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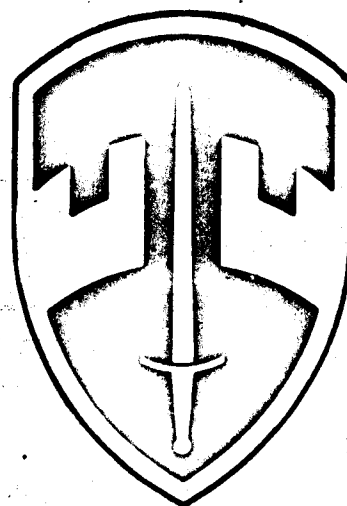
**CIVIL OPERATIONS AND RURAL DEVELOPMENT SUPPORT
RESEARCH AND ANALYSIS**

June 1972

HAMLET EVALUATION SYSTEM (HES)

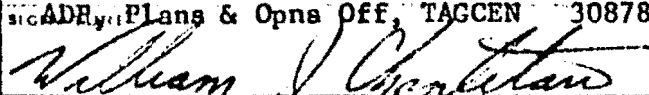
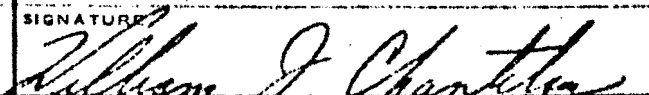
M
Document Number
DAR R70
OM-01A
Operations Manual

**MILITARY
ASSISTANCE
COMMAND
VIETNAM**



**EACH TRANSMITTAL OF THIS DOCUMENT OUTSIDE THE
AGENCIES OF THE UNITED STATES GOVERNMENT MUST
HAVE THE PRIOR APPROVAL OF HQ USMACV, MACCORDS-RA**

**DR. JOHN HENRY HATCHER
Records Mgt. Div. (TAGCEN)
HQDA (DAAG-AMR-5) OX3-1849**

REQUEST FOR DATA PROCESSING SUPPORT (CSR 18-3)		DATE 29 Apr 75	REPORTS CONTROL SYMBOL /
		REQUEST NUMBER CK-0007-75	PRIORITY
TO: DACS-AMZ-A DECLASSIFIED E.O. 13526, Sec 3.3 NN D023093	FROM: DAAG-COM-I Wash DC GE 119 Forrestal Bldg	TYPE OF ACTION <input type="checkbox"/> NEW SYSTEM <input type="checkbox"/> REVISION <input checked="" type="checkbox"/> PRODUCTION	
TITLE OF REPORT OR SYSTEM 6-17-10 Hamlet Evaluation System (HES)			
AUTHORIZING DOCUMENT CSR 18-4			
PURPOSE OF REQUEST To Secure Printouts of HES for Use in Answering FOIA Inquires			
FREQUENCY <input type="checkbox"/> RECURRING (Indicate frequency)		<input checked="" type="checkbox"/> ONE TIME	
		SECURITY DESIGNATION CONFIDENTIAL	
INPUT DESCRIPTION (Such as source, format, data input will be available for processing, approximate volume) (Continue on separate sheet of paper if necessary)			
As shown by inclosed documentation. Input includes following tape reels: 3262 4203, 4176, 4181, 4160 all classified confidential.			
3262 T141 4203 T131 4176 T081 4181 T111 4160 T121			
SYSTEMS DESCRIPTION (Such as internal computations, special instructions) (Continue on separate sheet of paper if necessary)			
As described by inclosed documentation.			
OUTPUT DESCRIPTION (Such as addressee, type paper, number of copies, due out date) (Continue on separate sheet of paper if necessary)			PROPOSED COMPLETION DATE
Request output in two phases:			
I. Sample dump of tapes in report format for purposes of determining type of data and possibility of declassifying. One-part, standard paper.			
II. Complete listing of data tapes in report format (xerox reduced) to one copy 8½ x 11.			
REQUESTING AUTHORITY TYPED NAME, RANK/GRADE, TITLE & TELEPHONE NO./EXT. WILLIAM J. CHANTELAU MAJ, AGC SDC ADR, Plans & Opns Off, TAGCEN 30878		REQUESTING AGENCY DATA AUTOMATION COORDINATOR TYPED NAME, RANK/GRADE, TITLE & TELEPHONE NO./EXT.	
			

HEADQUARTERS
MILITARY ASSISTANCE COMMAND, VIETNAM

HAMLET EVALUATION SYSTEM (HES)

June 1972

MACV Document No.
DAR R70
OM-01A
Operations Manual

Prepared for
Office of the Associate Director for Research and Analysis
Office of the Director
Civil Operations and Rural Development Support

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OF THE UNITED STATES GOVERNMENT MUST HAVE THE PRIOR
APPROVAL OF HQ USMACV, MACCORDS-RA.

ACKNOWLEDGEMENT

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HAMLET EVALUATION SYSTEM (HES)

OPERATIONS MANUAL

1 PURPOSE

The purpose of the Operations Manual is to establish the procedures to be followed by the Data Management Agency (DMA) Computer Operations Division to successfully initiate, process, and terminate the operations of the Hamlet Evaluation System (HES).

A glossary of mnemonics, abbreviations, and special terms used in this manual appears in appendix A.

2 SYSTEM CONTROL

This section includes discussions on the application, operation, configuration, performance and organization of the Hamlet Evaluation System (HES). A description of the data base and a detailed description of the system's inputs, processing, and outputs are also included. HES information flow is illustrated in figure 2-1.

2.1 System Application. HES provides an automated means of collecting and reporting information describing the status of pacification at the hamlet and village level throughout the Republic of Vietnam (RVN). The system produces information based on data describing the physical environment of each hamlet and village and the effects achieved by the pacification program as applied to these areas.

HES was designed specifically as a means of evaluating the effects of insurgency upon the people of Vietnam; essentially, the system permits a set of questions to be asked about the people and their environment, and then evaluations to be derived from the responses. HES provides information in three functional areas encompassing pacification -- military, political, and community development -- from a set of multiple-choice questions. (Appendix B in the HES Command Manual contains the HES question set.) Answers to these questions are submitted monthly and quarterly by U.S. and Vietnamese District Senior Advisors (DSAs) through channels to MACCORDS, where the data is processed. HES may be considered an approach to pacification measurement, since the system computes ratings for hamlets and villages using a mathematical technique (Bayes Theorem) based on the theory of statistical inference. The manner in which each hamlet's overall HES rating is determined

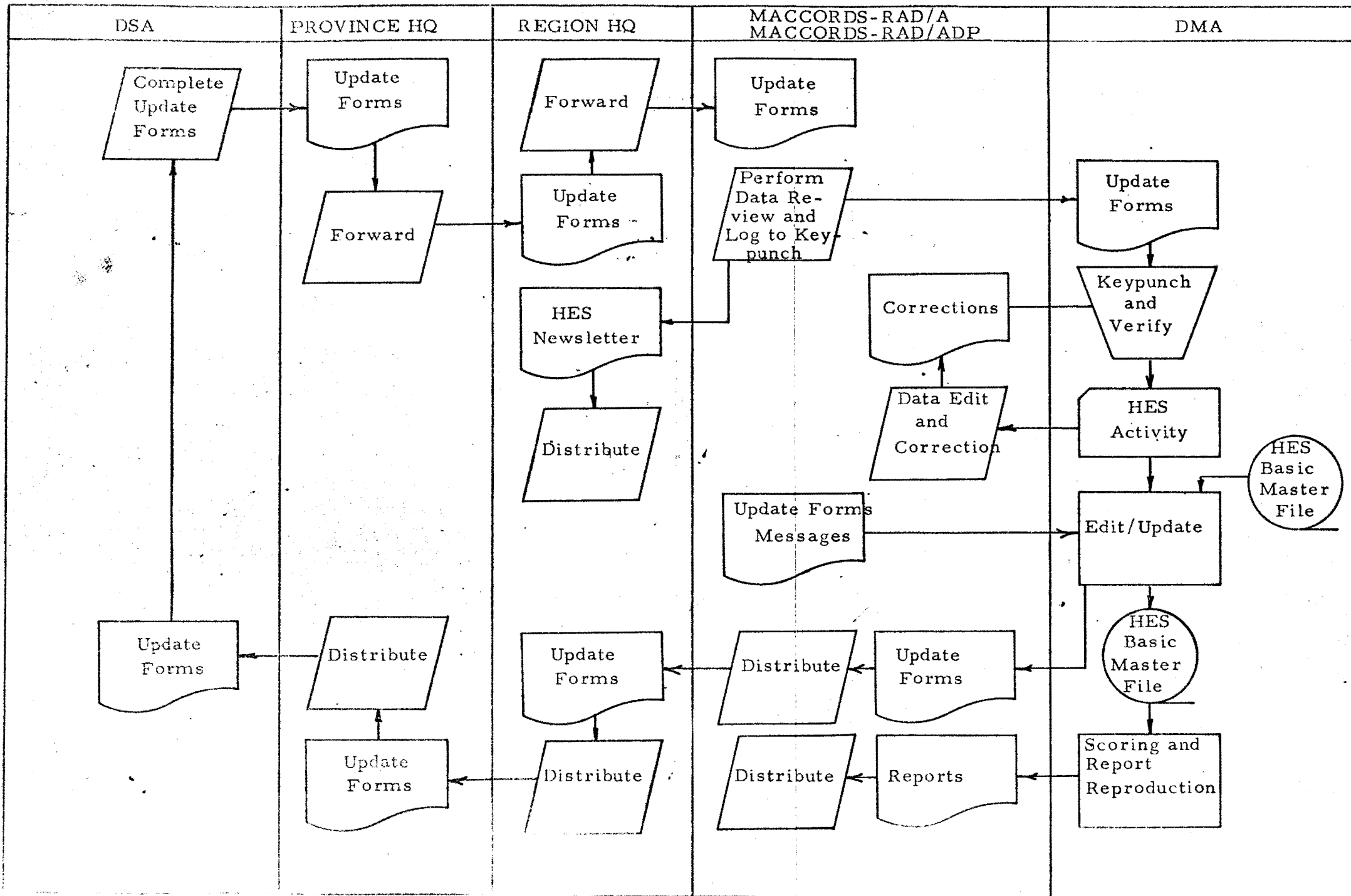


Figure 2-1

HES INFORMATION FLOWCHART

(from A, the most secure, through E, the least; N (non-evaluated); or V (under Viet Cong control)) is described in appendix C of the HES Command Manual.

System reports displaying information for both computed ratings and responses to the HES question set are generated for use by those commands and agencies involved in the management and/or analysis of pacification program resources and their employment.

2.2 System Objectives. HES is designed to meet the following objectives:

- (a) Monitor the progress of the pacification effort in hamlets and villages throughout RVN
- (b) Provide an automated capability for analyzing trends in various aspects of projects within the pacification program
- (c) Provide a variety of automated summary and analytical reports that reflect military, political, and community development aspects of the pacification program
- (d) Provide a geopolitical profile of RVN with data retrievable at any component geopolitical level (hamlet, village, district, province, military region)
- (e) Provide for computer plotting of conditions pertinent to the pacification program and its related projects.

Another significant feature of the system is its interface with other, more specialized pacification systems. HES provides much of the basic data for other systems. It provides the primary identification numbers for all geopolitical levels as well as the geographic coordinates. It also serves as a check on the data from systems that deal in more detail with certain aspects of pacification.

2.3 System Development. HES was designed as an evolutionary and flexible system. Recognizing that counterinsurgency warfare is dynamic and everchanging, and that the pacification activities within Vietnam are continually changing as emphasis switches from military to political to economic development activities, it was expected that

the HES question set and system models would undergo modification to reflect pacification as accurately as possible. Other anticipated modifications to HES include the development of bilingual English/Vietnamese reports and additional refinements to ensure maximum system responsiveness and data reliability.

2.4 System Operation. HES is often referred to as a "computer-assisted" system because the computer is only one of many tools used by the system. HES operates on a monthly production cycle, with many parts of that cycle consisting of manual operations.

Data arrives in Saigon on about the 5th of each month from the provinces, districts, and autonomous cities covered by HES. This data permits processing of changes and preparation of updated print-outs for return to the field on a workable monthly cycle. Figure 2-1 illustrates these operations in the cycle, showing the flow of HES data required by the system through the organizations responsible for the preparation and processing of the data.

2.5 System Configuration. HES is processed by DMA on an IBM 360/50 computer. Supporting equipment includes standard card punch and card verifier equipment, interpreter, and a card sorter. Online equipment includes a card reader/punch, disk units, tape drives, and a line printer. A CALCOMP plotter is used to produce HES hamlet maps and population density maps, and the geoplot module of the data presentation system (DPS) is used to produce special plots.

2.6 Performance. Because of the period of time required for processing data, HES consists of a data review step, a keypunch/verify step and a set of separate programs rather than a collection of sub-routines and linkage programs. Programs are executed sequentially as the steps in the monthly cycle occur. The system comprises over 50 computer programs whose functions include source data editing, data base maintenance, new source documents (update forms) generation, and HES reports generation. Requirements for data aggregation and/or display (reports or plots) are met by combinations of existing programs or by creation of new programs as required. A detailed description of each step in the production cycle is given in section 3.

2.7 System Organization. HES consists essentially of three subsystems: the HES analysis subsystem, HES master subsystem, and HES output subsystem, as described below:

- (a) HES analysis subsystem - This portion of the system consists of computer programs that function to produce the HES update forms (which serve as input to the next month's cycle) and listings and reports used by MACCORDS-RAD/A analysts for scoring for statistical purposes.
- (b) HES master file subsystem - This subsystem consists of computer programs that edit, update, and audit the HES basic master file, detect and rectify anomalies in the scored base data masters, and perform scoring of the current month's responses.
- (c) HES output subsystem - This subsystem consists of computer programs that function to produce the management and summary reports output by HES. Also included are programs that select desired data and produce a tape for production of hamlet maps, density maps, and special plots.

2.8 Data Base. The HES data base contains all information collected from the DSAs responses on the update forms since the inception of the system in January 1970, as well as unofficial data accumulated since July 1969. A detailed description of the file and data elements is provided under separate cover (HES Master File Description and Synopsis).

3 SYSTEM OPERATION (PRODUCTION CYCLE)

Operation of the HES system is described in the following paragraphs.

3.1 Data Sources. HES data originates at the hamlet and village level with information gathered throughout the month from various sources by the district senior advisors (DSAs). The DSA is tasked with the responsibility of reporting monthly on all villages and hamlets in his district except for those hamlets that are designated as abandoned. The DSA is required to answer military related questions for each village and military/political questions for each hamlet every month. If special "one-time" questions are provided, he must also answer these. General descriptive data (hamlet/village name, UTM coordinates, and population data) is also updated monthly. Additional hamlet/village level questions covering all areas of pacification are required to be answered each quarter. To answer these questions, the DSA,

in conjunction with the GVN District Chief, visits the hamlets and villages within his district. For numerous reasons, a DSA may be unable to personally obtain all necessary information for each hamlet and village every month, and therefore must rely to some extent on field sources of information. Although most information comes from the DSA's personal visits, other sources include interviews with rural development cadre and Hoi Chanh, district and village chiefs, and GVN civilian and military field personnel who oversee various economic and security programs in the hamlets. In addition, the DSA obtains information from U.S. and Free World Military Assistance Forces (FWMAF) and civilian field personnel such as USAID advisors.

The DSA collects monthly data from approximately the 3rd to the 23rd of each month, entering the HES question responses on his HES hamlet and village ledger cards in preparation for ultimate submission of the data to MACCORDS-RAD.

3.2 Source Document Completion and Submission. The DSA receives computer-printed HES update forms near the end of each month, and transfers all monthly question responses to the update forms from the HES ledger cards after the 30th of the month. Every quarter, quarterly question responses on the ledger cards are compared with those preprinted on the update forms from the last submission. Current entries that differ from those given previously are transferred to the current update forms. * The DSA also records any changes to hamlet data, such as population, location, or name, and hamlet deletions, additions, or transfers. Any remarks or explanations of unusual changes are entered on the remarks page (Section A - Communications) of the update forms. When all the data has been recorded on the update forms, the DSA signs the forms, retains a carbon copy for his records, and forwards the original forms and two carbon copies to the province senior advisor (PSA). The forms are due at province headquarters on the 2nd of the month.

The PSA collects forms for all districts, reviews the DSAs' responses, enters any province comments, signs the forms, retains a carbon copy of each, and submits the originals and one carbon to region headquarters by the 4th of the month. Region headquarters reviews the forms, insures that all forms have been received from province headquarters, retains a carbon copy, and submits all the original update forms to MACCORDS-RAD/Automatic Data Processing Division (MACCORDS-RAD/ADP) in Saigon by the 5th of the month. MACCORDS-RAD/ADP then delivers the forms to MACCORDS-RAD/A for processing.

* It should be noted that quarterly data may be updated during non-quarterly months.

3.3 Data Review and Processing. Upon receipt of the update forms, MACCORDS-RAD/A personnel log in the source documents, insuring that all have been received, and perform a thorough review of the data for accuracy prior to submission for keypunching. During this quality control review, the analysts examine such items as transfers of population among hamlets, as well as deletions and additions of hamlets and villages, and perform a general check for completeness and legibility. Also, HES Newsletters containing messages to the DSAs are written, and messages to appear on the update forms are coded. The DSAs' question responses are then formatted for keypunching, and the prepared data is logged out and submitted, by the 10th of the month, to the Military Assistance Command Data Management Agency (MACDMA) for data processing. The source documents are controlled, in and out of DMA, by assignment of job numbers and logbook entries. DMA punches and verifies the source data from the source documents. These keypunched and verified HES activity cards are one of the prime data inputs to the computer processing system. Keypunched data and edit error listings are returned to MACCORDS-RAD/A for manual edit correction against original update forms prior to subsequent system processing. MACCORDS-RAD/ADP retains the source documents as backup for 90 days, then destroys them. The HES activity cards are retained at DMA for use in the computer processing cycle. As soon as a new cycle has been successfully completed, the cards are returned to MACCORDS-RAD/ADP where they are retained for 90 days, then destroyed. Data review, keypunching, and data editing operations occur from the 5th to around the 10th of the month. During the last month of each quarter, when the DSAs submit their quarterly responses, these operations may take somewhat longer due to the increased volume of data. Processing includes programs for updating the HES basic master file, scoring and computing ratings for the HES models, validating current month summary data, production of update forms, and production of HES reports.

3.4 Update Forms and Reports Production. Production of HES reports and update forms begins around the 13th day of each month and continues for about one week. Reports are ready for distribution by approximately the 15th of the month and are distributed by MACCORDS-RAD/ADP to U.S. military and government agencies, GVN agencies, and Free World Military Assistance Forces (FWMAF). DMA produces the HES update forms (using current month data) for submission back to the DSA for updating during the next month's cycle. MACCORDS-RAD/ADP distributes these forms to region and province headquarters for transmittal to the DSAs for completion after the 30th of the month.

3.5 HES Keypunch Instructions - Part 1. Source document - Section A of the HES updating forms.

- (a) Detailed keypunch instructions, including field specifications, are given in figure 3-1. Note that card code C must appear in column 80 on all cards punched from section A.
- (b) An example of the format of the source document is given in the HES Command Manual (figure 2-3).
- (c) General keypunch instructions are as follows:
 - (1) Punch district ID, located in upper left-hand corner of the form. (This may be duplicated throughout the district after the first card has been punched.)
 - (2) For any hamlet where a change has been indicated, punch the four-digit hamlet ID number followed by those data elements that have been changed, punched in their appropriate fields.

3.6 HES Keypunch Instructions - Part 2. Source document - Section B of the HES updating forms.

- (a) Detailed keypunch instructions, including field specifications, are given in figure 3-2. Note that card code B must appear in column 80 on all cards punched from section B.
- (b) An example of the format of the source document is given in the HES Command Manual (figure 2-4).
- (c) Note that the card format has been set up to permit two hamlet/village records to be punched on one card:

Columns 1-39, reserved for first hamlet/village record

Columns 40-78, reserved for second hamlet/village record

Column 79, space

Column 80, B

The purpose of this format is to reduce the total card volume generated by the HES report.

KEYPUNCH INSTRUCTIONS

CUSTOMER MACCORDS/RAD

JOB TITLE HES - Section "A" of HES Updating Forms

APPROX. NO. OF CARDS _____

CONTROL NO. _____

CARD TYPE 'C' Cards - Hamlet Roster

STEP NO. _____

NAME OF FIELD	COLUMNS		NUMBER COLUMNS	PUNCH						VERIFY	REMARKS
	FROM	THRU		NUMERIC	ALPHA	JUSTIFY	RIGHT JUSTIFY	ZERO/FILL			
1. HES District ID	1	5	5	X		X				X	May be auto-duplicated.
2. Hamlet ID	6	9	4	X		X				X	
3. Blank (auto-skip)	10	29	20								
4. Hamlet Name	30	49	20	X	X	X				X	
5. GVN Serial Number	50	53	4	X	X	X				X	
6. UTM Coordinates											
Grid Square Alpha	54	55	2		X	X				X	
Grid Square Numeric	56	61	6	X		X				X	
7. Permanent Residents	62	66	5	X			X	X	X		
8. Temporary Residents	67	71	5	X			X	X	X		
9. Blank (auto-skip)	72	79	8								Auto-skip.
10. Card Type Code	80		1	X					X	X	Auto-dup 'C' in each card.

DISPOSITION OF CARDS Retain at DMA for edit; return
documents to CORDS/RAD.

DATE PREPARED 15 /Feb. / 71
 SUBMITTED BY _____

Figure 3-1
 KEYPUNCH INSTRUCTIONS: SECTION A - HES UPDATING FORMS

KEYPUNCH INSTRUCTIONS

CUSTOMER MACCORDS/RAD

JOB TITLE HES - Section "B" of HES Updating Forms

APPROX. NO. OF CARDS _____

CONTROL NO. _____

CARD TYPE 'B' Cards - Monthly Data

STEP NO. _____

NAME OF FIELD	COLUMNS		NUMBER COLUMNS	PUNCH						VERIFY	REMARKS
	FROM	THRU		N U M E R I C	A L P H A	L E F T	J U S T I F Y	R I G H T	Z E R O		
1. HES District ID	1	5	5	X						X	May be auto-duplicated.
2. HES Village/Hamlet ID	6	9	4	X						X	
3. Responses to Questions	10	39	30	X		X				X	
4. HES District ID	40	44	5	X						X	May be auto-duplicated.
5. HES Village/Hamlet ID	45	48	4	X						X	
6. Responses to Questions	49	78	30	X		X				X	
7. Blank (Auto-skip)	79		1								Auto-skip
8. Card Type Code	80		1	X						X	Auto-dup 'B' in each card.

DISPOSITION OF CARDS Retain at DMA for Edit; DATE PREPARED 15 / Feb / 71
Return documents to CORDS/RAD. SUBMITTED BY _____

Figure 3-2
 KEYPUNCH INSTRUCTIONS: SECTION B - HES UPDATING FORMS

(d) General keypunch instructions are as follows:

- (1) Punch the five-digit district ID found in the upper left-hand corner of the page, followed by the hamlet/village ID and the hamlet/village question responses.
- (2) Skip to the starting point for the second hamlet/village record and repeat the above process.
- (3) Note that the district ID may be duplicated throughout the district after the first card has been punched.
- (4) If no responses have been recorded for a hamlet or village record, no card should be punched for that hamlet or village.
- (5) If question responses have been obliterated, are illegible, or have otherwise been left incomplete, punch such fields as spaces.

3.7 HES Keypunch Instructions - Part 3. Source document - Section C of the HES updating forms.

- (a) Detailed keypunch instructions, including field specifications, are given in figure 3-3. Note that card code C must appear in column 80 on all cards punched from section C.
- (b) An example of the format of the source document is given in the HES Command Manual (figures 2-5 and 2-6).
- (c) General keypunch instructions are as follows:
 - (1) Punch district ID located at upper left-hand corner of the form. (This may be duplicated throughout the district after the first card has been punched.)
 - (2) Scan the hamlet/village response sets for any changes entered. (Check marks should have been entered in the box at upper left to aid in locating response sets with changes entered.) Only response sets with changes entered should be punched.

KEYPUNCH INSTRUCTIONS

CUSTOMER MACCORDS/RAD

JOB TITLE HES Section "C" of HES Updating Forms

APPROX. NO. OF CARDS _____

CONTROL NO. _____

CARD TYPE 'C' Cards - Quarterly Data

STEP NO. _____

NAME OF FIELD	COLUMNS		NUMBER COLUMNS	PUNCH						VERIFY	REMARKS
	FROM	THRU		N U M E R I C	A L P H A	L E F T J U S T I F Y	R I G H T J U S T I F Y	Z E R O F I L L			
1. HES District ID	1	5	5	X		X				X	May be auto-duplicated.
2. Village/Hamlet ID	6	9	4	X		X				X	
3. Topic Group Code	10	79	70	X	X	X				X	
• Letters followed by question responses.											
4. Card Type Code	80		1	X						X	Auto-dup 'C' in each card.

DISPOSITION OF CARDS: Retain at DMA for edit;

DATE PREPARED 15 / Feb / 71

Return documents to CORDS/RAD.

SUBMITTED BY _____

Figure 3-3
KEYPUNCH INSTRUCTIONS: SECTION C - HES UPDATING FORMS

- (3) When a response set with changes is found, punch the four-digit hamlet ID number, followed by the changed blocks code letter and all of its responses. Punch only blocks with changes entered, following each block immediately with the next changed block. When any portion of a block is changed, the entire block must be punched.
- (4) When numerous blocks of a hamlet or village response set have changed, it may be necessary to use two cards to complete all the responses. When column 79 is reached on the first card, possibly in the middle of punching a response block, complete the card by punching the C in column 80 and release. Begin a second card by duplicating the entire USID off the first card followed by a repeat of the entire incomplete response block or the next changed block of the response set.
- (5) If particular question responses have not been completed, are Xd out, obliterated, or are otherwise, illegible, punch such fields as spaces.
- (6) If a particular question response space is filled with preprinted Xs, skip the space and punch the next question response immediately following the response which preceded the Xd out space. (Do not punch the Xd out space as a space as described in the conditions mentioned in paragraph c above.)

3.8 HES Keypunch Instructions - Part 4. Source document - 80 Column Card Keypunch Forms.

- (a) In addition to sections A, B, and C of the HES updating forms as described in paragraphs 3.5 through 3.7, keypunching must be accomplished from 80 column forms prepared by CORDS-RAD personnel.
- (b) Examples of the five types of keypunch forms that will be used during the HES review are given in figures 3-4 through 3-8.

3.9 QTAB File Generation (R7951C). Procedure R7951C is made up of two programs (R7101P, RVDUMPS) and a sort step. The programs and sort step are linked together to edit QTAB file cards, produce a QTAB report, and generate a sorted QTAB file.

The QTAB (question directory table) is actually a module or set of records, which, taken together, describe the current composition of the HES question and model set. (A detailed description of the QTAB module is given in the HES Basic Master File Description and Synopsis provided under separate cover. A detailed description of the programs are given in the program maintenance manual.) The following figures illustrate various aspects of QTAB:

Figure 3-9	QTAB Procedure Flow
Figure 3-10	Cataloged Procedure and Calling Deck
Figure 3-11	Date Card
Figure 3-12	Sort Control Card
Figure 3-13	Sample Run Sheet

3.10 Edit-A/Edit-B (R7952C). Procedure R7952C is a procedure made up of two programs (R7102P, R7103P) and two sort steps. The programs and sort steps are linked together to edit HES transaction data, produce a sorted transaction file, and produce an edit error/warning report. The programs are described in detail in the program maintenance manual. The following figures illustrate various aspects of R7952C:

Figure 3-14	Procedure Flow
Figure 3-15	Cataloged Procedure
Figure 3-16	Procedure Call Deck
Figure 3-17	Sort Control Parameters
Figure 3-18	Sample Run Sheet

3.11 Edit-A/Edit-B Update (R7953C). Procedure R7953C is made up of three programs (R7102P, R7103P, R7104P) and two sort steps. The programs and sort steps are linked together to perform the final edit of HES transaction cards, to produce the reports and file generated in procedure R7952C, and execute the update program which produces the update report, the unscored HES master file, and the Bayesian input file. The programs are described in detail in the program maintenance manual. The following figures illustrate various aspects of R7952C:

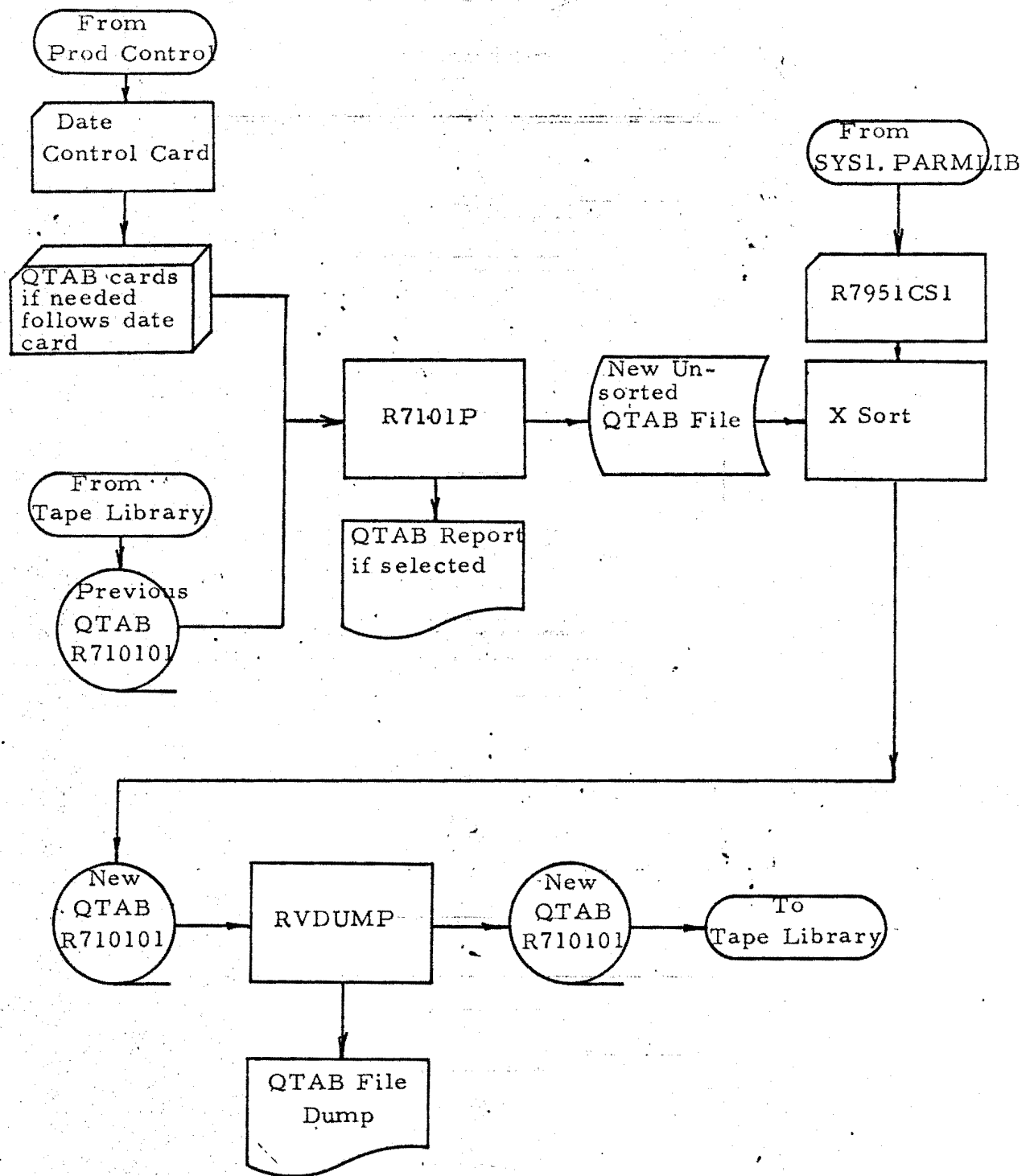


Figure 3-9

R7951C PROCEDURE FLOW

```

JOB NAME R7951C
//R7951C PF00 R710101=999999,CPU=60 00000010
//R7101 EXEC PGM=R7101P,TIME=&CPU 00000020
//* NAME=M.S.MAHER,DIV/BR=CORDS-RAD,DAR=R7,DATE=03APR71 00000030
//* RES QTAB GENERATION 00000040
//STEPL18 DD DSN=CCORDSLIB,DISP=SHR 00000050
//TAPE01 DD UNIT=2400-3,DSN=R710101,DISP=(OLD,KEEP),  X00000060
// VOL=SER=6R710101 00000070
//TAPE02 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG),  X00000080
// DISP=(NEW,PASS),DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000090
//TAPE03 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000100
//SYSOUT DD SYSOUT=A 00000110
//SYSABEND DD SYSOUT=A 00000120
//SYSIN DD DDNAME=QTABCD5 00000130
//XSORT EXEC PGM=IERRC000,PARM=*MSG=AP,CORE=090000* 00000140
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR 00000150
//SYSOUT DD SYSOUT=A 00000160
//SYSABEND DD SYSOUT=A 00000170
//SORTIN DD DSN=*.R7101.TAPE02,DISP=(OLD,DELETE),  X00000180
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000190
//SORTOUT DD DSN=R710101,UNIT=TAPE,DISP=(NEW,PASS,KEEP),  X00000200
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000210
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000220
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000230
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000240
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000250
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000260
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000270
//SYSIN DD DSN=SYS1.PARMLIB(R7951CS1),DISP=SHR 00000280
//RVDUMP EXEC PGM=RVDUMP 00000290
//STEPL19 DD DSN=CCORDSLIB,DISP=SHR 00000300
//TAPE01 DD DSN=*.XSORT.SORTOUT,DISP=(OLD,KEEP) 00000310
//SYSOUT DD SYSOUT=A 00000320
//SYSABEND DD SYSOUT=A 00000330
00000340

```

Figure 3-10

CATALOGED PROCEDURE AND CALLING DECK (Sheet 1 of 2)

/*

X7112

//R7101.QTABCDS DD *

// EXEC R7951C,R710101=003368

// TIME=60

// (R7951C,PRC,070,030,000,,), 'R-HES',MSGLEVEL=1,
CLASS=C, X

Figure 3-10-

CATALOGED PROCEDURE AND CALLING DECK (Sheet 2 of 2)

SYSTEM NAME:

HES

EFFECTIVE DATE: 1 JANUARY 1970

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		Date																																							
		X	Y	Y	M	M	X	Blank																																	
		Blank																																							
		NOTE: If CC6 is not blank, the QTAB report will not be produced. The date must be one month greater than the previous months QTAB file.																																							
		Figure 3-11 DATE CARD																																							

*** S Y S I . P A R M L I B ***
AS OF 26 DEC 71

ENR000000 R79510S1
SORT FIELDS=(5,20,A),FORMAT=CH

00000010

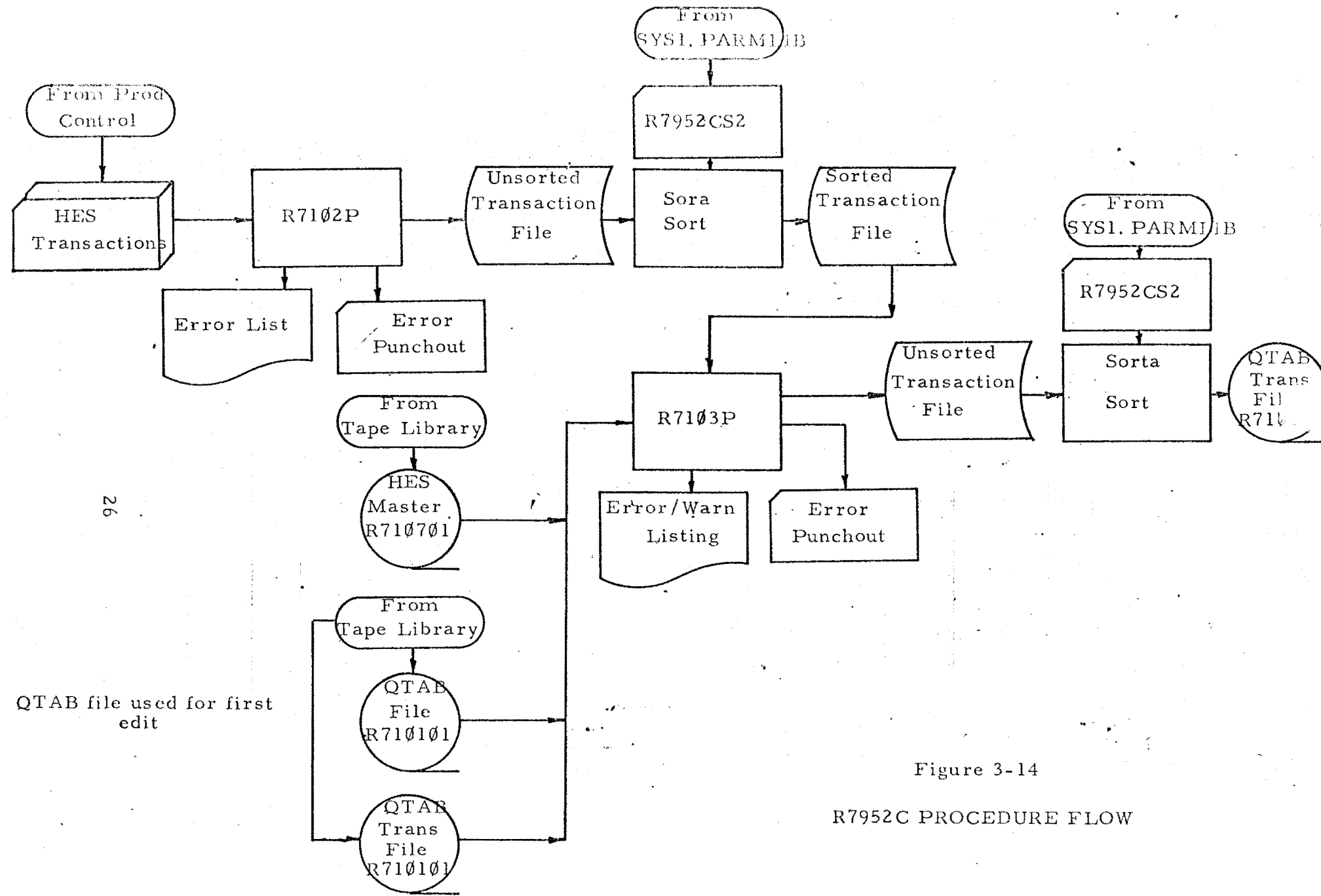
Figure 3-12

SORT CONTROL CARD

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB <u>1</u> OF <u>1</u>	R-HES	R7951C					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
C	2	R7951C		C	3	PR	70	30	0	1	1	
I/O		BPI	VOL SER		DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	XXXX	R710 01 QTAB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R711 01 QTAB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTR												
I/O BOUND												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-13

SAMPLE RUN REQUEST



26

QTAB file used for first edit

Figure 3-14

R7952C PROCEDURE FLOW

```

MEMBER NAME R79520
//R79520 DD DD SERIAL=999999,CPU1=10,CPU2=30,SEQ=01,QSERIAL=999999 00000010
//R7102 EXEC PGM=R7102P,TIME=8CPU 00000020
// NAME=*,S,MAHER,DIV/BR=CDROS-RAD,DAR=87,DATE=22MAR71 00000030
// HES EDIT-A EDIT-B 00000040
//SYEPLIB DD DSNNAME=CDROSLIB,DISP=SHR 00000050
//SYSPUN DD SYSOUT=B 00000060
//SYSOUT DD SYSOUT=A 00000070
//SYSABEND DD SYSOUT=A 00000080
//TAPE01 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG),  X00000090
// DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 00000100
//SYEIN DD DDNAME=EDITCDS 00000110
//SORA EXEC PGM=IERRC000,PARM='MSG=AP,CORE=090000' 00000120
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR 00000130
//SYSOUT DD SYSOUT=A 00000140
//SYSABEND DD SYSOUT=A 00000150
//SORTIN DD DSN=*,R7102,TAPE01,DISP=(OLD,DELETE),  X00000160
// DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 00000170
//SORTOUT DD UNIT=2314,DISP=(NEW,PASS),  X00000180
// SPACE=(TRK,(1100),,CONTIG),  X00000190
// DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 00000200
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000210
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000220
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000230
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000240
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000250
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 00000260
//SYEIN DD DSN=SYS1.PARMLIB(R79520S1),DISP=SHR 00000270
//R7103 EXEC PGM=R7103P,TIME=8CPU2 00000280
//STEPLIB DD DSNNAME=CDROSLIB,DISP=SHR 00000290
//TAPE01 DD DSN=R710101,UNIT=2400-3,DISP=(OLD,KEEP),  X00000300
// VOL=SER=60SERIAL 00000310
//TAPE02 DD DSN=*,SORA,SORTOUT,DISP=(OLD,DELETE) 00000320
//TAPE03 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG),  X00000330
// DISP=(NEW,PASS),DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000340
//TAPE04 DD DSN=R7107&SEQ,UNIT=2400-3,DISP=(OLD,KEEP),  X00000350
// VOL=SER=6SERIAL 00000360
//TAPE05 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG),  X00000370
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000),DISP=(NEW,DELETE) 00000380
//SYSOUT DD SYSOUT=A 00000390
//SYSABEND DD SYSOUT=A 00000400
//SYSPUN DD SYSOUT=B 00000410
//SORA EXEC PGM=IERRC000,PARM='MSG=AP,CORE=090000',TIME=15 00000420
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR 00000430
//SYSOUT DD SYSOUT=A 00000440
//SYSABEND DD SYSOUT=A 00000450
//SORTIN DD DSN=*,R7103,TAPE03,DISP=(OLD,DELETE),  X00000460
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000470
//SORTOUT DD UNIT=2400-3,DISP=(NEW,PASS),DSN=R710101,  X00000480
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 00000490
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000500
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000510
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000520
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000530
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000540
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 00000550
//SYEIN DD DSN=SYS1.PARMLIB(R79520S2),DISP=SHR 00000560

```

Figure 3-15
CATALOG PROCEDURE
37


```
/*  
//R7102.EDITCDS DD *  
// EXEC R7952C,SERIAL=000578,RSERIAL=000402  
// TIME=90  
// (R7952C,PRC,040,10,200,2),'R-HES',MSGLEVEL=1,  
// CLASS=D, X
```

Figure 3-16

PROCEDURE CALL DECK

*** S Y S 1 . P A R M L I B ***
AS OF 08 JAN 72

MEMBER NAME P79520S1
SORT FIELDS=(001,15,CH,A)

00000010

*** S Y S 1 . P A R M L I B ***
AS OF 08 JAN 72

MEMBER NAME P79520S2
SORT FIELDS=(005,28,CH,A)

00000010

Figure 3-17

SORT CONTROL PARAMETERS

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB <u>1</u> OF <u>2</u>	R-HES	R7952C					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
D	3	R7952C		C	3	PR	40	10	200	2	1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP	INSTR	PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710701		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710101		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>		R710101		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS 2 part paper, decollate Interpret any punchout, job 2 of 2												
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-18

SAMPLE RUN REQUEST (Sheet 1 of 2)

360/20 COMPUTER OPERATING INSTRUCTIONS

DMA CONTROL NUMBER

SEE INSTRUCTIONS ON REVERSE SIDE BEFORE FILLING OUT FORM

JOB 2 OF 2 JOBS

JOB CODE R 7 9 5 2 C	JOB NAME R 7 9 5 2 C	PRIORITY 3	CLASSIFICATION C	RUN CODES RO - PR - RD - RE - RF -	SEE ADP NOTE NUMBER 4 FOR EX- PLANATION OF RUN CODES
AGENCY CORDS	REQUESTOR R-HES	PHONE 4151	RUN CODE PR	RS - TE - TEP -	

EST RUN TIME (MIN)	PRINTER
DOCUMENT PRINT HEAD SETTINGS	STD OTHER
Position Line Position Line	PART PAPER X
12 PUNCH 2 4 PUNCH 14	MARGINS X
11 PUNCH 4 5 PUNCH 16	CARRIAGE TAPE X
10 PUNCH 6 6 PUNCH 18	ADDL PRINTER INFO
1 PUNCH 8 7 PUNCH 20	
2 PUNCH 10 8 PUNCH 22	
3 PUNCH 12 9 PUNCH 24	

DOCUMENT PRINT HEAD SETTING		
HEAD	LINE	DESCRIPTION
1		
2		

INPUT	
HOPPER	
PRIMARY	
SECONDARY	

CARD OUTPUT	
STACKER	
1	
2	
3	
4	
5	

HALTS AND ERROR MESSAGES		
HALT NO.	MESSAGE OR HALT MEANING	ACTION
S T R		

REMARKS/SPECIAL INSTRUCTIONS
 Interpret punchout from job 1 of 2
 Figure 3-18
 SAMPLE RUN REQUEST (Sheet 2 of 2)

Figure 3-19	Procedure Flow
Figure 3-20	Cataloged Procedure
Figure 3-21	Procedure Call Deck
Figure 3-22	Sort Control Parameters
Figure 3-23	Sample Run Sheet

3.12 Bayesian Score and Merge (R7955C). Procedure R7955C is made up of two computer programs (R7105P, R7106P). The programs are linked together to score and merge the HES master file. The procedure generates a Bayesian report, a 13-month HES master file, a historical HES master file, and a posterior probability file. The programs are described in detail in the program maintenance manual. The following figures illustrate various aspects of R7955C:

Figure 3-24	Procedure Flow
Figure 3-25	Cataloged Procedure
Figure 3-26	Procedure Call Deck
Figure 3-27	Sample Run Sheet

3.13 HES Audit Program (R7107P). Program R7107P is a computer program used to audit the scored HES master file. The program generates an error report and an error-free HES master file. R7107P is described in detail in the program maintenance manual. The following figures illustrate various aspects of R7107P:

Figure 3-28	Program Flow
Figure 3-29	Program Call Deck
Figure 3-30	Sample Run Sheet

3.14 Washington Tape Copy (R7108P). Program R7108P is used to copy parts of the 13-month HES master file. The program generates two 800 BPI tape files, which are sent to Washington. See distribution for address. Figures 3-31 through 3-33 illustrate various aspects of R7108P:

Figure 3-31	Program Setup Flow
Figure 3-32	Program Call Deck
Figure 3-33	Sample Run Sheet

3.15 IERRCO00 Sort. At this point in the production cycle, the scored 13-month master (R710701) must be sorted into USID sequence (R710702). After the sort, the historical HES master and the two 13-month master files (R710701, R710702) should be retained as backup copies. All of these steps are accomplished with standard utility routines. The following figures illustrate various aspects of IERRCO00 sort:

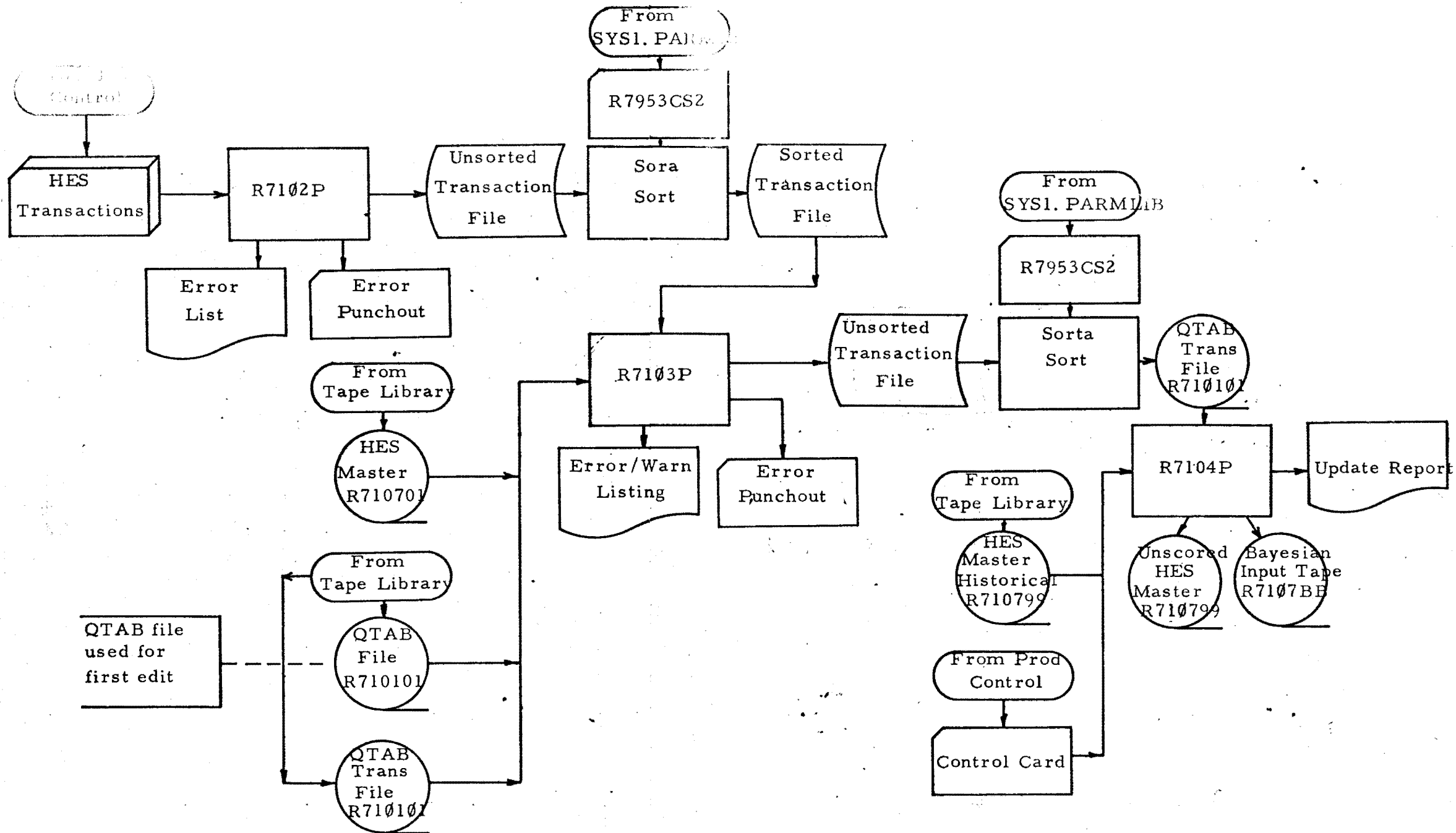


Figure 3-19

R7953C PROCEDURE FLOW

```

MEMBER NAME R79530
//R79530 PROC SERIAL=999999,CPU=10,CPU2=30,SEQ=99, X0000010
// OSERIAL=999999,CPU3=120 0000020
//R7102 EXEC PGM=R7102P,TIME=&CPU 0000030
// NAME=M. S. MAHEP,DIV/BR=CORDS-PAD,DAP=R7,DATE=22MAR71 0000040
// HFS EDIT-A EDIT-B UPDATE 0000050
//STEPLIB DD DSN=CORDSLIB,DISP=SHR 0000060
//SYSPUN DD SYSOUT=B 0000070
//SYSOUT DD SYSOUT=A 0000080
//SYSABEND DD SYSOUT=A 0000090
//TAPE01 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG), X0000100
// DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 0000110
//SYSEN DD DDNAME=EDITCDS 0000120
//SRA EXEC PGM=IEFR000,PARM='MSG=AP,CORE=090000' 0000130
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR 0000140
//SYSOUT DD SYSOUT=A 0000150
//SYSABEND DD SYSOUT=A 0000160
//SORTIN DD DSN=R7102.TAPE01,DISP=(OLD,DELETE), X0000170
// DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 0000180
//SORTOUT DD UNIT=2314,DISP=(NEW,PASS), X0000190
// SPACE=(TRK,(1100),,CONTIG), X0000200
// DCB=(RECFM=FB,LRECL=100,BLKSIZE=5000) 0000210
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000220
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000230
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000240
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000250
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000260
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(500),,CONTIG) 0000270
//SYSIN DD DSN=SYS1.PARMLIB(R7953C'S1),DISP=SHR 0000280
//R7103 EXEC PGM=R7103P,TIME=&CPU2 0000290
//STEPLIB DD DSN=CORDSLIB,DISP=SHR 0000300
//TAPE01 DD DSN=R710101,UNIT=2400-3,DISP=(OLD,KEEP), X0000310
// VOL=SER=&OSERIAL 0000320
//TAPE02 DD DSN=*.SRA.SORTOUT,DISP=(OLD,DELETE) 0000330
//TAPE03 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG), X0000340
// DISP=(NEW,PASS),DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 0000350
//TAPE04 DD DSN=R7107&SEQ,UNIT=2400-3,DISP=(OLD,PASS), X0000360
// VOL=SER=&SERIAL 0000370
//TAPE05 DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG), X0000380
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000),DISP=(NEW,DELETE) 0000390
//SYSOUT DD SYSOUT=A 0000400
//SYSABEND DD SYSOUT=A 0000410
//SYSPUN DD SYSOUT=B 0000420
//CORR EXEC PGM=IEFR000,PARM='MSG=AP,CORE=090000',TIME=15 0000430
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR 0000440
//SYSOUT DD SYSOUT=A 0000450
//SYSABEND DD SYSOUT=A 0000460
//SORTIN DD DSN=R7103.TAPE03,DISP=(OLD,DELETE), X0000470
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 0000480
//SORTOUT DD UNIT=2400-3,DISP=(NEW,PASS),DSN=R710101, X0000490
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000) 0000500
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000510
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000520
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000530
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000540
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000550
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(900),,CONTIG) 0000560

```

Figure 3-20
 CATALOGED PROCEDURE (Sheet 1 of 2)

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

MEMBER NAME	R7953C		
//SYSTM	DD	DSN=SYS1.PARMLIB(P7953CS2),DISP=SHR	00000570
//R7104	EXEC	PGM=P7104P,TIME=&CPU3	00000580
//STEPLIB	DD	DSNAME=CDRDSLIB,DISP=SHR	00000590
//TAPE01	DD	DSN=*.SOPTA.SORTOUT,DISP=(OLD,KEEP)	00000600
//TAPE02	DD	DSN=*.R7103.TAPE04,DISP=(OLD,KEEP)	00000610
//TAPE03	DD	UNIT=2400-3,DISP=(NEW,KEEP),DSN=R710799	00000620
//TAPE04	DD	UNIT=2400-3,DISP=(NEW,KEEP),DSN=R710788	00000630
//TAPE05	DD	UNIT=2314,SPACE=(TRK,(1200)),CONTIG)	X00000640
//	DCB	(RECFM=VB,LRECL=2000,BLKSIZE=7000),DISP=(NEW,DELETE)	00000650
//SYSOUT	DD	SYSOUT=A	00000660
//SYSABEND	DD	SYSOUT=A	00000670
//SYSTM DD	DDNAME	=REFCARD	00000680

Figure 3-20

CATALOGED PROCEDURE (Sheet 2 of 2)


```
/*  
//R7104.REFCARD DD *  
/*  
//R7102.EDITCDS DD *  
//      EXEC R7953C,SERIAL='(003193,003419)',QSERIAL=003397  
//      TIME=400  
//      (R7953C,PRC,190,40,200,3),'R-HES',MSGLEVEL=1,CLASS=D, X
```

Figure 3-21

PROCEDURE CALL DECK

*** S Y S I , P A R M L I B ***
AS OF 08 JAN 72

MEMBER NAME R7953CS1
SORT FIELDS=(001,15,CH,A)

00000010

*** S Y S I , P A R M L I B ***
AS OF 08 JAN 72

MEMBER NAME R7953CS2
SORT FIELDS=(005,28,CH,A)

00000010

Figure 3-22

SORT CONTROL PARAMETERS

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE		REQUESTOR		JOB NAME			
					JOB 1 OF 1		R-HES		R7953C			
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
D	4	R7953C		C	3	PR	190	40	200	3	1	
I/O		BPI	FP		VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO				KEEP	SCRATCH	RET	TAPRT DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710101		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799	1 of 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799	2 of 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710101	Final Tran	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799	1 of 2 Unscored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799	2 of 2 Unscored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R7107BB	Bayes Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
3 part paper, decollate												
BOOKING AND BINDING INSTRUCTIONS												
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-23

SAMPLE RUN REQUEST

39

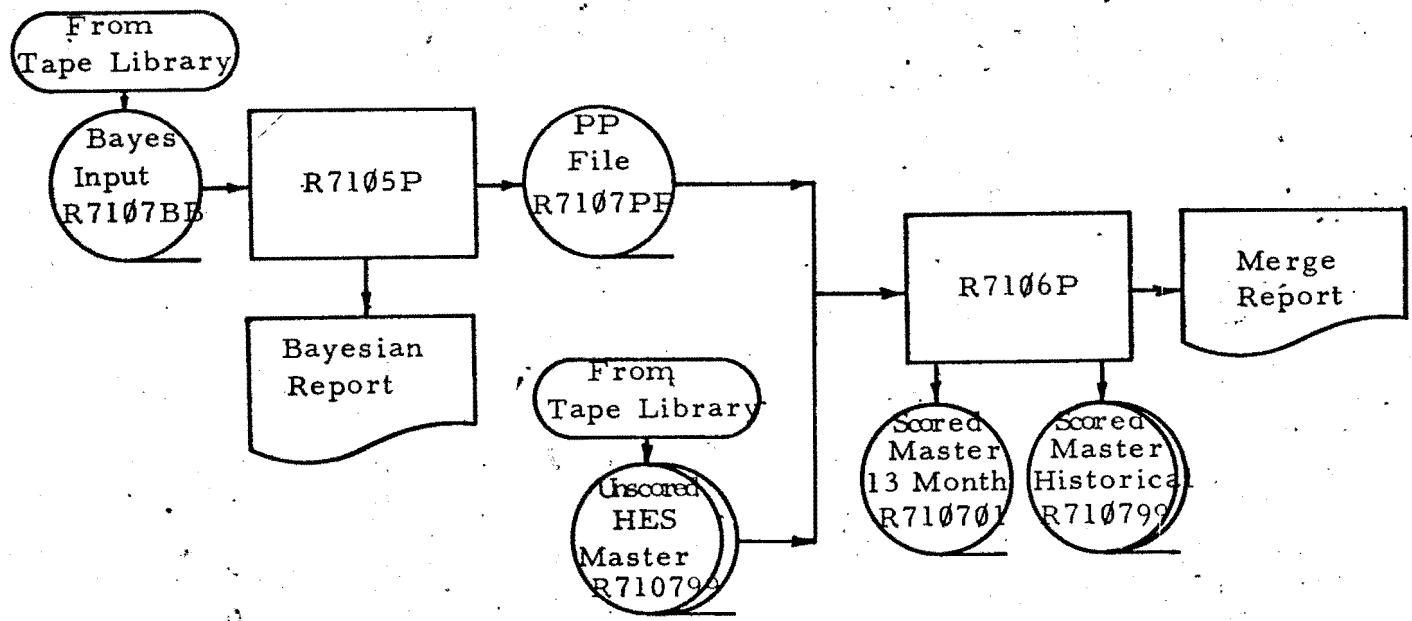


Figure 3-24

R7955C PROCEDURE FLOW

*** S Y S I , P R O C L I R ***
 AS OF 08 JAN 72

```

MEMBER NAME R7955C
//R7955C      PROC R7107BR=999999,R710799=999999,CPU=300,CPU2=100      00000010
//R7105      EXEC PGM=R7105P,TIME=&CPU                                  00000020
//          NAME=M. S. MAHER,DIV/BR=CORDS-RAD,DAR=R7,DATE=24MAR71      00000030
//          HES BAYESIAN SCORE AND MERGE                                00000040
//STEP1IB    DD DSN=CORDSLIB,DISP=SHR                                    00000050
//TAPE01     DD UNIT=2400-3,DISP=(OLD,KEEP),DSN=R7107BB,                X00000060
//          VOL=SER=&R7107BB                                            00000070
//TAPE03     DD UNIT=2400-3,DISP=(NEW,PASS),DSN=R7107PP                00000080
//TAPE04     DD UNIT=2314,SPACE=(TRK,(500),,CONTIG)                    00000090
//SYSOUT     DD SYSOUT=A                                               00000100
//SYSABEND   DD SYSOUT=A                                               00000110
//R7106      EXEC PGM=R7106P,TIME=&CPU2                                  00000120
//STEP1IB    DD DSN=CORDSLIB,DISP=SHR                                    00000130
//TAPE01     DD UNIT=2400-3,DISP=(OLD,KEEP),DSN=R710799,                X00000140
//          VOL=SER=&R710799                                            00000150
//TAPE02     DD DSN=*,R7105.TAPE03,DISP=(OLD,KEEP)                    00000160
//TAPE03     DD UNIT=2400-3,DISP=(NEW,KEEP),DSN=R710799                00000170
//TAPE04     DD UNIT=2400-3,DISP=(NEW,KEEP),DSN=R710701                00000180
//SYSOUT     DD SYSOUT=A                                               00000190
//SYSABEND   DD SYSOUT=A                                               00000200
  
```

Figure 3-25

CATALOGED PROCEDURE

```
/*  
// EXEC R7955C,R710799='(000467,000973)',R7107BB=000541  
// TIME=600  
// (R7955C,PRC,400,40,000,3),'R-HES',MSGLEVEL=1,CLASS=J, X
```

Figure 3-26

PROCEDURE CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR		JOB NAME			
					JOB 1 OF 1	R-HES		R7955C			
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES
J	4	R7955C		C	3	PR	400	40	0	3	1
I/O		BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R7107BB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R7107PP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799 1 of 2 Unscored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799 2 of 2 Unscored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799 1 of 2 Scored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799 2 of 2 Scored	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710701 13 month	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS 3 part paper, decollate											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-27

SAMPLE RUN REQUEST

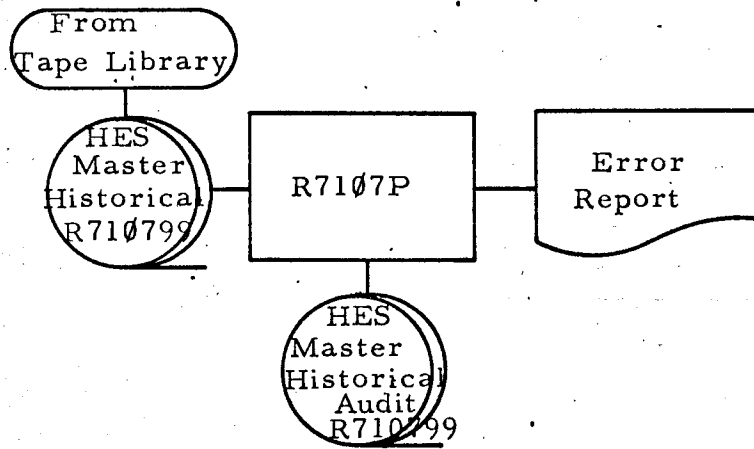


Figure 3-28

R7107P PROGRAM FLOW


```
//SYSABEND      DD  SYSOUT=A
//SYSOUT        DD  SYSOUT=A
//TAPE02        DD  DSN=R710799,UNIT=2400-3,DISP=(NEW,KEEP)
//              VOL=SER=(003699,003244)
//TAPE01        DD  DSN=R710799,UNIT=2400-3,DISP=(OLD,KEEP),      X
//R7107         EXEC PGM=R7107P,TIME=300
//JOB LIB       DD  DSNAME=CORDSLIB,DISP=SHR
//              TIME=200
//              (R7107,PRC,300,10,000,,),'R-HES',MSGLEVEL=1,CLASS=F,  X
```

Figure 3-29

PROGRAM CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR		JOB NAME							
					JOB 1 OF 1	R-HES		R7107							
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES				
F	2	R7107		C	3	PR	300	10	0	1	1				
I/O		BPI	'FP		VOL SER		DATA SET NAME		DISP INSTR		PRINT INSTR				
IN	OUT		YES	NO					KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS	RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799	1 of 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710799	2 of 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799	1 of 2 Audit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710799	2 of 2 Audit		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED									
REMARKS OR SPECIAL INSTRUCTIONS															
BOOKING AND BINDING INSTRUCTIONS															
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS															

Figure 3-30

SAMPLE RUN REQUEST

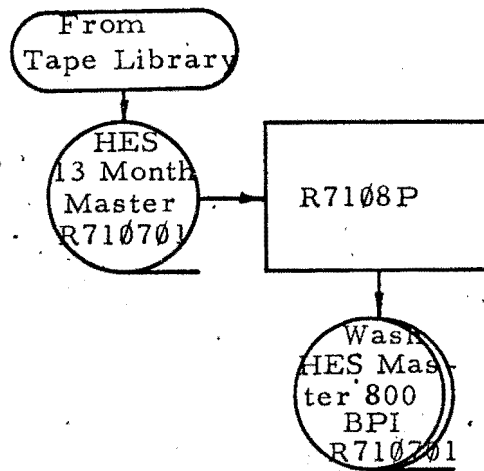


Figure 3-31

R7108P PROGRAM FLOW

```
//SYSOUT      DD  SYSOUT=A
//          DCB=(RECFM=VB,LRECL=5000,BLKSIZE=5000,DEN=2),LABEL=(,BLP)
//TAPE02     DD  DSNAME=R710701,UNIT=9TRK800,DISP=(NEW,PASS),          X
//TAPE01     DD  DSN=R710701,UNIT=2400-3,DISP=SHR,VOL=SER=003756
//SI         EXEC PGM=R7108P,TIME=20
//JOBLIB     DD  DSNAME=CORDSLIB,DISP=SHR
//          (R7108P,PRC,45,1),R-HES70,MSGLEVEL=1,CLASS=C,TIME=25
```

Figure 3-32

PROGRAM CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB <u>1</u> OF <u>1</u>		REQUESTOR R-HES	JOB NAME R7108				
JOB CLASS C	MAX TAPES 2	JOB CODE R7108		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 45	PRINT TIME 1	CARDS PCH 0	FORM NO 1	COPIES 1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IR	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710701		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>		R710701		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>		R710701		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS Use NMCSSC scratch tapes if available.												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-33 .

SAMPLE RUN REQUEST

Figure 3-34	USID Sort Call Deck List - Run Sheet
Figure 3-35	R710701 File Copy Call Deck List - Run Sheet
Figure 3-36	R710702 File Copy Call Deck List - Run Sheet
Figure 3-37	R710799 File Copy Call Deck List - Run Sheet
Figure 3-38	R0104C2 Procedure List

3.16 Analysis File Generation (R7959C). Procedure R7959C is made up of one computer program (R7109P). The procedure generates the HES analysis file, which is input to the analysis subsystem. The program is described in detail in the program maintenance manual. The following figures illustrate various aspects of R7959C:

Figure 3-39	R7959C Procedure Flow
Figure 3-40	Cataloged Procedure
Figure 3-41	Procedure Call Deck
Figure 3-42	Sample Run Sheet

3.17 Analysis Summary Report (R7960C). Procedure R7960C is made up of one computer program (R7113P). The procedure generates the HES Analysis Summary Report. The program is described in detail in the program maintenance manual. The following figures illustrate various aspects of R7960C:

Figure 3-43	R7960C Procedure Flow
Figure 3-44	Cataloged Procedure
Figure 3-45	Procedure Call Deck
Figure 3-46	Sample Run Sheet

3.18 Analysis Question Response Report (R7963C). Procedure R7963C is made up of one computer program (R7114P). The procedure generates the HES Analysis Question Response Report. The program is described in detail in the program maintenance manual. The following figures illustrate various aspects of R7963C:

Figure 3-47	R7963C Procedure Flow
Figure 3-48	Cataloged Procedure
Figure 3-49	Procedure Call Deck
Figure 3-50	Sample Run Sheet

```

/*
RECORD TYPE=V,LENGTH=(1000,1000,1000,043,073) VARIABLE HES/70 MASTER SORT
SORT FIELDS=(005,28,CH,A)
//SYSIN DD *
//SORTWK06 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
//SORTWK05 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
//SORTWK04 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
//SORTWK03 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
//SORTWK02 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
//SORTWK01 DD UNIT=2314,SPACE=(TRK,(1400),,CONTIG)
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000)
//SORTOUT DD UNIT=2400-3,DISP=(NEW,PASS),DSN=R710702, X
// VOL=SER=003756
// DCB=(RECFM=VB,LRECL=2000,BLKSIZE=5000), X
//SORTIN DD UNIT=2400-3,DSN=R710701,DISP=(OLD,KEEP), X
//SYSOUT DD SYSOUT=A
//SORTLIB DD DSN=SYS1.SORTLIB,DISP=SHR
//SORTA EXEC PGM=IERRCO00,PARM='MSG=AP,CORE=90000',TIME=50
// TIME=120
// (R79XXX,PRC,050,01,,,,),R-HES,MSGLEVEL=1,CLASS=C, X

```

Figure 3-34

USID SORT CALL DECK AND RUN REQUEST (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB <u>1</u> OF <u>1</u>		REQUESTOR R-HES	JOB NAME R79XXX			
JOB CLASS C	MAX TAPES 2	JOB CODE R79XXX		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 50	PRINT TIME 1	CARDS PCH 0	FORM NO 1	COPIES 1
I/O		FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR			
IN	OUT	YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710701	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input checked="" type="checkbox"/>		R710702	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-34

USID SORT CALL DECK AND RUN REQUEST (Sheet 2 of 2)


```
/*  
//COPY.TAPEOUT DD VOLUME=  
//      FORMAT2=VB,DENSTY=3,PAR2=,CLASS=VARCON  
//      OUTPUT=R710701,UNITV='2400-3',SYSTEM=HES70,LABL='(,SL)',      X  
//      LAB1='(,SL)',FORMAT1=VB,RECSIZE=5000,BLOCK=5000,DSTY=3,PAR1=,      X  
//      REELNUM=999999,  
//      EXEC R0104C2,INPUT=R710701,UNITI='2400-3',TIME=15,      X  
//      (R79XXB,PRC,20,1),R-HES70,MSGLEVEL=1,CLASS=C,TIME=20
```

Figure 3-35

R710701 FILE COPY CALL DECK AND RUN REQUEST (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB 1 OF 1	R-HES	R79XXB					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
C	2	R79XXB		C	3	PR	20	1	0	1	1	
I/O		BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR			
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710701	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		R710701 Backup	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-35

R710701 FILE COPY CALL DECK AND RUN REQUEST (Sheet 2 of 2)

```
/*  
//COPY.TAPEOUT DD VOLUME=  
//      FORMAT2=VB,DENSTY=3,PAR2=,CLASS=VARCON  
//      OUTPUT=R710702,UNITV='2400-3',SYSTEM=HES70,LABL='(,SL)',      X  
//      LAB1='(,SL)',FORMAT1=VB,RECSIZE=5000,BLOCK=5000,DSTY=3,PAR1=,      X  
//      REELNUM=999999,  
//      EXEC R0104C2,INPUT=R710702,UNITI='2400-3',TIME=15,      X  
//      (R79XXC,PRC,20,1),R-HES70,MSGLEVEL=1,CLASS=C,TIME=20
```

Figure 3-36

R710702 FILE COPY CALL DECK AND RUN REQUEST (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB <u>1</u> OF <u>1</u>	REQUESTOR R-HES	JOB NAME R79XXC					
JOB CLASS C	MAX TAPES 2	JOB CODE R79XXC		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 20	PRINT TIME 1	CARDS PCH 0	FORM NO 1	COPIES 1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710702		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/> <input checked="" type="checkbox"/>		R710702 Backup		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-36

R710702 FILE COPY CALL DECK AND RUN REQUEST (Sheet 2 of 2)

```
/*  
//COPY.TAPEOUT DD VOLUME=  
//    FORMAT2=VB,DENSTY=3,PAR2=,CLASS=VARCON  
//    OUTPUT=R710799,UNITV='2400-3',SYSTEM=HES70,LABL='(,SL)',      X  
//    LAB1='(,SL)',FORMAT1=VB,RECSIZE=5000,BLOCK=5000,DSTY=3,PAR1=,  X  
//    REELNUM='(999999,999999)',  
//    EXEC R0104C2,INPUT=R710799,UNITI='2400-3',TIME=15,            X  
//    (R79XXA,PRC,20,1),R-HES70,MSGLEVEL=1,CLASS=C,TIME=20
```

Figure 3-37

R710799 FILE COPY CALL DECK AND RUN REQUEST (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB <u>1</u> OF <u>1</u>	R-HES	R79XXA					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
C	2	R79XXA		C	3	PR	20	1	0	1	1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710799 1 of 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710799 2 of 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/> <input checked="" type="checkbox"/>		R710799 1 of 2 Backup		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/> <input checked="" type="checkbox"/>		R710799 2 of 2 Backup		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-37

R710799 FILE COPY CALL DECK AND RUN REQUEST (Sheet 2 of 2)

```

MEMBER NAME R0104C2
ALTASER R0104CV
//COPYV PRDC UNITI='2400-3',LABL='(,SL)',DSTY=3,FORMAT1=VB,FORMAT2=VB, X00000010
// UNITV=9TRK800,LABL='(,BLP)',DENSTY=2,PAR1=,PAR2=, X00000020
// CLASS=VARCON,REELNUM=999999 00000030
//COPY EXEC PGM=R0104P 00000040
//* NAME='R0URKE',DIV/BR=CORDS-RAD,DAR=R0 00000050
//STEPLIB DD DSN=CORDSLIB,DISP=SHR 00000060
//TAPEIN DD DSN=&INPUT,UNIT=&UNITI,DISP=(OLD,KEEP), X00000070
// VOLUME=SER=&PEELNUM,LABEL=&LABL, X00000080
// DCB=(RECFM=&FORMAT1,LRECL=&RECSIZE,BLKSIZE=&BLOCK, X00000090
// DEN=&DSTY,TRTCH=&PAR1) 00000100
//TAPEOUT DD DSN=&OUTPUT,UNIT=&UNITV,DISP=(NEW,PASS), X00000110
// VOLUME=SER=&SYSTEM,LABEL=&LABL, X00000120
// DCB=(RECFM=&FORMAT2,LRECL=&RECSIZE,BLKSIZE=&BLOCK, X00000130
// DEN=&DENSTY,TRTCH=&PAR2) 00000140
//SYCABEND DD SYSOUT=A 00000150
//SYSOUT DD SYSOUT=A 00000160
//VERIFY EXEC PGM=IFRPTCH 00000170
//SYSPRINT DD DUMMY 00000180
//SYSUT1 DD DSN=*.COPY.TAPEOUT,DISP=(OLD,KEEP), X00000190
// DCB=*.COPY.TAPEOUT,VOLUME=REF=*.COPY.TAPEOUT 00000200
//SYSUT2 DD SYSOUT=A 00000210
//SYSIN DD DSN=SYS1.PARMLIB(&CLASS),DISP=SHR 00000220

```

Figure 3-38

R0104C2 PROCEDURE LIST

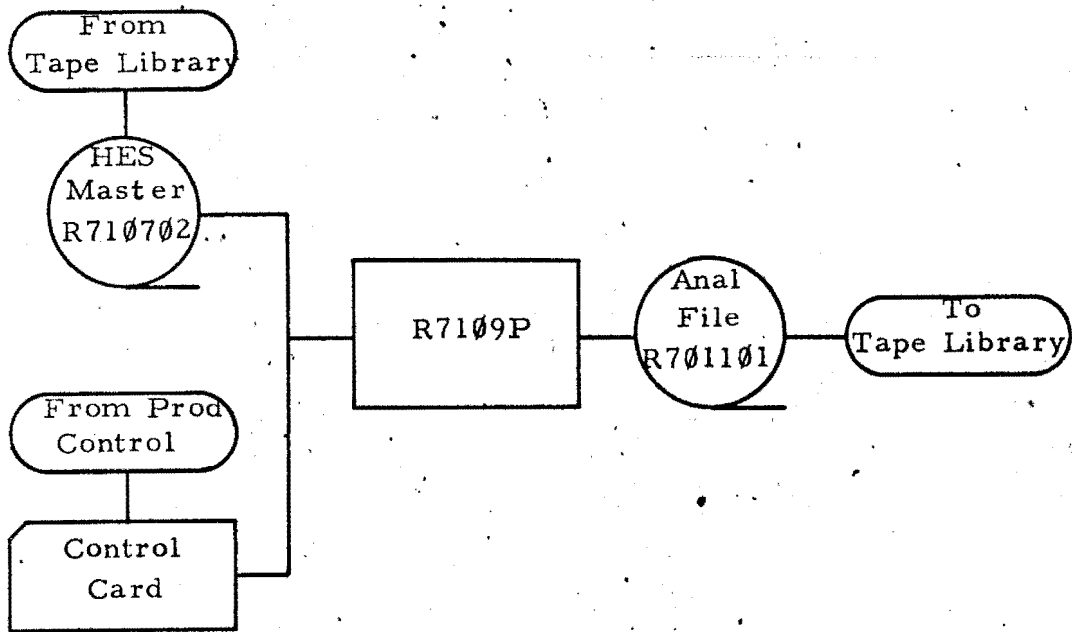


Figure 3-39

R7959C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

NR 10 NAME	R7959C		
070500	PROC	SERIAL=999999,CPU=15	00000010
R7100	EXEC	PGM=R7109P,TIME=&CPU	00000020
*		NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=10FEB71	00000030
* RES 70 -		CREATES ANALYSIS FILE	00000040
STERLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
SYSDUT	DD	SYSOUT=A	00000060
SYSDP10	DD	SYSOUT=A	00000070
INHE100	DD	DSN=R710702,UNIT=2400-3,DISP=SHR,VOL=SER=&SERIAL	00000080
ANALTAPE	DD	DSN=R701101,UNIT=2400-3,DISP=(NEW,KEEP)	00000090
ICARDIN	DD	DDNAME=DATECRD	00000100

Figure 3-40

CATALOGED PROCEDURE

```
/*  
7111  
//R7109.DATECRD .DD *  
//      EXEC R7959C,SERIAL=003831,CPU=20  
//      (R7959C,PRC,40,10),R-HES,MSGLEVEL=1,CLASS=C
```

Figure 3-41

PROCEDURE CALL DECK (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB 1 OF 1		REQUESTOR R-HES	JOB NAME R7959C					
JOB CLASS C	MAX TAPES 2	JOB CODE R7959C		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 40	PRINT TIME 10	CARDS PCH 0	FORM NO 1	COPIES 1		
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR				
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS	RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710702		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/> <input checked="" type="checkbox"/>		R701101 ANAL FILE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED							
REMARKS OR SPECIAL INSTRUCTIONS													
BOOKING AND BINDING INSTRUCTIONS													
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS													

Figure 3-42

SAMPLE RUN REQUEST

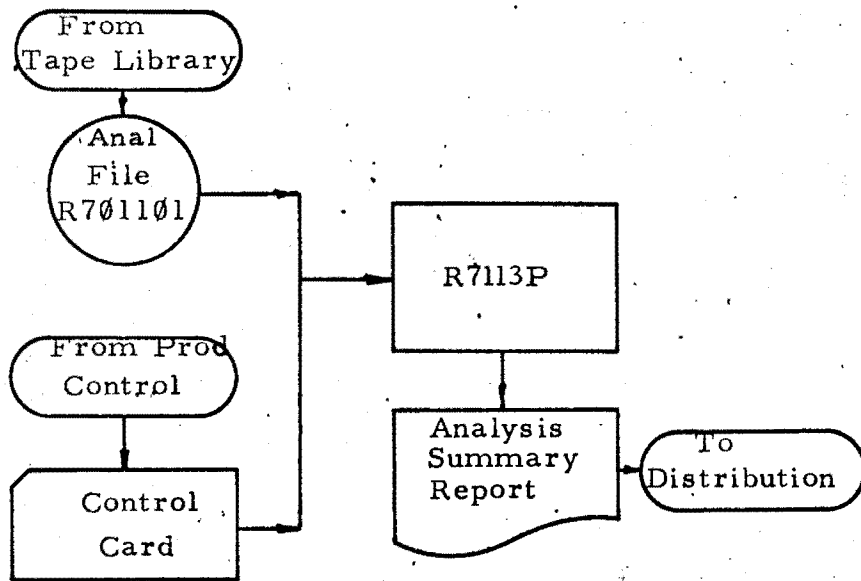


Figure 3-43

R7960C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

MEMBER NAME R79600			
//P70600	PROC	SERIAL=999999,CPU=6	00000010
//P7113	EXEC	PGM=P7113P,TIME=&CPU	00000020
//*		NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=10FEB71	00000030
//**		PRODUCES ANALYSIS SUMMARY REPORT	00000040
//STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
//SYSOUT	DD	SYSOUT=A	00000060
//SYSABEND	DD	SYSOUT=A	00000070
//PRINTER	DD	SYSOUT=A	00000080
//ANILTAPE	DD	DSN=R701101,UNIT=2400-3,DISP=SHR,VOL=SER=&SERIAL	00000090
//CARDIN	DD	DDNAME=CTLCARD	00000100

Figure 3-44

CATALOGED PROCEDURE

```
/*  
10  
//R7113.CTLCARD DD *  
// EXEC R7960C,SERIAL=009404,CPU=15  
// (R7960C,20,20),R-HES,MSGLEVEL=1,CLASS=A,TIME=20
```

Figure 3-45

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME: HES EFFECTIVE DATE: 1 JAN 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
-------------	------	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----

CARD 1	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		9	9																																						

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

CARD 2	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		USID																																							

USED IF CCI IN CARD 1 = 3	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		C P P																																							

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NARA Reference Copy

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE		REQUESTOR		JOB NAME		
					JOB 1 OF 1		R-HES		R7960C		
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES
B	1	R7960C		C	3	PR	20	20	0	1	1
I/O		BPI	FP	VOL SER	DATA SET NAME			DISP INSTR		PRINT INSTR	
IN	OUT		YES NO					KEEP SCRATCH	RET.	TAPRT DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R701101			<input checked="" type="checkbox"/> <input type="checkbox"/>	I	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-46

SAMPLE RUN REQUEST

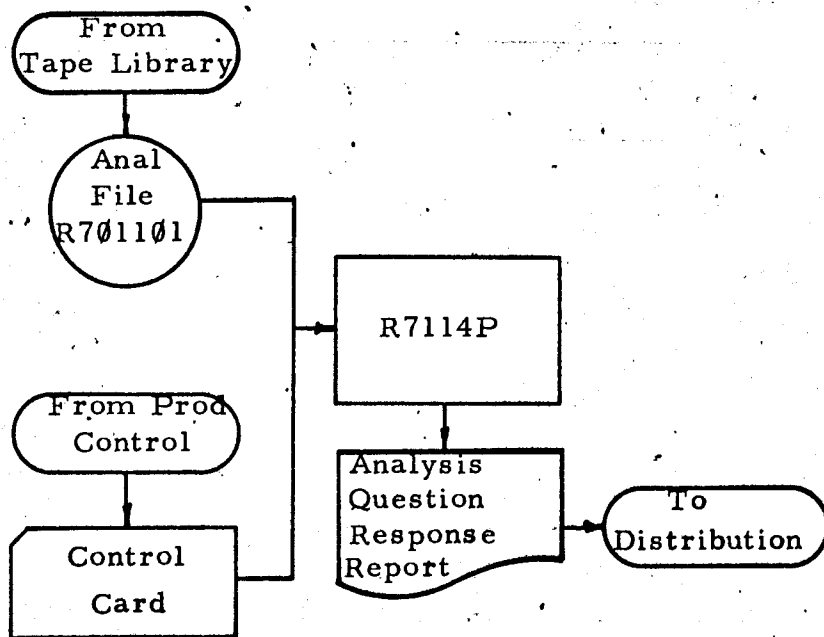


Figure 3-47

R7963C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

MEMBER NAME	R70630		
//R70630	PROC	SERIAL=999999,CPU=20	00000010
//R7114	EXEC	PGM=R7114P,TIME=&CPU	00000020
/**		NAME=SIMON,DIV/BF=CORDS-RAD,DAP=R7,DATE=10FEB71	00000030
//R 450 70 -		PRODUCES ANALYSIS QUESTION RESPONSE REPORT	00000040
//STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
//SYSOUT	DD	SYSOUT=A	00000060
//SYSABEND	DD	SYSOUT=A	00000070
//PRINTER	DD	SYSOUT=A	00000080
//MVLTAPE	DD	DSN=R701101,UNIT=2400-3,DISP=SHR,VOL=SER=&SERIAL	00000090
//CARDIN	DD	DDNAME=CTLCARD	00000100

Figure 3-48

CATALOGED PROCEDURE

```
/*  
10  
//R7114.CTLCARD DD *  
//      EXEC R7963C,SERIAL=000725,CPU=60  
//      TIME=60  
//      (R7963C,PRC,60,90,,3,1),R-HES,MSGLEVEL=1,CLASS=B,      X
```

Figure 3-49

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME:

HES

EFFECTIVE DATE: 1 JAN 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40		
					START DIST.							STOP DIST.																															
		0	0		N	N	N	N	N			N	N	N	N																												
		CCI = 0 PRINT ALL PROVINCES CCI = 1 PRINT ALL DISTRICTS																																									
Figure 3-49 PROCEDURE CALL DECK (Sheet 2 of 2)																																											

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB 1 OF 1		REQUESTOR R-HES	JOB NAME R7963C			
JOB CLASS B	MAX TAPES 1	JOB CODE R7963C		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 60	PRINT TIME 90	CARDS PCH 0	FORM NO *	COPIES *
I/O	BPI	FP		VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR		
IN OUT		YES	NO				KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/> <input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	999	R701101		<input checked="" type="checkbox"/> <input type="checkbox"/>		I	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>	
CONSOLE MESSAGE					OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
* SEE DISTRIBUTION											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-50

SAMPLE RUN REQUEST

3.19 Analysis Information Report (R7968C). Procedure R7968C is made up of one computer program (R7115P). The procedure generates the HES Analysis Information Report. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7968C:

Figure 3-51	R7968C Procedure Flow
Figure 3-52	Cataloged Procedure
Figure 3-53	Procedure Call Deck
Figure 3-54	Sample Run Sheet

3.20 Gazetteer File Generation (R7973C). Procedure R7973C is made up of one utility routine (IEHPROGM) and one computer program (R7119P). The procedure will scratch the previous month's gazetteer file that resides on the pack (111111) and generate a new file. A tape file can be generated by using a copy utility. Program (R7119P) is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7973C:

Figure 3-55	R7973C Procedure Flow
Figure 3-56	Cataloged Procedure List - IEHPROGM Control Card
Figure 3-57	Procedure Call Deck
Figure 3-58	Sample Run Sheet

3.21 Gazetteer Report (R7974C). Procedure R7974C is made up of one computer program (R7120P) and one sort step. The sort step and computer program are linked together to produce the gazetteer reports. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7974C:

Figure 3-59	R7974C Procedure Flow
Figure 3-60	Cataloged Procedure List and Sort Options Cards
Figure 3-61	Procedure Call Deck
Figure 3-62	Sample Run Sheet

3.22 Information Report (R7966C). Procedure R7966C is made up of one computer program (R7118P). The procedure produces the various HES information reports. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7966C:

Figure 3-63	R7966C Procedure Flow
Figure 3-64	Cataloged Procedure List
Figure 3-65	Procedure Call Deck
Figure 3-66	Sample Run Sheet

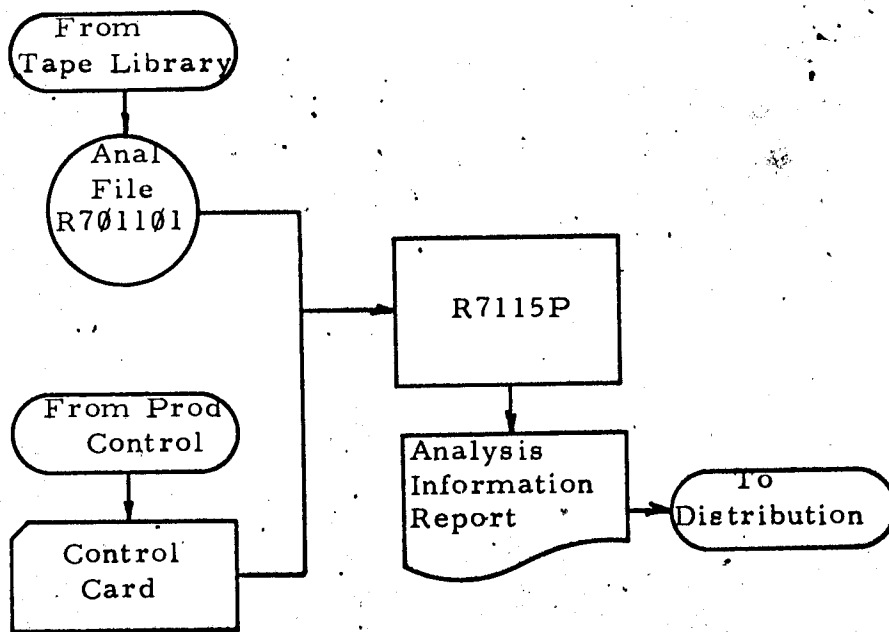


Figure 3-51

R7968C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

MEMBER NAME	R7968C		
//R7968C	PROC	SERIAL=999999,CPU=10	00000010
//R7115	EXEC	PGM=R7115P,TIME=&CPU	00000020
//*		NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=10FEB71	00000030
//# CHES,70 -		PRODUCES ANALYSIS INFORMATION REPORT	00000040
//STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
//SYSOUT	DD	SYSOUT=A	00000060
//SYSABEND	DD	SYSOUT=A	00000070
//PRINTER	DD	SYSOUT=A	00000080
//ANALTAPE	DD	DSNAME=R701101,UNIT=2400-3,DISP=(OLD,KEEP),	X0000090
//		VOL=SER=&SERIAL	00000100
//CARDIN	DD	DDNAME=CTLCARD	00000110

Figure 3-52

CATALOGED PROCEDURE

/*

0

//R7115.CTLCARD.DD *

// EXEC R7968C,SERIAL=003187

// (R7968C,PRC,8,55,,1),R-HES,MSGLEVEL=1,CLASS=E

Figure 3-53

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME:

EFFECTIVE DATE:

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
CARD 1		1																																							
CARD 2 USED IF CC 1 IN																																									
CARD 1 = '1'																																									

CC 1 = 0 PRINT ALL USID
 CC 1 = 1 PRINT USIDS IN CARD 2

START USID STOP USID

N | N | N | N | N | N | N | N | N | N

Figure 3-53

PROCEDURE CALL DECK (Sheet 2 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE		REQUESTOR		JOB NAME		
					JOB 1 OF 1		R-HES		R7968C		
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES
E	1	R7968C		C	3	PR	8	55	0	*	*
I/O		BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R701101	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
* SEE DISTRIBUTION											
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-54

SAMPLE RUN REQUEST

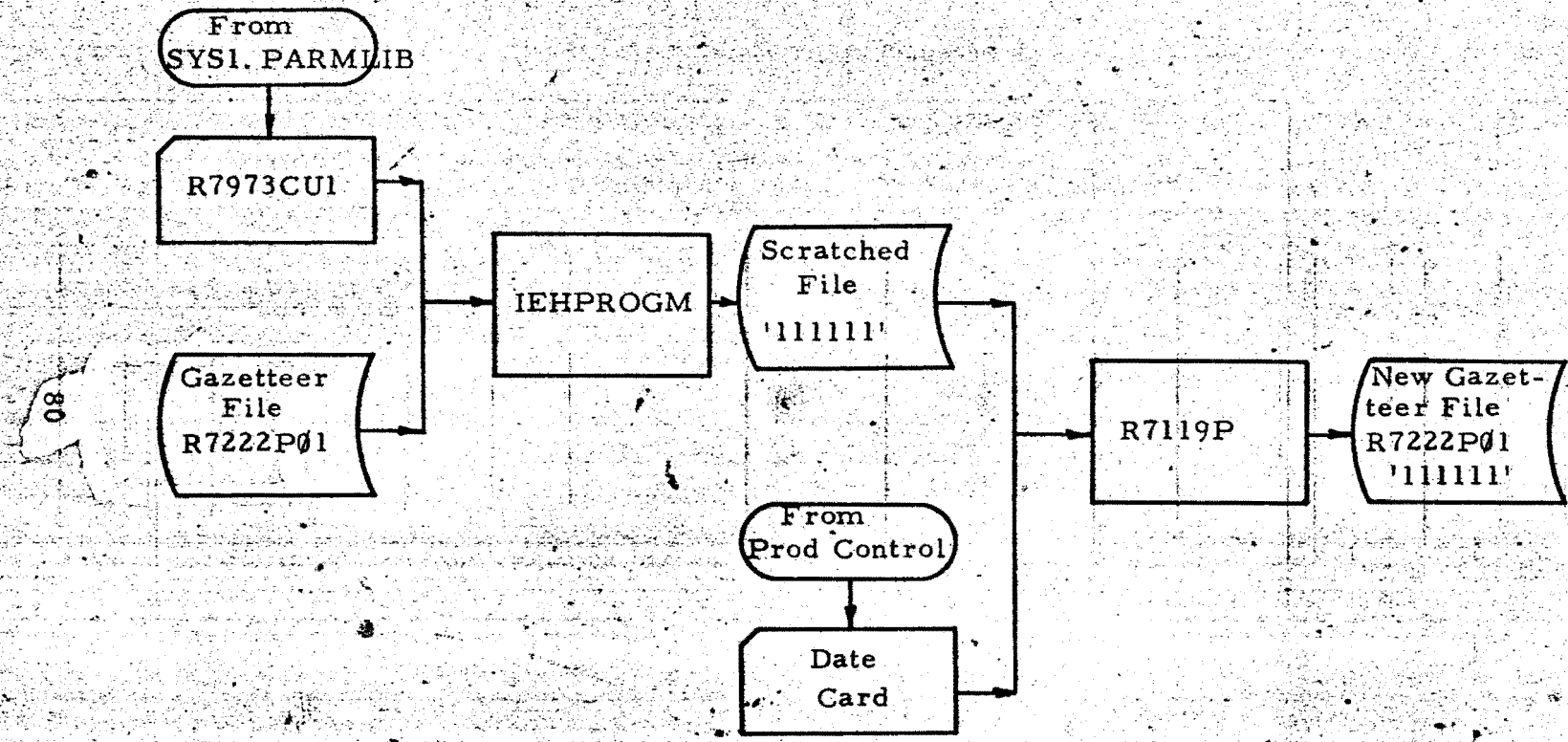


Figure 3-55

R7973C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 08 JAN 72

```
MEMBER NAME R7973C
/P7973C PROC SERIAL=999999; 00000010
/STEP1 EXEC PGM=IEHPPROGM 00000020
/* NAME=SIMON, DIV/BR=CORDS-RAD, DAR=R7, DATE=10FEB71 00000030
/* HES 70 - CREATES GAZETTEER TAPE FILE 00000040
/SYSPRINT DD SYSOUT=A 00000050
/DD1 DD UNIT=2314, VOL=SER=111011, DISP=SHR 00000060
/SYSIN DD DSN=SYS1.PARMLIB(R7973CU1), DISP=SHR 00000070
/R7119 EXEC PGM=R7119P 00000080
/STEPLIB DD DSNAME=CORDSLIB, DISP=SHR 00000090
/SYSABEND DD SYSOUT=A 00000100
/SYSOUT DD SYSOUT=A 00000110
/HESBASIC DD DSNAME=R710702, UNIT=2400-3, DISP=(OLD, KEEP, KEEP), 00000120
/ VOL=SER=&SERIAL 00000130
/GAZFILE DD DSN=R7222P01, UNIT=2314, DISP=(, KEEP), VOL=SER=111011, 00000140
/ SPACE=(TRK,(400,10),RLSE), LABEL=EXPDT=99350 00000150
/SYSIN DD DDNAME=CTLCARD 00000160
```

*** S Y S I . P A R M L I B ***
AS OF 08 JAN 72

```
MEMBER NAME R7973CU1
SCRATCH DSNAME=R7222P01, VOL=2314=111011, PURGE 00000010
```

Figure 3-56

CATALOGED PROCEDURE LIST -- IEHPPROGM CONTROL CARD

/*

7111

R7222

//R7119.CTLCARD DD *

//S1 EXEC R7973C,SERIAL=003831

// (R7973C,PRC,15,01),R-HES,MSGLEVEL=1,CLASS=B

Figure 3-57

PROCEDURE CALL DECK (Sheet 1 of 2)

RECORD LAYOUT FORM GAZETTEER FILE GENERATION CONTROL CARD SHEET 1 OF 1 SHEETS

SYSTEM NAME: HES

EFFECTIVE DATE: 1 JAN 71

Record Name

Base

1 2 3 4

5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 20

1 2 3 4 5 6 7 8 9 30

1 2 3 4 5 6 7 8 9 40

DATE

Y Y M M

CC 1-4 DATE OF GAZETTEER FILE
 CC 5-75 BLANK
 CC 76-80 'R7222'

R 7 2 2 2

Figure 3-57

PROCEDURE CALL DECK (Sheet 2 of 2)

1 2 3 4

5 6 7 8 9 10

1 2 3 4 5 6 7 8 9 20

1 2 3 4 5 6 7 8 9 30

1 2 3 4 5 6 7 8 9 40

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME				
					JOB 1 OF 1	R-HES	R7973C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES
B	1	R7973C		C	3	PR	15	01	0	1	1
I/O		BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710702	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-58

SAMPLE RUN REQUEST

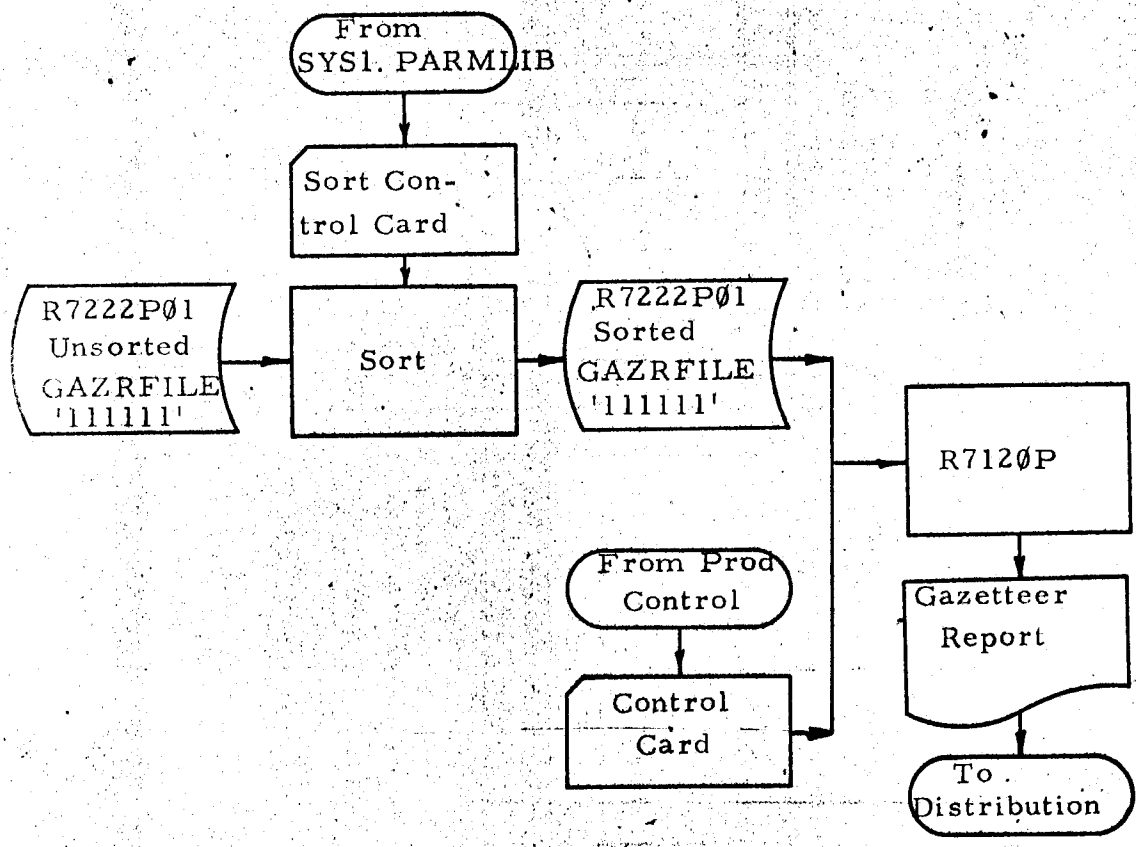


Figure 3-59

R7974C PROCEDURE FLOW

*** S Y S I P R O C L I B ***
AS OF 16 JAN 72

```

MEMBER NAME R7974C
/R7974C PROC OPTION=R7974CS1 00000010
/SR R7222 EXEC PGM=IERRC00,PARN='MSG=AP' 00000020
// NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=10FEB71 00000030
// * HES 70 - PRODUCES GAZETTEER REPORT 00000040
/SORTLIB DD DSN=SYS1, SORTLIB, DISP=SHR 00000050
/SYSOUT DD SYSOUT=A 00000060
/SORTIN DD DSN=R7222P01, DISP=SHR, UNIT= 2314, VOL=SER=11111, 00000070
/ DCB=(RECFM=FB,LRECL=150,BLKSIZE=3000) 00000080
/SORTOUT DD UNIT=SYSDA, DISP=(,PASS), DCB=* SORTIN, X0000090
/ SPACE=(TRK,(500,20),RLSE) 00000100
/SORTWK01 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000110
/SORTWK02 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000120
/SORTWK03 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000130
/SORTWK04 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000140
/SORTWK05 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000150
/SORTWK06 DD UNIT=SYSDA, SPACE=(TRK,(500,20),,CONTIG) 00000160
/SYSIN DD DSN=SYS1,PARMLIB(&OPTION),DISP=SHR 00000170
/R7120 EXEC PGM=R7120P 00000180
/SYEPLIB DD DSN=CORDSLIB,DISP=SHR 00000190
/SYSOUT DD SYSOUT=A 00000200
/SYGABND DD SYSOUT=A 00000210
/ZZINDDR DD SYSOUT=A 00000220
/GAZRFILE DD DSN=*,SRTR7222,SORTOUT,DISP=(OLD,DELETE) 00000230
/SYSIN DD DDNAME=CTLGARD 00000240

```

Figure 3-60

CATALOGED PROCEDURE LIST AND SORT OPTIONS CARDS (Sheet 1 of 2)

*** S Y S I P A R M L I B ***
AS OF 16 JAN 72

MEMBER NAME R7974CS1

SORT FIELDS=(1,9,CH,A)

00000010

*** S Y S I P A R M L I B ***
AS OF 16 JAN 72

MEMBER NAME R7974CS2

SORT FIELDS=(1,3,CH,A,118,9,CH,A)

00000010

*** S Y S I P A R M L I B ***
AS OF 16 JAN 72

MEMBER NAME R7974CS3

SORT FIELDS=(1,1,CH,A,10,80,CH,A)

00000010

*** S Y S I P A R M L I B ***
AS OF 16 JAN 72

MEMBER NAME R7974CS4

SORT FIELDS=(1,3,CH,A,70,20,CH,A)

00000010

*** S Y S I P A R M L I B ***
AS OF 16 JAN 72

MEMBER NAME R7974CS5

SORT FIELDS=(1,3,CH,A,50,20,CH,A)

00000010

Figure 3-60

CATALOGED PROCEDURE LIST AND SORT OPTIONS CARDS (Sheet 2 of 2)

/*
ALL ALPHA 30 NDV 71

R7223

//R7120.CTLCARD DD *

// EXEC R7974C,OPTION=R7974CS3

// (R7974C,PRU,15,100,,,,),R-HES,MSGLEVEL=1,CLASS=B

Figure 3-61

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME: HES

EFFECTIVE DATE: 1 JAN 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		LEVEL			SEQUENCE						AS OF DATE																														
		H	A	M	U	S	I	D	D	D	M	M	M	Y	Y																										
		R 7 2 2 3																																							
		CC 1-3 'VIL' SELECT VILLAGES ONLY 'HAM' SELECT HAMLETS ONLY 'ALL' SELECT ALL REPORTS																																							
		CC 4 = BLANK CC 5-9 'USID' SEQUENCE 'ALPHA' " 'HAM' " 'VILL' "																																							
		'AD ID' CC 10 = BLANK CC 11 - 19 AS OF DATE CC 20 - 75 = BLANK																																							
		CC 76-80 = 'R7223'																																							

Figure 3-61
PROCEDURE CALL DECK (Sheet 2 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR		JOB NAME				
					JOB 1 OF 1	R-HES		R7974C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
B	0	R7974C		U	3	PR	15	100	0	*	*	
I/O		BPI	FP	VOL SER	DATA SET NAME			DISP	INSTR		PRINT INSTR	
IN	OUT		YES NO					KEEP	SCRATCH	RET	TAPRT DEBE	NO CYS/RECORDS
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		No			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		TAPES			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
* SEE DISTRIBUTION												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-62

SAMPLE RUN REQUEST

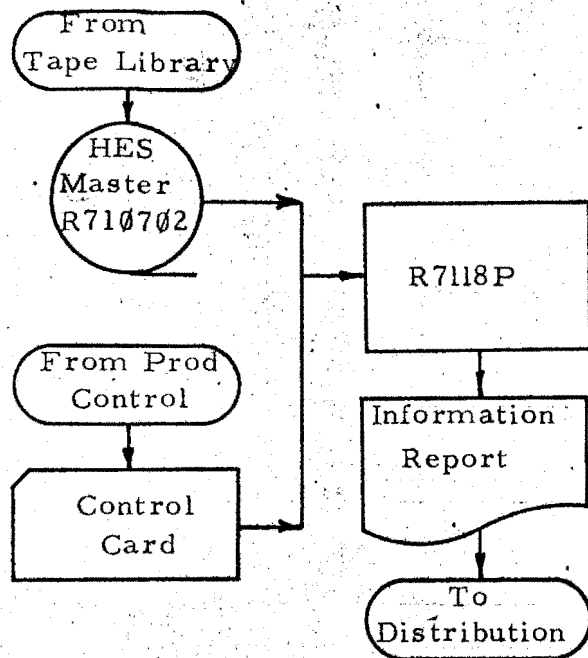


Figure 3-63

R7966C PROCEDURE FLOW

*** S Y S 1 P R O C L I B ***
AS OF 16 JAN 72

NUMBER NAME	R7966C		
//R7966C	PROC	SERIAL=999999,CPU=20	00000010
//R7115	EXEC	PGM=R7118P,TIME=&CPU	00000020
//		NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=10FEB71	00000030
//	HBS 70 -	PRODUCES INFORMATION REPORT	00000040
//STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
//SYSOUT	DD	SYSOUT=A	00000060
//SYSABEND	DD	SYSOUT=A	00000070
//NHSMSTR	DD	DSNAME=R710702,UNIT=2400-3,DISP=(OLD,KEEP),	X0000080
//		VOL=SER=&SERIAL	00000090
//PRINTOUT	DD	SYSOUT=A	00000100
//CARDW	DD	DDNAME=CONCARD	00000110

Figure 3-64

CATALOGED PROCEDURE LIST

```
/*  
R72066 710930 SEP 71D  
//R7118.CONCARD DD *  
// EXEC R7966C,CPU=150,SERIAL=003692  
// TIME=150  
// (R7966C,PRC,360,400,,,),R-HES,MSGLEVEL=1,CLASS=B, X
```

Figure 3-65

PROCEDURE CALL DECK (Sheet 1 of 3)

SYSTEM NAME: HES

EFFECTIVE DATE: 1 JAN 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40			
							OPTION	START					USID					STOP					USID					DATE					AS	OF DATE										SUMMARY
		R	1	7	2	0		1	6	C	P	P	D	D	V	V	H	H	C	P	P	D	D	V	V	H	H	Y	Y	M	M	D	D	M	M	M	Y	Y						
Figure 3-65																																												
PROCEDURE CALL DECK (Sheet 2 of 3)																																												

PROGRAM CONTROL CARD

<u>CARD COL.</u>	<u>VALID PARAMETERS</u>	<u>DESCRIPTION</u>
1-5	'R7206'	Card ID
6	1, 2, 3, 4, 5, 6, or b	Print option 1 = Hamlets and villages I Corps 2 = Hamlets and villages II Corps 3 = Hamlets and villages III Corps 4 = Hamlets and villages IV Corps 5 = Villages only - RVN 6 = Hamlets and villages - RVN b = From USID, to USID used
7-15	CPPDDVVHH	From USID
16-24	CPPDDVVHH	To USID
25-28	YYMM	Desired date
29-37	DD MMM YY	As of date
38	'P', 'D', or 'b'	Summary page option 'P' = Province level up 'D' = District level up 'b' = No summary pages
39-80	Blank	Not used

Figure 3-65

PROCEDURE CALL DECK (Sheet 3 of 3)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR		JOB NAME				
					JOB 1 OF 1	R-HES		R7966C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
B	1	R7966C		C	3	PR	360	400	0	*	*	
I/O		BPI	FP		VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO				KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	.999	R710702		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE					OPERATOR ACTION REQUIRED							
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
* SEE DISTRIBUTION												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-66.

SAMPLE RUN REQUEST

3.23 Hamlet Density/Status Plot (R7986C). Procedure R7986C is made up of two computer programs (R7124P, R7126P) and one sort step. The programs and sort step are linked together to produce an input tape for the CALCOMP plotter. The programs are described in the "HES Plotting Manual." The following illustrations describe various aspects of R7986C:

Figure 3-67	Procedure R7986C Flow
Figure 3-68	Cataloged Procedure List
Figure 3-69	Procedure Call Deck
Figure 3-70	Sample Run Sheet
Figure 3-71	Sample Plotter Setup Sheet

3.24 Question Response Distribution Report (R7922C). Procedure R7922C is made up of one computer program (R7128P). The procedure produces the HES Question Response Distribution Report. The program and its options are described in detail in the program maintenance manual. The following illustrations describe various aspects of R7922C:

Figure 3-72	Procedure R7922C Flow
Figure 3-73	Cataloged Procedure List
Figure 3-74	Procedure Call Deck
Figure 3-75	Sample Run Sheet

3.25 Admin ID Roster (R7907C). Procedure R7907C is made up of one computer program (R7129P). The procedure produces the HES Admin ID Roster Report. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7907C:

Figure 3-76	Procedure R7907C Flow
Figure 3-77	Cataloged Procedure List
Figure 3-78	Procedure Call Deck
Figure 3-79	Sample Run Sheet

3.26 Model Trend Report (R7991C). Procedure R7991C is made up of one computer program (R7136P). The procedure produces the HES Model Trend Report. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7991C:

Figure 3-80	Procedure R7991C Flow
Figure 3-81	Cataloged Procedure List
Figure 3-82	Procedure Call Deck
Figure 3-83	Sample Run Sheet

86

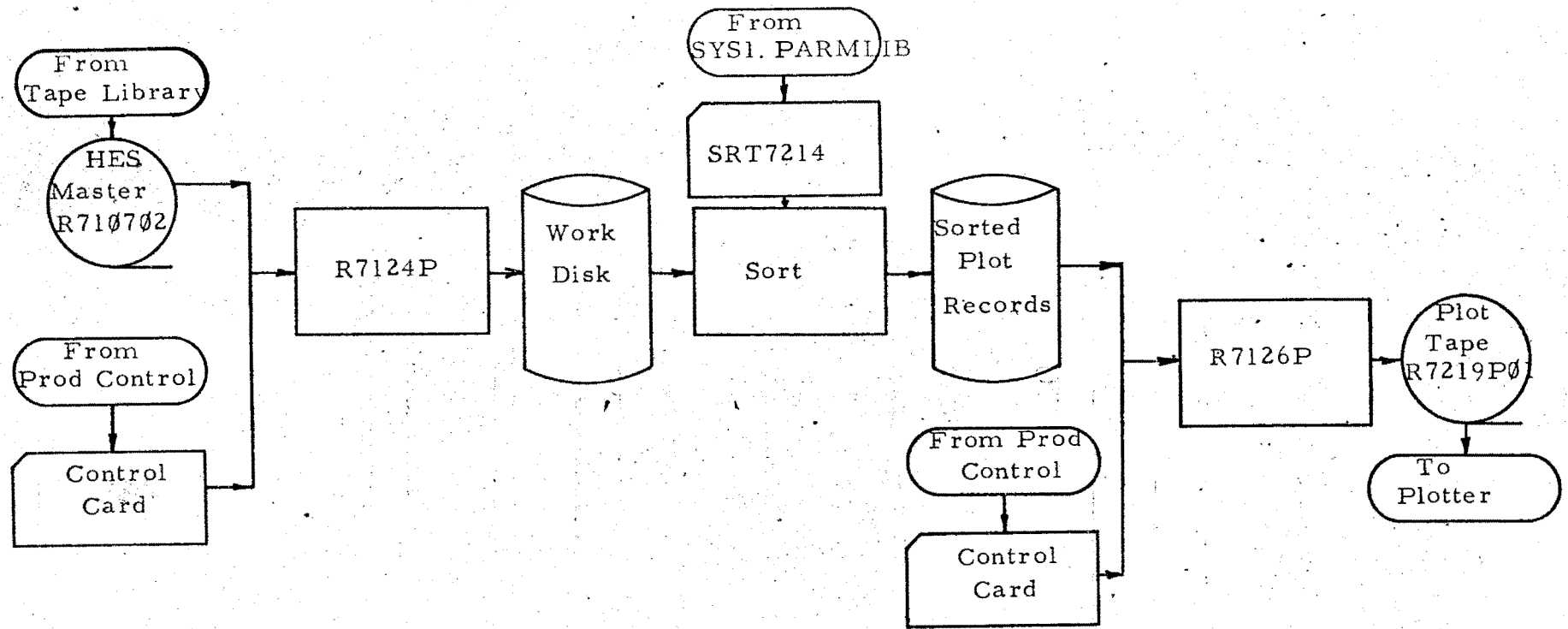


Figure 3-67

R7986C PROCEDURE FLOW

```

NUMBER NAME R79860
//R79860 PROC INSER=999999 00000010
//R7124 EXEC PGM=R7124P 00000020
//DD NAME=MOBLEY, DIV/BR=CORCS 00000030
// 00000040
//STEP1 DD DSN=CORCSLIB, DISP=(SHR, PASS) 00000050
//SYSOUT DD SYSOUT=A 00000060
//SYSOUT DD SYSOUT=A 00000070
//DD DISP=(SHR, PASS), UNIT=2400-3, VOL=SER=&INSER, DSN=R710702 00000080
//SORT1 DD DSN=SYS1 SORTLIB, DISP=SHR 00000090
//SORT1 DD UNIT=2314, DISP=(NEW, PASS), SPACE=(CYL, (20, 1), RLSE), X00000100
// DCB=(RECFM=VB, LRECL=31, BLKSZ=1004) 00000110
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000120
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000130
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000140
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000150
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000160
//SORT1 DD SPACE=(TRK, (40), , CONTIG), UNIT=SYSDA 00000170
//SORTOUT DD UNIT=2314, DISP=(NEW, PASS), SPACE=(CYL, (20, 1), RLSE), X00000180
// DCB=* SORTIN 00000190
//TAP02 DD UNIT=2314, DISP=(NEW, PASS), SPACE=(CYL, (20, 1), RLSE) 00000200
//SYSIN DD DDNAME=CARDIN 00000210
//SORT1 EXEC PGM=TERROCCO, PARM='MSG=AP' 00000220
//SORT1 DD DSN=SYS1 SORTLIB, DISP=SHR 00000230
//SYSOUT DD SYSOUT=A 00000240
//SORT1 DD DSN=R7124.TAP02, DISP=(OLD, DELETE), X00000250
// DCB=(RECFM=FB, LRECL=20, BLKSZ=2000) 00000260
//SORTOUT DD UNIT=2314, DISP=(, PASS), SPACE=(CYL, (20, 1), RLSE), X00000270
// DCB=* SORTIN 00000280
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000290
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000300
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000310
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000320
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000330
//SORT1 DD UNIT=2314, SPACE=(CYL, (10), , CONTIG) 00000340
//SYS1 DD DSN=SYS1 PARMLIB(SRT7214), DISP=(SHR, PASS) 00000350
//R7126 EXEC PGM=R7126P 00000360
//SORT1 DD DSN=CORCSLIB, DISP=(SHR, PASS) 00000370
//SYSOUT DD SYSOUT=A 00000380
//SYSOUT DD SYSOUT=A 00000390
// DD DSN=R7124 SORTOUT, DISP=(OLD, DELETE) 00000400
// DD UNIT=7TRK, LABEL=(, NL), DISP=(NEW, KEEP), DSN=R7219P01 00000410
//SYS1 DD DDNAME=CARDIN 00000420

```

Figure 3-68

CATALOGED-PROCEDURE LIST


```
/*  
* 101 POPULATION DENSITY 30 SEP 71  
//R7126.CARDIN DD *  
/*  
7103 PAM01H 2  
//R7124.CARDIN DD *  
// EXEC R7986C,INSER=000521,TIME.R7124=15  
// (R7986C,PRC,30,5),R-HES,MSGLEVEL=1,CLASS=B,TIME=30
```

Figure 3-69

PROCEDURE CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR		JOB NAME				
					JOB 1 OF 2	R-HE'S		R7986C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
B	1	R7986C		C	3	PR	30	5	0	1	1	
I/O		BPI	FP	VOL SER	DATA SET NAME			DISP INSTR	PRINT INSTR			
IN	OUT		YES NO					KEEP SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710702			<input checked="" type="checkbox"/> <input type="checkbox"/>	I	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	556	<input type="checkbox"/> <input checked="" type="checkbox"/>		* R7219P01			<input checked="" type="checkbox"/> <input type="checkbox"/>	45	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
* TO JOB 2 of 2												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-70
SAMPLE RUN REQUEST

PLOTTER OPERATING INSTRUCTIONS

Job Code R7986C		Job Name Hamlet Map (4 plots)				Classification U														
Agency CORDS		Requestor R-HES		Phone 4151		Priority 3														
EST. Run Time 90 min.		RUN CODES PR - PRODUCTION TE - TEST SM - SYSTEM		RE - RERUN/EQUIP FAILURE RO - RERUN/OPERATION ERROR RP - RERUN/PROGRAM ERROR RS - RERUN/SYSTEM ERROR		Run Code PR														
Actual Run Time																				
PLOT #1			PLOT #2			PLOT #3														
Reel # 999999			Reel # 999999			Reel # 999999														
START BLOCK 1		STOP BLOCK 2	START BLOCK 2		STOP BLOCK 3	START BLOCK 3		STOP BLOCK 4												
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type												
#1	Black	Free Flow	#1	Black	Free Flow	#1	Black	Free Flow												
#2			#2			#2														
#3			#3			#3														
#4			#4			#4														
Type Paper Vellum			Type Paper Vellum			Type Paper Vellum														
Paper Width 54"			Paper Width 54"			Paper Width 54"														
Distance From Paper Edge to Origin			Distance From Paper Edge to Origin			Distance From Paper Edge to Origin														
Origin			Origin			Origin														
<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF	<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF	<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF
LR	RR																			
LF	RF																			
LR	RR																			
LF	RF																			
LR	RR																			
LF	RF																			
Special Instructions			Special Instructions USE FINE PEN POINT			Special Instructions														
PLOT #4			PLOT #5			PLOT #6														
Reel # 999999			Reel #			Reel #														
START BLOCK 4		STOP BLOCK 5	START BLOCK		STOP BLOCK	START BLOCK		STOP BLOCK												
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type												
#1	Black	Free Flow	#1			#1														
#2			#2			#2														
#3			#3			#3														
#4			#4			#4														
Type Paper Vellum			Type Paper			Type Paper														
Paper Width 54"			Paper Width			Paper Width														
Distance From Paper Edge to Origin			Distance From Paper Edge to Origin			Distance From Paper Edge to Origin														
Origin			Origin			Origin														
<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF	<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF	<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;">LR</td> <td style="width: 50%;">RR</td> </tr> <tr> <td>LF</td> <td>RF</td> </tr> </table>			LR	RR	LF	RF
LR	RR																			
LF	RF																			
LR	RR																			
LF	RF																			
LR	RR																			
LF	RF																			
Special Instructions			Special Instructions			Special Instructions														

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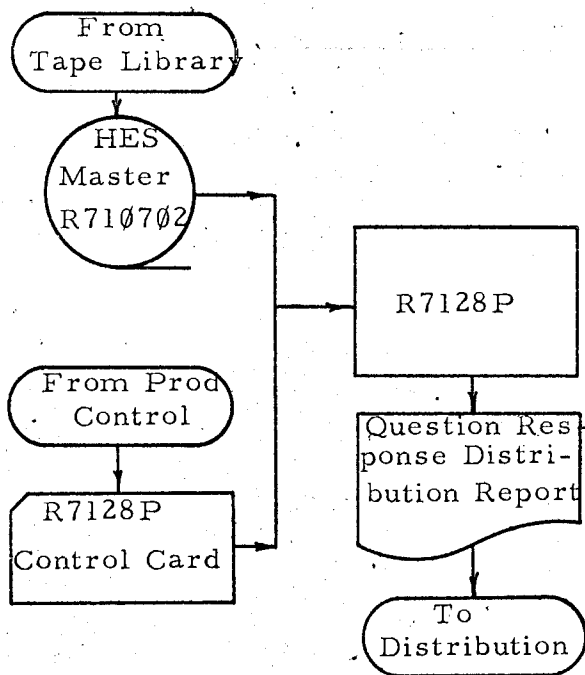


Figure 3-72

R7922C PROCEDURE FLOW

*** S Y S I . P P O C L I B ***
AS OF 23 JAN 72

```
79220  
// 79220 PRCE CPU=200, 710702=999999 0000001  
// 7128 EXCE PCM=R7128P, TIME=&CPU 0000002  
// * 0000003  
// * 0000004  
// * NAME=MIHER, DIV/BR=CORDS-RAD, DAR=R7, DATE=25OCT71 0000005  
// * QUESTION RESPONSE DISTRIBUTION REPORT 0000006  
// * 0000007  
// * 0000008  
// * 0000009  
//SYSPRTE DD DSN=CORDSLIB, DISP=SHR 0000010  
//SYSPRTE DD DSN=R710702, UNIT=2400-3, DISP=(OLD,KEEP) 0000011  
// VOL=SER=S710702 0000012  
//SYSPRTE DD SYSOUT=A 0000013  
//SYSPRTE DD SYSOUT=A 0000014  
//SYSPRTE DD DSN=C TL CARD 0000015
```

Figure 3-73

CATALOGED PROCEDURE LIST

/*

7112 3 D VQT05 0

//R7128.CTLCARD DD *

// EXEC R7922C,R710702=003706

// TIME=200

// (R7922C,PRC,020,02,000,,),R-HES,MSGLEVEL=1,CLASS=B, X

Figure 3-74

PROCEDURE CALL DECK (Sheet 1 of 2)

QUESTION RESPONSE DISTRIBUTION REPORT CONTROL CARD

SHEET 1 OF 1 SHEETS

SYSTEM NAME: HES

EFFECTIVE DATE: 1 Jan 71

Record Name	Case	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
	Date					Option					Level	Question Code				Ranking																									
	Y Y M M						N					A	H M B 0 1				N N N N N																								
	CC 1-4	Date																																							
	CC 5	Blank																																							
	CC 6	Option = 1 Population (thousands)																																							
		2 Population percent																																							
		3 Hamlets																																							
	CC 7	Blank																																							
	CC 8	Level = D District																																							
		P Province																																							
	CC 9	Blank																																							
	CC 10-14	Question Code																																							
	CC 15	Blank																																							
	CC 16-20	Ranking, up to 5 Responses																																							
	CC 21-80	Blank																																							
<p>Figure 3-74</p> <p>PROCEDURE CALL DECK (Sheet 2 of 2)</p>																																									

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME						
					JOB 1 OF 1	R-HES	R7922C						
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS	PCN	FORM NO	COPIES	
B	1	R7922C		C	3	PR	20	2	0		*	*	
I/O		BPI	FP		VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES	NO				KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710702		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	RECORDS
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED							
REMARKS OR SPECIAL INSTRUCTIONS													
BOOKING AND BINDING INSTRUCTIONS													
* SEE DISTRIBUTION													
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS													

Figure 3-75

SAMPLE RUN REQUEST

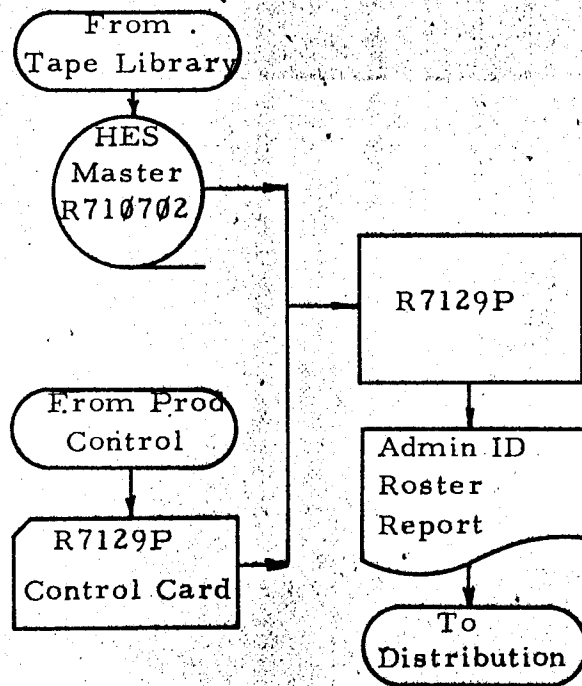


Figure 3-76

R7907C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 23 JAN 72

```

MEMBER NAME R79070
/R79070      PROC   CPU=60, SERIAL=999999          0000001
/R7129      EXEC   PGM=R7129P, TIME=&CPU         0000002
/*          NAME=SIMON/BROWN, DIV/BR=CORDS-RAD, DAR=R7, DATE=11MAY71 0000003
/*          SEC 71 - PRODUCES ADMIN ID ROSTER REPORT 0000004
/STEP 13    DD     DSNNAME=CORDSLIB, DISP=SHR     0000005
/SYSOUT     DD     SYSOUT=A                       0000006
/SYSOUT     DD     SYSOUT=A                       0000007
/PRINT     DD     SYSOUT=A                       0000008
/MAT 1     DD     DSNNAME=R710702, UNIT=2400-3, DISP=(OLD,KEEP),  X0000009
/          VOL=SER=&SERIAL                        0000010
/CARD 1     DD     DDNAME=CTLCARD                 0000011
/VILL 1     DD     UNIT=2314, SPACE=(TRK,(100),,CONTIG) 0000012
/SORTLIB    DD     DSNNAME=SYS1.SORTLIB, DISP=SHR     0000013
/SORTWK01   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000014
/SORTWK02   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000015
/SORTWK03   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000016
/SORTWK04   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000017
/SORTWK05   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000018
/SORTWK06   DD     UNIT=2314, SPACE=(CYL,(05,5),,CONTIG) 0000019

```

Figure 3-77

CATALOGED PROCEDURE LIST

/*

710831 08.71

//R7129.CTLCARD DD *

// EXEC R7907C,SERIAL=001414

// (R7907C,PRC,030,10,0,1,1),'R-HES',MSGLEVEL=1,CLASS=D

Figure 3-78

PROCEDURE CALL DECK (Sheet 1 of 2)

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME				
					JOB 1 OF 1	R-HES	R7907C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES
D	1	R7907C		C	3	PR	30	40	0	1	1
I/O	BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR			
IN OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/> <input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>		.999	R710702	<input checked="" type="checkbox"/> <input type="checkbox"/>		I	<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
BOOKING AND BINDING INSTRUCTIONS											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-79

SAMPLE RUN REQUEST

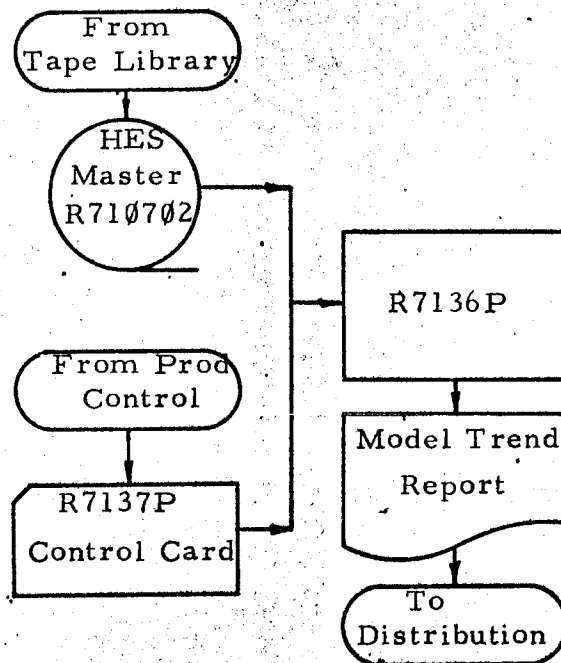


Figure 3-80

R7991C PROCEDURE FLOW

*** S Y S I . P R O C L I B ***
AS OF 30 JAN 72

MEMBER NAME R7991C			
//R7991C	PROC	CPU=400,SERIAL=999999	00000010
//R7136	EXEC	PGM=R7136P,TIME=&CPU	00000020
/**		NAME=MAHER,DIV/BR=CORDS-RAD,DAR=R7,DATE=30SEP71	00000030
/** HES 70 -		PRODUCES MODEL TREND REPORT	00000040
//STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
//TAPE01	DD	DSNAME=R710702,UNIT=2400-3,DISP=(OLD,KEEP),	X0000060
//		VOL=SER=&SERIAL	00000070
//TAPE2	DD	SYSOUT=A	00000080
//SYSOUT	DD	SYSOUT=A	00000090
//SYSABEND	DD	SYSOUT=A	00000100
//SYSIN	DD	DDNAME=CTLCARD	00000110

Figure 3-81

CATALOGED PROCEDURE LIST

/*

7102

D 31 AUG 71

//R7125.CTLCARD DD *

// EXEC R7991C,SERIAL=001414

// TIME=200

// (R7991C,PRC,200,40,0,1,1),'R-HES',MSGLEVEL=1,CLASS=J, X

Figure 3-82

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME: HES

EFFECTIVE DATE: 1 Jan 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
		Date				Start						USID						Stop						USID						Level						As of Date					
		Y	Y	M	M	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	D	D	M	M	M	Y	Y					

D=District
P=Province

Figure 3-82

PROCEDURE CALL DECK (Sheet 2 of 2)

1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---	----

MACC0116 Form 28, 12 Apr 72 Replaces edition of 12 Aug 69, which is obsolete

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB 1 OF 1	REQUESTOR R-HES	JOB NAME R7991C				
JOB CLASS J	MAX TAPES 1	JOB CODE R7991C		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 200	PRINT TIME 40	CARDS PCH .0	FORM NO *	COPIES *
I/O		BPI	FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR		
IN	OUT		YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	999	R710702	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
* SEE DISTRIBUTION											
BOOKING AND BINDING INSTRUCTIONS											
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-83

SAMPLE RUN REQUEST

3.27 Variable Model Score Percent Change Program (R7923C). Procedure R7923C is made up of one computer program (R7167P). The procedure produces the variable model score percent change report. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7923C:

Figure 3-84	Procedure R7923C Flow
Figure 3-85	Cataloged Procedure List
Figure 3-86	Procedure Call Deck
Figure 3-87	Sample Run Sheet

3.28 Revised Ethnic Minority Affairs Report (R7913C). Procedure R7913C is a computer procedure made up of one computer program (R7160P). The procedure produces the revised ethnic minority affairs report. The program is described in detail in the program maintenance manual. The following illustrations describe various aspects of R7913C:

Figure 3-88	Procedure R7913C Flow.
Figure 3-89	Cataloged Procedure List
Figure 3-90	Procedure Call Deck
Figure 3-91	Sample Run Sheet

3.29 HES Bilingual Update Forms (R7919C). Procedure R7919C is made up of one computer program (R7161P). The procedure produces the HES Update Forms Print Tapes. The program is described in the program maintenance manual. The following illustrations describe various aspects of R7919C:

Figure 3-92	Procedure R7919C Flow
Figure 3-93	Cataloged Procedure List
Figure 3-94	Procedure Call Deck
Figure 3-95	Sample Run Sheet

3.30 HES/70 Plotting. The HES/70 hamlet plot subsystem is composed of two programs, two subroutines, and two catalogued procedures. In addition, it utilizes the generalized printer plot routine composed of programs S8701P and S8702P, the basic CALCOMP package for the 1:1,000,000 hamlet maps and population density maps, and the GEOPLOT module of the data presentation display (DPS) system for special plots at scales such as 1:500,000, 1:100,000, and 1:50,000. These plots reflect locations (UTM coordinates) of the active hamlets/villages. Options are specified in the first program to select the desired data and produce a tape that is passed to the printer plot routine or DPS, or a tape that is passed to the second program for production of the special maps.

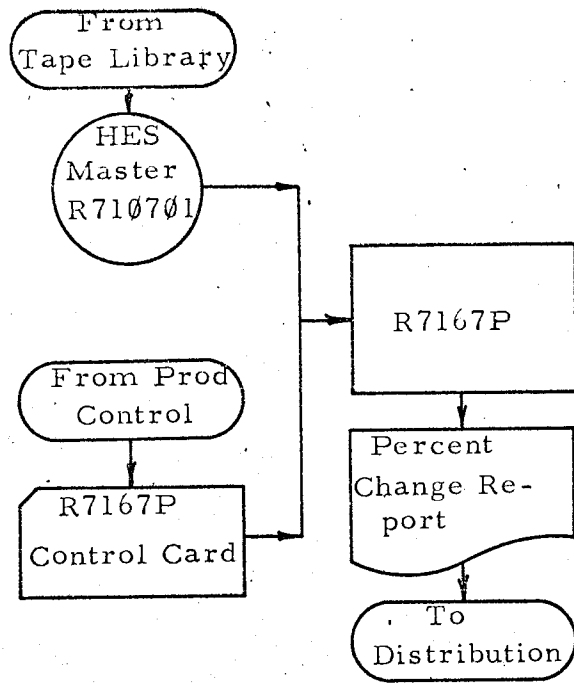


Figure 3-84

R7923C PROCEDURE FLOW

*** S Y S I P R O C L I B ***
AS OF 11 MAR 72

MEMBER NAME	R7923C		
/R7923C	PROC CPU=200,R710701=999999		00000010
/R7167	EXEC PGM=R7167P,TIME=&CPU		00000020
/*			00000030
/*			00000040
/*			00000050
/*	NAME=MAHER,DIV/BR=CORDS-RAD,DAR=R7,DATE=11FEB72		00000060
/*	VARIABLE MODEL SCORE PERCENT CHANGE PROGRAM		00000070
/*			00000080
/*			00000090
/*			00000100
/STEPLIB	DD DSNAME=CORDSLIB,DISP=SHR		00000110
/TAPE01	DD UNIT=2400-3,DISP=(OLD,KEEP),DSN=R710701,		X00000120
/	VOL=SER=&R710701		00000130
/SYSOUT	DD SYSOUT=A		00000140
/SYSABEND	DD SYSOUT=A		00000150
/SYSIN	DD DDNAME=CTLCARD		00000160

Figure 3-85

CATALOGED PROCEDURE LIST

```
/*  
720172020000A,B  
//R7167.CTLCARD.DD *  
//          EXEC R7923C,R710701=999999  
//          TIME=200  
//          (R7923C,PRC,040,010,000,,),R-HES,MSGLEVEL=1,CLASS=B, X
```

Figure 3-86

PROCEDURE CALL DECK (Sheet 1 of 2)

RECORD LAYOUT FORM VARIABLE MODEL PERCENT CHANGE PROGRAM CONTROL CARD SHEET 1 OF 1 SHEETS

SYSTEM NAME: HES

EFFECTIVE DATE: 1 Jan 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40														
		Previous Month				Current Month				Scores to be Analysed																																													
		Y	Y	M	M	Y	Y	M	M	O	O	O	O	A	B																																								
		CC 1-4 Previous Month CC 5-8 Current Month CC 9-10 Print Suppress Value for Province CC 11-12 Print Suppress Value for District CC 13-20 Scores to be Analysed (up to 4) IE A, B, C, D																																																					
		Figure 3-86 PROCEDURE CALL DECK (Sheet 2 of 2)																																																					

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB 1 OF 1	R-HES	R7923C					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
B	1	R7923C		C	3	PR	40	10	0	*	*	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710701		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
* SEE DISTRIBUTION												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-87

SAMPLE RUN REQUEST

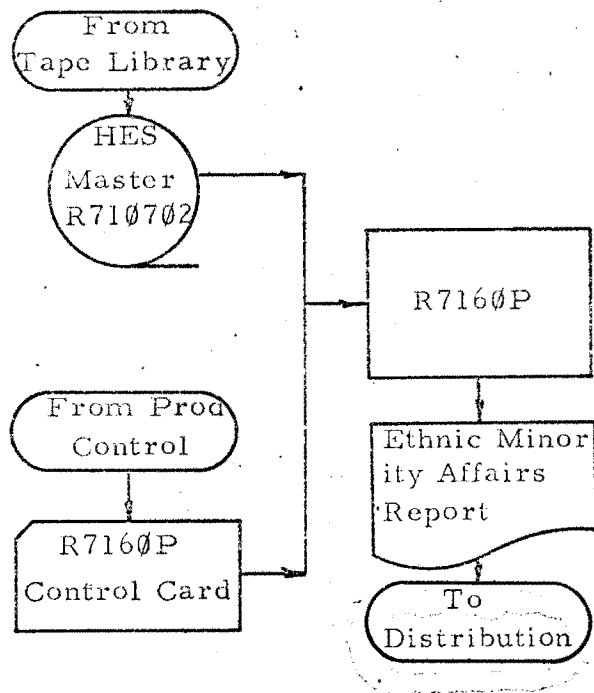


Figure 3-88

R7913C PROCEDURE FLOW

*** S Y S 1 P R O C L I B ***
AS OF 11 MAR 72

MEMBER NAME R79130			
/R79130	PROC	CPU=25,SERIAL=999999	00000010
/R7160	EXFC	PGM=R7160P,TIME=&CPU	00000020
/*		NAME=SIMON,DIV/BR=CORDS-RAD,DAR=R7,DATE=6AUG71	00000030
/* HES 70 -		PRODUCES REVISED ETHNIC MINORITY AFFAIRS REPORT	00000040
/STEPLIB	DD	DSNAME=CORDSLIB,DISP=SHR	00000050
/SYSOUT	DD	SYSOUT=A	00000060
/SYSABEND	DD	SYSOUT=A	00000070
/PRINTER	DD	SYSOUT=A	00000080
/HFSER	DD	DSNAME=R710702,UNIT=2400-3,DISP=(OLD,KEEP),	X0000090
/		VOL=SER=&SERIAL	00000100
/SORTLIB	DD	DSNAME=SYS1.SORTLIB,DISP=SHR	00000110
/SORTWK01	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000120
/SORTWK02	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000130
/SORTWK03	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000140
/SORTWK04	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000150
/SORTWK05	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000160
/SORTWK06	DD	UNIT=2314,SPACE=(CYL,(05,5),,CONTIG)	00000170
/READER	DD	DDNAME=CONCARD	00000180

Figure 3-89

CATALOGED PROCEDURE LIST

/*

7112 31 DEC 71

R7160

//R7160.CONCARD DD *

// EXEC R7913C,SERIAL=999999

// TIME=200

// (R7913C,PRC,040,60,0,1,1),'R-HES',MSGLEVEL=1,CLASS=D, X

Figure 3-90

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME: HES

EFFECTIVE DATE: 1 Jan 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40			
		Date				As of Date										Start USID					Stop USID																							
		Y	Y	M	M	D	D	M	M	M	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
																																						R	7	1	6	0		
<p>Figure 3-90</p> <p>PROCEDURE CALL DECK (Sheet 2 of 2)</p>																																												

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE		REQUESTOR		JOB NAME				
					JOB 1 OF 1		R-HES		R7913C				
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES		
D	1	R7913C		C	3	PR	40	25	0	*	*		
I/O		BPI	FP	VOL SER	DATA SET NAME			DISP INSTR		PRINT INSTR			
IN	OUT		YES NO					KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710702			<input checked="" type="checkbox"/> <input type="checkbox"/>		I	<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>					<input type="checkbox"/> <input type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>		
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED							
REMARKS OR SPECIAL INSTRUCTIONS													
* SEE DISTRIBUTION													
BOOKING AND BINDING INSTRUCTIONS													
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS													

Figure 3-91

SAMPLE RUN REQUEST

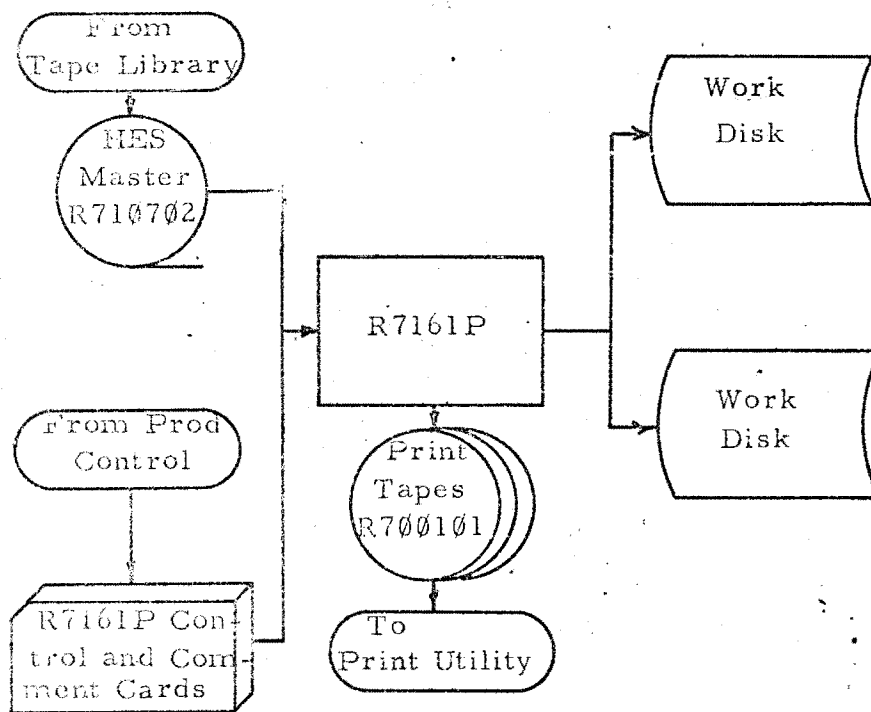


Figure 3-92

R7919C PROCEDURE FLOW

*** S Y S I P R O C L I B ***
AS OF '11 MAR 72

MEMBER NAME	R7919C		
/R7919C	PROC CPU=200,R710702=999999		00000010
/R7161	EXEC PGM=R7161P,TIME=&CPU		00000020
/*			00000030
/*			00000040
/*	NAME=MAHER,DIV/BR=CORDS-RAD,DAR=R7,DATE=20AUG71		00000050
/*	BILINGUAL UPDATE FORMS (HES)		00000060
/*			00000070
/*			00000080
/*			00000090
/STEPLIB	DD DSNAME=CORDSLIB,DISP=SHR		00000100
/TAPE01	DD DSNAME=R710702,UNIT=2400-3,DISP=(OLD,KEEP),	X00000110	
/	VOL=SER=&R710702		00000120
/TAPE02	DD UNIT=2314,SPACE=(TRK,(0100),,CONTIG),	X00000130	
/	DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=64,BLKSIZE=1280)		00000140
/TAPE03	DD DSN=R700101,UNIT=7TRK,DISP=(NEW,KEEP),VOLUME=(,,10),	X00000150	
/	DCB=(TRTCH=ET,DSN=2)		00000160
TAPE04	DD UNIT=2314,SPACE=(TRK,(1100),,CONTIG),	X00000170	
/	DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=200,BLKSIZE=4000)		00000180
/SYSOUT	DD SYSOUT=A		00000190
/SYSIN	DD DDNAME=CTLCARD		00000200

Figure 3-93

CATALOGED PROCEDURE LIST

/*

COMMENT CARDS HERE CC 1-4 = INST

Q31 DEC 71

X

//R7161.CTLCARD DD *

// EXEC R7919C,R710702=999999

// TIME=400

// (R7919C,PRC,80,01,,,),R-HES,MSGLEVEL=1,CLASS=D,

X

Figure 3-94

PROCEDURE CALL DECK (Sheet 1 of 2)

SYSTEM NAME: HES

EFFECTIVE DATE: 1 Jan 71

Record Name	Base	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40
DATE CARD	Start USID						Stop USID						Option	As of Date																											
		NININININ						NININININ							D	I	D	M	I	M	I	M	Y	Y																	
													M=Monthly Q=Quarterly																												
CARD 2-N TEXT CARDS FOR SECTION A OF THE UPDATE FORMS												64 Characters of Text Per Card																													
		I	N	S	T																																				
												Figure 3-94																													
												PROCEDURE CALL DECK (Sheet 2 of 2)																													

MACCORG Form 28, 12 Apr 72 Replaces edition of 12 Aug 69, which is obsolete

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB 1 of 1	R-HES	R7919C					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
D	2	R7919C		C	3	PR	80	1	0	1	1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP	INSTR	PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	No CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710702		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	800	<input type="checkbox"/>		R700101 1 of 3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	800	<input type="checkbox"/>		R700101 2 of 3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	800	<input type="checkbox"/>		R700101 3 of 3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-95

SAMPLE RUN REQUEST

3. 30. 1 Inputs. The primary inputs are the HES/70 basic master file (R710702) and one input stream data card. Following is a description of the parameters of this data card:

<u>Positions</u>	<u>Name</u>	<u>Description</u>
1-4	As-of date	YYMM
5-8	From date	YYMM. This field is nonblank only if a change plot is desired
9-13	Name of desired data	The first five characters contain the HES/70 QTAB names as follows: <ul style="list-style-type: none"> - PAM01: pacification score (level 5) - PHM02: security (level 4) - MAM01 - MAM03: macro-model scores (level 3) - MOD01 - MOD06: model scores (level 2) - SUM01 - SUM19: submodel scores (level 1) - HMB01 } Hamlet monthly and quar- - HQB01 } terly and village monthly - VMB01 } and quarterly questions - VQB01 } where B01 represents the desired topic area and question
14		The sixth character is nonblank only for requests for level 1 through level 4 responses. It can be: H - hamlet model scores V - village model scores O - village-only model scores
15	VC option	To be used only with model responses (levels 1 through 4). Normally blank. If this value is 1, and the pacification score is V, the V is plotted in place of the requested model response.
16-24	Starting USID	If this field is blank, it is set to zeros. An alphanumeric compare is made to determine if a hamlet (or village) USID is greater than or equal to this value.

<u>Positions</u>	<u>Name</u>	<u>Description</u>
25-33	Ending USID	If this field is blank, it is set to all 9s. An alphanumeric compare is made to determine if a hamlet (or village) USID is less than or equal to this value.
35	Plot type	If blank, a tape that can be input to the printer plot or DPS routines is formatted. 1 - 1:1,000,000 model score map 2 - 1:1,000,000 population density map If plot type equals 1 or 2, change plots and plots of question responses cannot be requested.

3. 30.2 Program Descriptions. Program R7214P reads the data card and the HES/70 master file, selects the appropriate data and produces a tape (assigned to SORTIN) containing the UTM coordinate, USID, and a character to be plotted. This tape can be passed directly into the printer plot routines or into the DPS system. If a 1:1,000,000 map is specified, the UTM coordinate is converted to an X-Y system by calling a COBOL subroutine, R3013. The tape is then sorted by the X, Y values, using the COBOL SORT verb, and a population-weighted aggregation is made of all hamlets with the same X, Y values. The output is then passed to R7215P.

Program R7215P reads the output of R7214P after it has been sorted. Using the basic CALCOMP subroutines, a tape is produced that is input directly to the CALCOMP. If a population density map is requested, a FORTRAN subroutine, S7152P, is called to actually draw the density symbols.

R7215P has an input card with the following format:

- (a) Columns 1-2 should contain either a 10 or a 20. This value determines whether the plotted output will come out in three maps (10), one each for secure, contested, and VC areas. This option is specified for production of maps that will be sent to Long Binh for reproduction. A 20 is specified when one map is desired. This will contain all data in three colors, blue for secure, green for contested, and red for VC.
- (b) Column 3 is blank for hamlet maps and must contain a 1 for population density maps.

- (c) Columns 4-38 are reserved for a free format heading, which can include the name of the map and the "as-of" date.

3.30.3 Catalogued Procedures. Procedure R7916P is used to produce HES/70 plots at a scale of 1:250,000. First, program R7214P is called to extract the desired data from the HES/70 master file, R710702. Then the output tape is passed through S8701P, a sort (S8702P), and finally R0101 for printing. Two steps, R7214P and S8702P, require input. R7214P input has already been explained in section 3.30.1. See the operations writeup on S8701C for input to S8702P. There are four symbolic parameters that may be used. The four parameters and their default values are described below.

- (a) `INSERT=999999` - This is the volume serial number of R710702.
- (b) `ODSP=DELETE` - This is the final output. If the print tape (R7214P02) is to be kept, this value may be set to `KEEP`.
- (c) `A=A` - This is the `SYSOUT` paper selection. It is currently advisable not to use this parameter, but to use the `JOB` card for paper selection and number of passes.
- (d) `CONCARD=INCARD1` - This parameter can be used to change the input card for R0101. Again, use the `JOB` card is advised.

Figures 3-96 and 3-97 illustrate a sample deck setup and a run sheet for R7916C. Note that the carriage control parameter on the `JOB` card is set to 0. This must be done to insure proper page breaks.

R7917C is used to produce a tape for `CALCOMP` plotting of the hamlet and the population density maps. Programs R7214P and R7215P are called with a `SORT` in between. Inputs are described in section 3.30.1. There is one symbolic parameter, `INSERT`. This is the volume serial number of R710702. Figures 3-98 and 3-99 illustrate a sample deck setup and a run sheet for R7917C. Figures 3-100 and 3-101 illustrate `CALCOMP` requests for the hamlet and population density maps: 3-100 for the single map of all data and 3-101 for the three maps for reproduction.

// JOB (R7916C,PR,15,15,,,,,0),PRODCON,MSGLEVEL=(1,1),CLASS=B

// EXEC R7916C,INSER=009999

//R7214.CARDIN DD *

70027001MAM02H 101 199

/*

//S8702.CARDIN DD *

28 FEB 70

2 2 POLITICAL SCORE

THIS PLOT SHOWS THE HES/70 HAMLET POLITICAL SCORE CHANGES

FROM 28 FEB 70 TO 31 MAR 70

/*

Figure 3-96

PROCEDURE CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE	REQUESTOR	JOB NAME					
					JOB <u>1</u> OF <u>1</u>	HES	R7916C					
JOB CLASS	MAX TAPES	JOB CODE		CLASSIF	PRTY	RUN CODE	EXEC TIME	PRINT TIME	CARDS PCH	FORM NO	COPIES	
B	2	R7916C		C	3	PR	15	15	0	1	1	
I/O		BPI	FP	VOL SER	DATA SET NAME		DISP INSTR		PRINT INSTR			
IN	OUT		YES NO				KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/> <input type="checkbox"/>	999	R710702		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	N	<input type="checkbox"/> <input checked="" type="checkbox"/>		R7214P02		<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED						
REMARKS OR SPECIAL INSTRUCTIONS												
BOOKING AND BINDING INSTRUCTIONS												
MACDMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS												

Figure 3-97

SAMPLE RUN REQUEST

```
//      JOB (R7917C,PR,20,3),PRODCON,MSGLEVEL=(1,1),CLASS=B
//      EXEC R7917C,INSER=009999
//R7214.CARDIN DD *
7001  PAM01H          1
/*
//R7215.CARDIN DD *
20  HAMLET MAP  31 JAN 70
/*
```

Figure 3-98

PROCEDURE CALL DECK

CONTROL NUMBER		HASP NO	PART NO	START TIME	JOB SEQUENCE JOB 1 OF 1	REQUESTOR HES	JOB NAME R7917C				
JOB CLASS B	MAX TAPES 2	JOB CODE R7917C		CLASSIF C	PRTY 3	RUN CODE PR	EXEC TIME 20	PRINT TIME 3	CARDS PCH 0	FORM NO 1	COPIES 1
I/O		FP		VOL SER	DATA SET NAME	DISP INSTR		PRINT INSTR			
IN	OUT	YES	NO			KEEP	SCRATCH	RET	TAPRT	DEBE	NO CYS/RECORDS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	N	<input checked="" type="checkbox"/>	999	R710702	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	556	<input type="checkbox"/>		*R7215P01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
CONSOLE MESSAGE						OPERATOR ACTION REQUIRED					
REMARKS OR SPECIAL INSTRUCTIONS											
* This tape (7-Track) is for CALCOMP											
BOOKING AND BINDING INSTRUCTIONS											
MAC DMA FORM 14, 1 AUG 70 360/50 COMPUTER OPERATING INSTRUCTIONS											

Figure 3-99

SAMPLE RUN REQUEST

PLOTTER OPERATING INSTRUCTIONS

Job Code R7917A		Job Name HAMLET MAP (Single Plot)				Classification U		
Agency MACCORDS-RA		Requestor Name		Phone 4254	Priority			
EST. Run Time 90 min.		RUN CODES PR - PRODUCTION TE - TEST SM - SYSTEM		RE - RERUN/EQUIP FAILURE RO - RERUN/OPERATION ERROR RP - RERUN/PROGRAM ERROR RS - RERUN/SYSTEM ERROR		Run Code PR		
Actual Run Time								
PLOT #1			PLOT #2			PLOT #3		
Reel # 9-----9			Reel #			Reel #		
START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	
1	999							
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type
#1	black	Free flow	#1			#1		
#2	blue	Free flow	#2			#2		
#3	green	Free flow	#3			#3		
#4	red	Free flow	#4			#4		
Type Paper Plain White			Type Paper			Type Paper		
Paper Width 54"			Paper Width			Paper Width		
Distance From Paper Edge to Origin 3"x3"			Distance From Paper Edge to Origin			Distance From Paper Edge to Origin		
Origin			Origin			Origin		
LR	RR	LF	RR	RF	LR	RR	LF	RF
Special Instructions			Special Instructions			Special Instructions		
Use fine pen points								
PLOT #4			PLOT #5			PLOT #6		
Reel #			Reel #			Reel #		
START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	START BLOCK	STOP BLOCK	
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type
#1			#1			#1		
#2			#2			#2		
#3			#3			#3		
#4			#4			#4		
Type Paper			Type Paper			Type Paper		
Paper Width			Paper Width			Paper Width		
Distance From Paper Edge to Origin			Distance From Paper Edge to Origin			Distance From Paper Edge to Origin		
Origin			Origin			Origin		
LR	RR	LF	RR	RF	LR	RR	LF	RF
Special Instructions			Special Instructions			Special Instructions		

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Figure 3-100

SAMPLE CALCOMP RUN REQUEST

PLOTTER OPERATING INSTRUCTIONS

Job Code R7917B		Job Name HAMLET MAP (3 plots)				Classification U	
Agency MACCORDS-RA		Requestor Name		Phone 4254	Priority		
EST. Run Time 90 min.		RUN CODES PR - PRODUCTION TE - TEST SM - SYSTEM		RE - RERUN/EQUIP FAILURE RO - RERUN/OPERATION ERROR RP - RERUN/PROGRAM ERROR RS - RERUN/SYSTEM ERROR	Run Code PR		
Actual Run Time							

PLOT #1			PLOT #2			PLOT #3					
Reel # 9----9*			Reel # 9----9*			Reel # 9----9					
START BLOCK	1	STOP BLOCK	2	START BLOCK	2	STOP BLOCK	3	START BLOCK	3	STOP BLOCK	4
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type	Pen	Color	Type
#1	Black	Free flow	#1	Black	Free flow	#1	Black	Free flow	#1	Black	Free flow
#2			#2			#2			#2		
#3			#3			#3			#3		
#4			#4			#4			#4		
Type Paper plain white vellum			Type Paper plain white			Type Paper plain white					
Paper Width 54"			Paper Width 54"			Paper Width 54"					
Distance From Paper Edge to Origin 3"x3"			Distance From Paper Edge to Origin 3"x3"			Distance From Paper Edge to Origin 3"x3"					
Origin			Origin			Origin					
	LR			LR			LR			LR	
	LF			LF			LF			LF	
Special Instructions			Special Instructions			Special Instructions					
			← Use Fine Pen Point →								

PLOT #4			PLOT #5			PLOT #6					
Reel #			Reel #			Reel #					
START BLOCK	4	STOP BLOCK	5	START BLOCK		STOP BLOCK		START BLOCK		STOP BLOCK	
Pen	Color	Type	Pen	Color	Type	Pen	Color	Type	Pen	Color	Type
#1			#1			#1			#1		
#2			#2			#2			#2		
#3			#3			#3			#3		
#4			#4			#4			#4		
Type Paper			Type Paper			Type Paper					
Paper Width			Paper Width			Paper Width					
Distance From Paper Edge to Origin			Distance From Paper Edge to Origin			Distance From Paper Edge to Origin					
Origin			Origin			Origin					
	LR			LR			LR			LR	
	LF			LF			LF			LF	
Special Instructions			Special Instructions			Special Instructions					

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- (e) There is no procedure setup for maps produced using the DPS system. A job must be set up using program R7214P. The output tape could be passed directly to DPS.

3.31 Generalized Printer Plots. These plots take a previously formatted file containing the UTM coordinates and plot characters of a USID and:

- (a) Convert the UTM coordinates to X-Y coordinates.
- (b) Format province printer plots at scales of either 1:250,000 or 1:500,000. A sample call deck for procedure S8701C is illustrated in figure 3-102.

3.31.1 Inputs. Inputs consist of an input file, normally on tape, and three sets of control cards.

- (a) The input file of data must conform to the following specifications:

- (1) Variable-blocked with a maximum block size of 1004 characters (this makes the file compatible with NIPS and DPS).
- (2) Record length of 27 characters:
 - a. 1-8 = UTM
 - b. 9-17 = USID
 - c. 18 = character to be plotted
 - d. 19-27 = anything else required by other applications (not used by S8701C)

- (b) Control cards: three sets

- (1) Set #1: Program S8701P requires the following control card, which determines the scale of the province plots:
 - a. CCI through CC4: 0250 or 0500; use of the former results in a plot scale of 1:250,000; use of the latter results in a plot at a scale of 1:500,000.

/*

0100009999

//R0101.DTLSET3 DD *

/*

CONTENTS OF THIS CARD WOULD NORMALLY CONSIST OF PLOT-DESCRIPTIVE INFO

112 SAMPLE ONLY

JANUARY 31, 1971

//S8702P.CTLSET2 DD *

/*

0500

//S8701P.DTLSET1 DD *

// PLOTOUT='DSN=PLOTOUT,UNIT=2400-3,DISP=(,PASS)',DISP=KEEP

//S8701C EXEC S8701C,NAME=R710702,INVOL='SER=001234', X

// (S8701C,PRC,15,5,,,,,0),R=PRODCON,MSGLEVEL=1,CLASS=B

Figure 3-102

SAMPLE CALL DECK

b. CC5 through CC80: not used.

(2) Set #2: Program S8702P requires the following control cards in the following sequence:

a. Card type #1:

1. CC1 through CC20: A provision for reflecting the date of data plotted; the indicated date is punched in free-format and is subsequently printed at the bottom right of each province plot.

b. Card Type #2:

1. CC1: a digit, from 0 through 9, which is equal to the number of control cards remaining in set #2.

2. CC2: scale header; a blank will result in a scale header of 1:250,000, printed at the top of each province plot; a 1 will give a header of 1:500,000.

3. CC3: classification header; 1 will give UNCLASSIFIED, 2 will give CONFIDENTIAL.

4. CC4 through CC23: plot title header; free-form; should be centered; will be printed at the top of each province plot.

5. CC24: listing of USIDs keyed to each plotted character; a 1 will produce the listing (via SYSOUT); a blank suppresses its printout.

c. Card Type #3: This card type is used in providing additional plot-descriptive information; consistent with CC3 of the above card type, anywhere from 0 through 9 cards may be used; however, only CC2 through CC80 of each card can be utilized; map legends, etc., are punched in free format and appear printed at the bottom left of each province plot.

- (c) Set #3: Consists of the print control card of PGM R0101; its use is described on page 3 of the booklet of CDC-developed utilities, "Special Purpose Programs."

3.31.2 Outputs.

- (a) "Report" file; its DD-NAME is TAPE04; its desired DSNAME, UNIT, and DISP parameters are to be furnished via the PRTOUT symbolic parameter.
- (b) List of USIDs whose corresponding UTM coordinates are invalid; via SYSOUT.
- (c) List of USIDs of each plotted character (if control-card-invoked).

Appendix A

SYSTEM ABBREVIATIONS, MNEMONICS, AND TERMS

Appendix A

SYSTEM ABBREVIATIONS, MNEMONICS, AND TERMS

ADP	Automatic Data Processing
DMA	Data Management Agency
DPS	Data Presentation System
DSA	District Senior Advisor
FWMAF	Free World Military Assistance Forces
GVN	Government of Vietnam
HES	Hamlet Evaluation System
MACCORDS	Military Assistance Command, Civil Operations and Rural Development Support
NIPS	National Information Processing System
PSA	Province Senior Advisor
QTAB	Question Directory Table
RA/A	Office of the Associate Director for Research and Analysis/Analysis
RVN	Republic of Vietnam
USAID	United States Aid for International Development
U. S.	United States
UTM	Universal Transverse Mercator