PMAS' recommendation for the minimum special
assessment that should be charged. This determination is
made by reviewing the current value of the mess share and the
level at which you specified to maintain the mess share. (see
section 4.3) In any event, the amount entered into this
block will be assessed to each member of the mess.

40

APPENDIX G

PRIVATE MESS ACCOUNTING DEMONSTRATION

THIS SOFTWARE APPLICATION MUST BE RUN FROM YOUR COMPUTER'S HARD DRIVE.

BEFORE YOU START, TAKE A BLANK FLOPPY DISK AND FORMAT IT IN ACCORDANCE WITH YOUR COMPUTER'S USER'S MANUAL. WHEN THE DISK IS FORMATTED REMOVE IT AND SET IT ASIDE FOR A FEW MINUTES.

THE FOLLOWING ARE SOME CONCEPTS THE USER SHOULD FAMILIARIZE HIMSELF/HERSELF WITH PRIOR TO RUNNING THE PROGRAM.

ENSURE THAT YOUR PRINTER REMAINS POWERED ON DURING THE DEMONSTRATION RUN. FAILURE TO DO SO MAY CAUSE THE PROGRAM TO RUN ERRATICALLY.

WHEN ENTERING DATA, HITTING A CARRIAGE RETURN OR ENTER KEY MAY BE REQUIRED TO HAVE THE DATA ACCEPTED. IN PLACES WHERE IT IS REQUIRED THE SYMBOL <CR> WILL BE USED.

GREAT PAINS HAVE BEEN TAKEN TO ENSURE THE USER HAS THE OPPORTUNITY TO REVIEW HIS/HER INPUT PRIOR TO FINALIZATION. AFTER YOU ARE REQUIRED TO INPUT INFORMATION YOU WILL ALWAYS BE ASKED IF IT IS CORRECT. THIS WILL BE YOUR CHANCE TO CORRECT YOUR ERRORS PRIOR TO DATABASE ACCEPTANCE. IF THE DATA IS FINE ENTER Y FOR YES. IF YOU DESIRE TO MAKE A CHANGE ENTER N FOR NO. YOU MAY NOW CHANGE ANY OF THE INPUT VALUES.

WE WANT TO HELP FACILITATE THIS PROCESS AS MUCH AS POSSIBLE. IF YOU ARE HAVING PROBLEMS WITH THE PROGRAM CALL US AT THE FOLLOWING NUMBER.

LCDR JER TWIGG   LT MIKE MADDEN
AUTOVON 878-2174 OR COMMERCIAL (408) 646-2174

IF WE ARE NOT THERE WE WILL RETURN YOUR CALL AS QUICKLY AS POSSIBLE.

WITH THIS DEMONSTRATION OUTLINE YOU SHOULD HAVE RECEIVED TWO FLOPPY DISKS, LABELED #1 AND #2. THESE ARE THE DISKS THAT NEED TO BE COPIED TO YOUR HARD DRIVE. WHEN OPERATING WITH A HARD DRIVE THE FOLLOWING SYSTEM PROMPT SHOULD APPEAR: C>. AT THIS PROMPT TYPE A:. THE SYSTEM PROMPT SHOULD NOW READ A>. NOW, TAKE THE DISK LABELED #1 AND INSERT IT INTO YOUR <u>A</u> DRIVE. AT THE SYSTEM PROMPT TYPE:

COPY *.* C: <CR>

1

222

YOU SHOULD RECEIVE SOME INDICATION THAT FILES WERE INDEED COPIED TO YOUR HARD DRIVE. NEXT REMOVE DISK #1 FROM THE A DRIVE AND INSERT DISK #2. AT THE SYSTEM PROMPT TYPE:

COPY *.* C: <CR>

THE PROCESS OF LOADING THE SOFTWARE APPLICATION TO YOUR HARD DRIVE IS NOW COMPLETE. RETURN THE SYSTEM PROMPT BACK TO ITS NORMAL DEFAULT BY TYPING **C:** <CR>.

INSERT THE DISK YOU FORMATTED EARLIER INTO THE A DRIVE. AT THE SYSTEM PROMPT ENTER **MESS** <CR>

THE FIRST THING YOU SHOULD SEE IS THE PROGRAM IDENTIFICATION SCREEN. HIT ANY KEY TO CONTINUE.

NEXT YOU WILL BE ASKED FOR THE SYSTEM PASSWORD. TYPE **FORBIN** <CR>.

YOU WILL NOW SEE THE MAIN MENU. SELECT CODE 1. YOU WILL NOW BE AT THE **UTILITY PROGRAMS** MENU. WE WILL NOW TAILOR THE PROGRAM TO YOUR SHIP. SELECT CODE 1. YOU ARE NOW IN THE SET-UP PROGRAM. PRESS ANY KEY TO CONTINUE. YOU WILL AGAIN BE ASKED TO MAKE SURE YOU WANT TO CHANGE THE SET-UP PARAMETERS. TYPE Y FOR YES.

ANSWER THE ON-SCREEN QUESTIONS IN THE FOLLOWING MANNER:

1. **YOUR SHIP´S NAME** <CR>
2. **D** <CR>
3. **N** <CR>

YOU WILL NOW BE ASKED THE METHOD BY WHICH YOU CHARGE YOUR MEMBERS FOR SUBSISTING. SELECT B <CR>. ACCEPT MEAL PRICES AS LISTED BY HITTING <CR> AT EACH INPUT.

NEXT, YOU WILL BE ASKED AT WHAT LEVEL YOU WANT THE MESS SHARE TO REMAIN. ENTER **50.00** <CR>

THE PROGRAM WILL REQUEST THE VALUE OF ENLISTED BAS. THIS VALUE IS REQUIRED FOR THE COMPUTATION OF COMRATS. ENTER **4.00** <CR>

YOU WILL NOW BE RETURNED TO THE **UTILITY PROGRAM** MENU. SELECT CODE **6** TO RETURN TO THE **MAIN MENU**.

NOW WE WILL START A SIMULATED MONTH´S BUSINESS. THE FOLLOWING VALUES HAVE ALREADY BEEN LOADED INTO THE DATABASES.

* CASH BROUGHT FORWARD $1350.00
* BEGINNING INVENTORY $300.00
* MEMBERS ASSIGNED TO THE MESS 23
* ENLISTED PERSONNEL ASSIGNED TO WORK THE MESS 6
* MESS SHARE FROM LAST MONTH $50.00

2

* MESS BILL COMPUTED LAST MONTH $60.00
* MEAL PRICES: BREAKFAST .50 LUNCH 1.00 DINNER 1.00
                HOLIDAY MEAL 1.25

MONTHLY TRANSACTIONS

1. RECEIVED A BILL FOR $30.00 FROM FLOWERS BY PLANT FOR THE FLOWERS THE MESS BOUGHT FOR THE CO´S WIFE. FROM THE **MAIN MENU** SELECT CODE 2 (PROCESS TRANSACTIONS). YOU WILL NOW BE IN THE **TRANSACTION INPUT MENU**. SELECT CODE 2 (RECORD AMOUNTS OWED BY THE MESS). FILL IN THE SCREEN AS FOLLOWS:

    BILLED OWED TO : **FLOWERS BY PLANT** <CR>
    AMOUNT OWED :   30.00 <CR>
    ENTER SELECTION : **C**

    PURPOSE : **FLOWERS FOR CO´S WIFE**

ANSWER Y TO THE QUESTION: DO YOU DESIRE TO MAKE ANOTHER ACCOUNTS PAYABLE ENTRY?

2. BILL´S GROCERY SENT YOU A BILL FOR THE ITEMS THAT MS2 SAGINARIO PICKED UP YESTERDAY. FILL IN THE SCREEN AS FOLLOWS:

    BILL OWED TO : **BILL´S GROCERY** <CR>
    AMOUNT OWED: 40.00 <CR>
    ENTER SELECTION: **B** (FOR PROVISIONS FROM VENDORS)

ANSWER Y TO THE QUESTION: DO YOU DESIRE TO MAKE ANOTHER ACCOUNTS PAYABLE ENTRY?

3. THE FOOD SERVICE OFFICER SENT UP A BILL FOR SOME ITEMS THE MESS CATERER WANTED FOR A WARDROOM GATHERING. FILL IN THE SCREEN AS FOLLOWS:

    BILL OWED TO : **FSO** <CR>
    AMOUNT OWED : 40.00 <CR>
    ENTER SELECTION: **A** (FOR PROVISIONS FROM THE FSO)

THE PROGRAM WILL NOW ASK FOR THE REQUISITION NUMBER OF THE FOOD SERVICE DOCUMENT. ENTER **001**. ANSWER **N** TO THE QUESTION: DO YOU DESIRE TO MAKE ANOTHER ACCOUNTS PAYABLE ENTRY. THIS WILL NOW RETURN YOU TO THE **TRANSACTION INPUT MENU**

4. WE ARE NOW GOING TO RECORD AN AMOUNT DUE THE MESS. SELECT CODE 1. YESTERDAY YOU RETURNED SOME DAMAGED SWO PINS TO THE NAVY EXCHANGE. THEY ISSUED YOU A CREDIT SLIP FOR $50.00. YOU EXPECT

3

TO RECEIVE THE CHECK IN THE MAIL IN THE NEAR FUTURE.. FILL IN
THE SCREEN AS FOLLOWS:

NAME/ENTITY OWING
MONEY TO THE MESS: **NAVY EXCHANGE** <CR>
AMOUNT DUE: **50.00** <CR>
REASON: **CREDIT MEMO** <CR>

ANSWER **N** TO THE QUESTION: DO YOU DESIRE TO MAKE ANOTHER ACCOUNTS
RECEIVABLE ENTRY? YOU WILL THEN BE RETURNED TO THE **TRANSACTION
INPUT MENU**.

5. ENS. JONES REPORTED ABOARD THIS WEEK AND YOU WANT TO ADD HIM
TO THE DATABASE. SELECT CODE 5 (ADD/DELETE MEMBERS). YOU WILL
NOW BE AT THE **ADD/DELETE MESS USERS** MENU. SELECT CODE 1. FILL
IN THE SCREEN AS FOLLOWS:

NAME OF NEW MEMBER: **JONES, JOHN P** <CR>
SSN: **191919191**
STATUS: **M** (FOR MEMBER)
DATE JOINED: **11/15/87**
RANK: **ENS** <CR>

ANOTHER SCREEN WILL APPEAR. FILL IN AS FOLLOWS:

NUMBER OF DAYS MEMBER ONBOARD
DURING MONTH   15

NUMBER OF DAYS IN MONTH   30

AT THIS POINT THE MEMBER HAS BEEN ADDED TO THE DATABASE. THE
AMOUNTS THE NEW MEMBER OWES FOR HIS MESS SHARE AND PARTIAL MESS
BILL HAVE BEEN AUTOMATICALLY CALCULATED AND RECORDED TO A
DATABASE. LET'S ADD ANOTHER MEMBER. ANSWER **Y** TO THE PROMPT.
FILL IN THE SCREEN AS FOLLOWS:

NAME OF NEW MEMBER: **NIMITZ, CHESTER A**
SSN: **100000009**
STATUS **M**
DATE JOINED **11/20/87**
RANK **LTJG**

FILL IN THE NEXT SCREEN WITH:

NUMBER OF DAYS MEMBER
ONBOARD DURING MONTH   10

NUMBER OF DAYS IN MONTH   30

ANSWER **N** TO THE QUESTION: DO YOU WISH TO ADD ANOTHER MEMBER? YOU
WILL BE RETURNED TO THE **ADD/DELETE USERS** MENU.

4

6. NOW LET'S WORK UP A REBATE SUMMARY FOR A DEPARTING MEMBER. LT. MADDEN WILL BE LEAVING LATER TODAY AND HAS ASKED YOU TO CHECK HIM OUT OF THE MESS. SELECT CODE 2 FROM THE **ADD/DELETE USERS** MENU. **ENSURE YOUR PRINTER IS ON!!** YOU WILL FIRST BE ASKED FOR THE SOCIAL SECURITY NUMBER OF THE USER. ENTER 987654321. NEXT, IT WILL ASK IF THE DEPARTING MEMBER HAS BEEN ON LEAVE DURING THE MONTH. SINCE THE C.O. GAVE HIM FIVE DAYS AFTER HE WAS RELIEVED, ENTER **Y**. YOU WILL NOW SEE THE MEMBERS NAME AND A REQUEST FOR MORE INFORMATION. FILL IN THE SCREEN AS FOLLOWS:

     NUMBER OF DAYS MEMBER ON
     LEAVE DURING MONTH: 05

     TOTAL NUMBER OF DAYS
     IN MONTH   30

NEXT A SCREEN WILL APPEAR ASKING FOR THE REMAINING INFORMATION TO CALCULATE HIS REBATE. FILL IN THE SCREEN AS FOLLOWS:

     NUMBER OF DAYS MEMBER ONBOARD
     DURING MONTH   20

     NUMBER OF DAYS IN MONTH   30

YOUR PRINTER WILL NOW PRINT OUT A SUMMARY FOR THE DETACHING MEMBER. ANSWER **N** TO THE QUESTION: DO YOU DESIRE TO DELETE ANOTHER MEMBER? YOU WILL THEN BE RETURNED TO THE **ADD/DELETE USER** MENU.

7. YOU FIND LT. MADDEN IN THE WARDROOM AND YOU PRESENT HIM HIS REBATE SUMMARY. YOU ASK HIM TO STOP BY YOUR STATEROOM SO YOU CAN PAY HIM AND CLOSE OUT HIS ACCOUNT. SELECT CODE 3 (CLOSE OUT MEMBERS ACCOUNT). YOU WILL FIRST BE ASKED TO PROVIDE A SSN. ENTER **987654321**. THE LOWER HALF OF THE SCREEN WILL NOW CONTAIN THE INFORMATION YOU HAVE REQUESTED. SINCE IT IS CORRECT ENTER Y. LT. MADDEN'S ACCOUNT IS NOW CLOSED OUT. YOU WILL NOW BE RETURNED TO THE **ADD/DELETE** USER MENU. ENTER CODE **4** TO RETURN TO THE PREVIOUS MENU. YOU WILL NOW BE AT THE **TRANSACTION INPUT** MENU.

8. NIMITZ STOPS BY YOUR STATEROOM AND STATES HE WANTS TO PAY OFF HIS MESS SHARE AND PARTIAL MESS BILL (AMOUNTS DUE GENERATED WHEN HE JOINED THE MESS). HE HANDS YOU $70.00. LET'S POST THIS COLLECTION OF CASH TO THE DATABASE. SELECT CODE 3 (POST CASH

5

COLLECTION). YOU ARE NOW LOOKING AT THE **CASH COLLECTION OPTIONS** MENU. SELECT CODE 1. ENTER NIMITZ´S SSN AT THE PROMPT: **100000009**. ENTER **70.00** WHEN ASKED FOR THE AMOUNT OF THE COLLECTION. THERE ARE NO FURTHER COLLECTIONS SO ENTER **N** WHEN ASKED. YOU WILL BE RETURNED TO THE **CASH COLLECTION OPTIONS** MENU. SELECT CODE 4 TO RETURN TO THE PREVIOUS MENU. YOU WILL NOW BE LOOKING AT THE **TRANSACTION INPUT** MENU.

9. THE FOOD SERVICE OFFICER HAS JUST HANDED YOU THE PROVISIONS BILL FOR THE MONTH. LET´S POST THE AMOUNT OWED TO THE FSO. SELECT CODE 2 (RECORD AMOUNT OWED BY THE MESS). FILL IN THE SCREEN AS FOLLOWS:

BILL OWED TO: **FOOD SERVICE OFFICER**
AMOUNT OWED: **695.00**
ENTER SELECTION: **A**

YOU WILL NOW BE ASKED FOR A REQUISITION NUMBER. ENTER **002**. THERE ARE NO FURTHER TRANSACTIONS OF THIS TYPE. ENTER **N** WHEN ASKED IF THERE ARE MORE. YOU WILL NOW BE RETURNED TO THE **TRANSACTION INPUT** MENU.

9. YOU HAVE THE MONEY, SO WE PAY THE FOOD SERVICE OFFICER HIS $695.00. SELECT CODE **4** (POST CASH EXPENDITURE). THE NEXT SCREEN WILL ASK WHAT THE CASH EXPENDITURE IS FOR. SELECT CODE 1 (PROVISIONS BILL FROM FSO). YOU WILL BE SHOWN EACH BILL OWED TO THE FSO. THE FIRST ONE SHOWN WILL BE SERIAL NUMBER 03001 FOR $40.00. THIS IS OBVIOUSLY NOT THE BILL WE WANT TO PAY. TO PASS IT BY ENTER **N** AT THE PROMPT. THE NEXT BILL TO BE SHOWN WILL BE SERIAL NUMBER 03002 FOR $695.00. THIS IS IT! SELECT **Y** TO COMPLETE THE PAYMENT. YOU WILL THEN BE RETURNED TO THE **POST PAYMENT FOR:** MENU. SELECT CODE 6 TO RETURN TO THE PREVIOUS MENU. ONCE AT THE **TRANSACTION INPUT** MENU SELECT CODE 7 TO RETURN TO THE **MAIN MENU**.

10. IT IS NOW TIME TO RUN THE END OF THE MONTH FINANCIAL REPORTS. SELECT CODE 3 TO START THE PROCESS. NOTE THAT THIS PROGRAM WAS DESIGNED TO RUN ON A IBM AT OR SIMILAR MACHINE. RUNNING THIS PROGRAM ON A SLOWER COMPUTER MIGHT CAUSE THE RUN TIME FOR THIS PROCESS TO LAST ABOUT 10 MINUTES. (STILL BETTER THAN DOING IT YOURSELF!!) **ENSURE YOUR PRINTER IS ON!!**

A. YOU WILL FIRST BE ASKED IF ANY OF THE MEMBERS HAVE BEEN ON LEAVE DURING THE MONTH. ENTER **Y**. YOUR ROOMMATE TOM BEST WAS ON LEAVE 10 DAYS THIS MONTH. WHEN ASKED ENTER HIS SSN: **273347821**. FILL IN THE NEXT

6

SCREEN AS FOLLOWS:

      NUMBER OF DAYS ON LEAVE DURING MONTH   10

      TOTAL NUMBER OF DAYS IN MONTH   30

HIS LEAVE REBATE HAS BEEN AUTOMATICALLY CALCULATED AND POSTED TO THE DATABASE. NO MORE MEMBERS HAVE BEEN ON LEAVE DURING THE MONTH, SO ENTER **N** TO THE QUESTION.

B. YOU WILL NEXT BE ASKED TO PROVIDE AN ENDING INVENTORY FIGURE. ENTER **400.00** AT THE PROMPT.

C. YOU WILL THEN BE ASKED TO PROVIDE A MEAL SUMMARY FOR THE MONTH. FILL IN THE SCREEN AS FOLLOWS:

      OFFICERS/OFFICER'S GUESTS: 1000 <CR>   ,
      GUESTS OF THE MESS: 30 <CR>
      ENLISTED PERSONNEL: 270 <CR>
      NUMBER OF DAYS IN MONTH: 30

D. YOU WILL NEXT BE ASKED TO PROVIDE THE NUMBER OF DAYS EACH ENLISTED MEMBER HAS BEEN ASSIGNED TO WORK IN THE MESS THIS MONTH. THIS INFORMATION IS REQUIRED TO COMPUTE COMMUTED RATIONS. WHEN ASKED ENTER **30** DAYS FOR EACH PERSON.

DURING THE PROCESS A SCREEN WILL APPEAR LISTING A SUGGESTED MESS BILL FOR THE NEXT MONTH. THE AMOUNT LISTED IS FINE WITH YOU SO HIT <CR>. IT WILL NOW PROVIDE YOU AN OPPORTUNITY TO CHARGE THE MEMBERS A SPECIAL ASSESSMENT. YOU KNOW THE C.O. IS DEPARTING NEXT MONTH AND THE WARDROOM HAS AGREED TO BUY HIM A DEPARTING GIFT. YOU REASON THAT EXTRA CASH WILL BE REQUIRED AND YOU DO NOT WANT TO LOWER THE OVERALL VALUE OF THE MESS SHARE. SO YOU ENTER **5.00** AT THE PROMPT.

F. NEXT YOU WILL BE ASKED IF YOU WANT TO PRODUCE FINAL REPORTS. FOR THE PURPOSES OF THE DEMO, ENTER **N**. YOU WILL BE RETURNED TO THE **MAIN MENU**. IT IS TIME TO QUIT SO SELECT CODE **4**.

THANK YOU FOR YOUR TIME AND ASSISTANCE. PLEASE FINISH THE ENCLOSED SURVEY AND USE THE ENVELOPE PROVIDED TO RETURN THE SURVEY RESULTS TO US. YOU MAY KEEP THE DISK.

7

APPENDIX H
PRIVATE MESS SURVEY

THIS SURVEY IS <u>NOT</u> FOR THE PURPOSES OF ASSESSING YOUR JOB PERFORMANCE AS MESS TREASURER. ITS PURPOSE IS TO DETERMINE THE DEGREE OF SUPPORT THAT A COMPUTER PROGRAM WE HAVE DEVELOPED WOULD PROVIDE TO A MESS TREASURER.

YOU MAY RESPOND ANNONYMOUSLY. HOWEVER, SHOULD YOU DESIRE TO KNOW THE RESULTS OF THIS SURVEY, PLEASE PROVIDE YOUR NAME AND ADDRESS BELOW:

NAME_____

ADDRESS_____

CITY_____ STATE_____ ZIP_____

PART I

USER PROFILE

1. WHAT IS YOUR PRIMARY DUTY? _____

2. WHAT RANK DO YOU HOLD? _____

3. HOW LONG HAVE YOU BEEN A MESS TREASURER? _____

4. HOW LONG IS YOUR TENURE OF MESS TREASURER PLANNED TO BE?_____

5. WHAT STATEMENT BEST DESCRIBES YOUR UNDERSTANDING OF THE PRIVATE MESS RECORDS-KEEPING SYSTEM?

    ___VAGUE ___LIMITED ___BASIC ___FULL ___COMPLETE

6. HAVE YOU HAD EXPOSURE TO MICRO COMPUTERS PREVIOUSLY?

    ___NONE ___VERY LITTLE ___SOME ___ROUTINE ___EXTENSIVE

SURVEY OF PRESENT ENVIRONMENT

1. WHAT TYPE OF MESS DO YOU PRESENTLY RUN?

    ___SUBSIST FROM THE GALLEY. WE BUY
    INDIVIDUALLY PREPARED MEALS FROM THE FOOD
    SERVICE OFFICER.

    ___A TRUE PRIVATE MESS. WE BUY PROVISIONS
    FROM THE FOOD SERVICE OFFICER AND PREPARE
    OUR OWN MEALS.

1

2. HOW MANY HOURS A WEEK DO YOU SPEND, ON AVERAGE, HANDLING MESS RECORDS?

___0-2   ___2-3   ___3-5   ___5-10   ___10 OR MORE

3. HOW MANY HOURS DOES IT TAKE YOU TO CLOSE ACCOUNTS AND PREPARE THE MONTHLY FINANCIAL STATEMENT?

___0-2   ___2-3   ___3-5   ___5-10   ___10 OR MORE

4. WHAT STATEMENT BEST DESCRIBES THE IMPACT THAT THE MESS TREASURER JOB HAS ON YOUR SHIPBOARD DUTIES?

_____NO IMPACT WHAT SO EVER

_____ALMOST NO IMPACT

_____SOME IMPACT

_____A NOTICEABLE IMPACT

_____A SEVERE IMPACT

5. HOW WOULD YOU RATE THE TURNOVER TRAINING ACCORDED TO YOU PRIOR TO YOUR ASSIGNMENT AS MESS TRASURER?

_____NON-EXISTANT

_____OF LITTLE HELP

_____SOMEWHAT HELPFUL

_____GENERALLY HELPFUL

_____EXTREMELY HELPFUL

6. WHAT STATEMENT BEST DESCRIBES THE CONDITION OF THE RECORDS THAT WERE TURNED OVER TO YOU?

_____IN GERERAL DISARRAY; NO APPARENT METHOD OF ORGANIZATION NOTICEABLE

_____SOME ATTEMPTS AT PROPER ACCOUNTING TRIED

_____ALL REQUIREMENTS FOR RECORDS-KEEPING WERE BASICALLY MET

_____A GOOD SET OF RECORDS ALLOWING EASY REVIEW OF PAST TRANSACTIONS

_____A COMPLETE, NEAT ACCURATE SET OF RECORDS THAT WERE INSPECTION READY

2

7.   WHAT IS THE NUMBER OF MEMBERS IN YOUR MESS?_____

8.   DO YOU FEEL THAT THE MESS TREASURER'S JOB KEEPS YOU FROM
     OTHER MORE PRODUCTIVE WORK?

     ___NO ___ALMOST NEVER ___SOMETIMES ___OFTEN ___ALWAYS

9.   DO YOU BELIEVE THAT RECORDS-KEEPING CHORES YOU NOW
     PERFORM COULD BE IMPROVED THROUGH THE USE OF A COMPUTER?

                    ____NO

                    ____MAY POSSIBLY BE IMPROVED

                    ____CAN BE IMPROVED

                    ____CAN BE IMPROVED NOTICEABLY ,

                    ____CAN BE IMPROVED SIGNIFICANTLY

10. DO YOU FEEL THE TASKS YOU NOW PERFORM COULD BECOME MORE
     BEARABLE THROUGH THE USE OF A PROGRAM LIKE THIS ONE?

                    ____NO, NOT AT ALL

                    ____MAYBE, TO A SLIGHT EXTENT

                    ____YES, TO SOME EXTENT

                    ____YES, TO A CONSIDERABLE EXTENT

                    ____YES, TO A GREAT EXTENT

          ****

               BEFORE PROCEEDING TO PART II,

               PLEASE RUN THE COMPUTER PROGRAM

          ****

3

PART II

CONTINUE WITH THIS SECTION ONLY AFTER YOU HAVE RUN THE DEMONSTRATION SOFTWARE.

1. WHAT STATEMENT BEST DESCRIBES HOW USEFUL YOU FEEL A COMPUTER SYSTEM OF THIS KIND WILL BE?

    _____ OF NO USE

    _____ OF VERY LITTLE USE

    _____ OF SOME USE

    _____ VERY USEFUL

    _____ EXTREMELY USEFUL

2. DO YOU THINK THE NEW SYSTEM COULD RESULT IN THE SAVINGS OF YOUR TIME?

    _____ NO, IT WILL SAVE NO TIME

    _____ MAY BE, IT WILL SAVE SOME TIME

    _____ YES, IT WILL SAVE SOME TIME

    _____ YES, IT WILL SAVE CONSIDERABLE TIME

    _____ YES, IT WILL BE A GREAT TIME SAVER

3. DID YOU FIND THE SYSTEM UNDERSTANDABLE AND EASY TO RUN ?

    _____ NO, VERY CONFUSING AND HARD TO RUN

    _____ NO, SOMEWHAT CONFUSING AND NOT CLEAR

    _____ YES, GENERALLY UNDERSTANDABLE AND CLEAR

    _____ YES, VERY UNDERSTANDABLE AND EASY TO RUN

    _____ YES, SURPRISINGLY UNDERSTANDABLE AND
              VERY EASY TO RUN EVEN BY A NOVICE

4

4. DO YOU FEEL THAT IF THIS SYSTEM IS USED THE TURNOVER PROCEDURES BETWEEN MESS TREASURERS WILL BE IMPROVED AND SIMPLIFIED ?

_____NOT REALLY

_____MAY BE TO SOME DEGREE

_____CAN BE TO SOME DEGREE

_____CONSIDERABLY

_____A GREAT DEAL

5. ESTIMATE THE SAVINGS OF YOUR TIME IN HOURS PER MONTH THAT COULD BE REALIZED IF THIS SYTEM WERE TO BE USED ON A PERMANENT BASIS.

___0-2 ___2-5 ___5-7 ___7-10 ___10 OR MORE

6. DO YOU FEEL IF THE SYSTEM IS ADOPTED THAT IT WILL RESULT IN MORE ACCURATE AND TIMELY RECORDS-KEEPING?

_____NO; IT WILL CREATE MORE WORK

_____NOT REALLY

_____FEEL SOME IMPROVEMENTS WILL OCCUR

_____FEEL SEVERAL IMPROVEMENTS WILL OCCUR

_____FEEL MAJOR IMPROVEMENTS WILL OCCUR

ADD ANY GENERAL COMMENTS/SUGGESTIONS FOR IMPROVEMENT YOU HAVE CONCERNING THE COMPUTER PROGRAM BELOW:

5

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