Ozzie

System Validation Suite

User's Guide

NOS 2.7.1 L716

NOS/VE 1.4.1 L716

December 16, 1988

1 - 4 - 87
FPL

SMD132299

C960   SN 120

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1.0   INTRODUCTION

The System Validation Suite (SVS) tests CYBER 170/180-800 and 900
Series mainframe hardware features in an operating system
environment. The Suite tests the hardware features by executing
operating system functions, test jobs, and on-line hardware
diagnostics. SVS is designed to be used by the following Control
Data organizations.

- Arden Hills and Canadian manufacturing divisions for
  hardware checkout.

- Product Assurance for mainframe verification.

- Hardware development organizations and Arden Hills
  Programming Division for configuration management
  testing.

- Engineering Services for mainframe validation after
  customer mainframe installation and major FCO
  installation.

NOTE: SVS is a proprietary package and must only be used by Control
      Data personnel.

SVS includes the following materials which are delivered when a
package is ordered from SMD.

     Deadstart Tape(s)
     Permanent File Dump Tape(s)
     User's Guide (this document)

At previous levels of SVS, the NOS OPL was on a separate tape. At
SVS L716, the NOS OPL is included on the NOS permanent file dump
tape.

Only one level of SVS is supported at any one time. SMD will always
send the latest release level, regardless of the level specified on
your order form.

If you wish to use the SVS that is available as part of the NOS/VE
Operating System, please consult the SVS/VE User's Guide.

2.0 EQUIPMENT REQUIREMENTS

SVS requires one of the following configurations.

o   NOS requires one disk controller, two disk units, one tape
    controller, and one 9-track tape unit.

o   NOS/VE Dual State requires three disk units*, two disk controllers,
    an CC634 or CC598 system console, a tape controller and a 9-track
    tape unit.

    Two of the disk units and one disk controller are used by NOS. The
    third disk* and the second controller are used by NOS/VE. The tape
    unit and associated channel can be used by NOS and NOS/VE.

o   NOS/VE Standalone requires one disk unit**, one disk controller, a
    CC634 or CC598 system console, a tape controller and a 9-track tape
    unit.

 * If you are using 834 disks or a dual CPU mainframe with 844 disks,
    you will need 2 units for NOS/VE for a total of 4 disk units.

** You will need two units for systems with 834 disks.

NOTE: All disk units must be dedicated to SVS, and are initialized
during the testing. The System Validation Suite cannot coexist with
customer permanent files.

The minimum real memory configurations for NOS/VE are listed below.

System Model	Minimum Memory Size in Megabytes
810A	8
815	8
825	8
830A	8
835	8
840A	16
845	8
850A	16
855	8
860A	16
870A	16
930	8
960-11	32
960-31/32	64
962-11	32
962-31/32	64
990E	8
992	64
994	64
995E	8

3.0 INSTRUCTIONS

There are three modes of operation for SVS. The following information will help you select which mode to use.

• SVS/NOS

The SVS/NOS mode executes tests on NOS only for:

o   Cyber 170 model 865 and 875 sites.
o   Cyber 180 NOS sites.

The materials needed to execute SVS/NOS are:

o   NOS Deadstart Tape
o   NOS Permanent File Tape (VSN = NSVSPF)

The instructions for SVS/NOS are in section 3.1.

SVS/DM

The SVS/DM mode executes tests on both NOS and NOS/VE for:

o   Cyber 180 sites running Dual State.
o   Cyber 180 problem debugging. (SVS/DM stresses the system more than the other modes and therefore may more effectively reproduce an intermittent problem)

The materials needed for SVS/DM are:

o   NOS Deadstart Tape
o   NOS Permanent File Tape (VSN = NSVSPF)
o   NOS/VE Deadstart File Tape (VSN = NVEDS)
o   NOS/VE Permanent File Tape (VSN = NVESVS)

The instructions for running SVS/DM are in section 3.2.1.

Note: SVS/DM runtime on the model 810 will be close to three hours even though one hour is specified on the initiation commands (NOS: X.RUNSVS(1), VE: ONEHOUR). We have opted to provide a thorough mainframe checkout rather than delete tests to provide a one hour runtime.

SVS/SM

The SVS/SM mode executes tests on NOS/VE only for:

o   CYBER 180 NOS/VE sites running a Standalone NOS/VE Operating
     System.

The materials needed for SVS/SM are:

o   NOS/VE Deadstart File Tape (VSN = NVEDS)
o   NOS/VE Permanent File Tape (VSN = NVESVS)

The instructions for running SVS/SM are in section 3.2.2.

3.1   NOS INSTRUCTIONS

To deadstart NOS and load permanent files to disk, follow these instructions.

NOTE: SVS assumes you have the correct level of CYBER Initialization Package (CIP) installed on the CIP device. Refer to the CIP manual for CIP installation instructions. (See Appendix A for CIP level)

1.   Read appendix B and complete the worksheet provided in the appendix.

2.   Mount the NOS deadstart tape.

3.   Initiate deadstart from the CIP device. The Initial Options display appears.

4.   Select "U" - Utilities option from Initial Options display.

5.   Select "I" to initialize mainframe.

6.   Select "O" - Operator Intervention option from Initial Options display.

7.   Verify that title of "O" display is for NOS Deadstart. If not, enter "O". (This step does not apply for systems which support NOS only.)

8.   Select "P" - Deadstart Parameters option from Operator Intervention display.

9.   Enter "C=nn", where nn= deck number (Entry number 2 from the Appendix B worksheet)

10.   Enter "D=Yes", if D=No.

11.   Press the BKSP key (to return to the Operator Intervention display).

12.   Select "M" to go to the MDD display. Enter "PORT=0" or "PORT=1" depending on the TPM port to which the console is connected.

13.   Press the BKSP key (to return to the operator interface display).

14.   Select "S" - Select Deadstart Device.

15.   Select "T" - Operating System Deadstart from Tape option.

16.   Enter tape type, channel, equipment, and unit numbers. CMRDECK instructions will appear within a few seconds.

17.   Enter: "NEXT." The EQPDECK instructions appear.

18.   Press the right blank key*. The EQPDECK appears. (The right blank key toggles thru the various EQPDECK displays.) If your disk, tape, or printer equipments are not as defined in the EQPDECK, use the Appendix B worksheet to modify the EQPDECK at this time.

19.   Enter "INITIALIZE,AL,6,7."

20.   Enter "LBC,FM,ch."   if your 844 disk units are connected to a 7155-1 or 7155-10 controller.

      or   "LBC,PH,ch."   if your 885-12 disk units are connected to a 7155-401 controller.

21.   Enter "GO."   the system will begin loading files. This step may take several minutes.

22.   If your machine does not have a wall clock chip, you will be prompted here for date and time.

*   CC545 = RIGHT BLANK
    CC598 = TAB
    CC634 = RIGHT TAB

X.DIS COMMON, SYSTEM
INSTALL, SYSTEM, EQ6.

Drop.

The MAINTENANCE command will be posted in the lower left hand
corner of console display. Do not press the left blank key* to
override the MAINTENANCE command.

When the system comes up, a job with the jsn of CMS will execute.
When this job finishes, you may proceed.

23a. For SVS/NOS with no 533/536/537 printer, mount the PFDUMP
      (VSN=NSVSPF) tape and enter:

      X.RUNSVS. (to run one pass.) or

      X.RUNSVS(hh) (to run hh hours.)

On an 810-830 it will be about 10 minutes after the NSVSPF tape is
loaded before the system begins to look busy.

The amount of time one pass of SVS/NOS executes depends on
mainframe type. On an 810 one pass completes in just over an hour,
where on the 875 it completes in less than 10 minutes. In most
environments in which NOS is used, one hour of NOS run time is
sufficient for mainframe verification. Therefore, for 810
mainframes enter X.RUNSVS. For all others enter X.RUNSVS(1).

No further operator input is required.

WARNING Many of the NOS jobs create failures intentionally and
            post error messages to the system dayfile. Do not be
            alarmed when you see many error messages on the A
            display.

23b. For SVS users with a 533/536/537 printer:

o   For a 533/536/537 printer connected to a 2550, mount the
      PFDUMP tape (VSN=NSVSPF), Master Clear the 2550 and then
      enter:

      ON,EQ=60.
      X.LOADSVS.

      When the permanent file load completes, enter:
      NAM.
      X.RUNSVS. (to run one pass) or

      X.RUNSVS(hh) (to run hh hours).

*   CC545 = LEFT BLANK
    CC598 = ESC.
    CC634 = LEFT TAB OR ERASE

o   For a 533/536/537 printer connected to a CDCNET MTI,
     mount the PFDUMP tape (VSN=NSVSPF), Master Clear the MTI
     and then enter:

     ON,EQ=65.
     X.LOADSVS.

     When the permanent file load completes, enter:
     X.BEGIN(,SETUPDI,MTI,sysid)
          sysid = the last six HEX digits of the 12 digit
          system identifier, which is on the inside front
          door of the DI. Note that there are 16 digits on
          the DI system ID placard. The last 4 digits are
          NOT part of the system ID.

     NAM.
     X.RUNSVS. (to run one pass) or

     X.RUNSVS(hh) (to run hh hours).

     Note: The 533/536 printer must be connected to LIM 0,
             PORT 1 of the MTI. The 537 printer must be
             connected to LIM 0, PORT 2 of the MTI.

o   For a 533/536/537 printer connected to a CDCNET TDI,
     mount the PFDUMP tape (VSN=NSVSPF), Master Clear the TDI
     and the MDI it is connected to, then enter:

     ON,EQ=65.
     X.LOADSVS.

     When the permanent file load completes, enter:
     X.BEGIN(,SETUPDI,MDI,sysid)
     X.BEGIN(,SETUPDI,TDI,sysid)
          sysid = the last six hex digits of the 12 digit
          system identifier, which is on the inside front
          door of the DI. Note that there are 16 digits on
          the DI system ID placard. The last 4 digits are
          NOT part of the system ID.

     NAM.
     X.RUNSVS. (to run one pass) or

     X.RUNSVS(hh) (to run hh hours).

     Note: The 533/536 printer must be connected to LIM 0,
            PORT 1 of the TDI. The 537 printer must be
            connected to LIM 0, PORT 2 of the TDI.

3.1.1 Mainframe Information Display

The following mainframe information can be accessed any time during the run:

    Model Type
    Mainframe Serial number
    Number of peripheral processors being used
    Total memory size
    Central memory size
    Extended memory size
    User extended memory size
    NOS/VE memory size

The mainframe information can be seen by looking at the dayfile of the job which checks the output queue for job failures. To see the dayfile, find the job on the B-display which has "CHECKING FOR FILES." displayed. (On some mainframes, there may be two jobs with this message.) Then locate its jsn (listed under column labelled JSN). Enter DAYFILE,jsn. to see the information.

3.1.2 Test Results

The output from any jobs which fail during the session will print. At the end of the run a RESULTS job will print which will list the names of the failing jobs, if any, or the message "ALL TESTS PASSED" as well as an HPA listing. The message "DONE" is posted to the system dayfile (*A* Display).

If you do not have a local batch printer available you may examine the output files by using the QDSPLAY utility. The steps involved are as follows.

1.   Look at the Q,PR. display.

2.   Enter QDSPLAY,XXXX. where XXXX is the JSN of an output queue
        file with ID=0 (blank field under ID heading on Q,PR.
        display). Failing test jobs and the RESULTS job will have
        output files with ID=0.

3.   Enter L.BOI. to see the output file contents on the console.
        You may page through the file with L.+. When you are
        finished enter L.DROP.

For additional information regarding the QDSPLAY utility, see the
NOS Version 2 Operator Handbook, CDC Publication 60459310.

3.1.3 Test Restart

To initiate NOS again, enter MAINTENANCE. And, go to Step 24a in
Section 3.1.

3.1.4 NOS System Termination

When the Results job has printed, the test is finished. To
terminate NOS, enter CHECK POINT SYSTEM. and press the deadstart
button.

3.1.5 Utilities

The following utilities facilitate execution of some tests that you
may want to run.

X.RUNHPA. NOS runs HPA as part of its post processing. To generate
and print an HPA report at your convenience enter: X.RUNHPA. (If
the system is very busy, it may take some time for the report
generation to complete.)

X.RUNONE(jobname). If there is a failing job that you would like to
rerun enter: X.RUNONE(jobname) where jobname is the name of the job
to run.

To find the jobname, look at the first line of the job´s dayfile, or
look in the RESULTS summary report.

X.BEGIN(,STOPSVS). If you would like to terminate the test in the
middle of a run and get a results summary enter: X.BEGIN(,STOPSVS)

This may take up to 10 minutes to complete.

X.BEGIN(,RUNKERN). You may run the performance kernels at any time
by entering: X.BEGIN(,RUNKERN). The kernel results will print
whether or not the job fails.

X.BEGIN(,RUNTIME). If you would like to know at what time the run
was started and how long it will execute enter: X.BEGIN(,RUNTIME).

X.LOADSVS. To load the NOS permanent file tape (VSN=NSVSPF) without
starting job execution, enter: X.LOADSVS. This is needed if you
are using a 533/536 printer, (see Step 24a, Section 3.1) or if you
are only testing MAP (see Section 3.1.7.2). or if you are going to
execute SVS/DM (see Step 23, Section 3.2.1).

3.1.6 NOS Error Analysis

The type and amount of error information reported to the user when a
failure is detected depends on the nature of the error.

1.   If the performance kernel (KERNJOB) fails, you have a potential
     CPU performance problem. To verify, run the kernel utility
     (X.BEGIN(,RUNKERN)) by itself when NOS has finished executing.

     The test's results will print. Check the output to verify that
     no failures were reported.

     Note: Failures may occur when running mainframe clock
              margins.

2.   In the event of a fatal hardware error, an Express Deadstart
     Dump (EDD) must be taken to determine the cause of the error.
     Consult the CIP User's Guide for EDD instructions.

3.   If a MAINTENANCE job fails, its output will print. The output
     contains diagnostic information useful to a hardware engineer.

4.   If a NOS job encounters an error, its output will print. Most
     likely, the output will contain a dump of the job's field
     length and error bits in the exchange package. Help from a
     local software analyst may be needed to interpret the dump.

5.   If NOS hangs with "CPUMTR ERROR EXIT", "PP HUNG", "HUNG PP",
     "NO MONITOR RESPONSE", or blank screens, a system dump must be
     taken and analyzed. Be sure to record the PP (P,A,Q, and R)
     register values and save PPO contents. Consult the CIP Users
     Guide for Express Deadstart Dump instructions.

3.1 NOS INSTRUCTIONS (continued)

When either event 3 or 4 occurs, a hardware problem should be
suspected. However, review any Service Bulletins for known NOS
problems. Then, if additional help is needed for problem
determination, contact the Customer Service Support (CSS) through
the World Support Center (1-800-345-9903 for United States and
Canadian customers or 1-612-851-4131 for international customers).

3.1.7 Supplementary Peripheral Tests

3.1.7.1 Concurrent Maintenance Library (CML)

CML MALET diagnostics are included on the permanent file dump tapes
and additional supporting code on the deadstart tape for your
convenience. The diagnostics may be run standalone or while NOS is
executing.

The diagnostics are located on UN=CDCCE, PW=CDCCE. Additional CML
documentation is contained in the CML Reference Manual.

3.1.7.2 MAP Diagnostics

The MAP device has been defined in the EQPDECK. (The entry is:
EQ077=MP,ST=OFF,CH=11.) Do not have maintenance jobs running
concurrently with the MAP diagnostics.

To terminate the maintenance jobs, enter:

    DROP,,MS.

To execute the diagnostics:

1. To turn the MAP device on enter:

    ON,EQ=77.

2. Enter X.LOADSVS if NOS portion of SVS permanent files
    (VSN=NSVSPF) has not been loaded.

3. To initiate the MSSI subsystem enter:

    MAPffff.
     where MAPffff is
        MAPECS for a MAP III
        MAPCH for a MAP IV - 20/21
        MAPCMI for a MAP IV - 23/25

4.   Initiate the MAP diagnostic AP1.

      Enter:

           K,MAP.
           K.DIAG.

Additional MAP diagnostics are located on:

           UN=CDCCE, PW=CDCCE   for MAP III and MAP IV - 23/25

      and

           UN=CDCCE2, PW=CDCCE2 for MAP IV - 20/21

      Enter the following commands to start the additional MAP ECS
      confidence test:

           X.DIS.
           USER,CDCCE,CDCCE.   (USER,CDCCE2,CDCCE2. for MAP IV - 20/21)
           BEGIN,SUB,MSSIP,ECSTEST,2.
           DROP.

           To terminate the ECS test, enter:

           ONSW,jsn,1.
           ONSW,jsn,6.

      To start three copies of the MAP confidence test, enter:

           BEGIN,SUB,MSSIP,MAP9V,3.

           The test will end and say test passed.

      These tests may be run together with the AP1 diagnostic or
      individually. One copy of MAP9V may fail due to hardware
      status left by AP1 diagnostic.

To stop the MSSI subsystem, enter:

           K,MAP.
           K.ABORT.

For additional information, see:

      MSSI Version 3 Installation Handbook   60458830
      MSSI Version 3 Reference Manual   60458820
      Matrix Algorithm Processor III
      Field Maintenance Manual   60429103
      Matrix Algorithm Processor IV   60459900

3.1.7.2 STORNET Tests

If you wish to run SVS/NOS STORNET tests, refer to the instructions on page F-2.

Instructions one through four on Page F-2 must be implemented in the EQPDECK at deadstart time (Step 19 of the NOS deadstart).
Instruction (5) which runs the test is implemented after the system is up.

3.2   NOS/VE INSTRUCTIONS

3.2.1 NOS/VE Dual State Instructions

To initiate NOS/VE Dual State follow these instructions.

NOTE: SVS assumes you have the correct level of CYBER Initialization
      Package (CIP) and the VE boot modules installed on the CIP
      device. The VE boot modules now reside on the VE deadstart
      tape. Refer to the CIP manual for CIP and VE boot module
      installation instructions. (See Appendix A for CIP level.)

1.   Read Appendix B and complete the worksheet provided in
     the appendix.

2.   Mount the NOS deadstart tape.

3.   Initiate deadstart from the CIP device. If Initial
     Options display does not appear, select "S".

4.   Select "U" - Utilities option from Initial Options
     display.

5.   Select "I" to initialize mainframe.

6.   Select "O" - Operator Intervention option from Initial
     Options display.

7.   Verify that title of "O" display is for NOS Deadstart.
     If not, enter "O".

8.   Select "P" - Deadstart Parameters option from Operator
     Intervention display.

9.   Enter "C=nn", where nn= deck number (Entry number 2 from
     the Appendix B worksheet)

10. Enter "D=Yes", if D=No.

11. Press the BKSP key (to return to the Operator
     Intervention display).

12.   Select "M" to go to the MDD display. Enter "PORT=0" or
       "PORT=1" depending on the TPM port to which the console
       is connected.

13.   Press the BKSP key (to return to the operator interface
       display).

14.   Select "S" - Select Deadstart Device.

15.   Select "T" - Operating System Deadstart from Tape option.

16.   Enter tape type, channel, equipment, and unit numbers.
       CMRDECK instructions appear.

17.   Enter "NEXT". The EQPDECK instructions appear.

18.   Press the right blank key*. The EQPDECK appears. (The
       right blank key toggles thru the various EQPDECK
       displays.) If your disk, tape, or printer equipments
       are not as defined in the EQPDECK, use the Appendix B
       worksheet to modify the EQPDECK at this time.

19.   Enter "INITIALIZE,AL,5,6,7."

       or   "INITIALIZE,AL,6,7." if your EQPDECK does not
                                  have EQ005.

20.   Enter "LBC,FM,ch."   if your 844 disk units are
                                   connected to a 7155-1 or
                                   7155-10 controller.

       or   "LBC,PH,ch."   if your 885-12 disk units are
                                   connected to a 7155-401
                                   controller.

21.   Enter "GO."   the system will begin loading
                                   files. This step may take
                                   several minutes.

22.   If your machine does not have a wall clock chip, you
       will be prompted here for date and time.

* CC545 = RIGHT BLANK
   CC598B = TAB
   CC634B = RIGHT TAB

When the system comes up, a job with the jsn of CMS will execute. When
this job finishes, you may proceed.

23.   Mount the NOS Permanent file tape (VSN = NSVSPF) on a nine track
      tape drive and load NOS files at this time by entering:

      X.LOADSVS.

24.   When the NSVSPF tape unloads enter "X.SETNVE." to initiate the
      dual state setup job.

25.   Mount the deadstart file tape (VSN=NVEDS) on a 9-track tape drive.

26.   Enter the NOS console commands:

      IDLE,MAG. to idle the NOS magnetic tape
                 subsystem.
      DOWN,CH=xx. where xx is the tape channel.
      DOWN,EQ=yy. where yy is the EST ordinal of the tape
                   unit.

27a. To use a single NOS/VE disk and tape configuration.

      Enter "NVESVSx." where x is the Two Port MUX Port to which the
      console is attached.

      If the VE display does not appear, press the F7 key. (Initiating
      deadstart from NOS/VE).

      The NOS/VE BOOT display will appear. This is a menu driven
      display program. Note that channel numbers are in decimal. After
      you have completely defined your NOS/VE deadstart device (tape)
      and your NOS/VE system device (disk) press the NEXT key.

27b. To use more than 1 disk or 1 tape equipment (834 equipment type
      requires 2 units) for NOS/VE.

      Enter "NVEINTx." where x is the Two Port MUX Port to which the
      console is attached.

      If the VE display does not appear, press the F7 key (initiating
      deadstart from NOS/VE).

      After the NOS/VE BOOT display and a system core commands display,
      you will be prompted to enter your full configuration.

28. <u>If</u> this is the initial NOS/VE deadstart after CIP
     installation, you will be prompted to SET_TIME_ZONE, so
     enter:

         SETTZ 0

29. Follow the directions presented on the System Core
     Commands display on the console:

```
*                                                      *
*     ENTER THE FOLLOWING SYSTEM CORE COMMANDS          *
*                                                      *
*          INISD VSN001                                 *
*          AUTO                                         *
*                                                      *
```

30. Go to Section 3.2.3 - Test Execution.

3.2.2 NOS/VE Standalone Instructions

NOTE: SVS/SM assumes you have the correct level of CYBER
      Initialization Package (CIP) and the VE boot modules installed
      on the CIP device. The VE boot modules now reside on the VE
      deadstart tape. Refer to the CIP manual for CIP and VE boot
      module installation instructions. (See Appendix A for CIP
      level).

1. Mount the NOS/VE deadstart file tape (VSN=NVEDS).

2. Initiate deadstart from the CIP device. If the initial
    options display does not appear, select "S".

3. Select "U" - Utilities option from initial options.

4. Select "I" to initialize mainframe.

5. Select "O" - Operator Intervention option from Initial
    Options display.

6. Verify that title of "O" display is for NOS/VE
    Deadstart. If not, enter "O" to toggle deadstart type.

7. Select "P" - Deadstart Parameters option from Operator
    Intervention display.

8. Enter "D=20" to use the recommended default disk and
    tape. If you want to use other equipments than these,
    specify "D=01", which will invoke an interactive prompt
    procedure after Step 16.

9.   Enter "P=YES" to cause NOS/VE to stop for operator
      entries.

10.   Press the BKSP key (to return to the Operator
      Intervention display).

11.   Enter "M" to go the the MDD display.

      Enter: MDD=YES
             PORT=0   or PORT=1

12.   Press the BKSP key (to return to the Operator
      Intervention display).

13.   Select "S" - Select Deadstart Device.

14.   Select "T" - Operating System Deadstart from Tape option.

15.   Enter date and time, if prompted.

16.   Press the F7 key (initiating deadstart from NOS/VE)

17.   The NOS/VE BOOT display will appear. This is a menu
      driven display program. Note that channel numbers are
      in decimal. After you have completely defined your
      NOS/VE deadstart device (tape) and your NOS/VE system
      device (disk) press the NEXT key.

18.   If this is the initial NOS/VE deadstart after CIP
      installation, you will be prompted to SET_TIME_ZONE, so
      enter:

               SETTZ 0

19.   Follow the directions presented on the System Core
      Commands display on the CC634 console:

*   *
*   ENTER THE FOLLOWING SYSTEM CORE COMMANDS   *
*   *
*   INISD VSN001   *
*   AUTO   *
*   *

If you selected the "default" configuration DCFILE (D=20) no
further information is needed for the NOS/VE deadstart.

If you entered "D=01" at Step 8, then you will be prompted at
configuration prolog time to configure additional tape, disk,
and network equipments.

3.2.3 NOS/VE Test Execution

1. When the NVESVS tape request occurs, mount and ready the
   NVESVS tape.

2. When the tape is finished loading and the message:
   ```
   ************************************************************
   *                                                          *
   * Please type "ESTSE" to enter the SVS utility             *
   *                                                          *
   ************************************************************
   ```
   is displayed on the NOS/VE console, then type in the command:

   ESTSE

   Over the next few minutes SVS will be defining the tests for
   subsequent execution.

3. Upon completion of the ESTSE command a help screen will be
   displayed. At this time you may initiate the testing by
   entering the command "RUNSVS".
   The format for RUNSVS is as follows:

   RUNSVS FOR (integer) (HOURS,MINUTES, or PASSES)
   RUNSVS UNTIL (integer) (AM, or PM):
   RUNSVS CONTINUOUSLY

   Several examples follow.

   ```
   RUNSVS FOR 72 HOURS    "
   RUNSVS UNTIL 8 AM      "  CANNOT EXTEND BEYOND 23 HOURS WITH
                             THIS COMMAND.
   RUNSVS CONTINUOUSLY    "
   RUNSVS FOR 6 PASSES    "  SPACES ARE SIGNIFICANT IN ALL FORMS
   RUNSVS FOR 90 MINUTES  "  OF THE COMMAND
   RUNSVS FOR 1 HOUR      "
   ```

4. If you want to run SVS/DM (dual state) enter on the NOS
   console the following commands:
   MAINTENANCE.
   X.RUNSVS(hh,RUNKERN=N) (to run hh hours)

3.2.4   Test Results

    When testing is complete, the bottom window of the console
    will display either PASSED or FAILED* in large block
    letters. HPA/VE will automatically run to report any
    intermittent or corrected hardware failures. Additionally,
    if any SVS test failures have occurred, job logs and/or job
    test case failure data will be printed. If you have a
    printer available, enter:

        ON_PRINTER

    If you are running SVS/DM and your printer is conncted
    directly to NOS/VE enter:

        ON_PRINTER VE

    If your printer is connected to your mainframe via CDCNET
    then you should master clear your CDCNET equipment and follow
    the directions issued by ON_PRINTER. You will be prompted
    for printer information which includes DI Equipment type, DI
    serial number, and printer type.

    If a printer is not available, you may transfer output files
    to tape or examine the files at the console using SVS
    commands. See Section 3.2.8 for additional information.

3.2.5   Test Restart

    To initiate further NOS/VE testing, go to Step 3 in section
    3.2.3.

3.2.6   NOS/VE System Termination

    When testing is finished, enter TERMINATE_SYSTEM to
    gracefully halt the system.

*   See NOTES AND CAUTIONS (3.2.12).

3.2.7   NOS/VE Console Operation

The NOS/VE console can be divided into windows. After NOS/VE
deadstart there will be three windows: the NOS/VE SYSTEM HEADER, the
OPERATOR ACTION DISPLAY, and the MAIN OPERATOR WINDOW. A window can
be an input or sharing window. An input window will allow operator
entry and a sharing window will beep if the cursor is positioned to
it and input is attempted.

3.2.7.1   CC634 Screen Control

o TAB	The large "L" shaped key in the upper left, will position the cursor to the input lines at the various windows being displayed.
o SUPER	Will expand the window where the cursor is positioned.
o BACK	Will return the window where the cursor is positioned.
o P CLEAR	Will reprint the display should the display appear to be hung. (P CLEAR is the upper case of the CLEAR key).
o EOL CLEAR	Will erase the current input line. (EOL CLEAR is the lower case of the CLEAR key).

3.2.7.2   CC598 Screen Control

o TAB	Will position the cursor to the input lines at the various windows being displayed.
o F9	Will expand the window where the cursor is positioned.
o F10	Will return the window where the cursor is positioned to its previous condition.

Here are some NOS/VE operator commands that will help to monitor
test execution:

     o VED AJ   Open a sharing window in the middle of the screen
                 to show all active jobs.

     o VED MS   Open a sharing window in the middle of the screen
                 or replace the current window with information on
                 the available disk space.

     o VED DS   Display device status.

     o DISAO   Display the NOS/VE output queue contents.

3.2.8 Additional SVS Commands

Type in DISCI (command_name) to see parameters for commands
listed below.

     o FAILURES   Displays testcase failure data.

     o HELP   Displays a list of available SVS
                           commands.

     o ON_PRINTER   Establishes printing capability.

     o PRINT_HISTORY   Places a copy of the HISTORY file in
                           the output queue. The HISTORY file is
                           where NOS/VE SVS places the machine
                           descriptor information, all testing
                           results, any error information, and a
                           results summary.

     o RESET_HISTORY   Creates a new history file. Enter
                           this command before restarting a test
                           session to clear the file.

     o RUNHPA   Processes the Engineering logs and
                           generates HPA/VE report at your
                           convenience.

     o SCAN_HISTORY   Displays a history file containing all
                           test session results since deadstart
                           or a RESET_HISTORY command.

     o RUN_MST   Runs the VE MST test on drive with specified
                         VSN. The VSN of a drive may be obtained from the
                         VED DS display.

     o SCAN_OUTPUT_QUEUE   Displays an output queue file. For
                         scrolling control with a PC console use
                         "Cntrl S" and "Cntrl Q". With all other
                         consoles use the SETUP AND F1 keys.

     o TERMINATE   Prematurely terminates a SVS testing session.

     o QUIT   Exits from the SVS utility.

     Use these commands to move output files to a different mainframe
     with a printer.

     o DUMP_OUTPUT_QUEUE   Dumps output queue files to tape.

     o RESTORE_OUTPUT_QUEUE Restores output queue files from tape.

All NOS/VE system commands are available at any time.

3.2.9 Abnormal NOS/VE System Termination

If NOS/VE hangs, a system dump should be taken and analyzed. A hardware
problem should be suspected. Further analysis of a hardware problem
should be done using on-line and off-line diagnostics. However, Service
Bulletins should be reviewed for known NOS/VE problems.

If additional help is needed to determine cause of a failure, contact the
Customer Service Support (CSS) through the World Support Center
(1-800-345-9903 for United States and Canadian customers or
1-612-851-4131 for international customers).

If the NOS/VE dual state system appears to be hung, do the DROPVE step.
If the NVE control point in NOS says NVE is down go to step 2.

    1.   DROPVE.   Will cause NOS/VE to terminate. (If you have
                         locked the keyboard, you must enter "UNLOCK." to
                         use this command).

    2.   Either   K.*RUN. The NVE job on NOS will request a tape
                         for a dump. Mount a tape and type
                         "ASSIGN,NVE,est." When the dump is complete,
                         NOS/VE will attempt to redeadstart and build a
                         recovery file. Type "AUTO" on the NOS/VE console
                         at SYSTEM CORE COMMANDS display to reinitiate
                         NOS/VE.

---

        or   K.*DUMP=NO.   To allow the NVE job on NOS to
                        K.*RUN.   terminate without a dump.

3. NOS/VE can be re-deadstarted after control point 2 is
    idle. (See either section 3.2.1 or 3.2.2.)

4. It is normal for the PASSON job to abort and print out
    when NOS/VE is terminated.

5. Run HPA to report any intermittent or corrected hardware
    errors.

    Enter:
    X.RUNHPA.

3.2.10   NOS/VE Dump Processing

If you have an EDD dump of a NOS/VE failure and wish to process
under NOS/VE, on the NOS/VE console, enter:

    PROCESS_DUMP evsn   Where evsn is a six character tape vsn.

    ASSD TAPE evsn   To assign the dump tape.

WARNING: For systems with large memories, the following
           restrictions exist.

      o   128 MB system memory dumps require either two 2400
            ft. reels or one 3600 ft. reel at 6250 bpi.

      o   128 MB (300-500 tracks) of disk space available on
            your NOS disks for dump processing using MFGDUMP.

      o   Dumps for systems greater than 64 megabytes cannot
            be processed on an 844 disk device.

3.2.11 Supplementary Testing

3.2.11.1 CML/VE Testing

Present space restrictions on the NVEDS tape prevent full support of
CML/VE. At the present time, HPA/VE is the only CML/VE product
which is supported. Attempts to execute any CML/VE options other
than HPA/VE will result in errors.

3.2.11.2 SVS/VE STORNET Testing

If you wish to run SVS/VE STORNET tests, refer to the instructions
on Page F-3.

These instructions must be implemented during VE deadstart, starting
at Step (29) in section 3.2.1.

3.2.12 Notes & Cautions

1.   DVS test RFST, BIMM and DBUG fail on a 835 machine. The
      tests will not be executed on this machine.

2.   DVS test NUMR takes longer then 1.5 hours on an 860, so
      it is not included as part of the automated SVS run. If
      your site is experiencing unusual BDP problems you may
      want to add the NUMR test via the ADD_TEST SVS command.

3.   If you have disk or tape equipment on channel 11 or
      channel 6 that you intend to use for NOS/VE, be sure to
      delete all entries from the NOS EQPDECK at deadstart or
      NOS/VE will not be able to get the channel from NOS.

4.   DVS test DBUG may fail on a 960/962.

4.0   PROBLEM REPORTS

If you discover a problem with SVS, please document it on a software
Programming System Report (PSR). Among the required PSR information, specify
the NOS release level and the NOS/VE release level (printed on the front of
this document), the product name of ´SVS´, and the problem description.
Submit an on-line PSR via SOLVER, or send a PSR form according to the normal
PSR procedures printed on the back of the PSR form.

Please attach a copy of the deadstart worksheet (Appendix B) to the PSR form.

APPENDIX A - FCA LEVELS SUPPORTED

This SVS package is certified at the following FCA (Field Change
Announcement) levels:

MODEL	FCA LEVEL
810A	7 w/CIP V10 L716
815	10 w/CIP V10 L716
825	11 w/CIP V10 L716
830A	7 w/CIP V10 L716
835	11 w/CIP V10 L716
840A	7 w/CIP V10 L716
845	10 w/CIP V10 L716
850A	7 w/CIP V10 L716
855	13 w/CIP V10 L716
860A	7 w/CIP V10 L716
870A	7 w/CIP V10 L716
875	1 w/CIP V10 L716
930	6 w/CIP V10 L716
932	2 w/CIP V10 L716
960	1 w/CIP V10 L716
962	1 w/CIP V10 L716
990E	14 w/CIP V10 L716
992	1 w/CIP V10 L716
994	1 w/CIP V10 L716
995E	14 w/CIP V10 L716

This worksheet is provided to help you with the NOS and NOS/VE
configuration definition steps required during operating system
deadstart. NOS has configuration definitions for both hardware and
software which are resident in the CMRDECK, EQPDECK, IPRDECK, and
LIBDECK. All the decks contain information which the software uses
to determine table sizes, job priorities, routine residence, etc.
The only decks you will need to modify for this package are the
CMRDECK and EQPDECK. Together they define how the memory will be
divided between the two operating systems and the peripheral
equipment configurations available to each system.

CMRDECKs and EQPDECKs are provided on the deadstart tape for various
mainframe memory sizes and disk types. It is important that you
select the CMRDECK and EQPDECK which most closely match your
machine's memory size and peripheral configuration. Directories
have been provided in Appendix D to assist you in your selection.
Be sure to use the SVS/DM Directory (CMRD40, page D-6), if you are
running dual state. The CMRDECKs and EQPDECKs were created using
the CDC recommended channel assignments. All new mainframes should
be installed using these channels. However, if the site you are
working on is configured differently, the following instructions
will help you modify the EQPDECK.

1.   Provide the following information:

      Machine Type _960_ S/N _120_ # of PPs ____ Memory Size _64 megbyte_

      NOS Disk Device Type _885_ Channels _31_ Units _40, 41_

      NOS/VE Disk Type _____ Channel _____ Unit _____

      NOS/VE Disk Controller Type _____ . (e.g. 7155-1)

      Tape Type _679_ Channel _13_____

      Printer Type ____ Train Type ____ Channel ___ Equipment __

2.   Use the above information to select the appropriate CMRDECK
      and EQPDECK from the Configuration Directories in Appendix D.
      If you are using the SVS/DM Directory and you are mixing disk
      device types, pick an EQPDECK to match your NOS disk type.

      A few sample EQPDECKs are provided in Appendix E.

      CMR/EQPDECK # Selected _____ .

      CMR 30
      EQPD 40

3. Deadstart the mainframe with the EQPDECK you have selected.
    Use the comments in the EQPDECK and the information that
    follows to change EQPDECK entries to match your system
    physical configuration. Record your new entry in the spaces
    below, for each entry that you need to change.

    Ensure that your memory size matches the deck's. If not,
    reselect the correct deck. Appendix C defines the memory
    entries and explains how they are used by the operating
    systems.

4. Compare your recorded disk data from above with the EQPDECK
    data. If the equipment TYPE is different, locate the disk
    device type which applies to your equipment type in the table
    below. You will need to specify the NOS Device Type in your
    new EQPDECK entry.

Equipment ID	NOS Device Type
834	DD
836	DG
844-21	DK (Not supported by NOS/VE)
844-41	DL
885-1x	DQ
885-42	DB (Not supported by NOS/VE)
887	DF
895	DC
9853	DN

    EQPDECK entries EQ006 and EQ007 are for NOS and EQ010 and
    EQ011 are for NOS/VE. (834(DD), 836(DG), 887(DF), or 895(DC)
    equipment does NOT have to be defined in the EQPDECK to be
    used by NOS/VE).

    844, 885-4, 887, 895 entries:

        EQ006=device-type,UN=unit,CH=ch#1/ch#2.
        EQ007=device-type,UN=unit,CH=ch#2/ch#1.

        Ch#1 and ch#2 are reversed between the two entries to
        get better channel utilization and faster unit access.

834 entries:

```
EQ006=DD,UN=unit.
EQ007=DD,UN=unit.
EQ020=CM,CW=CM,EQ=equipment,CH=ch#1,ch#2.
EQ021=CM,CW=CM,EQ=equipment,CH=ch#1/ch#2.
```

836 entries:

```
EQ006=DG,UN=unit.
EQ007=DG,UN=unit.
EQ020=CM,CW=C2,EQ=equipment,CH=ch#1,ch#2.
EQ021=CM,CW=C2,EQ=equipment,CH=ch#1/ch#2.
```

**Note: 834 or 836 Control Module channel definitions can not be
reversed. Channel 0 is usually the first 834 channel
and must always be specified in the ch#1 position.

New EQPDECK entries:

EQ006=_____ .
EQ007=_____ .

and if applicable:

EQ020=_____ .
EQ021=_____ .

**Note: If you have changed a NOS device type, you must re-enter
all EQPDECK entries that refer to that device.

EQ006   EQ007
----------------   ---------------
SYSTEM=6.   FAMILY=7.
MSAL,T=6,7.   MSAL,T=6,7.
MAINLOG=6,200.   PF=7,F,377,377,NSVSPF,7.
PF=6,F,,,NSVSPF,6.

**NOTE: If you are running SVS/DM, you must have an entry in the
            NOS EQPDECK for your CIP device.

   EQPDECK entries EQO10 and EQO11 are for NOS/VE. The SVS
   package states that only a single disk is required for
   NOS/VE. Two are provided in the EQPDECK to provide some
   flexibility in unit selection and to reduce the number of
   EQPDECKs required to allow that flexibility.

**NOTE: 834, 836, 887, 895, and 9853 devices for NOS/VE must NOT
            be defined in the NOS EQPDECK. You must be sure that
            the channels and equipment you intend to use for NOS/VE
            are not defined for NOS in any of the EQPdeck entries,
            even the devices with ST=OFF. If you have selected a
            deck with EQO10 or EQO11 entries enter EQO10=. and
            EQO11=. to eliminate them.

            844 & 885-1x entries:

                EQO10=device-type,UN=unit,CH=ch,ST=DOWN.
                EQO11=device-type,UN=unit,CH=ch,ST=DOWN.

                NOTE: Always ensure that the equipment you are
                not using for NOS/VE is eliminated by a EQ10=. or
                EQ11=.

**NOTE: If you changed the device type on either entry you must
            re-enter the following commands.

                REMOVE=10.   or REMOVE,11.

      NEW NOS/VE DISK ENTRIES:

            EQO10=_____
            EQO11=_____

            REMOVE=_____.

**NOTE: 895 UNIT NUMBERS FOR NOS/VE: The unit number for the
            895 disk on a NOS/VE configuration is defined as follows:

                SHUUUU (2)   where S = STORAGE DIRECTOR (0 or 1)
                                    H = HEAD OF STRING   (0 or 1)
                                 UUUU = UNIT (0 - 1F(16))

NOS unit 40(8) is then STORAGE DIRECTOR 1 UNIT 0. But on
NOS/VE all units must be referred as a decimal integer. So
you will have to convert any NOS 895 equipment numbers to
their NOS/VE equivalent.

5.   Compare the magnetic tape data. The EQPDECK entries for tape
      equipment differ depending upon your NOS disk device types.
      All decks with ISD disk device type have ISMT and ATS tape
      equipment entries.

          EQ50=NT-2,CH=ch#1.

New entry: EQ50=_____

For ISMT (639) tapes use the following example.

          EQ40=NT,EQ=eq,UN=unit,CH=ch#1,TF=IST,ST=ON.

For 698 tapes, use the following example.

          EQ50=NT-2,EQ=eq,UN=unit,CH=ch#1,TF=CMTGE,ST=ON.

6.   Compare the line printer data.

      If you are running SVS/DM, NOS/VE output requires a train type
      of 6 or 7; 7 is default in the decks. NOS also supports train
      types of 6 and 7. If your configuration differs from the
      EQPDECK entry, change the entry according to the following
      definition.

          EQ30=ptype,EQ=eq#,CH=ch#,TN=train.
              ptype = LP for 512
                      LR for 580-12 (LR-P for programmable format)
                      LS for 580-16 (LS-P for programmable format)
                      LT for 580-20 (LT-P for programmable format)

              train = 1 for CDC graphic 63/64 character set
                          (default)
                      5 for ASCII graphic 63/64 character set
                      6 for ASCII graphic 95 character set
                      7 for ASCII graphic 95 character set, which
                          can also be used as an ASCII graphic
                          63/64 character set.

          New entry: EQ30=_____

7.   Note the entries which are turned OFF. NOS will ignore these
      entries as long as they remain OFF.
      The two-port mux entry allows you to execute Remote Diagnostic
      Facility (RDF). (No entry is required for MDD.)
      The MAP entry allows you to verify the MAP hardware using CML.
      If you are using the 533/536 printer, it is necessary to turn
      on the entry for the appropriate network device. You will
      have a 2551 or a DI. The entry for the 2551 looks like this:

          EQ64=NP,ST=OFF,EQ=7,PI=1,SA=OFF,CH=7,ND=1.

      The hardware definition parameters are EQ and CH.

                The EQ parameter is the controller number which
                should be set to 7.

                The channel number may be changed from 7 as
                follows:

                EQ064=NP,CH=channel #.

      Also required: 65K minimum 2551 memory size
                        1 coupler (channel board) on NPU
                        1 2561 CLA installed in rightmost slot,
                        configured 01 and switched on
                        1 hardwire cable (P/N 21937629B)

      The entry for a DI looks like this:

          EQ65=ND,ST=OFF,EQ=0,PI=1,NT=77,CH=7,ND=64.

                The only entry you may need to change is the
                channel number, which can be changed as follows:

                EQ65=ND,CH=channel #

      Also required: Printer cabled to LIM 0, port 1 with
                        hardwire cable (P/N24612710).

**NOTE: If you intend to use a channel for NOS/VE utilized by
           any of the NOS equipments (even if they are turned off),
           delete the entry or NOS/VE will not be able to get that
           channel.

APPENDIX C - MEMORY ALLOCATION MATRIX

This appendix is provided to describe how the various memory
definitions relate to each other and how they are used by NOS and
NOS/VE.

NOS and CIP use octal memory values. The following table provides
octal equivalences to decimal word and megabyte values.

Megabyte Size	Approximate Decimal Representation	Octal Representation	CIP CM Value
2	262K	1,000,000	10,000
4	512K	2,000,000	20,000
6	750K	3,000,000	30,000
8	1000K	4,000,000	40,000
12	1500K	6,000,000	60,000
16	2000K	10,000,000	100,000
32	4000K	20,000,000	200,000
64	8000K	40,000,000	400,000
96	12000K	60,000,000	600,000
128	16000K	100,000,000	1,000,000
256	32000K	200,000,000	2,000,000

CIP memory entry on Hardware Reconfiguration display (CM=n.) is
physical memory size in octal divided by 100(8).

CMRDECK entries:

   MINCM is minimum NOS memory size in octal divided by 100(8).

   VE is NOS/VE memory size in octal divided by 1000(8).

EQPDECK entries:

   UEM size (EQ005=DE) is size of NOS extended memory in octal
   divided by 1000(8).

(Physical memory size = NOS memory size + VE memory size + UEM size
+ page table length + Environment Interface size.)

EQPDECKS DIRECTORY

```
CMRD00
NAME=NOS SYSTEM VALIDATION SUITE. DIR. 0.
VERSION=SVS L716.
*
* DIRECTORY *  11/21/88 *
*
* THESE TABLES ARE PROVIDED TO HELP YOU SELECT WHICH
* CONFIGURATION DECK TO USE FOR THE SYSTEM VALIDATION SUITE.
*
* SELECT THE CMRDECK NUMBER THAT MATCHES THE TOTAL MEMORY
* REQUIRED AND THEN THE DISK TYPE YOU WISH TO USE.
* THE TABLE SHOWS THE DEFAULT CHANNEL AND UNIT NUMBERS FOR
* THE DISKS, TAPES, AND PRINTER.  IF YOUR CONFIGURATION
* DOES NOT MATCH THE DEFAULTS, YOU WILL HAVE TO ENTER THE
* CHANGES WHEN THE DECK IS DISPLAYED.
*
*       MEMORY SIZE        MASS STORAGE     MAG TAPE     PRINTER
* DECK  CM     ESM       TYPE   CH  UNITS   TYPE CH     TYPE  CH
* --------------------------------------------------------------
*  00     DIRECTORY
*  01  262K    0           844   1,2   0,1    679  13    580   12
*  02  262K    0         885-1X  1,2  40,41   679  13    580   12
*  03  262K    1M          844   1,2   0,1    679  13    580   12
*  04  262K    1M        885-1X  1,2  40,41   679  13    580   12
*  05  262K    1M        885-4X  1,2  40,41   679  13    580·  12
*  06  262K    2M          844   1,2   0,1    679  13    580   12
*  07  262K    2M        885-1X  1,2  40,41   679  13    580   12
*  10  262K    2M        885-4X  1,2  40,41   679  13    580   12
*  11  512K    0           844   1,2   0,1    679  13    580   12
*  12  512K    0         885-1X  1,2  40,41   679  13    580   12
*  13  512K    1M          844   1,2   0,1    679  13    580   12
*  14  512K    1M        885-1X  1,2  40,41   679  13    580   12
*  15  512K    1M        885-4X  1,2  40,41   679  13    580   12
*  16  512K    2M          844   1,2   0,1    679  13    580   12
*  17  512K    2M        885-1X  1,2  40,41   679  13    580   12
*  20  512K    2M        885-4X  1,2  40,41   679  13    580   12
*  21   1M     0           844   1,2   0,1    679  13    580   12
*  22   1M     0         885-1X  1,2  40,41   679  13    580   12
*  23   1M     1M          844   1,2   0,1    679  13    580   12
*  24   1M     1M        885-1X  1,2  40,41   679  13    580   12
*  25   1M     1M        885-4X  1,2  40,41   679  13    580   12
*  26   1M     2M          844   1,2   0,1    679  13    580   12
*  27   1M     2M        885-1X  1,2  40,41   679  13    580   12
*  30   1M     2M        885-4X  1,2  40,41   679  13    580   12
*  31   2M     0           844   1,2   0,1    679  13    580   12
*  32   2M     0         885-1X  1,2  40,41   679  13    580   12
*  33   2M     1M          844   1,2   0,1    679  13    580   12
*  34   2M     1M        885-1X  1,2  40,41   679  13    580   12
*  35   2M     1M        885-4X  1,2  40,41   679  13    580   12
*  36   2M     2M          844   1,2   0,1    679  13    580   12
*  37   2M     2M        885-1X  1,2  40,41   679  13    580   12
*  40   2M     2M        885-4X  1,2  40,41   679  13    580   12
*  41-77   UNCONFIGURED DECKS
*
****************************************************
```

```
CMRDOO
NAME=NOS SYSTEM VALIDATION SUITE. DIR. O.
VERSION=SVS L716.
*
* DIRECTORY *  11/03/88 *
*
* TABLES ARE PROVIDED HERE TO HELP YOU SELECT WHICH
* CONFIGURATION DECKS TO USE FOR SVS/NOS.  SVS/DUAL MODE
* DECKS ARE ON CMRD 40.
*
* SELECT THE CMRDECK NUMBER THAT MATCHES THE TOTAL MEMORY
* REQUIRED AND THEN THE DISK TYPE YOU WISH TO USE.
* THE TABLE SHOWS THE DEFAULT CHANNEL AND UNIT NUMBERS FOR
* THE DISKS, TAPES, AND PRINTER.  IF YOUR CONFIGURATION
* DOES NOT MATCH THE DEFAULTS, YOU WILL HAVE TO ENTER THE
* CHANGES WHEN THE DECK IS DISPLAYED.
*
*         MEMORY SIZE      MASS STORAGE    MAG TAPE    PRINTER
* DECK WORDS  BYTES     TYPE  CH  UNITS    TYPE  CH   TYPE   CH
* --------------------------------------------------------------
*  00     DIRECTORY
*  01 262-512K 2-4M     834  0,20  0,10    639    6   NETWK   7
*  02 262-512K 2-4M     836  0,20  0,10    639    6   NETWK   7
*  03 262-512K 2-4M     844  1,2   0,1     679   13   580    12
*  04 262-512K 2-4M     885  1,2  40,41    679   13   580    12
*  05 262-512K 2-4M       UNCONFIGURED DECK
*  06    512K     4M     895  1,2   0,1     679   13   580    12
*  07    512K     4M       UNCONFIGURED DECK
*  10    1-2M   8-16M      UNCONFIGURED DECK
*  11    1-2M   8-16M    834  0,20  0,10    639    6 · NETWK   7
*  12    1-2M   8-16M    836  0,20  0,10    639    6   NETWK   7
*  13    1-2M   8-16M    844  1,2   0,1     679   13   580    12
*  14    1-2M   8-16M    885  1,2  40,41    679   13   580    12
*  15    1-2M   8-16M    887  C1,2  0,1     679   13   580    12
*  16    1-2M   8-16M    895  1,2   0,1     679   13   580    12
*  17    1-2M   8-16M   9853  C1,2  0,1     679   13   580    12
*  20    4-6M  32-48M      UNCONFIGURED DECK
*  21    4-6M  32-48M    834  0,20  0,10    679   13   580    12
*  22    4-6M  32-48M    836  0,20  0,10    679   13   580    12
*  23    4-6M  32-48M    844  1,2   0,1     679   13   580    12
*  24    4-6M  32-48M    885  1,2  40,41    679   13   580    12
*  25    4-6M  32-48M    887  C1,2  0,1     679   13   580    12
*  26    4-6M  32-48M    895  1,2   0,1     679   13   580    12
*  27    4-6M  32-48M   9853  C1,2  0,1     679   13   580    12
*  30    8M+    64M+       UNCONFIGURED DECK
*  31    8M+    64M+     834  0,20  0,10    679   13   580    12
*  32    8M+    64M+     836  0,20  0,10    679   13   580    12
*  33    8M+    64M+     844  1,2   0,1     679   13   580    12
*  34    8M+    64M+     885  1,2  40,41    679   13   580    12
*  35    8M+    64M+     887  C1,2  0,1     679   13   580    12
*  36    8M+    64M+     895  1,2   0,1     679   13   580    12
*  37    8M+    64M+    9853  C1,2  0,1     679   13   580    12
**************************************************************
```

```
CMRD40
NAME=CYBER 180 SVS DUAL STATE DIRECTORY.40.
VERSION=SVS L716.
*                                   3 NOVEMBER 1988
*
* SELECT THE CMRDECK NUMBER THAT MATCHES THE TOTAL MEMORY
* REQUIRED AND THEN THE DISK TYPE YOU WISH TO USE.
* THE TABLE SHOWS THE DEFAULT CHANNEL AND UNIT NUMBERS FOR
* THE DISKS, TAPES, AND PRINTER.  IF YOUR CONFIGURATION
* DOES NOT MATCH THE DEFAULTS, YOU WILL HAVE TO ENTER THE
* CHANGES WHEN THE DECK IS DISPLAYED.
*
* NOTE THAT THE CIP DEVICE MUST BE INCLUDED IN THE NOS
* CONFIGURATION, AND THAT THE NOS/VE DISKS MUST ALSO BE
* INCLUDED, IF THEY ARE 844-S OR 885-S.
*
*                         MASS STORAGE    MAG TAPE    PRINTER
* DECK  MEMORY SIZE    TYPE  CH  UNITS    TYPE CH    TYPE  CH
* ----------------------------------------------------------
*  40      DIRECTORY
*  41      8-12MB      834  0,20  0,10    679  13    580   12
*  42      8-12MB      836  0,20  0,10    679  13    580   12
*  43      8-12MB      844  1,2   0,1     679  13    580   12
*  44      8-12MB      885  1,2  40,41    679  13    580   12
*  45        12MB      887 C1,2   0,1     679  13    580   12
*  46        12MB      895  1,2   0,1     679  13    580   12
*  47        12MB      9853 C1,2  0,1     679  13    580   12
*  50     16-32MB      UNCONFIGURED
*  51     16-32MB      834  0,20  0,10    679  13    580   12
*  52     16-32MB      836  0,20  0,10    679  13    580   12
*  53     16-32MB      844  1,2   0,1     679  13    580   12
*  54     16-32MB      885  1,2  40,41    679  13    580   12
*  55     16-32MB      887 C1,2   0,1     679  13    580   12
*  56     16-32MB      895  1,2   0,1     679  13    580   12
*  57     16-32MB      9853 C1,2  0,1     679  13    580   12
*  60     48-128MB     UNCONFIGURED
*  61     48-128MB     834  0,20  0,10    679  13    580   12
*  62     48-128MB     836  0,20  0,10    679  13    580   12
*  63     48-128MB     844  1,2   0,1     679  13    580   12
*  64     48-128MB     885  1,2  40,41    679  13    580   12
*  65     48-128MB     887 C1,2   0,1     679  13    580   12
*  66     48-128MB     895  1,2   0,1     679  13    580   12
*  67     48-128MB     9853 C1,2  0,1     679  13    580   12
*  70    192-256MB     UNCONFIGURED
*  71    192-256MB     834  0,20  0,10    679  13    580   12
*  72    192-256MB     836  0,20  0,10    679  13    580   12
*  73    192-256MB     844  1,2   0,1     679  13    580   12
*  74    192-265MB     885  1,2  40,41    679  13    580   12
*  75    192-256MB     887 C1,2   0,1     679  13    580   12
*  76    192-256MB     895  1,2   0,1     679  13    580   12
*  77    192-256MB     9853 C1,2  0,1     679  13    580   12
```

```
CMRDOO
NAME=NOS SYSTEM VALIDATION SUITE. DIR. O.
VERSION=SVS L716.
*
* DIRECTORY *  11/03/88 *
*
* TABLES ARE PROVIDED HERE TO HELP YOU SELECT WHICH
* CONFIGURATION DECKS TO USE FOR SVS/NOS.  SVS/DUAL MODE
* DECKS ARE ON CMRD 40.
*
* SELECT THE CMRDECK NUMBER THAT MATCHES THE TOTAL MEMORY
* REQUIRED AND THEN THE DISK TYPE YOU WISH TO USE.  NOTE
* THAT DECKS 20-37 ASSUME THAT THE *UEM* HARDWARE OPTION IS
* INSTALLED.  NOS WILL REPORT AN *XM ALLOCATION ERROR* IF
* YOU ATTEMPT TO USE THEM WITHOUT THE OPTION INSTALLED.
* THE TABLE SHOWS THE DEFAULT CHANNEL AND UNIT NUMBERS FOR
* THE DISKS, TAPES, AND PRINTER.  IF YOUR CONFIGURATION
* DOES NOT MATCH THE DEFAULTS, YOU WILL HAVE TO ENTER THE
* CHANGES WHEN THE DECK IS DISPLAYED.
*
*      MEMORY SIZE      MASS STORAGE     MAG TAPE     PRINTER
* DECK WORDS  BYTES     TYPE  CH  UNITS  TYPE CH      TYPE  CH
* ------------------------------------------------------------
*  OO     DIRECTORY
*  01 262-512K 2-4M     834   0,20  0,10  639   6      NETWK  7
*  02 262-512K 2-4M     836   0,20  0,10  639   6      NETWK  7
*  03 262-512K 2-4M     844   1,2   0,1   679  13      580   12
*  04 262-512K 2-4M     885   1,2  40,41  679  13      580   12
*  05 262-512K 2-4M       UNCONFIGURED DECK
*  06   512K   .4M      895   1,2   0,1   679  13      580   12
*  07   512K   4M         UNCONFIGURED DECK
*  10  1-2M  8-16M         UNCONFIGURED DECK
*  11  1-2M  8-16M      834   0,20  0,10  639   6      NETWK  7
*  12  1-2M  8-16M      836   0,20  0,10  639   6      NETWK  7
*  13  1-2M  8-16M      844   1,2   0,1   639  13      580   12
*  14  1-2M  8-16M      885   1,2  40,41  679  13      580   12
*  15  1-2M  8-16M      887  C1,2   0,1   679  13      580   12
*  16  1-2M  8-16M      895   1,2   0,1   679  13      580   12
*  17  1-2M  8-16M      9853 C1,2   0,1   679  13      580   12
*  20*  4-6M 32-48M       UNCONFIGURED DECK
*  21*  4-6M 32-48M     834   0,20  0,10  679  13      580   12
*  22*  4-6M 32-48M     836   0,20  0,10  679  13      580   12
*  23*  4-6M 32-48M     844   1,2   0,1   679  13      580   12
*  24*  4-6M 32-48M     885   1,2  40,41  679  13      580   12
*  25*  4-6M 32-48M     887  C1,2   0,1   679  13      580   12
*  26*  4-6M 32-48M     895   1,2   0,1   679  13      580   12
*  27*  4-6M 32-48M     9853 C1,2   0,1   679  13      580   12
*  30*   8M+  64M+        UNCONFIGURED DECK
*  31*   8M+  64M+      834   0,20  0,10  679  13      580   12
*  32*   8M+  64M+      836   0,20  0,10  679  13      580   12
*  33*   8M+  64M+      844   1,2   0,1   679  13      580   12
*  34*   8M+  64M+      885   1,2  40,41  679  13      580   12
*  35*   8M+  64M+      887  C1,2   0,1   679  13      580   12
*  36*   8M+  64M+      895   1,2   0,1   679  13      580   12
*  37*   8M+  64M+      9853 C1,2   0,1   679  13      580   12
*************************************************************
*
*     * THIS DECK ASSUMES THAT THE *UEM* HARDWARE OPTION IS
*       INSTALLED
```

```
CMRD40
NAME=CYBER 180 SVS DUAL STATE DIRECTORY.40.
VERSION=SVS L716.
*                                         3 NOVEMBER 1988
*
* SELECT THE CMRDECK NUMBER THAT MATCHES THE TOTAL MEMORY
* REQUIRED AND THEN THE DISK TYPE YOU WISH TO USE.  NOTE
* THAT DECKS 70-77 ASSUME THAT THE *UEM* HARDWARE OPTION IS
* INSTALLED.  NOS WILL REPORT AN *XM ALLOCATION ERROR* IF
* YOU ATTEMPT TO USE THEM WITHOUT THE OPTION INSTALLED.
* THE TABLE SHOWS THE DEFAULT CHANNEL AND UNIT NUMBERS FOR
* THE DISKS, TAPES, AND PRINTER.  IF YOUR CONFIGURATION
* DOES NOT MATCH THE DEFAULTS, YOU WILL HAVE TO ENTER THE
* CHANGES WHEN THE DECK IS DISPLAYED.
*
* NOTE THAT THE CIP DEVICE MUST BE INCLUDED IN THE NOS
* CONFIGURATION, AND THAT THE NOS/VE DISKS MUST ALSO BE
* INCLUDED, IF THEY ARE 844-S OR 885-S.
*
```

DECK	MEMORY SIZE	MASS STORAGE TYPE	CH	UNITS	MAG TAPE TYPE	CH	PRINTER TYPE	CH
40	DIRECTORY							
41	8-12MB	834	0,20	0,10	679	13	580	12
42	8-12MB	836	0,20	0,10	679	13	580	12
43	8-12MB	844	1,2	0,1	679	13	580	12
44	8-12MB	885	1,2	40,41	679	13	580	12
45	12MB	887	C1,2	0,1	679	13	580	12
46	12MB	895	1,2	0,1	679	13	580	12
47	12MB	9853	C1,2	0,1	679	13	580	12
50	16-32MB	UNCONFIGURED						
51	16-32MB	834	0,20	0,10	679	13	580	12
52	16-32MB	836	0,20	0,10	679	13	580	12
53	16-32MB	844	1,2	0,1	679	13	580	12
54	16-32MB	885	1,2	40,41	679	13	580	12
55	16-32MB	887	C1,2	0,1	679	13	580	12
56	16-32MB	895	1,2	0,1	679	13	580	12
57	16-32MB	9853	C1,2	0,1	679	13	580	12
60	48-256MB	UNCONFIGURED						
61	48-256MB	834	0,20	0,10	679	13	580	12
62	48-256MB	836	0,20	0,10	679	13	580	12
63	48-256MB	844	1,2	0,1	679	13	580	12
64	48-256MB	885	1,2	40,41	679	13	580	12
65	48-256MB	887	C1,2	0,1	679	13	580	12
66	48-256MB	895	1,2	0,1	679	13	580	12
67	48-256MB	9853	C1,2	0,1	679	13	580	12
70*	48-256MB	UNCONFIGURED						
71*	48-256MB	834	0,20	0,10	679	13	580	12
72*	48-256MB	836	0,20	0,10	679	13	580	12
73*	48-256MB	844	1,2	0,1	679	13	580	12
74*	48-265MB	885	1,2	40,41	679	13	580	12
75*	48-256MB	887	C1,2	0,1	679	13	580	12
76*	48-256MB	895	1,2	0,1	679	13	580	12
77*	48-256MB	9853	C1,2	0,1	679	13	580	12

```
*
*    * THIS DECK ASSUMES THAT THE *UEM* HARDWARE OPTION IS
*      INSTALLED
```

EQPDECKS

```
CMRD40
NAME=NOS SYSTEM VALIDATION SUITE. 2MW. 40.
VERSION=SVS L716.
MID=01.
*
*SOFTWARE TABLE SIZE DEFINITION.
*
NCP=34.
QFT=4000.
EJT=1000.


EQPD40
* COPYRIGHT CONTROL DATA 1986, 1987, 1988
*
EQ005=DE,ET=ES,SZ=10000.      2MW.        NOS EXTENDED MEMORY
XM=01,3000,400,EM.            750K, 131K
ASR=5.
MSAL,S=5.
PF=5,F,,,NSVSPF,5.
*
EQ006=DB,UN=40,CH=1/2.        885-4X (DEMA)  NOS SYSTEM DISK
SYSTEM=6.
MAINLOG=6,200.
PF=6,F,,,NSVSPF,6.
*
EQ007=DB,UN=41,CH=2/1.        885-4X NOS PERMANENT FILE DISK
FAMILY=7.
MSAL,T=6,7.
PF=7,F,377,377,NSVSPF,7.
*
EQ030=LT,EQ=5,CH=12,TN=7.          NOS ASCII PRINTER (580-20)
*
EQ050=NT-2,EQ=0,UN=0,CH=13,TF=ATS.        NOS MAGNETIC TAPES
*
* TO USE ANY OF THESE EQUIPMENTS, YOU MUST TURN THEM ON
*
EQ064=NP,ST=OFF,CH=7,EQ=7,PI=1,ND=1,SA=OFF.         NOS 2550
EQ065=ND,ST=OFF,CH=7,EQ=0,PI=1,ND=64,NT=77.  NOS CDCNET DEV
EQ070=RM,ST=OFF,CH=15,PT=1.             TWO PORT MUX FOR RDF
EQ077=MP,ST=OFF,CH=11.            MATRIX ALGORITHM PROCESSOR
```

```
CMRD12
NAME=NOS SYSTEM VALIDATION SUITE.8-16MB.12.
VERSION=SVS L716.
MID=01.
DFT=D.
*
*SOFTWARE TABLE SIZE DEFINITION.
*
NCP=34.
QFT=3000.
EJT=600.


EQPD12
* COPYRIGHT CONTROL DATA 1986, 1987, 1988
*
EQ005=DE,ET=EM,SZ=2000.        4MB.         NOS EXTENDED MEMORY
XM=01,,400.                    1MB.
UEMIN.
ASR=5.
MSAL,S=5.
PF=5,F,,,NSVSPF,5.
*
EQ006=DG,UN=00.                836 (ISD-II)   NOS SYSTEM DISK
SYSTEM=6.
MSAL,T=6.
MAINLOG=6,200.
PF=6,F,,,NSVSPF,6.
*
EQ007=DG,UN=10.                836     NOS PERMANENT FILE DISK
FAMILY=7.
MSAL,T=7.
PF=7,F,377,377,NSVSPF,7.
*
EQ020=CM,CW=C2,CH=0/20,EQ=0.        NOS ISD CONTROL MODULES
EQ021=CM,CW=C2,CH=0/20,EQ=1.
*
EQ050=NT,EQ=0,UN=0,CH=6,TF=IST.          NOS ISMT TAPE
*
* TO USE ANY OF THESE EQUIPMENTS, YOU MUST TURN THEM ON
*
EQ064=NP,ST=OFF,CH=7,EQ=7,PI=1,ND=1,SA=OFF.        NOS 2550
EQ065=ND,ST=OFF,CH=7,EQ=0,PI=1,ND=64,NT=77.  NOS CDCNET DEV
EQ070=RM,ST=OFF,CH=15,PT=1.          TWO PORT MUX FOR RDF
EQ077=MP,ST=OFF,CH=11.          MATRIX ALGORITHM PROCESSOR
```

```
CMRD66
NAME=CYBER 180 SVS DUAL STATE. 48-128MB.66.
VERSION=SVS L716.
MID=01.
DFT=D.
*
*SOFTWARE TABLE SIZE DEFINITION.
*
NCP=34.
QFT=3000.
EJT=1000.
*
* NOS MEMORY ALLOCATION - 100(8) WORDS
*
MINCM=37777.     8MB.
*
* NOS/VE MEMORY ALLOCATION - 1000(8) WORDS
*
VE=17000.        30MB.
*
* REQUIRED IPRDECK AND LIBDECK FOR NVESVS
*
IPD=03.
LIB=04.


EQPD66
* COPYRIGHT CONTROL DATA 1986, 1987, 1988
*
EQ005=DE,ET=EM,SZ=4000.        8MB.        NOS EXTENDED MEMORY
XM=01,2000,1000.               4MB, 2MB.
UEMIN.
PF=5,F,,,NSVSPF,5.
ASR=5.
MSAL,S=5.
*
EQ006=DC,UN=0,CH=1/2.          895          NOS SYSTEM DISK
SYSTEM=6.
MAINLOG=6,200.
PF=6,F,,,NSVSPF,6.
*
EQ007=DC,UN=1,CH=2/1.          895      NOS PERMANENT FILE DISK
FAMILY=7.
MSAL,T=6,7.
PF=7,F,377,377,NSVSPF,7.
*
EQ010=DC,ST=DOWN,UN=2,CH=1.  895                    CIP DISK
REMOVE=10.
*
EQ030=LT,EQ=5,CH=12,TN=7.        NOS ASCII PRINTER (580-20)

EQ050=NT-2,EQ=0,UN=0,CH=13,TF=ATS.        NOS MAGNETIC TAPES
*
* TO USE ANY OF THESE EQUIPMENTS, YOU MUST TURN THEM ON
*
EQ064=NP,ST=OFF,CH=7,EQ=7,PI=1,ND=1,SA=OFF.           NOS 2550
EQ065=ND,ST=OFF,CH=7,EQ=0,PI=1,ND=64,NT=77.  NOS CDCNET DEV
EQ070=RM,ST=OFF,CH=15,PT=1.            TWO PORT MUX FOR RDF
EQ077=MP,ST=OFF,CH=11.            MATRIX ALGORITHM PROCESSOR
```

```
      CMRD25
      NAME=SYSTEM VALIDATION SUITE. 32-48MB. 25.
      VERSION=SVS L716.
      MID=01.
      DFT=D.
      *
      *SOFTWARE TABLE SIZE DEFINITION.
      *
      NCP=34.
      QFT=3000.
      EJT=1000.


      EQPD25
      * COPYRIGHT CONTROL DATA 1986, 1987, 1988
      *
      EQ005=DE,ET=EM,SZ=12000.      20MB.        NOS EXTENDED MEMORY
      XM=01,6000,2000.              12MB, 4MB.
      MSAL,R=5.
      UEMIN.
      PF=5,F,,,NSVSPF,5.
      ASR=5.
      MSAL,S=5.
      *
      EQ006=DF,UN=0,CH=0.           887 (HYDRA)    NOS SYSTEM DISK
      SYSTEM=6.
      MAINLOG=6,200.
      PF=6,F,,,NSVSPF,6.
      *
      EQ007=DF,UN=1,CH=1.           887     NOS PERMANENT FILE DISK
      FAMILY=7.
      MSAL,T=6,7.
      PF=7,F,377,377,NSVSPF,7.
      *
      EQ030=LT,EQ=5,CH=12,TN=7.         NOS ASCII PRINTER (580-20)
      *
      EQ050=NT-2,EQ=0,UN=0,CH=13,TF=ATS.        NOS MAGNETIC TAPES
      *
      * TO USE ANY OF THESE EQUIPMENTS, YOU MUST TURN THEM ON
      *
      EQ064=NP,ST=OFF,CH=7,EQ=7,PI=1,ND=1,SA=OFF.         NOS 2550
      EQ065=ND,ST=OFF,CH=7,EQ=0,PI=1,ND=64,NT=77.   NOS CDCNET DEV
      EQ070=RM,ST=OFF,CH=15,PT=1.          TWO PORT MUX FOR RDF
      EQ077=MP,ST=OFF,CH=11.          MATRIX ALGORITHM PROCESSOR
      *
      * NOTE - THIS DECK REQUIRES THE *UEM* HARDWARE
      *        OPTION TO BE INSTALLED.  YOU WILL GET AN
      *        *XM ALLOCATION ERROR* IF IT IS NOT INSTALLED.
```

```
CMRD64
NAME=CYBER 180 SVS DUAL STATE. 48-256MB.64.
VERSION=SVS L716.
MID=01.
DFT=D.
*
*SOFTWARE TABLE SIZE DEFINITION.
*
NCP=34.
QFT=3000.
EJT=1000.
*
* NOS MEMORY ALLOCATION - 100(8) WORDS
*
MINCM=37777.      8MB.
*
* NOS/VE MEMORY ALLOCATION - 1000(8) WORDS
*
VE=17000.         30MB.
*
* REQUIRED IPRDECK AND LIBDECK FOR NVESVS
*
IPD=03.
LIB=04.


EQPD64
* COPYRIGHT CONTROL DATA 1986, 1987, 1988
*
EQ005=DE,ET=EM,SZ=4000.      8MB.         NOS EXTENDED MEMORY
XM=01,,1000.                 2MB.
UEMIN.
ASR=5.
MSAL,S=5.
PF=5,F,,,NSVSPF,5.
*
EQ006=DQ,UN=40,CH=1/2.       885-1X        NOS SYSTEM DISK
SYSTEM=6.
MAINLOG=6,200.
PF=6,F,,,NSVSPF,6.
*
EQ007=DQ,UN=41,CH=2/1.       885-1X NOS PERMANENT FILE DISK
FAMILY=7.
MSAL,T=6,7.
PF=7,F,377,377,NSVSPF,7.
*
EQ010=DQ,ST=DOWN,UN=42,CH=1. 885-1X NOS/VE AND/OR CIP DISKS
EQ011=DQ,ST=DOWN,UN=43,CH=1.
REMOVE=10,11.
*
EQ030=LT,EQ=5,CH=12,TN=7.          NOS ASCII PRINTER (580-20)
*
EQ050=NT-2,EQ=0,UN=0,CH=13,TF=ATS.       NOS MAGNETIC TAPES
*
* TO USE ANY OF THESE EQUIPMENTS, YOU MUST TURN THEM ON
*
EQ064=NP,ST=OFF,CH=7,EQ=7,PI=1,ND=1,SA=OFF.          NOS 2550
EQ065=ND,ST=OFF,CH=7,EQ=0,PI=1,ND=64,NT=77.  NOS CDCNET DEV
EQ070=RM,ST=OFF,CH=15,PT=1.               TWO PORT MUX FOR RDF
EQ077=MP,ST=OFF,CH=11.           MATRIX ALGORITHM PROCESSOR
```

STORNET TESTS

The following instructions for running SVS/NOS and SVS/VE STORNET
tests have been added to this document at the request of Engineering
Services.

SVS/NOS STORNET INSTRUCTIONS

---

1) Check your NOS EQPDECK and see if there is an entry for EQ005. If there is, take note of the value assigned to the SZ parameter.

2) To configure STORNET into a NOS EQPDECK you must make the following entries:

       EQ005=DP,ET=SN,SZ=10000,CH=channel.
       PF=5,F,,,NSVSPF,5.
       MSAL,T=5.
       MSAL,S=5.
       SHARE=5.
       PRESET.

3) If an entry for EQ005 existed previously (see step 1) you must make the following entries: If no EQ005 entry existed previously, skip this step.

       EQ12=DE,ET=EM,SZ=xxxx.   xxxx is the value recorded for SZ in step 1.
       PF=12,F,,,NSVSPF,12.
       ASR=12.
       MSAL,S=12.

4) Initialize equipments 5 and 12 (if applicable) at each deadstart. To do this, enter:

       INITIALIZE,AL,5.
             or
       INITIALIZE,AL,5,12.   (if you made the entries for EQ012 in step 3)

5) Once you are done loading files you may test STORNET and run the System Validation Suite at the same time, if you wish. To do this, initiate RUNSVS in the usual manner then type:

       X.RUNMST(5,54)

   NOTE: If a track limit occurs on EQ005 you will have to drop the RUNMST
         job. You can then restart it by typing: X.RUNMST(5,50).

   To run tests on STORNET only, type:

       X.RUNMST(5,63)

   The RUNMST job will abort or hang if an error occurs. If no error
   occurs it will run until dropped or until RUNSVS completes.

CAUTION: DO NOT attempt to configure STORNET using dual state EQPDECKs.
           Using STORNET while running in dual state is NOT supported in
           the SVS package.

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SVS/VE STORNET INSTRUCTIONS

Before typing "AUTO" at system core prompts type in
"USECP INTERACTIVE", then type in "AUTO".

Later in deadstart the following prompts will be generated,
answer them in this way.

Do you have more than 1 IOU (YES/NO) ? -
ENTER "NO"   { if stornet box is not connected to a secondary iou }

Please enter a controller type from the above list -
ENTER "5380"

Please enter the channel(s) for this controller from the above range -
ENTER "3,16"   { for a stornet box connected to DMA channel 3 and NIO 16}
                { does not include Side Door Port Connection}

Is channel 3 a DMA channel? (YES/NO) -
ENTER "YES"

Please enter a controller type from the above list -
ENTER "QUIT"

When prompted, mount the tape "NVESVS" on your tape drive.

When prompt "TYPE IN ESTSE TO ENTER SVS UTILITY" is posted:
ENTER "PERP"   { Ignore any output from this procedure }

Enter the following command to start up file server:

DEFINE_FILE_SERVER 3 yes 16 no
{ the format of this command is
   define_file_server channel_1 dma_1? channel_2 dma_2?
   if you have only a single channel access just enter the first 2 parameters}

To start testing enter the following:

"FSCT NVE" {runs for about 10 minutes}

or

COLT X
LOOP
  FSCT NVE
  REPEAT
    WAIT 120*1000
  UNTIL $JOB_COUNTS=2
LOOPEND
**

INCF X "runs forever or until stop key is pressed"

-end-   F-3