S0647 Rev A
07/16/03

W.W. Hansen Experimental Physics Laboratory
STANFORD UNIVERSITY
STANFORD, CA 94305 – 4085

Gravity Probe B Relativity Mission

Software Verification Report for TQSM 1.3

S0647 A
07/16/03

Approvals

NAME	SIGNATURE	DATE
Sharon Euley *Author*	Sharon Euley	7/23/03
Rodney Torii *Data IPT Lead*		
Ron Sharbaugh *S/W Manager*	Ron Sharbaugh	7/23/03
Marcie Smith *MOC Project Manager*	Marcie Smith	23 July 03
Kelly Burlingham *Software Quality Assurance*	Kelly Burlingham	7/23/03

History

REV	DATE	AUTHOR	COMMENTS
-	3 June 2003	sae	initial version
A	16 July 2003	sae	Change signoff Added test cases TQSM20 and TQSM21

T. Langenstein 7/24/03

Tom Langenstein ITAR Assessment Performed, ITAR Control Req'd? ___ Yes X No

1 INTRODUCTION

This Verification Document details the testing of the TQSM software package.

The testing objectives are to ensure that the user interface used for entering and editing TQSM entries and for printing reports performs the following actions:

- submits the data correctly into the database
- ensures that edits are subnitted correctly to the database
- provides the data that the user asks for
- does not crash when users choose the various actions available

1.1 Organization

2 APPLICABLE DOCUMENTS

Document	Document No.	ALIAS.
TQSM User's Guide	S0641	
TQSM Requirements Document	S0646	
TQSM Architectural Design Document	S0648	
TQSM Software Design and Test Plan	S0649	
TQSM Version Description Document	S0650	
TQSM Test Procedure	P0991	
MOC Configuration Control, Science LAN	S0477	
MOC Configuration Control, IONET LAN	S0476	

3 SOFTWARE VERIFICATION REPORT

The following test steps are detailed in Attachment A, which is a copy of the as-run P0991.

TQSM1: Logging into the System

TQSM2: Browsing the Logbook Display

TQSM3: Adding New Notes

TQSM4: Viewing note details and reading long text

TQSM5: Adding Sticky Notes and making existing notes sticky

TQSM6: Changing Sticky Notes Start and Stop Times

TQSM7: Appending notes to existing items

TQSM8: Adding New Pass Logs

TQSM9: Viewing Pass Log Details

TQSM10: Adding New Anomalies

TQSM11: Viewing Anomaly Details

TQSM12: Editing Anomalies

TQSM13: Viewing alarms from the web

TQSM14: Viewing logbook summary from the web

TQSM15: Printing a logbook summary

TQSM16: Printing an individual note

TQSM17: Printing an individual pass log

TQSM18: Printing an individual anomaly

TQSM19: Printing a summary of open anomalies

TQSM20: Alarms entered into TQSM from RTWorks

TQSM21: View alarm details and enter alarm responses

"AS-BUILT"
P0991 Rev-A

W. W. Hansen Experimental Physics Laboratory

STANFORD UNIVERSITY

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Gravity Probe B Relativity Mission

P0991
Revision A

TQSM
Test Procedure

June 30, 2003

Sharon Euley — Date
SU, Author

Marcie Smith — Date
Mission Operations Manager

Rodney Torii — Date
Data IPT Lead

Ron Sharbaugh — Date
Software Manager

7/10/03

Kelly Burlingham — Date
Software Quality Engineer

ECO # 1427

Tom Langenstein ITAR Assessment Performed, ITAR Control Req'd? _ Yes _ No

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1. CHANGE HISTORY

REV	DATE	AUTHOR	COMMENTS
initial	Jun 3, 2003	SAE	Initial release
A	Jun 30, 2003	SAE	Changed signoff Added QA Blurb Added test cases 9.21 and 9.20 Title change from TQSM Operational Procedure for Baseline and Regression Testing to TQSM Test Procedure

2. SCOPE

This test plan document details the TQSM software application and how to test it.

3. OPERATIONAL PERSONNEL

Sharon Euley
Samantha Patterson
Jennifer Spencer
Rodney Torii
Qualified QA Rep: Kelly Burlingham

4. REQUIREMENTS & CONSTRAINTS

4.1. Hardware and Software Requirements

Operations are performed on any Science client. When accessing TQSM from a POD, an ssh to moc-server and a second ssh to Science is required.

4.2. Configuration Requirements

The operator must be logged into the server "science" and run the script "tqsm_beta" from any directory.

5. REFERENCE DOCUMENTS

Document No.	Document	ALIAS
S0641	TQSM User's Guide	
S0646	TQSM Requirements Document	
S0647	TQSM Verification Report	
S0649	TQSM Software Design Document	
S0650	TQSM VDD Document	
S0477	MOC Configuration Control, Science LAN	
S0476	MOC Configuration Control, IONET LAN	
S0501	MOC Software Development Plan	

6. QUALITY ASSURANCE PROVISIONS

Quality Assurance must be given 24 hour notification before this test is run; presence is at their discretion.

QA Notified Date & Time: 7/14/03 8:30 By: Sharon E QA Initials: [signature]

7. TEST ENVIRONMENT

Software Configuration	Version Number
Sybase	12.5
Java	1.3.1_02
Solaris	5.8

8. TEST CASES AND FILE VERSION MATRIX

File Name (tqsm)	Unix file size and date	Test Name	Test Section
Tqsm.class		TQSM1	Section 9.1
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Tqsm$2.class		TQSM1	Section 9.1
Tqsm_Data.class		TQSM1	Section 9.1
LogBookAutoPrint.class		TQSM14	Section 9.14
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SqlAlarmNameResult.class		TQSM20 – TQSM21	Sections 9.20 – 9.21

The following sections describes how to test

TQSM Version 1.3

Start Date & Time: 7/16/03 8:40

Executed By: SHARON ELLEY Signature: Sharon Elley

Witnessed By: S. KELLY BURLINGHAM Signature:

9. TEST CASES

9.1. TQSM1: Logging into the system

Test Case Verification Number: TQSM1

INTRODUCTION

This test case will verify successful and unsuccessful TQSM logins.

APPROACH

Login to TQSM with a valid TQSM account and with an invalid TQSM account.

FEATURES TO BE TESTED

- Successful login using an existing TQSM account and pressing the "OK" button.
- Unsuccessful login using a non-existing TQSM account and pressing the "OK" button.
- Canceling the login process with the "Cancel" button.

FEATURES NOT TO BE TESTED

N/A

TESTs

i. Type "tqsm_beta" (without the quotes) at a Science workstation.
ii. Type an existing user name and password into the appropriate boxes on the TQSM login form and press the OK button.

iii. Wait for the main window to appear.
iv. Type "tqsm_beta" (without the quotes) at a Science workstation.
v. Type a non-exiting user name and password into the appropriate boxes on the TQSM login form and press the OK button.
vi. Wait for the error message to appear.
vii. Type "tqsm_beta" (without the quotes) at a Science workstation.
viii. Press the cancel button on the TQSM login form and wait for the UNIX prompt to reappear.

PASS/FAIL
Pass/Fail Conditions: For an existing user name and password, the main TQSM window should appear. For an unsuccessful login, the error dialog should appear asking the user to retry the login. For the Cancel condition, the application should close and return the user to the UNIX prompt.

RESULT: PASS FAIL (circle one) SU GP-B INSP 23 initials

9.2. TQSM2: Browsing the Logbook Display

Test Case Verification Number: TQSM2

INTRODUCTION
This test verifies the functions of browsing and displaying logbook entries.

APPROACH
Login successfully to the TQSM system. Using the TQSM GUI, test each of the features on the logbook tab.

FEATURES TO BE TESTED
- Display the last 24 hours of data, starting with the current time.
- Display previous days of logbook entries with each day starting with the current time as above.
- Change the order of the entries in the display by clicking on the headers in the table.
- All entries stamped with GMT
- All entries have an origin
- Note entries are not editable

FEATURES NOT TO BE TESTED
- Adding new notes
- Appending notes
- Printing a logbook summary report
- Printing an individual note
- Viewing long note text

TEST
The following requires a set of VC files that contain all packet types (this can be just one file). Each file is a different test:
i. Check the current time and assure that all entries in the current logbook page are stamped with a time that is equal to or earlier than the current time and greater than the current time from yesterday.
ii. Press the left arrow button on the navigation bar at the top of the logbook tab and run the check in the previous step again to ensure that, in addition to showing yesterday's notes, all notes shown are stamped with a time that is equal to or earlier than the current time from yesterday and greater than the current time from the day before.
iii. Click on the headers in the logbook table and verify that the sorting is ascending based on the sort chosen.
iv. Verify that each item has both a time/date, and an origin.
v. Highlight a note entry in the logbook and attempt to edit the note's data in the fields below.

PASS FAIL

Pass/Fail Conditions: All entries are to contain both a date/time and an origin. The sorting should change based on the header in the table that is clicked by the user. When displaying the current day, or clicking on the back and forward buttons on the logbook navigation bar, each day of logbook entries should not start with an entry later than the current time and should not end with an entry earlier than or equal to the current time from the previous day. Note entries cannot be changed once they have been submitted to the database.

RESULT: (PASS) FAIL (circle one)

SU GP-B INSP 23 initials

9.3. TQSM3: Adding New Notes

Test Case Verification Number: TQSM3

INTRODUCTION

This test verifies that a new note can be added to the logbook and that, once submitted, it is no longer editable.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the add note feature on the logbook tab.

FEATURES TO BE TESTED

- Adding new notes
- Clearing data fields to enter new information in same note
- Close the add note window without saving new entry.
- Notes not editable once submitted to database.

FEATURES NOT TO BE TESTED

- Appending notes
- Printing
- Navigating between days of entries
- Sorting
- Viewing long note text

TESTS

i. Press the add note button.
ii. Type a title and note text into the appropriate boxes in the add note form.
iii. Press "Save Changes and Close".
iv. Highlight note just entered and attempt to edit its data in fields below.
v. Press the add note button.
vi. Type a title and note text into the appropriate boxes in the add note form.
vii. Press "Clear Data" and the data should disappear.
viii. Type a title and note text into the appropriate boxes in the add note form.
ix. Press the close icon in the top left of the new note window.
x. No new note should appear in logbook display.

PASS/FAIL

Pass/Fail Conditions: New note is successfully entered into the logbook after pressing "Save Changes and Close" in the new note window, and the new note window should close. Data is not changed when user attempts to change data in boxes on logbook form. Data fields in new note window cleared of data when "Clear Data" is pressed. New note window closes without submitting a new note entry when that window's close icon is pressed.

SU GP-B INSP 23

RESULT: (PASS) FAIL (circle one)

_____initials

9.4. TQSM4: Viewing note details and reading long text

Test Case Verification Number: TQSM4

INTRODUCTION

This test verifies that the user can view the details of an existing note in the logbook tab, and that long note text can be viewed in a separate resizable window for better readability.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to view the details of existing notes in the logbook tab.

FEATURES TO BE TESTED

- View the details of a given note record in the fields in the bottom half of the logbook tab.
- View long note text in a separate resizable window.

FEATURES NOT TO BE TESTED

- Adding notes
- Appending notes
- Printing
- Navigating between days of entries
- Sorting

TESTS

i. Highlight a note in the logbook table.
ii. Check to see that the title, date/time and author listed in the table are also listed in the boxes below.
iii. If the highlighted note does not have long text, find a note that does.
iv. Press the View Text button.
v. Resize view text window and scroll to ensure that all text matches the text in the note text box on the logbook screen.

PASS/FAIL

Pass/Fail Conditions: Note text of a highlighted note appears properly in the boxes below the logbook table. Long note text appears in a separate resizable window when requested.

RESULT: PASS FAIL (circle one)

SU GP-B
INSP 23
_____initials

9.5. TQSM5: Adding Sticky Notes and making existing notes sticky

Test Case Verification Number: TQSM5

INTRODUCTION

This test verifies that a new sticky note can be added to the logbook and that an existing note can be made sticky.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the sticky note feature on the logbook tab.

FEATURES TO BE TESTED

- Adding new sticky notes
- Making existing notes sticky

FEATURES NOT TO BE TESTED

- Changing start and stop times on existing sticky notes

TESTS

i. Press the add note button.
ii. Type a title and note text into the appropriate boxes in the add note form.
iii. Press the pink sticky button.
iv. Change stop time in the sticky dialog and press OK. (Changing the start time to later will force you to wait to verify the existence of the sticky.)
v. Press "Save Changes and Close".
vi. Highlight an existing note in the logbook table.
vii. Press the pink sticky button in the bottom half of the logbook tab.
viii. Change stop time in the sticky dialog and press OK.

PASS/FAIL

Pass/Fail Conditions: After adding new sticky note, a pastel sticky appears in right hand side of main TQSM window. After making an existing note sticky, a pastel sticky appears in the right hand side of the main TQSM window.

RESULT: (PASS) FAIL (circle one)

SU GP-B INSP 23 initials

9.6. TQSM6: Changing Sticky Note Start and Stop Times

Test Case Verification Number: TQSM6

INTRODUCTION

This test verifies that the start and stop times for an existing sticky note can be changed.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the sticky note times in the main window.

FEATURES TO BE TESTED

- Changing start and stop times on existing sticky notes

FEATURES NOT TO BE TESTED

- Adding new sticky notes
- Making existing notes sticky

TESTS

i. If there is an existing sticky note in the main window, double-click on the sticky. If a sticky does not exist, create a new one.
ii. Change stop time to later in the sticky dialog and press OK.
iii. Double click the sticky to bring up the sticky dialog and verify that the time that you entered is now the sticky note's current stop time. Press Cancel.
iv. Open a second instance of TQSM.
v. Enter a new sticky note in the first instance.
vi. Press Reload button in second instance. Sticky note created in first instance should be there.
vii. Change sticky stop time to later in first instance.
viii. Double click on sticky note in second instance and check times. They should be same as first instance.

PASS/FAIL

Pass/Fail Conditions: After changing the stop time for an existing sticky note, that stop time is the new stop time for the sticky note.

RESULT: (PASS) FAIL (circle one)

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9.7. TQSM7: Appending notes to existing items

Test Case Verification Number: TQSM7

INTRODUCTION

This test verifies that a note can be appended to an existing logbook entry and, in the logbook table, that note will always appear, indented, directly under the item that it is appended to.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the append note feature on the logbook tab.

FEATURES TO BE TESTED

- Appending notes

FEATURES NOT TO BE TESTED

- Adding notes

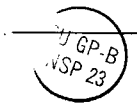
TESTS

i. Highlight a logbook item in the logbook table to append a note to.
ii. Press the append note button.
iii. Type a title and note text into the appropriate boxes in the add note form.
iv. Press "Save Changes and Close".

PASS/FAIL

Pass/Fail Conditions: New note is successfully appended into the logbook below its parent item after pressing "Save Changes and Close" in the new note window, and the new note window should close.

RESULT: (PASS) FAIL (circle one)



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9.8. TQSM8: Adding New Pass Logs

Test Case Verification Number: TQSM8

INTRODUCTION

This test verifies that a new pass log can be added to the logbook and that, once submitted, it is no longer editable.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the add pass log feature on the pass log tab.

FEATURES TO BE TESTED

- Adding pass logs

FEATURES NOT TO BE TESTED

TESTS

i. Click on the Pass Log tab.
ii. Press the Add Pass Log button.
iii. Type data into the appropriate boxes in the add pass log window.
iv. Press the Save Changes and Close button.
v. Correct any errors in data input that may be flagged by the system.
vi. Press the Save Changes and Close button.
vii. Click on the logbook tab to see the pass log record in the logbook table.
viii. Highlight the pass log record.
ix. Click on the pas log tab.

x. Attempt to change data.
xi. Click on the Pass Log tab
xii. Press the Add Pass Log button.
xiii. Type data into the appropriate boxes in the add pass log window.
xiv. Press the Cancel button.
xv. Click on the logbook tab to see that no pass log record was added to the table.

PASS/FAIL

Pass/Fail Conditions: New pass log is successfully added into the logbook after pressing "Save Changes and Close" in the new pass log window and the new pass log window should close. After adding a pass log record, the user cannot edit the data. Pressing Cancel instead of Save Changes and Close will not add the new data to the logbook.

RESULT: PASS FAIL (circle one)

SU GP-B INSP

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9.9. TQSM9: Viewing Pass Log Details

Test Case Verification Number: TQSM9

INTRODUCTION

This test verifies that the user can view the details of an existing pass log in the pass log tab.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to view the details of existing pass logs in the pass log tab.

FEATURES TO BE TESTED

- Viewing pass log details

FEATURES NOT TO BE TESTED

- Adding pass logs

TESTS

i. Highlight a pass log record in the logbook table
ii. Click the pass log tab
iii. View the details of the chosen pass log record

PASS/FAIL

Pass/Fail Conditions: Details of chosen pass log record are viewable in the pass log tab.

RESULT: PASS FAIL (circle one)

SU GP-B INSP 23

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9.10. TQSM10: Adding New Anomalies

Test Case Verification Number: TQSM10

INTRODUCTION

This test verifies that a new anomaly can be added to the logbook and that, once submitted, it is editable.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the add anomaly feature on the anomaly tab.

FEATURES TO BE TESTED

- Adding anomalies.

FEATURES NOT TO BE TESTED

- Viewing anomaly details.
- Editing anomalies.

TESTS

i. Click on the Anomaly tab.
ii. Press the Add Anomaly button.
iii. Type data into the appropriate boxes in the add anomaly window.
iv. Press the Save Changes and Close button.
v. Correct any errors in data input that may be flagged by the system.
vi. Press the Save Changes and Close button.
vii. Click on the logbook tab to see the anomaly record in the logbook table.
viii. Click on the Anomaly tab
ix. Press the Add Anomaly button.
x. Type data into the appropriate boxes in the add anomaly window.
xi. Press the Cancel button.
xii. Click on the logbook tab to see that no anomaly record was added to the table.

PASS/FAIL

Pass/Fail Conditions: New anomaly is successfully added into the logbook after pressing "Save Changes and Close" in the new anomaly window and the new anomaly window should close. Pressing Cancel instead of Save Changes and Close will not add the new data to the logbook.

RESULT: PASS FAIL (circle one) SU GP INSP ____ initials

9.11. TQSM11: Viewing Anomaly Details

Test Case Verification Number: TQSM11

INTRODUCTION

This test verifies that the user can view the details of an existing anomaly in the anomaly tab.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to view the details of existing anomalies in the anomaly tab.

FEATURES TO BE TESTED

- Viewing anomaly details.

FEATURES NOT TO BE TESTED

- Adding anomalies.
- Editing anomalies.

TESTS

i. Highlight an anomaly record in the logbook table
ii. Click the anomaly tab
iii. View the details of the chosen anomaly record

PASS/FAIL

Pass/Fail Conditions: Details of chosen anomaly record are viewable in the anomaly tab.

RESULT: PASS FAIL (circle one) INSP 23 ____ initials

9.12. TQSM12: Editing Anomalies

Test Case Verification Number: TQSM12

INTRODUCTION

This test verifies that the user can edit the details of an existing anomaly in the anomaly tab.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to edit the details of existing anomalies in the anomaly tab.

FEATURES TO BE TESTED

- Editing anomalies.

FEATURES NOT TO BE TESTED

- Adding anomalies.
- Viewing anomaly details.

TESTS

i. Highlight an anomaly record in the logbook table
ii. Click the anomaly tab
iii. Press the Edit Anomaly button
iv. Change some data, including the title
v. Press Submit
vi. Click on the logbook tab to see the new anomaly title
vii. Highlight the anomaly record
viii. Click the anomaly tab
ix. View the details with the new changes
x. Press Edit Anomaly button
xi. Change some data
xii. Press Cancel
xiii. No changes were submitted

PASS/FAIL

Pass/Fail Conditions: Details of chosen anomaly record are editable in the anomaly tab. The edit can be canceled by pressing the cancel button and the edit will be canceled without changing the existing data.

RESULT: (PASS) FAIL (circle one) _____initials

9.13. TQSM13: Viewing alarms from the web

Test Case Verification Number: TQSM13

INTRODUCTION

This test case is used to verify the display of out of limits alarms from the web.

APPROACH

Log on to the operations web site at "gpbops.stanford.edu" and open the alarms web page.

FEATURES TO BE TESTED

- RTWorks alarms report.

FEATURES NOT TO BE TESTED

TESTS

i. Type "gpbops.stanford.edu" into a browser window.

ii. Find the TQSM link and click
iii. Find the alarms link and click to open the report

PASS/FAIL
Pass/Fail Conditions: Successfully retrieve and display the RTWorks alarms report from a browser.

RESULT: PASS FAIL (circle one) SU GP-B INSP 23 initials

9.14. TQSM14: Viewing logbook summary from the web

Test Case Verification Number: TQSM14

INTRODUCTION
This test case is used to verify the display of the logbook summary from the web.

APPROACH
Log on to the operations web site at "gpbops.stanford.edu" and open the logbook summary web page.

FEATURES TO BE TESTED
- Logbook Summary report.

FEATURES NOT TO BE TESTED

TESTS
i. Type "gpbops.stanford.edu" into a browser window.
ii. Find the TQSM link and click
iii. Find the logbook summary link and click to open the report

Chron jobs Not Synced. had to manually run:
1) run tqsm-auto.pint manually
2) open /opps/supported/tqsm/reports to view the PDF file (Logbook summary)
3) file should have current date & time

PASS/FAIL
Pass/Fail Conditions: Successfully retrieve and display the logbook summary report from a browser.

RESULT: PASS FAIL (circle one) SU GP-B INSP 23 initials

9.15. TQSM15: Printing a logbook summary

Test Case Verification Number: TQSM15

INTRODUCTION
Tests the printing of the logbook summary report.

APPROACH
Login successfully to the TQSM system. Using the TQSM GUI, test the ability to print the summary of the data displayed in the logbook table.

FEATURES TO BE TESTED
- Verifies that the information printed is the information displayed.

FEATURES NOT TO BE TESTED

EIER
See att 2?
N/A

TESTS
i. Click the print button at the top of the logbook form
ii. Choose print from the menu on the print preview form
iii. Type the name of the printer into the operating system's print dialog and press the dialog's OK button

iv. Compare the information on the printout to the information in the logbook table

PASS/FAIL

Pass/Fail Conditions: Passes if data printed matches the data displayed in the logbook table on the logbook tab.

RESULT: PASS FAIL (circle one) _____initials

9.16. TQSM16: Printing an individual note

Test Case Verification Number: TQSM16

INTRODUCTION

Tests the printing of a chosen note.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to print the note highlighted in the logbook table.

FEATURES TO BE TESTED

- Verifies that the information printed is the note highlighted

FEATURES NOT TO BE TESTED

N/A

TESTS

i. Highlight the desired note to print in the logbook table
ii. Click the print button at the bottom of the logbook form
iii. Choose print from the menu on the print preview form
iv. Type the name of the printer into the operating system's print dialog and press the dialog's OK button
v. Compare the information on the printout to the information in fields at the bottom of the logbook tab

PASS/FAIL

Pass/Fail Conditions: Passes if data printed matches the data displayed in the logbook tab.

RESULT: PASS FAIL (circle one) _____initials

9.17. TQSM17: Printing an individual pass log

Test Case Verification Number: TQSM17

INTRODUCTION

Tests the printing of a chosen pass log.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to print the pass log displayed in the pass log tab.

FEATURES TO BE TESTED

- Verifies that the information printed is the pass log highlighted

FEATURES NOT TO BE TESTED

N/A

TESTS

i. Highlight the desired pass log to print in the logbook table
ii. Click the pass log tab to display the pass log details

iii. Click the print button at the bottom of the pass log tab
iv. Choose print from the menu on the print preview form
v. Type the name of the printer into the operating system's print dialog and press the dialog's OK button
vi. Compare the information on the printout to the information in fields on the pass log tab

PASS/FAIL
Pass/Fail Conditions: Passes if data printed matches the data displayed in the pass log tab.

RESULT: PASS FAIL (circle one) _____initials

9.18. TQSM18: Printing an individual anomaly

Test Case Verification Number: TQSM18

INTRODUCTION
Tests the printing of a chosen anomaly. N/A

APPROACH
Login successfully to the TQSM system. Using the TQSM GUI, test the ability to print the anomaly displayed in the anomaly tab.

FEATURES TO BE TESTED
- Verifies that the information printed is the anomaly highlighted

FEATURES NOT TO BE TESTED

TESTS
i. Highlight the desired anomaly to print in the logbook table
ii. Click the anomaly tab to display the anomaly details
iii. Click the Print Anomaly button at the bottom of the anomaly tab
iv. Choose print from the menu on the print preview form
v. Type the name of the printer into the operating system's print dialog and press the dialog's OK button
vi. Compare the information on the printout to the information in fields on the anomaly tab

PASS/FAIL
Pass/Fail Conditions: Passes if data printed matches the data displayed in the anomaly tab.

RESULT: PASS FAIL (circle one) _____initials

9.19. TQSM19: Printing a summary of open anomalies

Test Case Verification Number: TQSM19

INTRODUCTION
Tests the printing of the open anomaly summary report. N/A

APPROACH
Login successfully to the TQSM system. Using the TQSM GUI, test the ability to print the summary of the open anomaly records.

FEATURES TO BE TESTED
- Verifies that the information printed is the list of open anomalies.

FEATURES NOT TO BE TESTED

TESTS

i. Verify if open anomalies exist and what their numbers are.
ii. If no open anomalies exist, add 3 or 4.
iii. Click the print summary button on the anomaly tab
iv. Choose print from the menu on the print preview form
v. Type the name of the printer into the operating system's print dialog and press the dialog's OK button
vi. Compare the information on the printout to the information gathered in steps i and ii above

PASS/FAIL
Pass/Fail Conditions: Passes if data printed matches the open anomalies.

RESULT: PASS FAIL (circle one) _____initials

9.20. TQSM20: Alarms entered into TQSM from RTWorks

Test Case Verification Number: TQSM20

INTRODUCTION
This test verifies that alarms are properly inserted into TQSM from the RTWorks report.

APPROACH
Login successfully to the TQSM system. Using the TQSM GUI, test the visibility of alarm records in the logbook.

FEATURES TO BE TESTED
- Automated entry of alarms into TQSM from RTWorks.

Sel ATT 2A 4 2B

FEATURES NOT TO BE TESTED
- Adding of alarm responses to a given alarm record.
- Viewing of alarm details.

TESTS
i. Determine the RTWorks report to use for testing. 2B
ii. Print it out.
iii. Manually run the script to parse the RTWorks report into the TQSM Alarms table.
iv. Open an instance of TQSM if one is not already open.
v. Move to the day in the logbook that matches the date in the RTWorks report.
vi. Check to see that the alarm entries are in the logbook. If they are not, exit TQSM and reopen it. Repeat step V. TQSM does not reload any day that has previously been loaded.
vii. Compare the information on the printout to the information in the logbook records.

PASS/FAIL
Pass/Fail Conditions: Passes if alarm records appear in logbook and they match the information in the RTWorks report.

RESULT: (PASS) FAIL (circle one)

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9.21. TQSM21: View alarm details and enter alarm responses

Test Case Verification Number: TQSM21

INTRODUCTION
This test verifies the viewing of alarm details in the alarm screen and the ability to enter alarm responses for a given alarm.

APPROACH

Login successfully to the TQSM system. Using the TQSM GUI, test the ability to view alarm record details in the alarm tab and add responses to the alarm record.

FEATURES TO BE TESTED

- Viewing alarm record details.
- Adding alarm responses to a given alarm record.

FEATURES NOT TO BE TESTED

- Automated entry of alarms into TQSM from RTWorks.

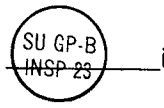
TESTS

i. Highlight an alarm record in the logbook tab.
ii. Click on the alarm tab.
iii. View the details of the alarm record in the top text box. This information should match the information in the logbook tab. There will be one or two extra lines of information in the alarm tab.
iv. Click the Add Response button.
v. Type a title and details into the text boxes at the bottom of the tab. Choose a response type (Acknowledge, In Process, Complete).
vi. Click the OK button.
vii. Move back to the logbook tab to view the response record indented below the alarm record. The response icon will be orange for Acknowledge, yellow for In Process and green for Complete.

PASS/FAIL

Pass/Fail Conditions: Passes if data viewable from the alarm tab and a response successfully added.

RESULT: (PASS) FAIL (circle one)



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10. TEST COMPLETION

OVERALL: (PASS) FAIL

TEST OPERATOR (signature) — Date: 7/16/03

QA WITNESS (SU GP-B INSP 23) — Date: 7/16/03

11. GLOSSARY

This section contains an alphabetic list and definitions of all acronyms used in the document, all proper nouns, and any words used in a non-standard way.

Word	Detail
TQSM	Telemetry Quality and Status Monitoring
LASP	Laboratory for Atmospheric and Space Physics, University of Colorado
moc-server	Host name of the SUN computer that is the primary server for the MOC.
science server	Host name of the SUN computer which is the primary server for science LAN
SAFS	Standard Autonomous File Server (GSFC facility)
MOC	Mission Operations Center
MCR	MOC Change Request

Att 1 To "As-Built" 70991-A

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./LogbookAutoPrint.class 425 Feb 10 19:53
./Tqsm$1.class 374 Mar 28 16:19
./Tqsm$2.class 401 Mar 28 16:19
./Tqsm.class 4026 Mar 28 16:19
./TqsmConstants.class 112 Jul 9 2002
./TqsmData.class 6593 Mar 28 16:19
./client/Alarm.class 1890 Feb 6 19:58
./client/Anomaly.class 1542 Mar 4 23:42
./client/ClientConstants.class 836 Feb 5 18:26
./client/LogBook.class 2411 Jul 7 16:48
./client/PassLog.class 1542 Mar 5 01:19
./client/PersonnelCombo$1.class 1070 Dec 10 2002
./client/PersonnelCombo.class 1806 Dec 10 2002
./client/StickyNote.class 4166 Jun 12 21:19
./client/StickyPane.class 4374 Jun 12 17:45
./client/alarm.class 1890 Apr 16 16:12
./client/alarm/AlarmActionBar.class 3750 Oct 1 2002
./client/alarm/AlarmComparator.class 985 Feb 5 01:14
./client/alarm/AlarmEntryList.class 1297 Feb 5 01:14
./client/alarm/AlarmEntryPanel$1.class 954 Feb 5 21:45
./client/alarm/AlarmEntryPanel$2.class 708 Feb 5 21:45
./client/alarm/AlarmEntryPanel.class 4326 Feb 5 21:45
./client/alarm/AlarmMultiPanel.class 2354 Feb 5 21:29
./client/alarm/AlarmTable$1.class 844 Feb 5 01:10
./client/alarm/AlarmTable$2.class 988 Feb 5 01:10
./client/alarm/AlarmTable$Model.class 3494 Feb 5 01:10
./client/alarm/AlarmTable.class 4266 Feb 5 01:10
./client/alarm/AlarmViewPanel$1.class 727 Oct 1 2002
./client/alarm/AlarmViewPanel.class 2540 May 30 15:16
./client/alarm/AlarmViewer.class 686 Feb 5 01:14
./client/alarm/ChildAwareComparator.class 990 Sep 9 2002
./client/alarm/ChildAwareEntryList.class 834 Sep 9 2002
./client/alarm/alarmactionbar.class 3750 Apr 16 16:12
./client/alarm/alarmcomparator.class 985 Apr 16 16:12
./client/alarm/alarmentrylist.class 1297 Apr 16 16:12
./client/alarm/alarmentrypanel.class 4326 Apr 16 16:12
./client/alarm/alarmentrypanel1.class 954 Apr 16 16:12
./client/alarm/alarmentrypanel2.class 708 Apr 16 16:12
./client/alarm/alarmmultipanel.class 2354 Apr 16 16:12
./client/alarm/alarmtable.class 4266 Apr 16 16:12
./client/alarm/alarmtable1.class 844 Apr 16 16:12
./client/alarm/alarmtable2.class 988 Apr 16 16:12
./client/alarm/alarmtablemodel.class 3494 Apr 16 16:12
./client/alarm/alarmviewer.class 686 Apr 16 16:12
./client/alarm/alarmviewpanel.class 2540 Apr 16 16:12
./client/alarm/alarmviewpanel1.class 727 Apr 16 16:12
./client/alarm/childawarecomparator.class 990 Apr 16 16:12
./client/alarm/childawareentrylist.class 834 Apr 16 16:12
./client/anomaly.class 1542 Apr 16 16:12
./client/anomaly/Alarm.class 1890 Feb 6 20:57
./client/anomaly/AnomalyActionBar.class 5208 Mar 17 16:14
./client/anomaly/AnomalyEntryPanel$1.class 752 Feb 21 16:38
./client/anomaly/AnomalyEntryPanel.class 9969 Jun 24 21:14
./client/anomaly/AnomalyMultiPanel$1.class 762 Apr 7 22:11
./client/anomaly/AnomalyMultiPanel.class 6658 Jun 24 21:10
./client/anomaly/AnomalyPrint$1.class 199 Feb 21 17:36
./client/anomaly/AnomalyPrint$Document.class 1797 Feb 21 17:36
./client/anomaly/AnomalyPrint$IntroPage.class 1710 Feb 21 17:36
./client/anomaly/AnomalyPrint.class 1232 Nov 7 2002
./client/anomaly/AnomalyPrinter.class 4212 May 21 17:35
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./client/anomaly/AnomalySumTableModel.class 1973 Mar 12 21:48
./client/anomaly/AnomalySumViewer.class 443 Mar 12 20:45
./client/anomaly/AnomalyTableModel.class 3257 Mar 5 16:10
./client/anomaly/OpenAnomalyViewer.class 445 Mar 11 22:17
./client/anomaly/alarm.class 1890 Apr 16 16:12
./client/anomaly/anomalyactionbar.class 5208 Apr 16 16:12
./client/anomaly/anomalyentrypanel.class 9664 Apr 16 16:12
./client/anomaly/anomalyentrypanel1.class 752 Apr 16 16:12
./client/anomaly/anomalymultipanel.class 6580 Apr 16 16:12
./client/anomaly/anomalymultipanel1.class 762 Apr 16 16:12
./client/anomaly/anomalyprint.class 1232 Apr 16 16:12
./client/anomaly/anomalyprinter.class 4128 Apr 16 16:12
./client/anomaly/anomalysumtablemodel.class 1973 Apr 16 16:12
./client/anomaly/anomalysumviewer.class 443 Apr 16 16:12
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./client/anomaly/newanomaly/NewAnomaly.class 1475 Feb 19 23:55
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./client/anomaly/newanomaly/NewAnomalyEntryPanel.class 9992 Jun 24 21:20
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./client/anomaly/openanomalyviewer.class 445 Apr 16 16:12
./client/clientconstants.class 836 Apr 16 16:12
./client/logbook.class 3575 Apr 16 16:12
./client/logbook/ChildAwareComparator.class 1111 Mar 17 15:33
./client/logbook/ChildAwareEntryList.class 840 Mar 17 15:33
./client/logbook/LogBookActionBar.class 4481 Jun 4 01:27
./client/logbook/LogBookEntryPanel$1.class 922 Mar 20 16:34
./client/logbook/LogBookEntryPanel$2.class 922 Mar 18 16:55
./client/logbook/LogBookEntryPanel.class 4257 Mar 20 16:34
./client/logbook/LogBookMultiPanel$1.class 1627 Mar 19 23:25
./client/logbook/LogBookMultiPanel$2.class 922 Mar 19 16:36
./client/logbook/LogBookMultiPanel.class 5052 Mar 19 23:25
./client/logbook/LogBookPrinter.class 5111 May 27 23:24
./client/logbook/LogBookSumTableModel.class 2591 Dec 3 2002
./client/logbook/LogBookTable$1.class 866 Jul 7 16:49
./client/logbook/LogBookTable$Model.class 3930 Jul 7 16:49
./client/logbook/LogBookTable.class 4179 Jul 7 16:49
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./client/logbook/NoteFrame$1.class 520 Dec 13 2002
./client/logbook/NoteFrame.class 1250 Mar 18 16:52
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./client/logbook/logbooktablemodel.class 3930 Apr 16 16:14
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./client/logbook/logbookviewer.class 593 Apr 16 16:14
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./client/logbook/newnote/NewNoteActionBar.class 4382 Mar 18 17:00
./client/logbook/newnote/NewNoteEntryPanel$1.class 954 Mar 19 01:02
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./client/logbook/newnote/newnoteentrypanel.class 4145 Apr 16 16:14
./client/logbook/newnote/newnoteentrypanel1.class 954 Apr 16 16:14
./client/logbook/newnote/newnoteentrypanel2.class 954 Apr 16 16:14
./client/logbook/newnote/newnoteframe.class 1820 Apr 16 16:14
./client/logbook/newnote/newnotemultipanel.class 4509 Apr 16 16:14
./client/logbook/newnote/newnotemultipanel1.class 1675 Apr 16 16:14
./client/logbook/noteframe.class 1250 Apr 16 16:14
./client/logbook/noteframe1.class 520 Apr 16 16:14
./client/logbook/notetablemodel.class 2736 Apr 16 16:14
./client/openalarm/OpenAlarmFrame$1.class 725 Feb 6 16:32
./client/openalarm/OpenAlarmFrame$2.class 932 Feb 6 16:32
./client/openalarm/OpenAlarmFrame.class 2461 Feb 6 16:32
./client/openalarm/OpenAlarmTable$1.class 888 Feb 4 01:15
./client/openalarm/OpenAlarmTable$Model.class 3570 Feb 4 01:15
./client/openalarm/OpenAlarmTable.class 3873 Feb 4 01:15
./client/openalarm/OpenAlarmViewer.class 671 Feb 3 15:55
./client/openalarm/OpenChildComparator.class 1114 Feb 3 15:55
./client/openalarm/OpenChildEntryList.class 803 Feb 3 15:55
./client/openalarm/openalarmframe.class 2461 Apr 16 16:12
./client/openalarm/openalarmframe1.class 725 Apr 16 16:12
./client/openalarm/openalarmframe2.class 932 Apr 16 16:12
./client/openalarm/openalarmtable.class 3873 Apr 16 16:12
./client/openalarm/openalarmtable1.class 888 Apr 16 16:12
./client/openalarm/openalarmtablemodel.class 3570 Apr 16 16:12
./client/openalarm/openalarmviewer.class 671 Apr 16 16:12
./client/openalarm/openchildcomparator.class 1114 Apr 16 16:12
./client/openalarm/openchildentrylist.class 803 Apr 16 16:12
./client/passlog.class 1542 Apr 16 16:12
./client/passlog/PassLogActionBar.class 4133 Mar 17 16:08
./client/passlog/PassLogEntryPanel$1.class 1414 Mar 17 16:07
./client/passlog/PassLogEntryPanel$2.class 752 Dec 10 2002
./client/passlog/PassLogEntryPanel.class 7014 Jun 13 00:39
./client/passlog/PassLogMultiPanel$1.class 762 Mar 6 20:38
./client/passlog/PassLogMultiPanel.class 4262 Jun 13 00:35
./client/passlog/PassLogPrinter.class 3829 May 21 17:35
./client/passlog/PassLogTableModel.class 2418 Mar 7 00:56
./client/passlog/newpasslog/NewLog.class 1412 Feb 19 23:39
./client/passlog/newpasslog/NewLogActionBar.class 3315 Apr 8 16:02
./client/passlog/newpasslog/NewLogEntryPanel$1.class 1453 Feb 13 20:13
./client/passlog/newpasslog/NewLogEntryPanel.class 7043 Jun 13 00:46
./client/passlog/newpasslog/NewLogFrame$1.class 588 Feb 13 23:10
./client/passlog/newpasslog/NewLogFrame.class 1525 Feb 19 23:37
./client/passlog/newpasslog/NewLogMultiPanel.class 3926 Jun 20 16:30
./client/passlog/newpasslog/newlog.class 1412 Apr 16 16:12
./client/passlog/newpasslog/newlogactionbar.class 3315 Apr 16 16:12
./client/passlog/newpasslog/newlogentrypanel.class 7123 Apr 16 16:12
./client/passlog/newpasslog/newlogentrypanel1.class 1453 Apr 16 16:12
./client/passlog/newpasslog/newlogframe.class 1525 Apr 16 16:12
./client/passlog/newpasslog/newlogframe1.class 588 Apr 16 16:12
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./client/passlog/newpasslog/newlogmultipanel.class 4294 Apr 16 16:12
./client/passlog/passlogactionbar.class 4133 Apr 16 16:12
./client/passlog/passlogentrypanel.class 7094 Apr 16 16:12
./client/passlog/passlogentrypanel1.class 1414 Apr 16 16:12
./client/passlog/passlogentrypanel2.class 752 Apr 16 16:12
./client/passlog/passlogmultipanel.class 4630 Apr 16 16:12
./client/passlog/passlogmultipanel1.class 762 Apr 16 16:12
./client/passlog/passlogprinter.class 3745 Apr 16 16:12
./client/passlog/passlogtablemodel.class 2418 Apr 16 16:12
./client/personnelcombo.class 1806 Apr 16 16:12
./client/personnelcombo1.class 1070 Apr 16 16:12
./client/sticky/StickyFrame$1.class 701 Mar 20 19:55
./client/sticky/StickyFrame$2.class 688 Mar 20 19:55
./client/sticky/StickyFrame.class 5035 Mar 20 19:55
./client/sticky/StickyViewer.class 441 Mar 11 19:54
./client/sticky/stickyframe.class 5035 Apr 16 16:12
./client/sticky/stickyframe1.class 701 Apr 16 16:12
./client/sticky/stickyframe2.class 688 Apr 16 16:12
./client/sticky/stickyviewer.class 441 Apr 16 16:12
./client/stickynote.class 4365 Apr 16 16:12
./client/stickypane.class 4374 Apr 16 16:12
./data/AbstractAuthoredEntry.class 1586 Oct 1 2002
./data/AbstractEntry.class 1685 Feb 4 00:18
./data/AbstractEntryStub.class 1093 Oct 1 2002
./data/AbstractOriginalEntry.class 2771 Oct 1 2002
./data/AlarmEntry.class 2757 Jun 28 01:27
./data/AlarmNameEntry.class 1407 Oct 1 2002
./data/AnomalyEntry.class 4383 Jun 24 21:10
./data/Dated.class 163 Oct 1 2002
./data/DefaultEntryStub.class 412 Jul 7 16:47
./data/DefaultPersonnelStub.class 378 Jul 7 16:47
./data/Entries$1.class 423 Jul 7 16:47
./data/Entries$2.class 507 Jul 7 16:48
./data/Entries$3.class 506 Jul 7 16:47
./data/Entries$4.class 423 Jul 7 16:47
./data/Entries$5.class 500 Jul 7 16:47
./data/Entries$6.class 511 Jul 7 16:47
./data/Entries$7.class 451 Jul 7 16:47
./data/Entries$8.class 721 Jul 7 16:47
./data/Entries.class 1318 Jul 7 16:47
./data/Entry.class 226 Oct 1 2002
./data/EntryProperties.class 441 Jul 7 16:48
./data/EntryStub.class 261 Oct 1 2002
./data/EntryTypes.class 1079 Mar 12 22:28
./data/GSContactEntry.class 1979 Oct 1 2002
./data/Linkable.class 151 Oct 1 2002
./data/NoteEntry.class 2655 Dec 6 2002
./data/Original.class 395 Oct 1 2002
./data/PassLogEntry.class 2518 Jun 13 00:35
./data/PersonnelEntry.class 2335 Jun 28 01:27
./data/ResponseEntry.class 2567 Feb 5 18:52
./data/StickyEntry$Stickyable.class 245 Mar 19 16:49
./data/StickyEntry.class 2335 Jun 12 21:19
./data/Systemic.class 155 Oct 1 2002
./data/Unlinkable.class 160 Oct 1 2002
./data/abstractauthoredentry.class 1586 Apr 16 16:12
./data/abstractentry.class 1685 Apr 16 16:12
./data/abstractentrystub.class 1093 Apr 16 16:12
./data/abstractoriginalentry.class 2771 Apr 16 16:12
./data/alarmentry.class 2345 Apr 16 16:12
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./data/alarmnameentry.class 1407 Apr 16 16:12
./data/anomalyentry.class 4255 Apr 16 16:12
./data/connection/AbstractDataConnection$1.class 366 Mar 20 16:44
./data/connection/AbstractDataConnection.class 3694 Mar 20 16:44
./data/connection/AbstractRequest.class 1069 Oct 1 2002
./data/connection/AlarmNameRequest.class 531 Oct 1 2002
./data/connection/AlarmNameResult.class 213 Oct 1 2002
./data/connection/AlarmRequest.class 870 Oct 1 2002
./data/connection/AlarmResult.class 254 Oct 1 2002
./data/connection/AnomalyRequest.class 875 Oct 7 2002
./data/connection/AnomalyResult.class 207 Oct 7 2002
./data/connection/DataConnection.class 528 Mar 19 15:36
./data/connection/DefaultRequest.class 1009 Jul 9 2002
./data/connection/GSContactRequest.class 879 Oct 1 2002
./data/connection/GSContactResult.class 213 Oct 1 2002
./data/connection/NoteRequest.class 868 Apr 8 19:29
./data/connection/NoteResult.class 220 Oct 1 2002
./data/connection/OpenAlarmRequest.class 879 Jan 30 01:36
./data/connection/OpenAlarmResult.class 262 Jan 27 16:09
./data/connection/OpenAnomalyRequest.class 712 May 20 22:40
./data/connection/OpenAnomalyResult.class 215 Mar 12 00:46
./data/connection/PassLogRequest.class 874 Oct 1 2002
./data/connection/PassLogResult.class 207 Oct 1 2002
./data/connection/PersonnelRequest.class 531 Oct 1 2002
./data/connection/PersonnelResult.class 213 Oct 1 2002
./data/connection/Recipient.class 234 Oct 1 2002
./data/connection/Request.class 282 Oct 1 2002
./data/connection/ResponseResult.class 210 Oct 1 2002
./data/connection/Result.class 138 Oct 1 2002
./data/connection/StickyRequest.class 526 Mar 12 23:10
./data/connection/StickyResult.class 248 Oct 1 2002
./data/connection/abstractdataconnection.class 3694 Apr 16 16:12
./data/connection/abstractdataconnection1.class 366 Apr 16 16:12
./data/connection/abstractrequest.class 1069 Apr 16 16:12
./data/connection/alarmnamerequest.class 531 Apr 16 16:12
./data/connection/alarmnameresult.class 213 Apr 16 16:12
./data/connection/alarmrequest.class 870 Apr 16 16:12
./data/connection/alarmresult.class 254 Apr 16 16:12
./data/connection/anomalyrequest.class 875 Apr 16 16:12
./data/connection/anomalyresult.class 207 Apr 16 16:12
./data/connection/dataconnection.class 528 Apr 16 16:12
./data/connection/gscontactrequest.class 879 Apr 16 16:12
./data/connection/gscontactresult.class 213 Apr 16 16:12
./data/connection/noterequest.class 868 Apr 16 16:12
./data/connection/noteresult.class 220 Apr 16 16:12
./data/connection/openalarmrequest.class 879 Apr 16 16:12
./data/connection/openalarmresult.class 262 Apr 16 16:12
./data/connection/openanomalyrequest.class 536 Apr 16 16:12
./data/connection/openanomalyresult.class 215 Apr 16 16:12
./data/connection/passlogrequest.class 874 Apr 16 16:12
./data/connection/passlogresult.class 207 Apr 16 16:12
./data/connection/personnelrequest.class 531 Apr 16 16:12
./data/connection/personnelresult.class 213 Apr 16 16:12
./data/connection/recipient.class 234 Apr 16 16:12
./data/connection/request.class 282 Apr 16 16:12
./data/connection/responseresult.class 210 Apr 16 16:12
./data/connection/result.class 138 Apr 16 16:12
./data/connection/stickyrequest.class 526 Apr 16 16:12
./data/connection/stickyresult.class 248 Apr 16 16:12
./data/dated.class 163 Apr 16 16:12
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./data/defaultentrystub.class 412 Apr 16 16:12
./data/defaultpersonnelstub.class 378 Apr 16 16:12
./data/entries.class 1263 Apr 16 16:12
./data/entries1.class 423 Apr 16 16:12
./data/entries2.class 507 Apr 16 16:12
./data/entries3.class 506 Apr 16 16:12
./data/entries4.class 423 Apr 16 16:12
./data/entries5.class 500 Apr 16 16:12
./data/entries6.class 511 Apr 16 16:12
./data/entries7.class 451 Apr 16 16:12
./data/entry.class 226 Apr 16 16:12
./data/entryproperties.class 411 Apr 16 16:12
./data/entrystub.class 261 Apr 16 16:12
./data/entrytypes.class 1079 Apr 16 16:12
./data/gscontactentry.class 1979 Apr 16 16:12
./data/linkable.class 151 Apr 16 16:12
./data/module/AlarmModule.class 1363 Nov 12 2002
./data/module/AlarmNameModule.class 1231 Oct 1 2002
./data/module/AlarmScreenModule.class 1182 Feb 4 00:36
./data/module/AnomalyModule.class 873 Feb 21 16:04
./data/module/DayArrayList.class 1951 Feb 24 18:47
./data/module/DayModule$DayViewer.class 3055 Apr 8 19:29
./data/module/DayModule.class 3458 Apr 8 19:29
./data/module/GSContactModule.class 883 Oct 1 2002
./data/module/LinkingEntryList.class 848 Oct 1 2002
./data/module/ListModule$Viewer.class 1580 Feb 5 01:09
./data/module/ListModule.class 2854 Jun 12 23:08
./data/module/Module.class 1431 Mar 12 23:07
./data/module/NoteModule.class 1345 Apr 8 19:28
./data/module/OpenAlarmModule.class 1590 Feb 5 01:29
./data/module/OpenAnomalyModule.class 1157 Mar 12 22:05
./data/module/PassLogModule.class 873 Feb 21 16:04
./data/module/PersonnelModule.class 1053 Nov 1 2002
./data/module/StickyModule.class 1456 Mar 12 23:10
./data/module/UnlinkingEntryList.class 847 Oct 1 2002
./data/module/alarmmodule.class 1363 Apr 16 16:12
./data/module/alarmnamemodule.class 1231 Apr 16 16:12
./data/module/alarmscreenmodule.class 1182 Apr 16 16:12
./data/module/anomalymodule.class 873 Apr 16 16:12
./data/module/dayarraylist.class 1951 Apr 16 16:12
./data/module/daymodule.class 3458 Apr 16 16:12
./data/module/daymoduledayviewer.class 3055 Apr 16 16:12
./data/module/gscontactmodule.class 883 Apr 16 16:12
./data/module/linkingentrylist.class 848 Apr 16 16:12
./data/module/listmodule.class 2773 Apr 16 16:12
./data/module/listmoduleviewer.class 1580 Apr 16 16:12
./data/module/module.class 1431 Apr 16 16:12
./data/module/notemodule.class 1345 Apr 16 16:12
./data/module/openalarmmodule.class 1590 Apr 16 16:12
./data/module/openanomalymodule.class 1157 Apr 16 16:12
./data/module/passlogmodule.class 873 Apr 16 16:12
./data/module/personnelmodule.class 1053 Apr 16 16:12
./data/module/stickymodule.class 1456 Apr 16 16:12
./data/module/unlinkingentrylist.class 847 Apr 16 16:12
./data/noteentry.class 2655 Apr 16 16:12
./data/original.class 395 Apr 16 16:12
./data/passlogentry.class 2492 Apr 16 16:12
./data/personnelentry.class 2272 Apr 16 16:12
./data/responseentry.class 2567 Apr 16 16:12
./data/stickyentry.class 2184 Apr 16 16:12

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./data/stickyentrystickyable.class 245 Apr 16 16:12
./data/systemic.class 155 Apr 16 16:12
./data/unlinkable.class 160 Apr 16 16:12
./data/view/AbstractView.class 2183 Oct 1 2002
./data/view/ArrayEntryList.class 2093 Jan 30 23:36
./data/view/DayList.class 279 Oct 1 2002
./data/view/DayView.class 310 Oct 1 2002
./data/view/EntryList.class 186 Oct 1 2002
./data/view/SortedDayViewer.class 1489 Feb 5 01:25
./data/view/SortedEntryList.class 1596 Nov 1 2002
./data/view/SortedViewer.class 3331 Mar 28 16:58
./data/view/View.class 323 Dec 6 2002
./data/view/abstractview.class 2183 Apr 16 16:12
./data/view/arrayentrylist.class 2093 Apr 16 16:12
./data/view/daylist.class 279 Apr 16 16:12
./data/view/dayview.class 310 Apr 16 16:12
./data/view/entrylist.class 186 Apr 16 16:12
./data/view/sorteddayviewer.class 1489 Apr 16 16:12
./data/view/sortedentrylist.class 1596 Apr 16 16:12
./data/view/sortedviewer.class 3331 Apr 16 16:12
./data/view/view.class 323 Apr 16 16:12
./dbcon/DBConstants.class 1606 Mar 18 03:39
./dbcon/NewString.class 823 Oct 21 2002
./dbcon/SqlAlarmNameResult.class 1727 Oct 1 2002
./dbcon/SqlAlarmResult.class 4351 Jan 31 02:08
./dbcon/SqlAnomalyResult.class 4566 Jun 24 21:35
./dbcon/SqlConnection.class 8073 Apr 16 15:02
./dbcon/SqlGSContactResult.class 2018 Oct 1 2002
./dbcon/SqlNoteResult.class 3760 Mar 17 16:32
./dbcon/SqlOpenAlarmResult.class 4177 Feb 4 00:15
./dbcon/SqlOpenAnomalyResult.class 3150 Jul 15 20:28
./dbcon/SqlPassLogResult.class 2578 Jun 13 00:35
./dbcon/SqlPersonnelResult.class 1295 Oct 1 2002
./dbcon/SqlResponseResult.class 3460 Oct 1 2002
./dbcon/SqlResult.class 1987 Oct 1 2002
./dbcon/SqlStickyResult.class 2657 Mar 20 18:22
./dbcon/dbconstants.class 1606 Apr 16 16:12
./dbcon/newstring.class 823 Apr 16 16:12
./dbcon/sqlalarmnameresult.class 1727 Apr 16 16:12
./dbcon/sqlalarmresult.class 4351 Apr 16 16:12
./dbcon/sqlanomalyresult.class 4485 Apr 16 16:12
./dbcon/sqlconnection.class 8073 Apr 16 16:12
./dbcon/sqlgscontactresult.class 2018 Apr 16 16:12
./dbcon/sqlnoteresult.class 3760 Apr 16 16:12
./dbcon/sqlopenalarmresult.class 4177 Apr 16 16:12
./dbcon/sqlopenanomalyresult.class 3111 Apr 16 16:12
./dbcon/sqlpasslogresult.class 2610 Apr 16 16:12
./dbcon/sqlpersonnelresult.class 1295 Apr 16 16:12
./dbcon/sqlresponseresult.class 3460 Apr 16 16:12
./dbcon/sqlresult.class 1987 Apr 16 16:12
./dbcon/sqlstickyresult.class 2657 Apr 16 16:12
./logbookautoprint.class 425 Apr 16 16:12
./swing/AbstractDaySelectionModel.class 2069 Feb 24 21:22
./swing/Dates.class 3552 Nov 12 2002
./swing/DaySelectionModel.class 348 Feb 24 21:22
./swing/DefaultDaySelectionModel.class 668 Feb 24 22:53
./swing/Icons.class 1896 Feb 5 18:56
./swing/QActionButton.class 808 Oct 1 2002
./swing/QArrowButton.class 614 Oct 1 2002
./swing/QCombo$1.class 700 Nov 2 2002
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./swing/QCombo.class 925 Nov 3 2002
./swing/QDateField.class 1745 Mar 28 16:19
./swing/QDayField.class 2118 Feb 24 21:38
./swing/QDayNavigator.class 3464 Jul 7 16:49
./swing/QFactory$1.class 605 Nov 2 2002
./swing/QFactory.class 5668 Nov 4 2002
./swing/QIntegerField.class 217 Jul 9 2002
./swing/QLargeActionButton.class 455 Jul 9 2002
./swing/QTable.class 2275 Nov 12 2002
./swing/TqsmFrame.class 228 Oct 1 2002
./swing/abstractdayselectionmode.class 2069 Apr 16 16:12
./swing/dayselectionmodel.class 348 Apr 16 16:12
./swing/defaultdayselectionmodel.class 668 Apr 16 16:12
./swing/event/DaySelectionListener.class 236 Oct 1 2002
./swing/event/EntryListEvent.class 255 Oct 1 2002
./swing/event/EntryListListener.class 228 Oct 1 2002
./swing/event/dayselectionlistener.class 236 Apr 16 16:12
./swing/event/entrylistevent.class 255 Apr 16 16:12
./swing/event/entrylistlistener.class 228 Apr 16 16:12
./swing/icons.class 1896 Apr 16 16:12
./swing/qactionbutton.class 808 Apr 16 16:12
./swing/qarrowbutton.class 614 Apr 16 16:12
./swing/qcombo.class 925 Apr 16 16:12
./swing/qcombo1.class 700 Apr 16 16:12
./swing/qdatefield.class 1745 Apr 16 16:12
./swing/qdayfield.class 2118 Apr 16 16:12
./swing/qdaynavigator.class 3204 Apr 16 16:12
./swing/qfactory.class 5668 Apr 16 16:12
./swing/qfactory1.class 605 Apr 16 16:12
./swing/qtable.class 2275 Apr 16 16:12
./swing/tqsmframe.class 228 Apr 16 16:12
./tqsm/LogbookAutoPrint.class 425 Feb 10 19:53
./tqsm/data/connection/OpenAnomalyRequest.class 712 May 20 22:40
./tqsm1.class 374 Apr 16 16:12
./tqsm2.class 401 Apr 16 16:12
./tqsmdata.class 6593 Apr 16 16:12
./util/Dates.class 3493 Dec 9 2002
./util/Day.class 2426 Mar 27 22:23
./util/Days.class 2386 Mar 27 22:23
./util/QCalendar.class 1383 Oct 1 2002
./util/QMath.class 784 Jul 9 2002
./util/ReversibleComparator.class 1319 Oct 1 2002
./util/dates.class 3493 Apr 16 16:12
./util/day.class 2426 Apr 16 16:12
./util/days.class 2386 Apr 16 16:12
./util/qcalendar.class 1383 Apr 16 16:12
./util/reversiblecomparator.class 1319 Apr 16 16:12
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ATT 2A

To "AS-BUILT" P0991-A

mit violation summary for ECU

STAT	MNEMONIC	LIMIT SETTINGS	ACTUAL VALUE
Y	DE_MAG1_X_OUT	r(0,32000),y(15880,19880)	11587.000000
Y	DE_MAG1_Z_OUT	r(0,32000),y(19660,21660)	23410.000000
Y	DE_MAG2_X_OUT	r(0,32000),y(18000,22000)	8377.000000
Y	DE_MAG2_Y_OUT	r(0,32000),y(14800,20000)	8205.000000
Y	DE_MAG2_Z_OUT	r(0,32000),y(12000,17000)	23194.000000
Y	DE_MAG3_X_OUT	r(0,32000),y(12500,17500)	23264.000000
Y	DE_MAG3_Y_OUT	r(0,32000),y(12364,16364)	8218.000000
Y	DE_MAG4_X_OUT	r(0,32000),y(15245,19245)	8170.000000
Y	DE_MAG4_Y_OUT	r(0,32000),y(11833,15833)	8037.000000
Y	DE_MAG4_Z_OUT	r(0,32000),y(13496,20000)	8108.000000
Y	VE_Mux7A_VREF	r(9.5,10.5),y(9.6,10)	10.101341
Y	VE_Mux7B_VREF	r(9.5,10.5),y(9.6,10)	10.095166
R	TE_UV_BASE_SDTa	r(273,323),y(250,320)	268.583862

ATT 2B

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_C Experiment Control Unit Check
Status: Warning

Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
BC_Ecu_1_2_Sel	VES	Selects ECU electronics port 1 or	PORT_1	PORT_1		verify
BE_Failure_A	ECU	Failure Status of Rollover Counter	False	False		verify
BE_Failure_B	ECU	Failure Status of Rollover Counter	False	False		verify
DE_Ecu_Status	ECU	Status byte showing locked ADCs an	r(128,254)	128.000000		verify
DE_GMA_____GP1	ECU	GMA Tank Pressure GP1	r(0,2000)	207.754715	(S)	skip
DE_GMA_____GP10	ECU	GMA Inlet Pressure Gyro 2 A GP10	r(0,15)	197.110794	(S)	skip
DE_GMA_____GP11	ECU	GMA Inlet Pressure Gyro 3 A GP11	r(0,15)	10.629808	(S)	skip
DE_GMA_____GP12	ECU	GMA Inlet Pressure Gyro 4 B GP12	r(0,15)	6.730116	(S)	skip
DE_GMA_____GP13	ECU	GMA Inlet Pressure Gyro 4 A GP13	r(0,15)	29.464479	(S)	skip
DE_GMA_____GP14	ECU	GMA Vent Outlet Pressure GP14	r(0,15)	73.771400	(S)	skip
DE_GMA_____GP2	ECU	GMA Pre-Regulator Pressure A GP2	r(0,2000)	2526.031494	(S)	skip
DE_GMA_____GP3	ECU	GMA Pre-Regulator Pressure B GP3	r(0,2000)	142.260712	(S)	skip
DE_GMA_____GP4	ECU	GMA Post Regulator Pressure A GP4	r(0,25)	169.301041	(S)	skip
DE_GMA_____GP5	ECU	GMA Post-Regulator Pressure B GP5	r(0,25)	188.940079	(S)	skip
DE_GMA_____GP6	ECU	GMA Post Regulator Orifice GP6	r(0,25)	7.516769	(S)	skip
DE_GMA_____GP7	ECU	GMA Inlet Pressure Gyro 1 A GP7	r(-2,22),y(0,20)	19.487476	(S)	skip
DE_GMA_____GP8	ECU	GMA Input to Gyro 1 B GP8	r(-2,22),y(0,20)	1703.461670	(S)	skip
DE_GMA_____GP9	ECU	GMA Inlet Pressure Gyro 2 B GP9	r(-2,22),y(0,20)	14.039656	(S)	skip
DE_In_Mux_1___A	ECU	Channel on Input Mux #1 /A	r(48,59)	57.000000		verify
DE_In_Mux_1___B	ECU	Channel on Input Mux #1 /B	r(48,59)	55.000000		verify
DE_In_Mux_10__A	ECU	Channel on Input Mux #10 /A	r(0,31)	31.000000		verify
DE_In_Mux_10__B	ECU	Channel on Input Mux #10 /B	r(0,31)	31.000000		verify
DE_In_Mux_2___A	ECU	Channel on Input Mux #2 /A	r(64,75)	70.000000		verify
DE_In_Mux_2___B	ECU	Channel on Input Mux #2 /B	r(64,75)	71.000000		verify
DE_In_Mux_3___A	ECU	Channel on Input Mux #3 /A	r(144,147)	147.000000		verify
DE_In_Mux_3___B	ECU	Channel on Input Mux #3 /B	r(144,147)	147.000000		verify
DE_In_Mux_4___A	ECU	Channel on Input Mux #4 /A	r(0,3)	0.000000		verify
DE_In_Mux_4___B	ECU	Channel on Input Mux #4 /B	r(0,3)	3.000000		verify
DE_In_Mux_8___A	ECU	Channel on Input Mux #8 /A	r(96,103)	103.000000		verify
DE_In_Mux_8___B	ECU	Channel on Input Mux #8 /B	r(96,103)	103.000000		verify
DE_In_Mux_9___A	ECU	Channel on Input Mux #9 /A	r(0,15)	15.000000		verify
DE_In_Mux_9___B	ECU	Channel on Input Mux #9 /B	r(0,15)	15.000000		verify
DE_MAG1_X_OUT	ECU	Magnetometer-1 X-out	r(0,32000),y(15880,19880)	11587.000000	(Y)	verify
DE_MAG1_Y_OUT	ECU	Magnetometer-1 Y-out	r(0,32000),y(16800,20650)	14684.000000	(S)	skip
DE_MAG1_Z_OUT	ECU	Magnetometer-1 Z-out	r(0,32000),y(19660,21660)	23410.000000	(Y)	verify
DE_MAG2_X_OUT	ECU	Magnetometer-2 X-out	r(0,32000),y(18000,22000)	8377.000000	(Y)	verify
DE_MAG2_Y_OUT	ECU	Magnetometer-2 Y-out	r(0,32000),y(14800,20000)	8205.000000	(Y)	verify
DE_MAG2_Z_OUT	ECU	Magnetometer-2 Z-out	r(0,32000),y(12000,17000)	23194.000000	(Y)	verify
DE_MAG3_X_OUT	ECU	Magnetometer-3 X-out	r(0,32000),y(12500,17500)	23264.000000	(Y)	verify
DE_MAG3_Y_OUT	ECU	Magnetometer-3 Y-out	r(0,32000),y(12364,16364)	8218.000000	(Y)	verify

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_C Experiment Control Unit Check (continued)
Status: Warning

Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
DE_MAG3_Z_OUT	ECU	Magnetometer-3 Z-out	r(0,32000),y(7729,21729)	8042.000000		verify
DE_MAG4_X_OUT	ECU	Magnetometer-4 X-out	r(0,32000),y(15245,19245)	8170.000000	(Y)	verify
DE_MAG4_Y_OUT	ECU	Magnetometer-4 Y-out	r(0,32000),y(11833,15833)	8037.000000	(Y)	verify
DE_MAG4_Z_OUT	ECU	Magnetometer-4 Z-out	r(0,32000),y(13496,20000)	8108.000000	(Y)	verify
DE_Mux_1_Gain_A	ECU	Mux 1 Gains /A	r(112,115)	113.000000		verify
DE_Mux_1_Gain_B	ECU	Mux 1 Gains /B	r(112,115)	113.000000		verify
DE_Mux_2_Gain_A	ECU	Mux 2 Gains /A	r(128,131)	129.000000		verify
DE_Mux_2_Gain_B	ECU	Mux 2 Gains /B	r(128,131)	129.000000		verify
DE_Mux_3_Gain_A	ECU	Mux 3 Gains /A	r(160,163)	161.000000		verify
DE_Mux_3_Gain_B	ECU	Mux 3 Gains /B	r(160,163)	161.000000		verify
DE_Mux_4_Gain_A	ECU	Mux 4 Gains /A	r(16,19)	17.000000		verify
DE_Mux_4_Gain_B	ECU	Mux 4 Gains /B	r(16,19)	17.000000		verify
DE_Mux1A_CAL1	ECU	Mux1A CAL1	r(17562,32768)	32767.000000		verify
DE_Mux1B_CAL1	ECU	Mux1B CAL1	r(16305,32768)	32767.000000		verify
DE_Mux2A_CAL1	ECU	Mux2A CAL1	r(17689,32768)	32767.000000		verify
DE_Mux2B_CAL1	ECU	Mux2B CAL1	r(17689,32768)	32767.000000		verify
DE_Mux3B_CAL1	ECU	Mux3B CAL1	r(17689,32768)	32767.000000		verify
DE_Mux4A_CAL1	ECU	Mux4A CAL1	r(4723,18850)	19169.000000	(S)	skip
DE_Mux4B_CAL1	ECU	Mux4B CAL1	r(4723,18850)	19301.000000	(S)	skip
DE_Mux9A_CAL1	ECU	Mux9A_CAL1	r(4817,5014)	4923.000000		verify
DE_Mux9A_CAL2	ECU	Mux9A_CAL2	r(1602,1668)	1645.000000		verify
DE_Mux9B_CAL1	ECU	Mux9B_CAL1	r(4817,5014)	4890.000000		verify
DE_Mux9B_CAL2	ECU	Mux9B_CAL2	r(1599,1668)	1601.000000		verify
DE_Out_Mux_11_A	ECU	Channel on Output Mux #11 /A	r(0,39)	37.000000		verify
DE_Out_Mux_11_B	ECU	Channel on Output Mux #11 /B	r(0,39)	0.000000		verify
DE_Out_Mux_6__A	ECU	Channel on Output Mux #6 /A	r(32,39)	33.000000		verify
DE_Out_Mux_6__B	ECU	Channel on Output Mux #6 /B	r(32,39)	32.000000		verify
DE_Out_Mux_7__A	ECU	Channel on Output Mux #7 /A	r(0,112)	39.000000		verify
DE_Out_Mux_7__B	ECU	Channel on Output Mux #7 /B	r(0,112)	101.000000		verify
DE_VSDwBotST14D	ECU	Bottom vacuum shell: T-14D	r(200,350)	0.000000	(S)	skip
DE_VSDwSRgST13D	ECU	Support ring vacuum shell: T-13D	r(200,350)	0.000000	(S)	skip
PE_Ecu_On	ECU	Status byte indicating ECU on/off	On	On		verify
RE_ConfigApp_1	ECU	1 If App Is On	r(0,1)	0.000000		verify
RE_ConfigApp_2	ECU	1 If App Is On	r(0,1)	0.000000		verify
RE_ConfigApp_3	ECU	1 If App Is On	r(0,1)	0.000000		verify
RE_ConfigApp_4	ECU	1 If App Is On	r(0,1)	0.000000		verify
RE_ConfigApp_5	ECU	1 If App Is On	r(0,1)	0.000000		verify
SE_EcuPidMode	ECU	0 For Pid, 1 For Window Bakeout	r(0,2)	0.000000		verify
TE_CryPm_aGT15P	ECU	Cryo-pump GRT/a: T-15P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
TE_CryPm_bGT16P	ECU	Cryo-pump GRT/b: T-16P	r(1.2,10),y(1.4,7)	2.423514		verify

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_C Experiment Control Unit Check (continued)
Status: Warning

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
	TE_Fi1_2_aGT06P	ECU	Final filter 1&2 GRT/a: T-06P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_Fi1_2_bGT07P	ECU	Final filter 1&2 GRT/b: T-07P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_Fi3_4_aGT08P	ECU	Final filter 3&4 GRT/a: T-08P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_Fi3_4_bGT09P	ECU	Final filter 3&4 GRT/b: T-09P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_FlM_a__GT18D	ECU	Flow meter vent line GRT/a: T-18D	r(1,35),y(1.2,30)	0.000000	(S)	skip
*	TE_FlMtr_bGT19D	ECU	Flow meter vent line GRT/b: T-19D	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_GMA_SDT_1A	ECU	GMA #1A SDT/a	r(225,313),y(234,308.15)	352.733429	(S)	skip
	TE_GMA_SDT_1B	ECU	GMA #1B SDT/b	r(225,313),y(234,308.15)	237.256729		verify
	TE_GMA_SDT_2A	ECU	GMA #2A SDT/a	r(225,313),y(234,308.15)	319.308594	(S)	skip
	TE_GMA_SDT_2B	ECU	GMA #2B SDT/b	r(225,313),y(234,308.15)	175.492661	(S)	skip
	TE_GMA_SDT_3A	ECU	GMA #3A SDT/a	r(225,313),y(234,308.15)	284.383240		verify
	TE_GMA_SDT_3B	ECU	GMA #3B SDT/b	r(225,313),y(234,308.15)	95.573486	(S)	skip
	TE_GrdTk__ST16D	ECU	Guard tank bottom SDT: T-16D	r(1,60),y(1.2,50)	28.148438	(S)	skip
	TE_Gyro_1_GT01Q	ECU	Gyroscope #1 GRT: T-01Q	r(1.2,10),y(1.4,7)	2.707327		verify
	TE_Gyro_2_GT02Q	ECU	Gyroscope #2 GRT: T-02Q	r(1.2,10),y(1.4,7)	3.051802		verify
	TE_Gyro_3_GT03Q	ECU	Gyroscope #3 GRT: T-03Q	r(1.2,10),y(1.4,7)	2.331676		verify
	TE_Gyro_4_GT04Q	ECU	Gyroscope #4 GRT: T-04Q	r(1.2,10),y(1.4,7)	2.725322		verify
	TE_HEX1Dw_ST03D	ECU	HEX-1 dewar SDT: T-03D	r(2,90),y(3,70)	27.367188		verify
	TE_HEX1Pr_ST01P	ECU	HEX-1 probe SDT: T-01P	r(2,90),y(3,70)	28.234375		verify
	TE_HEX2Dw_ST06D	ECU	HEX-2 dewar SDT: T-06D	r(6,130),y(8,110)	64.835449		verify
	TE_HEX2Pr_ST02P	ECU	HEX-2 probe SDT: T-02P	r(6,130),y(8,110)	71.587158		verify
	TE_HEX3Dw_ST07D	ECU	HEX-3 dewar SDT: T-07D	r(10,190),y(15,170)	127.923683		verify
	TE_HEX3Pr_ST03P	ECU	HEX-3 probe SDT: T-03P	r(10,190),y(15,170)	146.123718		verify
	TE_HEX4Dw_ST08D	ECU	HEX-4 dewar SDT: T-08D	r(20,260),y(30,240)	194.162537		verify
	TE_HEX4Pr_ST04P	ECU	HEX-4 probe SDT: T-04P	r(20,260),y(30,240)	198.679245		verify
	TE_HEX4Pr_ST27P	ECU	HEX-4 probe SDT: T-27P	r(20,260),y(30,240)	202.097549		verify
	TE_MTkIn_aGT10D	ECU	Main tank internal GRT/a: T-10D	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_MTkIn_bGT11D	ECU	Main tank internal GRT/b: T-11D	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_PlSad_aST17P	ECU	Plumbing saddle STA194 SDT/a: T-17	r(1.2,10),y(1.4,7)	2.806641		verify
*	TE_PlSad_bST18P	ECU	Plumbing saddle SDT/b: T-18P	r(1.2,10),y(1.4,7)	2.317383	(S)	skip
	TE_PPEx_aGT12AD	ECU	Porous plug exit GRT/a: T-12AD	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_PPEx_bGT12BD	ECU	Porous plug exit GRT/b: T-12BD	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_PrSLn_aST19P	ECU	Pressure sense line STA156 SDT/a:	r(1.2,10),y(1.4,7)	3.372314		verify
*	TE_PrSLn_bST20P	ECU	Pressure sense line SDT/b: T-20P	r(1.2,10),y(1.4,7)	2.517578	(S)	skip
	TE_Q_Aft__GT05Q	ECU	Quartz block aft end GRT: T-05Q	r(1.2,10),y(1.4,7)	2.580232		verify
	TE_Q_Flng_GT06Q	ECU	Quartz block flange GRT: T-06Q	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_Q_ForEGGT17Q	ECU	Quartz block forward end GRT: T-17	r(1.2,10),y(1.4,7)	2.520520		verify
	TE_QBS_a__GT10P	ECU	Quartz block support GRT/a: T-10P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_QBS_b__GT11P	ECU	Quartz block support GRT/b: T-11P	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_St2Dw_aGT01D	ECU	Station 200 dewar GRT/a: T-01D	r(1,7),y(1.2,6)	0.000000	(S)	skip

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_C Experiment Control Unit Check (continued)
Status: Warning

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
	TE_St2Dw_bGT02D	ECU	Station 200 dewar GRT/b: T-02D	r(1,7),y(1.2,6)	0.000000	(S)	skip
	TE_St2Pr_aGT05P	ECU	Station 200 probe GRT: T-05P	r(1.2,10),y(1.4,7)	2.859737		verify
	TE_St2Pr_bGT28P	ECU	STA 200 probe GRT/b: T-28P	r(1.2,10),y(1.4,7)	2.910661		verify
*	TE_TelCP_1GT14Q	ECU	Telescope corrector plate #1 GRT:	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
*	TE_TelCP_2GT15Q	ECU	Telescope corrector plate #2 GRT:	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
*	TE_TelD_1_GT12Q	ECU	Telescope detector #1 GRT: T-12Q	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
*	TE_TelD_2_GT13Q	ECU	Telescope detector #2 GRT: T-13Q	r(1.2,10),y(1.4,7)	0.000000	(S)	skip
	TE_TelDM_YGT21Q	ECU	Telescope detector mount +Y GRT: T	r(1.2,10),y(1.4,7)	99.999001	(S)	skip
	TE_TpPltDwST17D	ECU	Dewar top plate SDT: T-17D	r(180,335),y(190,325)	288.943420		verify
	TE_VAT_LV1_SDTa	ECU	Leakage valve 1 SDT/a	r(218,315),y(220,310)	0.000000	(S)	skip
*	TE_VAT_LV1_SDTb	ECU	Leakage valve 1 SDT/b	r(218,315),y(220,310)	0.000000	(S)	skip
	TE_VCS_GR_ST30D	ECU	Vacuum shell graphite ring SDT/a:	r(180,335),y(190,325)	0.000000	(S)	skip
	TE_VCS_GR_ST31D	ECU	Vacuum shell graphite ring SDT/a:	r(180,335),y(190,325)	0.000000	(S)	skip
	TE_VCS_GR_ST32D	ECU	Vacuum shell graphite ring SDT/a:	r(180,335),y(190,325)	0.000000	(S)	skip
	TE_VCS1Bt_ST05D	ECU	VCS1 bottom SDT: T-05D	r(2,90),y(3,70)	29.578125		verify
	TE_VCS1Md_ST04D	ECU	VCS1 middle SDT: T-04D	r(2,90),y(3,70)	28.148438		verify
	TE_VSPr_a_ST13P	ECU	Vacuum shell probe SDT/a: T-13P	r(1,7),y(1.2,6)	2.592773		verify
	TE_VSPr_b_ST14P	ECU	Vacuum shell probe SDT/b: T-14P	r(1,7),y(1.2,6)	2.151611		verify
	TE_Win_1_aST21P	ECU	Window #1 frame SDT/a: T-21P	r(2,90),y(3,70)	41.218750		verify
	TE_Win_2_aST23P	ECU	Window #2 frame SDT/a: T-23P	r(6,130),y(8,110)	97.140137		verify
	TE_Win_2_bST24P	ECU	Window #2 SDT/b: T-24P	r(6,130),y(8,110)	92.413086		verify
	TE_Win_3_aST25P	ECU	Window #3 frame SDT/a: T-25P	r(10,190),y(15,175)	169.688675		verify
	TE_Win_3_bST26P	ECU	Window #3 SDT/b: T-26P	r(10,190),y(15,175)	168.009354		verify
	TE_Win_4_aPT29P	ECU	Window #4 frame PRT/a: T-29P	r(180,335),y(190,325)	285.471161		verify
	TE_Win_4_bPT30P	ECU	Window #4 frame PRT/b: T-30P	r(180,335),y(190,325)	286.383850		verify
	VE_LiqPnt_LP01D	ECU	Liquid point sensor voltage: LP-01	r(0,26000)	1.784002		verify
	VE_Mux10A_VCAL	ECU	Calibration voltage/a	r(9.5,10.5),y(9.8,10.2)	9.820564		verify
	VE_Mux10B_VCAL	ECU	Calibration voltage/b	r(9.5,10.5),y(9.8,10.2)	10.078743		verify
	VE_Mux11A_VCAL	ECU	+5V Monitor/a	r(4.5,5.5),y(4.8,5.2)	4.979557		verify
	VE_Mux11B_VCAL	ECU	+5V Monitor/b	r(4.5,5.5),y(4.8,5.2)	4.969486		verify
	VE_Mux7A_VREF	ECU	+10 V ref/a	r(9.5,10.5),y(9.6,10)	10.101341	(Y)	verify
	VE_Mux7B_VREF	ECU	+10 V ref/b	r(9.5,10.5),y(9.6,10)	10.095166	(Y)	verify

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_I Experiment Control Unit Information
Status: No Status

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
	BE_HPM___OnOffA	ECU	Heat Pulse Meter On/Off /A	r(0,1)	0.000000	(S)	skip
	BE_HPM___OnOffB	ECU	Heat Pulse Meter On/Off /B	r(0,1)	0.000000	(S)	skip
	BE_VflyVSeOnOfA	ECU	Vatterfly Valves Select On/Off /A	r(0,255)	246.000000	(S)	skip
	BE_VflyVSeOnOfB	ECU	Vatterfly Valves Select On/Off /B	r(0,255)	246.000000	(S)	skip
	CE_FlCH_I_ah10d	ECU	Flow control heater current/a: (H-	r(0,25000)	-0.000196	(S)	skip
	CE_FlCH_I_bh11d	ECU	Flow control heater current/b: (H-	r(0,25000)	-0.000089	(S)	skip
	CE_FlMHI_ah05ad	ECU	Flow meter heater current/a: (H-05	r(0,25000)	0.000559	(S)	skip
	CE_FlMHI_bh05bd	ECU	Flow meter heater current/b: (H-05	r(0,25000)	-0.000032	(S)	skip
	CE_HPMH_I_ah01d	ECU	Heat pulse meter heater current/a:	r(0,25000)	0.007017	(S)	skip
	CE_HPMH_I_bh02d	ECU	Heat pulse meter heater current/b:	r(0,25000)	-0.003213	(S)	skip
*	CE_PPH_I_ah13ad	ECU	Porous plug heater current/a: (H-1	r(0,25000)	No Data	(S)	skip
*	CE_PPH_I_bh13bd	ECU	Porous plug heater current/b: (H-1	r(0,25000)	No Data	(S)	skip
	CE_UVLampA_I	ECU	UV Lamp-A current	r(0,25000)	-98.000000	(S)	skip
	CE_UVLampB_I	ECU	UV Lamp-B current	r(0,25000)	-132.000000	(S)	skip
	DE_GMA_____GP10	ECU	GMA Inlet Pressure Gyro 2 A GP10		197.110794	(S)	skip
	DE_GMA_____GP11	ECU	GMA Inlet Pressure Gyro 3 A GP11		10.629808	(S)	skip
	DE_GMA_____GP12	ECU	GMA Inlet Pressure Gyro 4 B GP12		6.730116	(S)	skip
	DE_GMA_____GP14	ECU	GMA Vent Outlet Pressure GP14		73.771400	(S)	skip
	DE_GMA_____GP2	ECU	GMA Pre-Regulator Pressure A GP2		2526.031494	(S)	skip
	DE_GMA_____GP6	ECU	GMA Post Regulator Orifice GP6		7.516769	(S)	skip
	DE_GMA_____GP7	ECU	GMA Inlet Pressure Gyro 1 A GP7		19.487476	(S)	skip
	DE_GMA_____GP8	ECU	GMA Input to Gyro 1 B GP8		1703.461670	(S)	skip
	DE_GMA_____GP9	ECU	GMA Inlet Pressure Gyro 2 B GP9		14.039656	(S)	skip
	DE_HSP_CryPm__A	ECU	Heater Set Point Cryo Pump /A		0.000000	(S)	skip
	DE_HSP_CryPm__B	ECU	Heater Set Point Cryo Pump /B		0.000000	(S)	skip
	DE_HSP_Fi_1_2_A	ECU	Heater Set Point Gas Inlet Filter		0.000000	(S)	skip
	DE_HSP_Fi_1_2_B	ECU	Heater Set Point Gas Inlet Filter		0.000000	(S)	skip
	DE_HSP_Fi_3_4_A	ECU	Heater Set Point Gas Inlet Filter		0.000000	(S)	skip
	DE_HSP_Fi_3_4_B	ECU	Heater Set Point Gas Inlet Filter		0.000000	(S)	skip
	DE_HSP_FlC____A	ECU	Heater Set Point Flow Control /A		0.000000	(S)	skip
	DE_HSP_FlC____B	ECU	Heater Set Point Flow Control /B		0.000000	(S)	skip
	DE_HSP_FlM____A	ECU	Heater Set Point Flow Meter /A		0.000000	(S)	skip
	DE_HSP_FlM____B	ECU	Heater Set Point Flow Meter /B		0.000000	(S)	skip
	DE_HSP_Pl_____A	ECU	Heater Set Point Plumbing /A		0.000000	(S)	skip
	DE_HSP_Pl_____B	ECU	Heater Set Point Plumbing /B		0.000000	(S)	skip
*	DE_HSP_PP_____A	ECU	Heater Set Point Porous Plug /A		No Data	(S)	skip
*	DE_HSP_PP_____B	ECU	Heater Set Point Porous Plug /B		No Data	(S)	skip
	DE_HSP_PrsSen_A	ECU	Heater Set Point Pressure Sense Li		0.000000	(S)	skip
	DE_HSP_PrsSen_B	ECU	Heater Set Point Pressure Sense Li		0.000000	(S)	skip
	DE_HSP_QBS____A	ECU	Heater Set Point QBS /A		214.000000	(S)	skip

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_I Experiment Control Unit Information (continued)
Status: No Status

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
	DE_HSP_QBS____B	ECU	Heater Set Point QBS /B		0.000000	(S)	skip
	DE_HSP_VS_____A	ECU	Heater Set Point Vacuum Shell /A		0.000000	(S)	skip
	DE_HSP_VS_____B	ECU	Heater Set Point Vacuum Shell /B		0.000000	(S)	skip
	DE_HSP_Win1___A	ECU	Heater Set Point Window #1 /A		0.000000	(S)	skip
	DE_HSP_Win1___B	ECU	Heater Set Point Window #1 /B		0.000000	(S)	skip
	DE_HSP_Win2___A	ECU	Heater Set Point Window #2 /A		0.000000	(S)	skip
	DE_HSP_Win2___B	ECU	Heater Set Point Window #2 /B		0.000000	(S)	skip
	DE_HSP_Win3___A	ECU	Heater Set Point Window #3 /A		0.000000	(S)	skip
	DE_HSP_Win3___B	ECU	Heater Set Point Window #3 /B		0.000000	(S)	skip
	DE_HSP_Win4___A	ECU	Heater Set Point Window #4 /A		0.000000	(S)	skip
	DE_HSP_Win4___B	ECU	Heater Set Point Window #4 /B		0.000000	(S)	skip
	DE_HSPGyro1_OLA	ECU	Heater Set Point Gyro 1 (Side A) O		0.000000	(S)	skip
	DE_HSPGyro2_OLA	ECU	Heater Set Point Gyro 2 (Side A) O		0.000000	(S)	skip
	DE_HSPGyro3_OLB	ECU	Heater Set Point Gyro3 (Side B) Op		0.000000	(S)	skip
	DE_HSPGyro4_OLB	ECU	Heater Set Point Gyro4 (Side B) Op		0.000000	(S)	skip
	DE_Mux1A_CAL2	ECU	Mux1A CAL2		19309.000000	(S)	skip
	DE_Mux1A_CAL3	ECU	Mux1A CAL3		1893.000000	(S)	skip
	DE_Mux1A_CAL4	ECU	Mux1A CAL4		413.000000	(S)	skip
	DE_Mux1B_CAL2	ECU	Mux1B CAL2		19445.000000	(S)	skip
	DE_Mux1B_CAL3	ECU	Mux1B CAL3		1900.000000	(S)	skip
	DE_Mux1B_CAL4	ECU	Mux1B CAL4		405.000000	(S)	skip
	DE_Mux2A_CAL2	ECU	Mux2A CAL2		19282.000000	(S)	skip
	DE_Mux2A_CAL3	ECU	Mux2A CAL3		1902.000000	(S)	skip
	DE_Mux2A_CAL4	ECU	Mux2A CAL4		415.000000	(S)	skip
	DE_Mux2B_CAL2	ECU	Mux2B CAL2		19428.000000	(S)	skip
	DE_Mux2B_CAL3	ECU	Mux2B CAL3		1896.000000	(S)	skip
	DE_Mux2B_CAL4	ECU	Mux2B CAL4		403.000000	(S)	skip
	DE_Mux3B_CAL2	ECU	Mux3B CAL2		18394.000000	(S)	skip
	DE_Mux3B_CAL3	ECU	Mux3B CAL3		1785.000000	(S)	skip
	DE_Mux4A_CAL2	ECU	Mux4A CAL2		1890.000000	(S)	skip
	DE_Mux4B_CAL2	ECU	Mux4B CAL2		1890.000000	(S)	skip
*	DE_Mux7A_SD2_C1	ECU	Mux7A SD2 CAL1	r(21719,27629),y(24132,25117)	24909.000000	(S)	skip
*	DE_Mux7A_SD2_C2	ECU	Mux7A SD2 CAL2	r(7225,9191),y(8028,8356)	0.000000	(S)	skip
*	DE_Mux7A_SD4_C1	ECU	Mux7A SD4 CAL1	r(21719,27629),y(24132,25117)	25019.000000	(S)	skip
*	DE_Mux7A_SD4_C2	ECU	Mux7A SD4 CAL2	r(7225,9191),y(8028,8356)	8338.000000	(S)	skip
*	DE_Mux7B_SD2_C1	ECU	Mux7B SD2 CAL1	r(21719,27629),y(24132,25117)	25091.000000	(S)	skip
*	DE_Mux7B_SD2_C2	ECU	Mux7B SD2 CAL2	r(7225,9191),y(8028,8356)	8392.000000	(S)	skip
*	DE_Mux7B_SD4_C1	ECU	Mux7B SD4 CAL1	r(7225,9191),y(8028,8356)	25288.000000	(S)	skip
*	DE_Mux7B_SD4_C2	ECU	Mux7B SD4 CAL2	r(7225,9191),y(8028,8356)	8443.000000	(S)	skip
*	DE_PODS1___R01D	ECU	PODS#1 continuity: R-01D	r(0,32786),y(32000,32767)	-31.000000	(S)	skip

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_I Experiment Control Unit Information (continued)
Status: No Status

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
*	DE_PODS10__R10D	ECU	PODS#10 continuity: R-10D	r(0,32768),y(7350,7400)	-29.000000	(S)	skip
*	DE_PODS11__R11D	ECU	PODS#11 continuity: R-11D	r(0,32768),y(7350,7400)	-29.000000	(S)	skip
*	DE_PODS12__R12D	ECU	PODS#12 continuity: R-12D	r(0,32786),y(32000,32767)	-30.000000	(S)	skip
*	DE_PODS2___R02D	ECU	PODS#2 continuity: R-02D	r(0,32768),y(7350,7400)	-36.000000	(S)	skip
*	DE_PODS3___R03D	ECU	PODS#3 continuity: R-03D	r(0,32786),y(32000,32767)	-35.000000	(S)	skip
*	DE_PODS4___R04D	ECU	PODS#4 continuity: R-04D	r(0,32786),y(32000,32767)	-36.000000	(S)	skip
*	DE_PODS5___R05D	ECU	PODS#5 continuity: R-05D	r(0,32786),y(32000,32767)	-36.000000	(S)	skip
*	DE_PODS6___R06D	ECU	PODS#6 continuity: R-06D	r(0,32786),y(32000,32767)	-35.000000	(S)	skip
*	DE_PODS7___R07D	ECU	PODS#7 continuity: R-07D	r(0,32768),y(7350,7400)	-27.000000	(S)	skip
*	DE_PODS8___R08D	ECU	PODS#8 continuity: R-08D	r(0,32768),y(7350,7400)	-28.000000	(S)	skip
*	DE_PODS9___R09D	ECU	PODS#9 continuity: R-09D	r(0,32768),y(7350,7400)	-28.000000	(S)	skip
	DE_QBSHOpClLp_A	ECU	QBS Heater Open/Closed Loop AC/DC		80.000000	(S)	skip
	DE_QBSHOpClLp_B	ECU	QBS Heater Open/Closed Loop AC/DC		82.000000	(S)	skip
	DE_UVLampA_OUT	ECU	UV Lamp-A output		-5.000000	(S)	skip
	DE_UVLampB_OUT	ECU	UV Lamp-B output		-37.000000	(S)	skip
	DE_VACG_P9A_PWR	ECU	Vacuum Gauge Power		7972.000000	(S)	skip
	DE_VACG_P9A_RNG	ECU	Vacuum Gauge Range		-13.000000	(S)	skip
	DE_VACG_P9A_SIG	ECU	Vacuum Gauge Signal		-0.000262	(S)	skip
	DE_VACG_P9B_PWR	ECU	Vacuum Gauge Power		7952.000000	(S)	skip
	DE_VACG_P9B_RNG	ECU	Vacuum Gauge Range		-48.000000	(S)	skip
	DE_VACG_P9B_SIG	ECU	Vacuum Gauge Signal		-0.000121	(S)	skip
	PE_ECUPidErr0	ECU	ECU Pid Error Bit 0 (MSB)		False	(S)	skip
	PE_ECUPidErr1	ECU	ECU Pid Error Bit 1		False	(S)	skip
	PE_ECUPidErr10	ECU	ECU Pid Error Bit 10		False	(S)	skip
	PE_ECUPidErr11	ECU	ECU Pid Error Bit 11		False	(S)	skip
	PE_ECUPidErr12	ECU	ECU Pid Error Bit 12		False	(S)	skip
	PE_ECUPidErr13	ECU	ECU Pid Error Bit 13		False	(S)	skip
	PE_ECUPidErr14	ECU	ECU Pid Error Bit 14		False	(S)	skip
	PE_ECUPidErr15	ECU	ECU Pid Error Bit 15		False	(S)	skip
	PE_ECUPidErr2	ECU	ECU Pid Error Bit 2		False	(S)	skip
	PE_ECUPidErr3	ECU	ECU Pid Error Bit 3		False	(S)	skip
	PE_ECUPidErr4	ECU	ECU Pid Error Bit 4		False	(S)	skip
	PE_ECUPidErr5	ECU	ECU Pid Error Bit 5		False	(S)	skip
	PE_ECUPidErr6	ECU	ECU Pid Error Bit 6		False	(S)	skip
	PE_ECUPidErr7	ECU	ECU Pid Error Bit 7		False	(S)	skip
	PE_ECUPidErr8	ECU	ECU Pid Error Bit 8		False	(S)	skip
	PE_ECUPidErr9	ECU	ECU Pid Error Bit 9		False	(S)	skip
	SE_EcuPidError	ECU	Error word		0.000000	(S)	skip
*	TE_Q_ForESST18Q	ECU	Quartz block forward end SDT: T-18	r(1.2,10),y(1.4,7)	374.998993	(S)	skip
	TE_Q_G3_G4ST07Q	ECU	Quartz block G3/G4 SDT: T-07Q	r(1.2,10),y(1.4,7)	374.998993	(S)	skip

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: ECU_I Experiment Control Unit Information (continued)
Status: No Status

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
*	TE_QBS_SDTST12P	ECU	Quartz block support SDT: T-12P	r(1.2,10),y(1.4,7)	374.998993	(S)	skip
*	TE_SciTel_ST16Q	ECU	Science telescope SDT: T-16Q	r(1.2,10),y(1.4,7)	374.998993	(S)	skip
	TE_VAT_EV1_SDTa	ECU	Exhaust Valve 1 SDT/a		0.000000	(S)	skip
*	TE_VAT_EV1_SDTb	ECU	Exhaust valve 1 SDT/b		0.000000	(S)	skip
	TE_VAT_EV2_SDTa	ECU	Exhaust Valve 2 SDT/a		0.000000	(S)	skip
*	TE_VAT_EV2_SDTb	ECU	Exhaust valve 2 SDT/b		0.000000	(S)	skip
	TE_VAT_EV3_SDTa	ECU	Exhaust Valve 3 SDT/a		0.000000	(S)	skip
	TE_VAT_EV3_SDTb	ECU	Exhaust valve 3 SDT/b		0.000000	(S)	skip
*	TE_VAT_EV4_SDTa	ECU	Exhaust Valve 4 SDT/a		0.000000	(S)	skip
	TE_VAT_EV4_SDTb	ECU	Exhaust valve 4 SDT/b		0.000000	(S)	skip
	TE_VAT_LV2_SDTa	ECU	Leakage valve 2 SDT/a		0.000000	(S)	skip
*	TE_VAT_LV2_SDTb	ECU	Leakage valve 2 SDT/b		0.000000	(S)	skip
*	TE_Win_1_bST22P	ECU	Window #1 SDT/b: T-22P	r(2,90),y(3,70)	36.483154	(S)	skip
	VE_FF1_2_aH01P	ECU	Final Filter 1&2 Htr V/a : (H-01P)		0.032959	(S)	skip
	VE_FF1_2_bH02P	ECU	Final Filter 1&2 Htr V/b : (H-02P)		0.035831	(S)	skip
	VE_FF3_4_aH03P	ECU	Final Filter 3&4 Htr V/a : (H-03P)	r(0,26000)	0.047053	(S)	skip
	VE_FF3_4_bH04P	ECU	Final Filter 3&4 Htr V/b : (H-04P)	r(0,26000)	0.112944	(S)	skip
	VE_FlCH_a__H10D	ECU	Flow control heater voltage/a: H-1	r(0,26000)	-0.661284	(S)	skip
	VE_FlCH_b__H11D	ECU	Flow control heater voltage/b: H-1	r(0,26000)	0.095565	(S)	skip
	VE_FlMH_a_H05AD	ECU	Flow meter heater voltage/a: H-05A	r(0,20000)	0.015612	(S)	skip
	VE_FlMH_b_H05BD	ECU	Flow meter heater voltage/b: H-05B	r(0,20000)	-0.003837	(S)	skip
	VE_Gyr1_HTR_V_A	ECU	Gyro 1 Htr V/a	r(0,30000)	-0.003297	(S)	skip
	VE_Gyr2_HTR_V_A	ECU	Gyro 2 Htr V/a	r(0,30000)	0.068140	(S)	skip
	VE_Gyr3_HTR_V_B	ECU	Gyro 3 Htr V/b	r(0,30000)	0.020705	(S)	skip
	VE_Gyr4_HTR_V_B	ECU	Gyro4 Htr V/b	r(0,30000)	0.003168	(S)	skip
	VE_HPMH_a__H01D	ECU	Heat pulse meter heater voltage/a:	r(21002,21859)	-0.010480	(S)	skip
	VE_HPMH_b__H02D	ECU	Heat pulse meter heater voltage/b:	r(21002,21859)	-0.015820	(S)	skip
*	VE_PPH_a__H13AD	ECU	Porous plug heater voltage/a: H-13	r(0,20000)	No Data	(S)	skip
*	VE_PPH_b__H13BD	ECU	Porous plug heater voltage/b: H-13	r(0,20000)	No Data	(S)	skip
	VE_QBS_H_a_H05P	ECU	Quartz block support heater V: H-0	r(0,30000)	1.331903	(S)	skip
	VE_QBS_H_b_H06P	ECU	Quartz block support heater V: H-0	r(0,30000)	-0.047553	(S)	skip
	VE_VAT_A_CLOSED	ECU	Vatt valve-A closed	y(16055,16713)	15921.000000	(S)	skip
	VE_VAT_A_OPEN	ECU	Vatt valve-A open	r(0,16056)	15917.000000	(S)	skip
	VE_VAT_B_CLOSED	ECU	Vatt valve-B closed	y(16055,16713)	-48.000000	(S)	skip
	VE_VAT_B_OPEN	ECU	Vatt valve-B open	r(0,16056)	-48.000000	(S)	skip

Phase: Mode 2A Attitude Capture A FLIGHT
Subsystem: TMS_C Thermal Management System Check
Status: Fail

	Mnemonic	Sub	Description	Expected Value	Actual Value		Conf
	PA_Thr01_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr02_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr03_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr04_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr05_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr06_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr07_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr08_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr09_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr10_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr11_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr12_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr13_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr14_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr15_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	PA_Thr16_Temp	ACE	12 bit Thruster Temp from 16 bit A	r(-10,58)	-250.050003	(S)	skip
	SQ_FLL_ETmp_1	SRE	SQUID 1 FLL Electronic Temperature	r(-24,100),y(-19,80)	46.793262	(S)	skip
	SQ_FLL_ETmp_2	SRE	SQUID 2 FLL Electronic Temperature	r(-24,100),y(-19,80)	51.285809	(S)	skip
	SQ_FLL_ETmp_3	SRE	SQUID 3 FLL Electronic Temperature	r(-24,100),y(-19,80)	45.218430	(S)	skip
	SQ_FLL_ETmp_4	SRE	SQUID 4 FLL Electronic Temperature	r(-24,100),y(-19,80)	40.988358	(S)	skip
	TC_CCCA_A_P33V	CCC	CCCA A +3.3V monitor	r(-1,4),y(-0.7,3.7)	3.360000		verify
	TC_CCCA_A_P5V	CCC	CCCA A +5V monitor	r(-1,6),y(-0.7,5.6)	5.120000		verify
	TC_CCCA_A_Temp1	CCC	CCCA A temperature monitor 1	r(-20,60),y(0,50)	48.666664		verify
	TC_CCCA_A_Temp2	CCC	CCCA A temperature monitor 2	r(-20,60),y(0,50)	43.999992		verify
	TC_CCCA_B_Temp1	CCC	CCCA B temperature monitor 1	r(-20,60),y(0,50)	-40.000000	(S)	skip
	TC_CCCA_B_Temp2	CCC	CCCA B temperature monitor 2	r(-20,60),y(0,50)	-40.000000	(S)	skip
	TC_Gyro_1A_Temp	CGA	Gyro 1A temperature monitor	r(-8,70)	27.913330	(S)	skip
	TC_Gyro_1B_Temp	CGB	Gyro 1B temperature monitor	r(-8,70)	28.142220	(S)	skip
	TC_Gyro_2A_Temp	CGA	Gyro 2A temperature monitor	r(-8,70)	27.913330	(S)	skip
	TC_Gyro_2B_Temp	CGB	Gyro 2B temperature monitor	r(-8,70)	28.142220	(S)	skip
	TC_VFC_A_Temp	CGA	Gyro A voltage to frequency conver	r(-8,77)	27.022221	(S)	skip
	TC_VFC_B_Temp	CGB	Gyro B voltage to frequency conver	r(-8,77)	27.788887	(S)	skip
	TE_ECU_Aft_SDT1	ECU	Aft ECU1 SDT/a	r(233,323),y(273,320)	316.299927		verify
*	TE_ECU_AFT_SDT2	ECU	Aft ECU2 SDT/b	r(233,323),y(273,320)	320.310822	(S)	skip
	TE_ECU_FOR_SDT1	ECU	Forward ECU1 SDT	r(235,325),y(250,320.15)	301.230743		verify
*	TE_ECU_FOR_SDT2	ECU	Forward ECU2 SDT	r(235,325),y(250,320.15)	300.351440	(S)	skip
	TE_UV_BASE_SDTa	ECU	UV-A base SDT/a	r(273,323),y(250,320)	268.583862	(R)	verify
	TE_UV_BASE_SDTb	ECU	UV-B base SDT/b	r(273,323),y(250,320)	305.367859		verify
	TL_GPSaftant_mX	TCS	Aft GPS antenna temperature, -X	r(-43,71)	25.374680	(S)	skip
	TL_GPSaftant_pX	TCS	Aft GPS antenna temperature, +X	r(-43,71)	25.374680	(S)	skip