



Navy Cash Training

Disbursing Unit 6: Maintenance Procedures

Objectives

- Demonstrate hardware and software maintenance procedures
- Demonstrate how to replace damaged or lost components.
- Explain various software maintenance procedures.
- Explain procedures used to resolve system casualties.

Hardware/Software Maintenance Procedures

Preventative Maintenance

- Prior to doing any Maintenance or Repair, utilize the *Navy Cash Troubleshooting Guide* and/or Maintenance Video to assist.

- On a daily basis:
 - Check *Cluster Administrator* on the server.
 - » A change of nodes could indicate a failure of a component or of a NC service.
 - Perform server backups:
 - » Failing to perform backups will fill the server hard drive and over time cause it to crash.
 - » Verify that backups have been completed by checking the *Veritas Logs*.

Preventive Maintenance (cont)

- Weekly:
 - Check that disk drives have >2GB free space
 - Check server airflow (paper test)
 - Wipe down all unit screens
 - Use card reader cleaner in the iPA 280, ATM and CADs
 - Update laptop/workstation to current IAVA (antivirus)
- Bi-Weekly: Power server down/up
- Monthly:
 - Open up K80s and blow out dust (include the card reader)
 - Blow out dust around the routers
 - Clean the tape backup drive

Troubleshooting NC Equipment

When performing any of the following actions,
always refer to:

- the *Navy Cash Trouble Shooting Guide* and/or
- *Maintenance Video!*

See Navy Cash supporting documentation on ship's
Intranet or L3 Resource disk [in Disbursing] and/or
<http://fms.treas.gov/navycash/maintenance.html>

Troubleshooting CATM

- CATMs run “Built-In-Test” (BIT) on startup. If a problem occurs, a BIT message will be displayed.
- BIT error messages are detailed in the SOP.
- Most of the problems will likely deal with jammed cards, bad “Security Access Module” (SAMs), or downed LANs.



Troubleshooting iPA 280s

- iPA 280s run a built in test (BIT) upon startup. If there are any problems, a BIT message will be displayed on the screen.
- Replace any faulty iPA 280 with a new unit. Each ship is issued several spares.



iPA 280 Errors

- “CARD TIMEOUT” on screen.
 - Simply pull out card and re-insert into slot.
- “CARD BLOCKED”.
 - Member entered their PIN incorrectly 3 times
 - Send member (& ID) to Disbursing to unblock PIN

iPA 280 Errors (cont)

- iPA 280 screen is dark:
 - Make sure the iPA 280 has power. Ensure that the iPA 280 is either plugged in or has fresh batteries.
 - Make sure that the small recessed red Cancel/Off key is not stuck under the lip and therefore constantly down not allowing the power to come on.
 - Hold down the green key for a full five-count to re-initialize the iPA 280.

iPA 280 Errors (cont)

- iPA 280 turns off randomly:
 - Check cable connection and verify that the plug is connected firmly.
 - Ensure that the cable is not twisted at the connection point to the iPA 280.
 - If problems persists, replace iPA 280 cable.



CAD Errors

- Transaction errors displayed, CAD does not logon:

Step 1: Check wiring and ensure Switch for this vending machine is *online*.

Step 2: Power on/off vending machine itself and see if the error clears.(If LAN is down don't turn CAD off)

Step 3: Clean SAM

Step 4: Change SAM

Step 5: Change CAD.

- Queue has transactions that are not uploading:

Step 1: Check CAD's *online*. Ensure LAN is up and routers have power.

Step 2: Check cables from CAD to router.

CAD Errors (cont)

- CAD displays “OUT OF STOCK” when there is stock in the machine:

Step 1: Power on/off vending machine, see if the error clears.

Step 2: Clean SAM

Step 3: Change SAM

Step 4: Change CAD (remember to use *Disbursing Application* to assign installed CAD to proper vending machine)

- CAD will not read any, even known working, cards:

Step 1: Clean card reader

Step 2: Clean SAM

Step 3: Replace SAM

Step 3: If that does not work, change out CAD.

Troubleshooting the Network

- If none of the Navy Cash devices are working:
 - Contact ADP (IT/ET) to find out the status of the LAN
 - Check that NCService is online in Cluster Administrator
 - » If it is not online then right click *NCService* and bring online
 - If devices are still offline then reboot the server
 - For further help on server problems, refer to the laminated sheet attached to the server

- If these actions do not resolve the issue then contact the *Navy Cash Call Center*

Troubleshooting the Network (cont)

- Server problems:

- For further help on problems that might occur with the servers, refer to the laminated sheet attached to the server.

- For help on removal and replacement of Navy Cash equipment, refer to the *Navy Cash Trouble Shooting Guide* and/or Maintenance Video.

Navy Cash Call Center

- When onsite troubleshooting cannot remedy the issue, contact the Navy Cash Call Center for further support:
 - Fill out a trouble call worksheet prior to contacting the Navy Cash Call Center.
 - The Navy Cash Call Center issues a case number when receiving a trouble call.
 - The Navy Cash Call Center determines the severity of the issue and the response necessary to assist.
 - The Navy Cash Call Center will provide phone support, a tech visit or trainer visit if deemed necessary to fix the problem.

Navy Cash Call Center (cont)

- When contacting the Navy Cash Call Center, always have:
 - Precise description of the problem.
 - List of troubleshooting procedures that have been tried (i.e. pwr up/down server, switching nodes, cycling ATM or vending machines, etc.) and the results.
 - Copy of config file.

Note: The more specifics provided, the better the assistance that is received in troubleshooting and correcting the problem.

Replacing Damaged/Lost Components

Replacing Damaged/Lost Components

- Spare components are provided as a part of the NC installation.
- Part for Part replacement policy (you return the bad part and a replacement will be sent to you).
- The Sales Officer is responsible for all CADs (including spares).
- Disbursing is responsible for all iPA 280s (including spares)

Replacing Damaged/Lost Components (cont)

- When a component fails, a spare will be installed in its place.
 - For reference on how to remove/replace components, refer to your Navy Cash Maintenance Video.
- IF the need arises and there are no spares onboard, call the Navy Cash Call Center. The Navy Cash Call Center will provide a case number and instructions for receiving replacements.

Inventory Control

- A NC spares *inventory* must be done **every 6 months**
- Regardless of the physical location of Navy Cash spares, they are accounted for as any other repair parts
- They will be added to the ship's COSAL allowance for stock under the control of the Logistics Specialist (LSs)
- Failure to maintain inventory control over Navy Cash items can result in:
 - **missing items, especially during turnover of key personnel, and highly visible system operation degradation/resolution**

Software Maintenance Procedures

View Log

View Log provides access to current and historical records of system actions and error conditions.

Used primarily to troubleshoot problems with DA.

The screenshot shows the NAVY CASH View Log application. The top navigation bar includes: Funds Transfer, Card Maintenance, Account Maintenance, Operations, Utilities, Reports, and Logout. The 'Utilities' menu is open, showing options: View Log (selected), View Disk Usage, NOC Selection, Provisional Split Pay, Access Editor, and About Utilities. The main content area displays a log file path: D:\Program Files\DispoApp\Log\DisboLog1470_010611 .log. The log content is as follows:

```
Date & Time: 1/6/2011 9:32:05 AM
Setting up the log:
-----
Disbursing Interface started on >> 1/6/2011 9:32:05 AM
By user >> CARLOS DIAZ (4828949)
NavyCash Disbursing Application version >> 1.7.23143 connecting to DB: (ncp)
Disbursing Interface closed on >> 1/6/2011 9:34:57 AM
-----
Date & Time: 1/6/2011 9:35:13 AM
Setting up the log:
-----
Disbursing Interface started on >> 1/6/2011 9:35:13 AM
By user >> CARLOS DIAZ (4828949)
NavyCash Disbursing Application version >> 1.7.23143 connecting to DB: (ncp)
Date & Time: 1/6/2011 9:43:56 AM
Setting up the log:
-----
Disbursing Interface started on >> 1/6/2011 9:43:56 AM
By user >> CARLOS DIAZ (4828949)
NavyCash Disbursing Application version >> 1.7.23143 connecting to DB: (ncp)
Disbursing Interface closed on >> 1/6/2011 9:46:37 AM
```

Below the log content, there is a 'Past Logs' list:

- DisboLog1470_010511 .log
- DisboLog1470_010611 .log
- DisboLog1470_120810 .log
- DisboLog1470_121010 .log
- DisboLog1470_121710 .log

There is also a 'Search Criteria' section with buttons for 'Find Forward', 'Find Back', 'Goto Line', 'Goto EOF', and 'Goto BOF'. A dropdown menu shows the current log directory: D:\Program Files\DispoApp\Log. At the bottom, there are buttons for 'View Past Log' and 'View Current Log', and a text field for 'Log Directory: D:\Program Files\DispoApp\Log'.



View Storage Usage

- The *View Storage* displays current state of disk usage in the system. Used primarily to troubleshoot problems with DA.
- Problems start to occur when there is no free space on the drives. At least 2 GB of free space is required.

The screenshot shows the NAVY CASH View Disk Usage window. The window title is "NAVY CASH View Disk Usage". The main content area displays the following information:

Drive	Type	Total bytes	Free bytes	Available bytes
A:\	Removable		Remaining disk space unknown	
C:\	Fixed drive	10,742,181,888	3,214,843,904	3,214,843,904
D:\	Fixed drive	68,281,529,856	68,616,568,832	68,616,568,832
E:\	CD rom		Remaining disk space unknown	

Buttons: "Get System Data" and "View Disk Usage".

Footer: Disbursing Application Version: 1.7.23143 | Application Release : 1.4.7.0 (ncp) | 1/6/2011 | 1:45:34 PM

Software Errors

- A handout with a list of system error codes is provided as a part of the integration. The handout:
 - Includes most of the errors you will see on various screens concerning:
 - » ATM
 - » iPA 280
 - » CAD
- Always reboot unit/system to try and clear software errors.
- You are not expected to reload software. Any software reloading must be done with the assistance of technical personnel.

Casualty Procedures

NC Casualty Procedures

- If off ship communications go down, the NC system can run independently for several weeks.
- Anyone with SPO will be credited by using the “Provisional Split Pay Option” under the Utility Function.
- If the NC LAN or Server go down:
 - Use iPA 280s offline (provided operator is logged on)
 - CADs will continue to work unless ships power is lost.

NC Casualty Procedures (cont)

- In the worst-case scenario, go back to using cash.
 - Disbursing Office still carries cash
 - The coin acceptors are still in place.
- When the system comes back online, the NC server onboard ship will be updated via shore communications.

Summary

- Your maintenance functions are mainly verifying that the Disbursing Application and the devices are operating properly.
- Minor problems can be corrected onsite.
- If system problems occur and cannot be corrected, contact the Navy Cash Call Center.
- If there are LAN upgrades or ship hardware upgrades that have taken place or are scheduled to take place, please notify the Navy Cash Call Center immediately. These could impact Navy Cash operations.