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FINAL

NAS OPERATIONAL TEST AND EVALUATION INTEGRATION OF THE  
INTERIM MONITOR AND CONTROL SOFTWARE (IMCS)  
VERSIONS R08.04 AND R08.05

LETTER OF FINDINGS

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## 1. INTRODUCTION.

This Letter of Findings (LOF) details the results of the National Airspace System (NAS) Operational Test and Evaluation (OT&E) Integration of the Interim Monitor and Control Software (IMCS), versions R08.04 and R08.05. ACN-100D conducted the NAS OT&E Integration of the IMCS and its interface to the Maintenance Management System (MMS), version A04.04, on the ACN-100D Tandem TXP Maintenance Processor Subsystem (MPS) and the AOS-350 Tandem CLX MPS under the Tandem Guardian Operating System C20, Release C30. Functional requirements for the NAS OT&E Integration of the IMCS were derived from NAS-SS-1000, Volumes I and V. ACN-100D conducted the NAS OT&E Integration of the IMCS according to the following documents: (a) NAS OT&E Integration of the IMCS Test Plan and (b) NAS OT&E Integration of the IMCS Test Procedures.

Remote Monitoring Subsystem (RMS) inputs to the MPS were provided via RMS simulators, since the use of operational RMSs for testing was not feasible. Air Traffic Control Beacon Interrogator (ATCBI-5) RMS simulators, both Common Digitizer Type 1 (CD-1) and Type 2 (CD-2), were chosen for their data base integrity and ease of use. An Air Route Surveillance Radar (ARSR) with CD-1 Remote Control Interface Unit (RCIU) simulator was chosen to provide an RMS which was not designed to conform to NAS-MD-790.

### 1.1 PURPOSE.

The purpose of the NAS OT&E Integration of the IMCS is to verify that the IMCS, versions R08.04 and R08.05, functions properly in an integrated MMS/IMCS environment on the TXP and CLX MPSs executing the Tandem Guardian Operating System C20, Release C30, and that it satisfies all applicable NAS-SS-1000 requirements.

### 1.2 DATE.

ACN-100D conducted the NAS OT&E Integration of the IMCS from February 15 through March 12, 1993.

### 1.3 LOCATION.

ACN-100D conducted the NAS OT&E Integration of the IMCS on the ACN-100D Tandem TXP MPS and the AOS-350 Tandem CLX MPS at the Federal Aviation Administration (FAA) Technical Center, Atlantic City International Airport, New Jersey.

### 1.4 PARTICIPANTS.

The NAS OT&E Integration of the IMCS was conducted by Douglas Ruth of CTA Incorporated.

### 1.5 EXCEPTION IDENTIFICATION.

Each exception is identified as either major or minor and by an exception ID, both of which immediately follow the description of the exception. The exception ID is a unique identifier comprised of the software acronym (i.e.,

IMCS), development version in which the exception was first detected by ACN-100D, and a three-digit number assigned sequentially within the body of an LOF or test report for a given version. In addition, when an exception is identified as major, an asterisk is appended to the exception ID. Table 6-1 follows the test results and recommendations for versions R08.04 and R08.05 and lists the open and closed exceptions identified by ACN-100D during past and present test efforts.

## 2. IMCS VERSION R08.04 TEST RESULTS.

### 2.1 IT1 - IMCS SYSTEM INITIALIZATION AND FAULT RECOVERY TEST.

The IMCS System Initialization and Fault Recovery Test validates that the IMCS is properly installed on the MPS, and that the IMCS correctly performs fault recovery. IT1 is composed of two test sequences: IMCS System Initialization Test (IT1.1) and IMCS Fault Recovery Test (IT1.2). Excluding open exceptions identified during previous testing, the IMCS passed all IT1 test sequences with the following exceptions:

a. During the installation of IMCS, it was determined that the wrong versions of SRV250 and ECSSMAP were delivered on the R08.04 tape. The correct versions were transferred over the network and later delivered on the R08.05 tape.

This is a minor exception. Exception ID: IMCS-R08.04-001

Since R08.05 included the correct versions of SRV250 and ECSSMAP, exception IMCS-R08.04-001 was closed with R08.05.

b. During the configuration of IMCS, it was determined that an incorrect version of DATALOAD was delivered on the R08.04 tape. The R08.03 DATALOAD was used successfully. When the R08.05 tape was delivered, the DATALOAD program on it was loaded and used successfully.

This is a minor exception. Exception ID: IMCS-R08.04-002

Since R08.05 included the correct version of DATALOAD, exception IMCS-R08.04-002 was closed with R08.05.

### 2.2 IT2 - IMCS DATA MONITORING TEST.

The IMCS Data Monitoring Test validates that the IMCS provides access to the site status screen(s) for an RMS and displays the RMS's monitored parameters. Excluding open exceptions identified during previous testing, the IMCS passed all IT2 test sequences with the following exception:

a. The timeout interval for Site Status screens is inconsistent. Site Status screen timeout intervals were measured for the ARMS and ATCBI RMS types. The Site Status value on the Exit IMCS screen was set to 15 seconds and the Screen Timeout value was set to 20 seconds. The Site Status screen timeout interval was measured several times, and the average was calculated. For the ATCBI

Site Status screen, the average time the screen was displayed was 107 seconds. For the ARMS Site Status screen, the average time the screen was displayed was 165 seconds. The previously reported minor exception, IMCS-R08.02-012, remains open.

### 2.3 IT3 - IMCS COMMAND TEST.

The IMCS Command Test validates the capability of the IMCS to properly transmit commands to an RMS. In addition, IT3 validates the capability of the IMCS to identify invalid command parameters input by the user. IT3 is composed of two test sequences: Command Test (IT3.1) and Invalid Command Test (IT3.2). Excluding open exceptions identified during previous testing, the IMCS passed all IT3 test sequences with the following exception:

a. Changes to IMCS allow the user to assign logical unit addresses to the Glideslope and Localizer of an ARMS. The DECMD79 file provided on the R08.04 tape was not updated to reflect this change for the Glideslope. The problem was corrected by reloading the Glideslope commands from either the EC7ARMA or EC7ARMS files.

This is a minor exception. Exception ID: IMCS-R08.04-003

### 2.4 IT4 - IMCS ALARM TEST.

The IMCS Alarm Test validates the capability of the IMCS to properly process and display Alarm messages from an RMS. It also validates the capability to acknowledge active Alarm messages via the IMCS. Excluding open exceptions identified during previous testing, the IMCS passed all IT4 test sequences.

### 2.5 IT5 - IMCS/MMS INTEGRATED FUNCTION TEST.

The IMCS/MMS Integrated Function Test validates that the IMCS functions properly while executing various MMS functions. IT5 is composed of three test sequences: MMS Logging Activity Subsystem Test (IT5.1), MMS PM/CERT Scheduling Subsystem Test (IT5.2), and MMS Report Generation Subsystem Test (IT5.3). Additional information regarding testing of IMCS/MMS concurrent operations may be found in the Verification Test of the MMS LOF for version A04.04. The IMCS passed all IT5 test sequences.

### 2.6 IT6 - IMCS UTILITY SUBSYSTEM TEST.

The IMCS Utility Subsystem Test validates that the IMCS data base and history files can be maintained using the Utility Subsystem, and that proper security functions are implemented. IT6 is composed of three test sequences: Database Add Utility Test (IT6.1), Database Delete Utility Test (IT6.2), and Archive Utility Test (IT6.3). Excluding open exceptions identified during previous testing, the IMCS passed all IT6 test sequences with the following exceptions:

a. The OBEY files ARCOBEYU and ARCOBEYH are set up to write the archived history records to tape drive \$DATA2. The ACN-100D TXP does not have this drive. When the OBEY file was executed, a system abort occurred when the attempt to write to \$TAPE2 was performed. However, the OBEY file continued to

process commands, and, as a result, the records in the history file, which should have been archived, were deleted and could not be recovered.

This is a minor exception. Exception ID: IMCS-R08.04-004

b. The History file became full and began overwriting records. When an archive was performed using the OBEY file ARCOBEYH, the program aborted when the first missing record was detected.

This is a minor exception. Exception ID: IMCS-R08.04-005

c. Once the History file began overwriting records, it was necessary to increase the number of file extents before the file could be archived. When the extents were increased, the file full messages were no longer accurate and always indicated 90% full.

This is a minor exception. Exception ID: IMCS-R08.04-006

## 2.7 IT7 - IMCS REPORT SUBSYSTEM TEST.

The IMCS Report Subsystem Test validates that the IMCS provides the capability to generate a report of selected information from the DBCS (current status), DBH (history), and DBUSERH (user history) files. The IMCS reports available through the MMS Report Generation/Distribution (RGD) subsystem, as well as the ENFORM reports, are also generated. Excluding an open exception identified during previous testing, the IMCS passed all IT7 test sequences.

## 3. IMCS CHANGES IDENTIFIED IN THE R08.04 RELEASE DOCUMENTATION.

Version R08.04 of the IMCS includes corrections for major exceptions identified in the NAS OT&E Integration of the IMCS, Version R08.02 Letter of Findings, new IMCS functions, items in Version R07.XX releases which previously had not been incorporated into Version R08.XX, and corrections for GMCC-related alarm problems. The specific changes are identified in the IMCS R08.04 Version Description Document (VDD) and the IMCS R08.04 Release Highlights. Descriptions of changes made to IMCS, as extracted from these documents, and the test findings are as follows.

### 3.1 CORRECTIONS FOR MAJOR EXCEPTIONS IDENTIFIED BY ACN-100D.

The 11 major exceptions identified in the NAS OT&E Integration of the IMCS Letter of Findings for version R08.02 were corrected in versions R08.04 and R08.05 as follows:

a. The IMCS does not always detect a communications failure.  
Exception ID: IMCS-R08.02-001-\*

This problem appears to have been corrected. ACN-100D could not induce an undetected communications failure during testing. Exception IMCS-R08.02-001-\* was, therefore, closed by R08.04.

b. In the file TPADAP, the value of SITE-MAX-READ for the SMAP is incorrect.  
Exception ID: IMCS-R08.02-002-\*

SITE-MAX-READ in TPADAP has been corrected. Exception IMCS-R08.02-002-\* was, therefore, closed by R08.04.

c. Several ARSR MAX-READ values in the file TPADAP are incorrect.  
Exception ID: IMCS-R08.02-003-\*

The ARSR values for MAX-READ in TPADAP have been corrected. Exception IMCS-R08.02-003-\* was, therefore, closed by R08.04.

d. The DATALOAD program is entering its generated DECODE-NAME in both ENCODE-NAME and DECODE-NAME in the file DBADAP.  
Exception ID: IMCS-R08.02-004-\*

The DATALOAD program, as delivered on the R08.05 tape, has been corrected to enter the correct information in the ENCODE-NAME and DECODE-NAME fields in DBADAP. Exception IMCS-R08.02-004-\* was, therefore, closed by R08.05.

e. The DATALOAD program aborts if more than 30 sites are entered in a run.  
Exception ID: IMCS-R08.02-005-\*

The DATALOAD program, as delivered on the R08.05 tape, has been improved and was used to load over 90 sites in one run. Exception IMCS-R08.02-005-\* was, therefore, closed by R08.05.

f. The ARMS decoder causes the monitor process, \$MONIT, to ABEND.  
Exception ID: IMCS-R08.02-007-\*

The cause of the ABEND by \$MONIT in the ARMS decoder has been corrected. Exception IMCS-R08.02-007-\* was, therefore, closed by R08.04.

g. The GS MPS/SITE COMM. ALERT data point (0099) is missing in the current status edit template file ECSSMAP.  
Exception ID: IMCS-R08.02-008-\*

The edit template file ECSSMAP has been corrected to include data point 0099. Exception IMCS-R08.02-008-\* was, therefore, closed with R08.05.

h. The parameters of a previously transmitted command are not cleared.  
Exception ID: IMCS-R08.02-018-\*

Command parameters are now cleared when the 790 Parameter screen is first accessed. Exception IMCS-R08.02-018-\* was, therefore, closed with R08.04.

i. When a command is transmitted to the Glideslope, the command has a logical unit address of 41 regardless of what address the user specified using the DATALOAD program.

Exception ID: IMCS-R08.02-023-\*

The edit template files EC7ARMA and EC7ARMS have been corrected to allow the use of user-assigned logical unit addresses. Exception IMCS-R08.02-023-\* was, therefore, closed with R08.04.

j. The edit template file EC7PARMS may be bad.  
Exception ID: IMCS-R08.02-024-\*

The edit template file EC7PARMS and file DBCMD79P were corrected.  
Exception IMCS-R08.02-024-\* was, therefore, closed with R08.04.

k. ARSR3F Smart Radar Cntrl command parameters are incorrect. (PTR 08051193V). Exception ID: IMCS-R08.02-038-\*

The command parameters were corrected. Exception IMCS-R08.02-038-\* was, therefore, closed with R08.04.

### 3.2 NEW FUNCTIONS AND ITEMS INCLUDED FROM VERSION R07.XX RELEASES.

The following items are new functions or were provided in various R07.XX releases but had not been incorporated into earlier R08.XX releases of IMCS:

a. The Site Status Menu is equal to the "screen timeout". While displaying datapoints, the timeout is now changed to 5 times the Site Status Menu timeout parameter:

This statement should be clarified, since it references a Site Status Menu timeout parameter which does not exist.

b. The Command Parameter Screen will now accept a 32 bit negative value. This change is to allow this type of parameter to be used by decoder modules that are expected to be released subsequent to the release of version R08 IMCS. It is not testable until the RMVC decoder module is released:

Testing of this feature is deferred until a decoder module which uses it is available.

c. REQ105CM was modified to remove the WS-BELL from the screen display. This eliminates the persistent "beep" from the Constant Monitor Screen when no new alarms have been received:

When unacknowledged alarms/alerts are present, the beep is heard each time the Constant Monitor screen is updated. When no unacknowledged alarms/alerts are present, there is no beep on the Constant Monitor screen.

d. SRV250 was modified so that two Non-RMMed data points (Tech-on-site and Site-in-operation) will use the IMCS work sector code from the DBCS record. If the record does not exist, then the MMS sector code will be used:

The DBCS records for the two Non-RMMed data points have the appropriate IMCS work sector code. However, when a non-RMMed site was manually entered, the work sector code remained blank.

This is a minor exception. Exception ID: IMCS-R08.04-007

e. SRV250 was modified to display an appropriate error message if the update to "Tech-on-site" data point fails:

ACN-100D did not observe a failure to update the Tech-on-site data point during testing. It appears that minor exception IMCS-R08.02-045 has been corrected.

f. Edit Template files ECSPAPI and ECSTPAPI have been added for the Precision Approach Path Indicator:

The files were loaded without error using DATALOAD.

### 3.3 CORRECTIONS FOR GMCC-RELATED ALARM PROBLEMS.

Descriptions of changes made to IMCS to correct GMCC-related alarm problems, as extracted from section 3.0 of the R08.04 VDD, and the test findings are as follows:

a. The CURRENT-STATUS-FILE is examined for alerts (hard alarms, soft alarms and special flags Tech-on-site and Site-in-operation):

A problem was found relating to the Tech-on-site and Site-in-operation records in the DBCS file. The Site-in-operation flag cannot be changed unless the Tech-on-site flag is set to Y.

This is a minor exception. Exception ID: IMCS-R08.04-008

b. An unmonitored site flag has been added to the two site flags already in place. If the site is unmonitored, the alarm counts are not included in the summary count.

For each site, its site record in the DBCS indicates the monitored/unmonitored status of the site. However, the alarm counts and summary counts should be tested by the GMCC test team.

### 4. ISSUES RAISED DURING TESTING.

The following issues were raised during testing. They are presented for consideration only.

a. On several occasions, while an RMS was not connected to a monitored port, the message "\$SDL## - 0140:GUARDIAN Error return on CHANGELIST RMS Port" was sent to the OSP printer.

b. On one occasion while an RMS was not connected to a monitored port, the IMCS reported, in a 25th line message, "ARSR MPS/RMS Comm. Alert NORMAL" for the communications line. Shortly thereafter, the IMCS reported for the same line "ARSR MPS/RMS Comm. Alert ALARM".

c. For several days during testing the following message appeared on the OSP printout for various IMCS ports:

```
EMSTEXT -- No template and no TEXT token for event.  
SSID = TANDEM.85.C20 Event number = 74 Subject = \ACTA.$XF##
```

d. During the time that the partition files were being rebuilt using the OBEY file OBLDPART, the Constant Monitor screen indicated that there were no unacknowledged alarms. Once the partition files were rebuilt, the unacknowledged alarms reappeared on the Constant Monitor screen. This process took up to 20 minutes during testing on the TXP resulting in 1133 records in the DBPARTI file and 99 entries in the Full Site Directory.

5. ACN-100D RECOMMENDATIONS FOR VERSIONS R08.04 AND R08.05.

ACN-100D recommends that the IMCS, versions R08.04 and R08.05, be released to AOS-350 for OT&E Shakedown. ACN-100D recommends that the IMCS be modified to correct the exceptions identified herein.

6. ACN-100D OPEN AND CLOSED EXCEPTIONS.

Table 6-1 lists the open and closed exceptions identified by ACN-100D during past and present test efforts. For each exception the table includes a short description, exception ID, and status of the exception as of this LOF. The exception ID is a unique identifier comprised of the software acronym (i.e., IMCS), development version in which the exception was first detected by ACN-100D, and a three-digit number assigned sequentially within the body of an LOF or test report for a given version. In addition, when an exception is identified as major, an asterisk is appended to the exception ID.

TABLE 6-1. ACN-100D IMCS EXCEPTIONS REPORT

DESCRIPTION OF EXCEPTION	EXCEPTION ID	CURRENT STATUS
IMCS SYSTEM INITIALIZATION AND FAULT RECOVERY TEST		
Incorrect versions of SRV250 and ECSSMAP delivered on R08.04 tape	IMCS-R08.04-001	CLOSED R08.05

Incorrect version of DATALOAD delivered on R08.04 tape	IMCS-R08.04-002	CLOSED R08.05
Communications failure not detected when cable removed from RS-232 port on MPS	IMCS-R08.02-001-*	CLOSED R08.04
In file TPADAP, value of SITE-MAX-READ for SMAP incorrect	IMCS-R08.02-002-*	CLOSED R08.04
Several ARSR values in file TPADAP incorrect	IMCS-R08.02-003-*	CLOSED R08.04
DATALOAD entering DECODE-NAME in ENCODE-NAME and DECODE-NAME in DBADAP	IMCS-R08.02-004-*	CLOSED R08.05
DATALOAD aborts if more than 30 sites entered in run	IMCS-R08.02-005-*	CLOSED R08.05
DATALOAD aborts for no apparent reason (FILE ERROR=001, \$DATA2.MCSDATA.DBCS!)	IMCS-R08.02-006	OPEN
When PATHCOLD executed on CLX, \$MONIT process abended (may be due to ARMS decoder)	IMCS-R08.02-007-*	CLOSED R08.04
Startup msgs. indicate GS MPS/SITE COMM. ALERT data point (0099) missing in file ECSSMAP	IMCS-R08.02-008-*	CLOSED R08.05
Operator's Manual for R08.01 has outdated Edit Template File Chart	IMCS-R08.02-009	OPEN
When IMCS first accessed from MMS (via F1 = GO TO MCS key), first function key pressed in IMCS is ignored	IMCS-R08.02-010	OPEN
IMCS DATA MONITORING TEST		
ASR-9 SDRs processed on CLX but not on TXP (according to AOS-350, due to SMMC turned off)	IMCS-R08.02-011	OPEN
Site Status screens do not time out properly	IMCS-R08.02-012	OPEN

Attempt to unmonitor site with unacknowledged alarm caused terminal to hang	IMCS-R08.02-013	OPEN
When LOGLSE file full, terminal hung	IMCS-R08.02-014	OPEN
SMMC required password to control site or selected data points of a site	IMCS-R08.02-015	OPEN
User can unmonitor site not in user's partition (User's Manual implies differently)	IMCS-R08.02-016	OPEN
After printing Part. Site Directory screen, unmonitored site no longer displayed in reverse video	IMCS-R08.02-017	OPEN
IMCS COMMAND TEST		
DBCMD79 file on R08.04 tape not updated with change to Glideslope commands	IMCS-R08.04-003	OPEN
Parameters of previously transmitted command not cleared properly	IMCS-R08.02-018-*	CLOSED R08.04
IMCS does not notify user that command was rejected by RMS	IMCS-R08.02-019	OPEN
ATCBI-5 RMS LU 25, data point 57, CHANNEL #2 not updated when Site Status command transmitted	IMCS-R08.02-020	OPEN
SMMC terminal requires password before accessing commands screen (conflicts with User's Manual)	IMCS-R08.02-021	OPEN
On CLX when attempt to transmit commands to ATCBI-5 RMS simulator, RR/RR pairs observed at simulator & line analyzer	IMCS-R08.02-022	OPEN
Command transmitted to ARMS Glideslope has LU address of 41 regardless of what address user specified via DATALOAD	IMCS-R08.02-023-*	CLOSED R08.04

790 Parameters screen for ARMS LCU commands (RMS Disconn. and RMS Recon.) did not allow entry of command parameters	IMCS-R08.02-024-*	CLOSED R08.04
When 2508 Range Control screen ON/OFF SELECTION field displayed in reverse video, interferes with entering options	IMCS-R08.02-025	OPEN
IMCS ALARM TEST		
Counters on Constant Monitor screen valid only for values between 0 and 999	IMCS-R08.02-026	OPEN
Individual counts displayed on MCS PARTITION STATUS screen correct only if value is 999 or less	IMCS-R08.02-027	OPEN
On Alarm List screen, function keys for first page, last page, next page, and previous page not displayed	IMCS-R08.02-028	OPEN
Site Information screen cannot be accessed from Alarm List screen as shown in User's Manual	IMCS-R08.02-029	OPEN
Alarm List screen does not indicate that site is unmonitored (Site and Type in normal video)	IMCS-R08.02-030	OPEN
When all data points of ASR-9 set to alarm, "ERROR return on CHANGELIST RMS Port" displayed on OSP printer	IMCS-R08.02-031	OPEN
IMCS UTILITY SUBSYSTEM TEST		
History file records deleted without being archived when write to tape failed	IMCS-R08.04-004	OPEN
History file archive aborted when SRV430 detected a missing record in DBH file	IMCS-R08.04-005	OPEN

History file full messages incorrect after increasing number of extents	IMCS-R08.04-006	OPEN
User's and Operator's Manuals use Site Type and Equipment Type interchangeably	IMCS-R08.02-032	OPEN
Help screen for Adapt Facilities does not provide adequate help	IMCS-R08.02-033	OPEN
When user archives DBH or DBUSERH files and is directed to examine printout, no info on errors or how to correct them	IMCS-R08.02-034	OPEN
ARCOBEYU and ARCOBEYH files delivered on tape were set up for BETA Pathway	IMCS-R08.02-035	CLOSED R08.04
IMCS REPORT SUBSYSTEM TEST		
USER HISTORY and USRHIST reports have not been updated to reflect new fields in DBUSERH file	IMCS-R08.02-036	OPEN
R08.01 VDD VERIFICATION TEST		
PTR 04212038V: IMCS should check SITE and TYPE on calls to Control and Menu screens	IMCS-R08.02-037	OPEN
PTR 08051193V: ARSR3F Smart Radar Cntrl command parameters have not been changed as stated	IMCS-R08.02-038-*	CLOSED R08.04
PTR 01041002V: unable to determine if SDLC line driver module I/O error numbers reported	IMCS-R08.02-039	OPEN
PTR 01041004V: version number of DATALOAD program not updated as stated	IMCS-R08.02-040	OPEN
PTR 08051188V: B appears to be transmitted by ARSR3F RMS in accordance with 4/91 ICD	IMCS-R08.02-041	OPEN

PTR 09171217V: size of WRIT25-TERM and ERROR-TERM fields in DBADAP file is 8 chars., not 24 as stated	IMCS-R08.02-042	OPEN
PTR 09171219V: field size of SDLG-NAME in DBADAP file is 14 chars.; if name > 5 chars. after \$, extra chars. ignored	IMCS-R08.02-043	OPEN
REQ205MS: changing SITE displays Main Menu; changing TYPE should display Main Menu	IMCS-R08.02-044	OPEN
When TECH ON SITE and SITE IN OPERATION fields updated, "222 Error reading FSEFFA file from SRV250 ..." displayed	IMCS-R08.02-045	CLOSED R08.04

MISCELLANEOUS EXCEPTIONS

Sector code missing in DBCS for non-RMEd records that should have MMS sector code	IMCS-R08.04-007	OPEN
Cannot change Site-in-operation flag unless Tech-on-site is set to yes	IMCS-R08.04-008	OPEN
Help screen for updating partition improperly describes how to perform update	IMCS-R08.02-046	OPEN
When Print function selected, inconsistent messages displayed on 24th line or no message displayed	IMCS-R08.02-047	OPEN
2508 RANGE CONTROL screen layout does not conform to layout of other IMCS screens	IMCS-R08.02-048	OPEN
MCS PARTITION STATUS screen title should be "Partition Status"	IMCS-R08.02-049	OPEN