General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.

- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.

- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.

- This document is paginated as submitted by the original source.

- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

Produced by the NASA Center for Aerospace Information (CASI)
SYSTEM CONFIGURATION DEFINITION MANUAL
FINAL REPORT
SATELLITE FREEZE FORECAST SYSTEM
PHASE VI

SUBMITTED TO
SI-PRO-33/WILLIAM R. HARRIS
CONTRACTING OFFICER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER FLORIDA 32899

SUBMITTED BY
CLIMATOLOGY LABORATORY, FRUIT CROPS DEPARTMENT
INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES (IFAS)
2121 HS/PP, UNIVERSITY OF FLORIDA,
GAINESVILLE, FLORIDA 32611

PRINCIPAL INVESTIGATOR
J. DAVID MARTSOLF
CONTRACT NO. NAS10-9892
PROFESSOR OF CLIMATOLOGY
AMENDMENT NO. 3
DATE: APRIL 14, 1983

OF POOR QUALITY
SECTION ONE

HARDWARE CONFIGURATION

This section consists of equipment listings, interconnection information, and a basic overview of the hardware interaction of the Ruskin HP-1000 computer system. Figure 1-1 illustrates an overall block diagram of the major components of S.F.F.S. hardware. The DS/1000 line referred to in figure 1-1 is a dedicated telephone line from the NWS at Ruskin, Fla. to the Climatology HP/1000 computer located in Gainesville, Florida. This line is operated at a data rate of 9600 baud.

Figure 1-1. Block diagram of the S.F.F.S. system located in Ruskin, Florida at the National Weather Service office. Included are the major components of the system.
The central item in the S.F.F.S. system configuration is a Hewlett-Packard computer model 2112A, serial #1709A01703, one of the HP/1000 series, which is sometimes referred to as a 21MX-M mini-computer. This machine is configured with the following components, all considered to be "part" of the computer.

1 HP 2102A Memory controller module
6 HP 13187A 32 kbyte memory modules
1 HP 12976A Dynamic mapping system ROM set
1 HP 12897A Dual-channel port controller module
1 HP 12539C Time base generator (clock) module
1 HP 91740A DS/1000 Firmware ROM set
1 HP 92068A RTE-IVB Firmware ROM set
1 HP 12991A Power-fail recovery system
1 HP 12892A Memory protect module
1 HP 12977A Fast FORTRAN processor ROM set

The technical specifications for the 2112A computer may be found in Hewlett-Packard reference manual 21MX Computer Series, HP part # 02108-90002

The second major component of the S.F.F.S. is a Hewlett-Packard input-output extender model 12979B, serial number 1820A00670. This device is also referenced in the above HP manual and this device contains:

1 HP 12898A Dual-channel port controller for I/O extender.

The computer and I/O extender house all interface modules to the peripherals which constitute the S.F.F.S. These modules are positioned in the computer and I/O extender in a pre-planned configuration based on the interrupt priority required of the device. The I/O configuration of the computer system is outlined below, with the first column indicating the octal select code (physical position) of the printed circuit card, the second column the HP part number, and the third column a description of the device to which the card connects.

<table>
<thead>
<tr>
<th>Octal</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>12773A</td>
<td>DS/1000 Distributed System Interface</td>
</tr>
<tr>
<td>11</td>
<td>12620A</td>
<td>Privileged Interrupt Card for DS/1000 Interface</td>
</tr>
<tr>
<td>12</td>
<td>12539C</td>
<td>Time Base Generator (system clock)</td>
</tr>
<tr>
<td>13</td>
<td>13175A</td>
<td>7905 Disc Subsystem Interface</td>
</tr>
<tr>
<td>14</td>
<td>12966A</td>
<td>2645A CRT Terminal Asynchronous Serial Interface</td>
</tr>
<tr>
<td>15</td>
<td>12531D</td>
<td>733 Texas Instruments Terminal Interface</td>
</tr>
<tr>
<td>16</td>
<td>13181A</td>
<td>7970B Digital Mag. Tape Interface (Data Card)</td>
</tr>
<tr>
<td>17</td>
<td>13181B</td>
<td>7970B Digital Magnetic Tape Interface (Control Card)</td>
</tr>
<tr>
<td>18</td>
<td>12966A</td>
<td>VA3415 Vadic 1200 baud Modem Interface</td>
</tr>
<tr>
<td>19</td>
<td>12966A</td>
<td>VA305 Vadic 300 baud Modem Interface</td>
</tr>
<tr>
<td>20</td>
<td>12966A</td>
<td>VA305 Vadic 300 baud Modem Interface</td>
</tr>
<tr>
<td>21</td>
<td>12966A</td>
<td>VA305 Vadic 300 baud Modem Interface</td>
</tr>
</tbody>
</table>

1-2
<table>
<thead>
<tr>
<th>No.</th>
<th>Component Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Spare</td>
</tr>
<tr>
<td>23</td>
<td>12966A Serial Interface to Data General AFOS system</td>
</tr>
<tr>
<td>24</td>
<td>12589A VA801A Vadic Telephone Auto-dialer Interface</td>
</tr>
<tr>
<td>25</td>
<td>12589A VA801A Vadic Telephone Auto-dialer Interface</td>
</tr>
<tr>
<td>26</td>
<td>91200B Television Interface to Conrac monitor (Blue)</td>
</tr>
<tr>
<td>27</td>
<td>91200B Television Interface to Conrac monitor (Green)</td>
</tr>
<tr>
<td>28</td>
<td>91200B Television Interface to Conrac monitor (Red)</td>
</tr>
</tbody>
</table>

Each of the above components, with the exception of the 12539C and the 12620A, are cabled from the interface card to an external device. Each cable hood is labeled with the interface card number and external device to which it is to be connected. Cable part numbers may be obtained from the respective peripheral device service and installation manuals.

The S.F.F.S. computer, I/O extender, Vadic modems chassis, Disc subsystem, and magnetic tape drive are housed in a Hewlett-Packard model 29402B system of cabinets. This racking system consists of two cabinets. Each cabinet allows 56 inches of vertical racking space, contains a power control module, a power service strip with nine NEMA 5-15R receptacles, and a ventilation fan. The computer, I/O extender, Vadic modems chassis and spare cables are mounted in the left cabinet and the magnetic tape drive and disc subsystem are in the right cabinet. External to the cabinets are the HP model 2645 CRT terminal, the Conrac color television monitor, and the Texas Instruments printer/terminal.

The magnetic tape drive is a model 7970B, 9-track, 800 bpi, 45 ips drive capable of storing approximately 12 mbytes of digital data on a 2400 ft reel of magnetic tape. Specifications and technical information on this peripheral device may be found in the HP manuals: 7970A Digital Magnetic Tape Unit Operating and Service Manual, 7970 Series Magnetic Tape Drives Operators Manual, 13181A Digital Magnetic Tape Unit Interface Kit Operating and Service Manual, part numbers 7970-90620, 7970-90885, and 13181-90000 respectively.

The disc subsystem is a model 12962A (7905A) 15 mbyte disc drive containing two disc cartridges, one of which is removable. This drive features a data transfer rate to 937.5k bytes/second. Specifications and technical information on this peripheral device may be found in the HP manuals: 7905A Disc Drive Installation Manual, part number 7905-90007, and 7905A Disc Drive Operators Manual, part number 7905-90009.

The color television monitor is a model 5211 Conrac RGB type monitor which meets NTSC industry standards as a high-resolution device.

The CRT terminal is a HP model 2645A, containing the following components:
<table>
<thead>
<tr>
<th></th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2645A-007</td>
<td>Mini-cartridge Tape Subsystem</td>
</tr>
<tr>
<td>2</td>
<td>13234A</td>
<td>2645A 4 kbytes Memory Modules</td>
</tr>
<tr>
<td>1</td>
<td>13260A</td>
<td>2645A Standard Asynchronous Comm. Module</td>
</tr>
</tbody>
</table>

Specifications and technical information on the CRT terminal may be found in HP manuals: 2645A Users Manual, 2645A/S & 2641A Reference Manual, part numbers 2645-90001 and 2645-90005 respectively.

The modem chassis is a model 1616A manufactured by the VADIC company. This chassis is designed to be rack-mounted in a ventilated cabinet and accommodates up to 16 single-board modems/dialers/DAAs. The chassis at the Ruskin site contains the following components:

<table>
<thead>
<tr>
<th></th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3415D</td>
<td>Vadic 1200 bps 2-wire voice grade, full-duplex modem</td>
</tr>
<tr>
<td>1</td>
<td>305D</td>
<td>Vadic 300 bps 2-wire voice grade, full-duplex modem</td>
</tr>
<tr>
<td>2</td>
<td>801A</td>
<td>Vadic Automatic Telephone Dialers</td>
</tr>
</tbody>
</table>

Specifications and technical information on the Vadic products outlined above may be found in the following Vadic manuals: VA1616A/B/H Chassis Configuration Guide, Operation & Service Manual For VA3415A/C/D/Y 1200 BPS Modems, Operation & Service Manual For VA305C/D/V 300 BPS Modems, and Operation & Service Manual For VA801A/C Automatic Dialers. These manual part numbers are, respectively: 18008-192, 18008-130, 18008-003, and 18008-015.
SECTION TWO

SOFTWARE CONFIGURATION

Section Two is a listing of the generation answer file used to create the RTE-IVB operating system currently resident in the Ruskin HP-1000 computer system. For a complete listing of the Generation, please refer to file "LMMX4:44". A descriptive narrative of the operation of the "ON LINE GENERATOR", which uses this answer file to build the RTE-IVB operating system may be found in the following HP manuals: "RTE-IVB SYSTEM MANAGER'S MANUAL" and "RTE-IVB ON-LINE GENERATOR REFERENCE MANUAL", HP part numbers 92068-90006 and 92068-90007 respectively.

FILE...... "AMXM4:RS:32767.... LAST EDITED: <830412.2218>

RTE-IVB On-Line Generation

* Initialization Phase

"LMMX4:RS:32767   * List file for HP-1000 (M) system
YES             * Echo listing on system console

RTE-IVB Configuration for 21MX-M (448 KBYTE) computer
located at NATIONAL WEA. SERVICE OFFICE, Ruskin, Fla.
Generated (30 Nov., 1982 - 2010 CUT) at CLIM. Lab.,
Fruit Crops Department, I.F.A.S., Gainesville, Florida
using the On-Line-Generator (RT4GN) and Grandfather
RTE-IVB (92068A) Rev. 2140, DS/1000-IV (91750A), Rev.
2140, FORTRAN-4X (92834A) Rev. 2140 and programs by
Fruit Crops Dept. (Climatology), Univ. of Fla., M.I.T.
Haystack Observatory library, and "CSL/1000" library

2-1
S.F.F.S. System Configuration Manual  Software Configuration

ORIGINAL PAGE IS
OF POOR QUALITY

IXM04:RX:32767:5000   * System generated 30 Nov., 1982 - 2010 GMT.
7905   * Target Disc type
13   * System Disc select code
*DSC  #TRKS CYL HD SURF UNIT SPARE SUBCHANNEL #
7905, 203, 0, 2, 1, 0, 3  *SUBCHANNEL 0
7905, 203, 206, 2, 1, 0, 2  *SUBCHANNEL 1
7905, 203, 0, 0, 2, 0, 3  *SUBCHANNEL 2
7905, 203, 103, 0, 2, 0, 3  *SUBCHANNEL 3
7905, 203, 206, 0, 2, 0, 3  *SUBCHANNEL 4
7905, 203, 309, 0, 2, 0, 1  *SUBCHANNEL 5
/E
0   * System Subchannel
YES   * Auxiliary Disc
1   * Auxiliary Disc Subchannel
12   * Time base generator select code
11   * Privileged interrupt card
YES   * Privileged drivers to access common
YES   * FG Core lock
YES   * BG Core lock
50   * Swap delay
224   * Memory size in 1000's of words
0   * No BOOT file

******  Program Input Phase  ******
*
MAP ALL   * Map MODULES and GLOBALS
LINKS IN CURRENT   * Command to use current page linking
*
******  RTE-IVB Operating System  ******
*
REL,%CR4S1:RT:32767   * Core resident operating System
REL,%CR4S2:RT:32767   * Core resident operating System
*
******  Special System Software  ******
*
REL,%$CNFX:RT:32767   * Configurator Extension
*
******  DS/1000-IV Memory Residents  ******
*
REL,%WHSRS:RT:32767   * DS/1000-IV WHZAT program
REL,%QCLM:RT:32767   * DS/1000-IV Error message logger
REL,%GRPH:RT:32767   * DS/1000-IV Request/Reply Pre-processor
REL,%QCUR:RT:32767   * DS/1000-IV Interrupt Request Handler
REL,%RTY:RT:32767    * DS/1000-IV Comm. line retry processor
REL,%UPLIN:RT:32767  * DS/1000-IV Network watchdog monitor
***** System Utility Memory Residents *****
* REL,$OVHD:RT:32767 * "System Overhead" switch register display
REL,$FLUSH:RT:32767 * PLUSR program to auto. flush partitions
*
***** System I/O Drivers *****
* REL,$DVR32:RT:32767 * 7905 Disc Driver
REL,$DVR23:RT:32767 * 7970 Magnetic Tape Driver
REL,$DVR00:RT:32767 * 'OLD VERSION' Terminal/Modem Driver
REL,$DVFOO:RT:32767 * 'OLD VERSION' Terminal/Modem Driver
REL,$DVFOO:RT:32767 * 'OLD VERSION' Terminal/Modem Driver
REL,$DVR51:RT:32767 * 12589A Auto-Dialer driver (LOCUS)
REL,$DVR05:RT:32767 * CRT Terminal/Minicartridge Driver
REL,$DVA13:RT:32767 * Television System Driver
REL,$DVA65:RT:32767 * DS/1000-IV Comm. Driver for 12773A modem card
REL,$DVAR0:RT:32767 * DS/1000-IV Remote I/O mapping driver
REL,$DVAR3:RT:32767 * POWER-FAIL Driver
*
***** Turn off Mapping *****
*
***** Map Modules only *****
*
MAP OFF, MODULES
*
***** System 'User' programs and utilities *****
*
REL,$4AUTR:RT:32767 * POWER-FAIL AUTO-RESTART Program
REL,$4IDLR:RT:32767 * RTE-IVB Relocating loader
REL,$4MPP1:RT:32767 * RTE-IVB File Manager (FMGR) Session monitor
REL,$4MPP2:RT:32767 * Directory Manager (FMGR)
REL,$D.BUF:RT:32767 * D.RTR Directory Buffer
REL,$SMON1:RT:32767 * Session Monitor Program part 1
REL,$SMON2:RT:32767 * Session Monitor Program part 2
REL,$ACCTS:RT:32767 * ACCOUNTS program
REL,$TIDLR:RT:32767 * System overhead counter program
REL,$T5IDM:RT:32767 * Type 5 program segment loader
DS/1000-IV Modules

REL,%DINIS:RT:32767  * DS/1000-IV Initialization with shutdown
REL,%DLIS1:RT:32767  * Directory List Disc-based FMP
REL,%DSINF:RT:32767  * DS/1000-IV Information utility
REL,%DSMOD:RT:32767  * DS/1000-IV Network modification
REL,%EDID:RT:32767   * DS/1000-IV Editor
REL,%EXECM:RT:32767  * Remote EXEC request monitor
REL,%EXECW:RT:32767  * Remote EXEC W/Wait monitor
REL,%FOMAP:RT:32767  * Directory List Disc-based FMP
REL,%ISINF:RT:32767  * DS/1000-IV Information utility
REL,%ITOPM:RT:32767  * Port Operator I/F RTE-RTE
REL,%ITRAN:RT:32767  * Network operator I/F RTE-IVB
REL,%RFAM2:RT:32767  * RFA Monitor - Multiple DCB module
REL,%RSM:RT:32767    * Remote session monitor
REL,%SYSAT:RT:32767  * System status module I/O mapping
REL,%TLOG:RT:32767   * Trace capability for RTE-RTE

Libraries

REL,%4SYLB:RT:32767  * RTE-IVB System library
REL,%LDRLB:RT:32767  * RTE-IVB Loader library
REL,%MLLIB1:RT:32767  * RTE-IVB System Independent Library - part 1
REL,%MLLIB2:RT:32767  * RTE-IVB System Independent Library - part 2
REL,%MLLIB3:RT:32767  * RTE-IVB System Independent Library - part 3
REL,%TVLIB:RT:32767  * Television System library
REL,%BMPG3:RT:32767  * Batch Monitor Library
REL,%DECAT:RT:32767  * DECIMAL-STRING Library
REL,%DBGUR:RT:32767  * DBGUR subroutine
REL,%ERROR:RT:32767  * Disc Error Return routine (CLIM. Library)
REL,%NUMAS:RT:32767  * NUMBER TO ASCII conv. routine (CLIM. Library)
REL,%FDSLB:RT:32767  * Mathematics library (DS/IV)

DS/1000-IV Libraries

REL,%DLS1:RT:32767  * DS/1000-IV Base Library
REL,%DLS2:RT:32767  * DS/1000-IV HP 1000 to HP 1000 Library
REL,%DLS3:RT:32767  * DS/1000-IV HP 1000 to HP 1000 'ONLY' Library
REL,%DLS4:RT:32767  * DS/1000-IV All except RTE-MIII Library
REL,%DSMXL:RT:32767  * DS/1000-IV Library for M-E-F series
REL,%DNSR:RT:32767  * DS/1000-IV No Dynamic Mess. Rerouting Library
REL,%DSMA:RT:32767  * DS/1000-IV Message Accounting Library
REL,%DSSM:RT:32767  * DS/1000-IV RTE-IVB Nodes with Session
***** System Utility SSGA Entry points *****

REL,%#OVHD:RT:32767 * System overhead program counter holder.

***** DS/1000-IV SSGA Entry points *****

REL,%#RESSM:RT:32767 * SSGA entry point library RTE-IVB
REL,%#SPLU:RT:32767 * Remote I/O map entry point (RTE-IVB)

***** PARAMETER INPUT PHASE *****

QCLM,17,28
FLUSH,1,30
D.RTR,2,1
ERROR,7
NUMAS,7

ENTRY POINT CHANGES FOR
21MX-M SERIES PROCESSOR

INTEGRAL ARITHMETIC ENTRY POINTS
(Supplied by module RPLIB)

E.A.U. ENTRY POINTS
(Supplied by module RPLIB)

MOVE & COMPARE WORDS
(Supplied by module RPLIB)

BIT & BYTE INSTRUCTIONS
(Supplied by module RPLIB)

CLRIO Unconditional skip).

CLRIO,RP,2001
DBLE,RP,105201 * Convert REAL to EXTENDED REAL
SNGL,RP,105202 * Convert EXTENDED REAL to REAL
.DFER,RP,105205 * 3 word move (EXTENDED REAL transfer)
.XPAK,RP,105206 * NORMALIZE, ROUND and PACK with EXPONENT
,*** an EXTENDED REAL MANTISSA
.XCOM,RP,105215 * COMPLEMENT an EXTENDED REAL UNPACKED
* MANTISSA in place
..DCM,RP,105216 * COMPLEMENT an EXTENDED REAL
.DDINT,RP,105217 * TRUNCATE an EXTENDED REAL
.XFER,RP,105220 * 3 word MOVE (EXTENDED REAL TRANSFER)
.GOTO,RP,105221 * Transfer control to location
..MAP,RP,105222 * Compute the address of a 2 or 3D array element
.ENTR,RP,105223 * Transfer the true address of parameters used
* in a subroutine call
..ENTP,RP,105224 * Same as .ENTR, except must be third
* instruction after the entry point
..PWR2,RP,105225 * Calculate REAL X and INTEGER N, Y=X\*2**N
..FLUN,RP,105226 * Unpack REAL (EXPONENT in A, lower part
* of MANTISSA in B)
..SETP,RP,105227 * Set up a list of pointers (Obsolete - Use $SETP)
$SETP,RP,105227 * Set up a list of pointers (Newest version)
..PACK,RP,105230 * Convert signed MANTISSA of REAL into
* normalize REAL format
..CFER,RP,105231 * Move 4 words (complex transfer)
.XADD,RP,105233 * Extended REAL ADDITION
.XSUB,RP,105234 * Extended REAL SUBTRACTION
.XMPP,RP,105235 * Extended REAL MULTIPLY
.XDIV,RP,105236 * Extended REAL DIVIDE
XADD,RP,105207 * Extended REAL ADDITION (for FORTRAN)
XSUB,RP,105210 * Extended REAL SUBTRACTION (for FORTRAN)
XMPY,RP,105211 * Extended REAL MULTIPLICATION (for FORTRAN)
XDIV,RP,105212 * Extended REAL DIVIDE (for FORTRAN)

**** Provide for DOUBLE PRECISION of 4 words ****

Z$DBL,AB,4
/E
### TABLE GENERATION PHASE

<table>
<thead>
<tr>
<th>Equipment Tables (EQT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13, DVR32, D</td>
</tr>
<tr>
<td>15, DVR00, B, T=32767</td>
</tr>
<tr>
<td>10, DVA65, X=7, T=50</td>
</tr>
<tr>
<td>04, DVP43, M</td>
</tr>
<tr>
<td>23, DVF00, B, X=8, T=12000</td>
</tr>
<tr>
<td>14, DVR05, B, X=13, T=12000</td>
</tr>
<tr>
<td>22, DVF00, B, X=8, T=12000</td>
</tr>
<tr>
<td>16, DVR23, B, D</td>
</tr>
<tr>
<td>30, DVA13, B, D, T=50</td>
</tr>
<tr>
<td>24, DVR51</td>
</tr>
<tr>
<td>25, DVR51</td>
</tr>
<tr>
<td>20, DVF00, B, X=8, T=12000</td>
</tr>
<tr>
<td>21, DVF00, B, X=8, T=12000</td>
</tr>
<tr>
<td>31, DVVO0</td>
</tr>
<tr>
<td>31, DVVO0, X=7</td>
</tr>
<tr>
<td>31, DVVO0, X=7</td>
</tr>
</tbody>
</table>

* EQT 1 - 13175A 7905 Disc subsystem
* EQT 2 - TEXAS INSTRUMENTS System console
* EQT 3 - 12773A DS/1000-IV Modem interface
* EQT 4 - Power-Fail driver
* EQT 5 - 12966A M.I.T. special (AFOS line)
* EQT 6 - 12966A 2645A CRT Terminal W/Minicarts.
* EQT 7 - 12966A M.I.T. special (Apple)
* EQT 8 - 13181A 7970B Magnetic Tape Drive
* EQT 9 - 91200B Television (Master card)
* EQT 10 - 12589A Auto-dialer (1200 baud)
* EQT 11 - 12589A Auto-dialer (300 baud)
* EQT 12 - 12966A M.I.T. special (1200 baud)
* EQT 13 - 12966A M.I.T. special (300 baud)
* EQT 14 - DS/1000-IV Remote I/O Map (Reserved)
* EQT 15 - DS/1000-IV Remote I/O Map EQT
* EQT 16 - DS/1000-IV Remote I/O Map EQT
<table>
<thead>
<tr>
<th>#</th>
<th>Device Reference Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,1</td>
<td>LU 1 - System Console (T.I. 733 Terminal)</td>
</tr>
<tr>
<td>1,0</td>
<td>LU 2 - System Disc (7905 Disc Subchannel 0)</td>
</tr>
<tr>
<td>1,1</td>
<td>LU 3 - Auxiliary Disc (7905 Disc Subchannel 1)</td>
</tr>
<tr>
<td>6,1</td>
<td>LU 4 - 2645A (LU-16) Left Mini-Cartridge</td>
</tr>
<tr>
<td>6,2</td>
<td>LU 5 - 2645A (LU-16) Right Mini-Cartridge</td>
</tr>
<tr>
<td>2,1</td>
<td>LU 6 - 12531D Printer (same as Sys. Console)</td>
</tr>
<tr>
<td>7,0</td>
<td>LU 7 - 12966A MIT (DVFOO) (Auto-answer)</td>
</tr>
<tr>
<td>8,0</td>
<td>LU 8 - Magnetic tape, UNIT 0, (H.P. 7970B)</td>
</tr>
<tr>
<td>9,0</td>
<td>LU 9 - 91200B Television System</td>
</tr>
<tr>
<td>10,0</td>
<td>LU 10 - 12589A AUTO-DIALER (1200 baud)</td>
</tr>
<tr>
<td>11,0</td>
<td>LU 11 - 12589A AUTO-DIALER (300 baud)</td>
</tr>
<tr>
<td>12,8</td>
<td>LU 12 - 12966A MIT (DVFOO) (1200 baud)</td>
</tr>
<tr>
<td>13,8</td>
<td>LU 13 - 12966A MIT (DVFOO) (300 baud)</td>
</tr>
<tr>
<td>5,0</td>
<td>LU 14 - 12966A MIT (DVFOO) (AFOS line - 1200 baud)</td>
</tr>
<tr>
<td>0,0</td>
<td>LU 15 - Spare LU</td>
</tr>
<tr>
<td>6,0</td>
<td>LU 16 - 12966A (DVFOO) CRT Term. W/Carts.</td>
</tr>
<tr>
<td>3,0</td>
<td>LU 17 - DS/1000 Subchannel 0</td>
</tr>
<tr>
<td>3,1</td>
<td>LU 18 - DS/1000 Subchannel 1</td>
</tr>
<tr>
<td>1,2</td>
<td>LU 19 - 7905 Disc Subchannel 2</td>
</tr>
<tr>
<td>1,3</td>
<td>LU 20 - 7905 Disc Subchannel 3</td>
</tr>
<tr>
<td>1,4</td>
<td>LU 21 - 7905 Disc Subchannel 4</td>
</tr>
<tr>
<td>1,5</td>
<td>LU 22 - 7905 Disc Subchannel 5</td>
</tr>
<tr>
<td>14,0</td>
<td>LU 23 - DS/1000-IV Remote I/O Mapping (Reserved)</td>
</tr>
<tr>
<td>15,0</td>
<td>LU 24 - DS/1000-IV Remote I/O Mapping</td>
</tr>
<tr>
<td>16,0</td>
<td>LU 25 - DS/1000-IV Remote I/O Mapping</td>
</tr>
<tr>
<td>0,0</td>
<td>LU 26 - Spare LU</td>
</tr>
<tr>
<td>0,0</td>
<td>LU 27 - Spare LU</td>
</tr>
<tr>
<td>0,0</td>
<td>LU 28 - Spare LU</td>
</tr>
<tr>
<td>0,0</td>
<td>LU 29 - Spare LU</td>
</tr>
<tr>
<td>4,0</td>
<td>LU 30 - Powerfail LU</td>
</tr>
<tr>
<td>/E</td>
<td></td>
</tr>
</tbody>
</table>
### ORIGINAL PAGE IS OF POOR QUALITY

#### SYSTEM CONFIGURATION TABLE

<table>
<thead>
<tr>
<th>Interrupt</th>
<th>Description</th>
<th>Equipment Code</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,ENT,$POWR</td>
<td>* (DVP43) Power-fail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,EQT,3</td>
<td>* 12773A (DVA65) DS/1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13,EQT,1</td>
<td>* 13210A (DVR32) 7905 Disc interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,PRG,PRMPT</td>
<td>* 12966A (DVR05) 2645A CRT terminal w/minicarts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15,PRG,PRMPT</td>
<td>* 12531D (DVR00) TI 733 System Console &amp; Printer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16,EQT,8</td>
<td>* 13181A (DVR23) 7970B Magtape interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17,EQT,8</td>
<td>* 13181B (DVR23) 7970B Magtape interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 1200 Baud Full Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 300 Baud Full Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 1200 Baud Half Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 9600 Baud Full Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 300 Baud auto-dialer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 9600 Baud Half Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 1200 Baud Full Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 300 Baud auto-dialer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 9600 Baud Half Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 1200 Baud Full Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 300 Baud auto-dialer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31,PRG,PRMPT</td>
<td>* 12966A (DVF00) MIT 9600 Baud Half Duplex</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**SYSTEM BOUNDARIES PHASE**

- 0: CHANGE Driver PTN?
- 0: CHANGE RT COMMON
- 1: CHANGE BG COMMON

**SYSTEM AND PROGRAM LOADING PHASE**

- **I/O CLASSES / LU MAPPINGS / RESOURCE NUMBERS**
  - 40: # of Class Numbers
  - 10: # of LU Mappings
  - 40: # of Resource Numbers

- **BUFFER LIMITS / LONG ID'S / SHORT ID'S / EMA EXT'S.**
  - 100,400: Buffer Limits
  - 30: Long Additional ID Segments
  - 20: Short Additional ID Segments
  - 5: ID Segment Extension (EMA)
PARTITION DEFINITION PHASE

#** PARTITION DEFINITION PHASE **#*
#
20 * TOTAL PARTITIONS
50 * 1ST PARTITION PAGE
10,RT,R * PARTITION 1 (RESERVED FOR D.RTR)
6,RT * PARTITION 2
28,BG * PARTITION 3
22,BG * PARTITION 4
11,BG * PARTITION 5
9,BG * PARTITION 6
88,BGM * PARTITION 7
28,S * PARTITION 8
22,S * PARTITION 9
12,S * PARTITION 10
12,S * PARTITION 11
9,S * PARTITION 12
5,S * PARTITION 13
/E
*

** MODIFY PROGRAM PAGE REQUIREMENTS **

* LOADR,28
FMGR,22
/E
*

** ASSIGN PROGRAM PARTITIONS ****

* D.RTR,1
/E
*

** END OF GENERATION ****

**