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EOSDIS Core System Project

Flight Operations Segment (FOS) Release B: Version 2.01.00 Integration and Acceptance Test Procedures for the ECS Project

January 1998

Raytheon Systems Company
Upper Marlboro, Maryland

Flight Operations Segment (FOS) Release B: Version 2.01.00 Integration and Acceptance Test Procedures for the ECS Project

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Preface

This document defines the Flight Operations Segment (FOS) Integration and Acceptance Test Procedures for Release B Version 2.01.00. It covers CDRL item #055 (DID 322/DV3) and CDRL item #070 (DID 411/VE1), as deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS), Contract NAS5-60000.

This document is a contract deliverable with an approval code 2. As such, it does not require formal Government approval, however, the Government reserves the right to request changes within 45 days of the initial submittal. Once approved, contractor changes to this document are handled in accordance with Class I and Class II change control requirements described in the EOS Configuration Management Plan, and changes to this document shall be made by document change notice (DCN) or by complete revision.

Once approved, this document shall be under the ECS Configuration Control Board. Any questions or proposed changes should be addressed to:

Data Management Office
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Abstract

The FOS Release B Version 2.01.00 Integration and Acceptance Test Procedures document defines the set of test procedures that FOS will execute to verify its Level 3 and Level 4 requirements.

This document covers CDRL item #055 (DID 322/DV2) and CDRL item #070 (DID 411/VE1), as deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS), Contract NAS5-60000. This document specifies the FOS Test Procedures for Release B Version 2.01.00.

Keywords: I&T, Integration, NCR, FOS, Test, Requirements, Procedures, RBR, ECL, Threads

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1. Introduction

1.1 Identification

This document is the FOS Integration and Acceptance Test (AT) Procedures for the ECS Project, which are CDRL item #055 and #070 on the Contract Data Requirements List (CDRL) and defined by Data Item Description (DID 322/DV2 and DID 411/VE1) under contract NAS5-60000.

1.2 Scope

This document defines the FOS integration and AT procedures for Release B Version 2.01.00. It focuses on delineating the approach that will be taken to incrementally integrate and test the FOS. In particular, the FOS Integration and Test Procedures for the ECS project details the approach for integrating and testing the FOS segment and verifying that the segment complies with the Release B requirements as specified in the Functional and Performance Requirements Specification (#423-41-02), as specified in the RTM database. This document is under the ECS Configuration Control Board (CCB) for the January final release B submittal. Changes to these volumes must be approved by this CCB prior to inclusion in the document.

This document reflects the February 7, 1996, Technical Baseline maintained by the contractor configuration control board in accordance with ECS Technical Direction No. 11, dated December 6, 1994.

1.3 Purpose

This document defines individual test case procedures for FOS Release B Version 2.01.00. It focuses on delineating the procedural steps necessary for the verification of Release B Level 3 and Level 4 requirements. In addition, the document describes the responsible organizations that are involved in the FOS integration and test including their roles and responsibilities and schedules for testing during the Release B time period. It provides the program manager and test personnel with a systematic approach to verify that all of the Level 3 and Level 4 requirements mapped to the Release B Delivery have been satisfied by the integrated FOS subsystems.

1.4 Status and Schedule

The submittal of DID 322/DV2 and DID 411/VE1 meets the milestone specified in CDRL of NASA contract NAS5-60000. This submittal is the final version of this document submitted at 30 days after RRR.

1.5 Deviations from the FOS Test Plan

The majority of deviations made from the test plan involve the reshaping of test cases (i.e. merging test cases, adding additional cases, deleting test cases and rescoping test cases). This was necessary due to the implementation of Configuration Change Requests (CCRs) affecting Level 4 requirements and Requirements by Release (RBRs), and a more mature understanding of the FOS functionality by the FOS Test Team. Additionally, associated requirement mapping matrices in appendices B, C, D, E (i.e. L4 Requirements to Test Case, Test Case to L4 Requirements, Release B RBRs to Test Case and Test Case to Release B RBRs) have been updated based on the RTM Baseline dated December 1997. Current requirement mappings delineated in these matrices coincide with the latest set of test procedures as defined in this document.

Minor revisions to the document were also made in the following areas:

- Section 3.6 (Test Data & Test Data Sources) has been updated to reflect the most current test data sources.
- Section 3.7 (Test Tools) has been updated to reflect the additional tools necessary to verify command and table load content.
- Section 3.8 has been updated to include the execution of a designed confidence test following emergency patch deliveries.
- Table 3-10.1 (The FOS Integration and Test Schedule) has been updated to reflect the latest Earth Science Data and Information System (ESDIS) and independent verification and validation (IV&V) test schedules.

1.6 Document Organization

This document is organized in the following manner:

Section 1.0 provides the scope and document organization.

Section 2.0 provides a list of applicable documents, which were used directly or indirectly in the preparation of this document.

Section 3.0 defines the FOS integration and test process. The section includes defining the responsible organizations involved in the FOS segment test; defining the approach to integrating and testing the FOS and supporting interfaces; identification of a reference to the schedule for performing integration and test of FOS functional components; identification of resources that are required for the system/segment test (i.e. FOS hardware, simulators, data drivers, instrument resources, etc.); and any software/hardware dependencies required for test execution.

Section 4.0 identifies the Release B Version 2.01.00 test cases and includes the following for each test case: test number, test title, applicable software/hardware test configuration, test support data items, test abstract, success criteria, and detailed test procedure steps.

Appendix A identifies the FOS Datasets needed for FOS testing, and the timeframe of need for each dataset type.

Appendix B identifies the Release B Level 4 Requirements to Test Case matrix.

Appendix C identifies the Test Case to Release B Level 4 Requirements Matrix.

Appendix D identifies RBR to Test Case matrix.

Appendix E identifies the Test Case to RBR Matrix.

Appendix F identifies the Test Configuration Tables.

The section Abbreviations and Acronyms contains an alphabetized list of the definitions for abbreviations and acronyms used in this volume.

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2. Related Documentation

2.1 Parent Documents

The parent documents are the documents from which this FOS Integration and Test Plan's scope and content are derived.

304-CD-001-003	Flight Operations Segment (FOS) Requirements Specification for the ECS Project, Volume 1: General Requirements
304-CD-004-003	Flight Operations Segment (FOS) Requirements Specification for the ECS Project, Volume 2: AM-1 Mission Specific
423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System

2.2 Applicable Documents

The following documents are referenced within this document, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this volume.

307-CD-001-003 329-CD-001-003	Flight Operations Segment (FOS) Release Plan and Development Plan for the ECS Project
402-CD-002-002	System Integration and Test Plan for the ECS Project, Volume 2: Release A

2.3 Information Documents

2.3.1 Information Documents Referenced

The following documents are referenced herein and, amplify or clarify the information presented in this document. These documents are not binding on the content of the FOS Integration and Acceptance Test Procedures for the ECS Project.

194-201-SE1-001	Systems Engineering Plan for the ECS Project
194-202-SE1-001	Standards and Procedures for the ECS Project
193-208-SE1-001	Methodology for Definition of External Interfaces for the ECS Project
308-CD-001-006	Software Development Plan for the ECS Project
194-401-VE1-002	Verification Plan for the ECS Project
194-415-VE1-002	Acceptance Testing Management Plan for the ECS Project

501-CD-001-004	Performance Assurance Implementation Plan for the ECS Project
194-502-PA1-001	Contractor's Practices & Procedures Referenced in the PAIP for the ECS Project
604-CD-001-004	Operations Concept for the ECS Project, Part 1--ECS Overview
604-CD-002-003	Operations Concept for the ECS Project, Part 2B--Release B
604-CD-003-002	Operations Concept for the ECS Project, Part 2A--Release A

2.3.2 Information Documents Not Referenced

The following documents, although not referenced herein and/or not directly applicable, do amplify or clarify the information presented in this document. These documents are not binding on the content of the FOS Integration and Test Plan for the ECS Project.

104-CD-001-003	Data Management Plan for the ECS Project
193-105-MG3-001	Data Management Procedures for the ECS Project

3. FOS Integration and Test Plan

This section contains an overview of the approach taken to ensure complete and thorough testing by the FOS. Included is information concerning the FOS I&T approach, phases, environment, relationships with other test organizations, test schedules, test responsibilities and specific verification activities performed by the FOS Test and support organizations.

3.1 FOS Context

The Earth Observing System Data and Information System (EOSDIS) Core System (ECS) involves the collection and distribution of earth science data from space and ground based measurement systems. The FOS is one of two segments, which when combined with the Science and Communications Development Organization (SCDO) makes up the development portion of the ECS. The FOS provides a set of functions in support of the EOS AM-1 spacecraft and its complement of instruments and includes mission planning and scheduling, spacecraft commanding, instrument command support, health and safety monitoring, data analysis and overall mission operations.

3.2 FOS Integration and Test Overview

The FOS integration effort begins with the allocation of functions to internal builds and releases and organizing the phasing of the development effort. In particular, internal and external dependencies are identified, resulting in a logical progression of development activities matching the internal/external dependency needs of FOS and its external interfaces. During this phase, the FOS Test Team designs its test procedures.

During the Integration Phase of each release, the segment development organization performs unit testing of newly developed and heritage software, as well as those Commercial Off-The-Shelf (COTS) software products incorporated into segment software. As components are integrated at the EDF, they are made available to the FOS Test Team to perform checkout of test procedures.

Following, the software is migrated to the EOS Operations Center (EOC) facility at Goddard Space Flight Center (GSFC) (building 32) and made available for dry-run testing. Following a successful dry run, the formal test period begins. Formal test activity includes the execution of functional tests and end-to-end tests designed to ensure concurrent operational functionality.

In conjunction with the ECS Acceptance Test Organization (ATO), the FOS Test Team performs formal testing at the EOC (GSFC-building 32). This includes a dry run test period, in which all previously designed test procedures provided in this document are executed against the aggregate set of FOS software. During dry run testing, time is allocated to the Development Organization for providing necessary software fixes. Following the successful completion of dry-run testing, formal testing begins. During this period, test procedures are executed by the FOS and ATO

Test Organizations and is witnessed by cognizant National Aeronautics and Space Administration (NASA) representatives.

Prior to the dry run test period, the Maintenance & Operations (M&O) Organization performs verification of COTS hardware and those COTS software products used in the hardware support environment, such as operating systems. M&O personnel support the efforts of other verification organizations and maintain the operational system by verifying changes during the M&O phase. Additionally, the M&O organization provides a high level of operational support in generating end-to-end test scenarios and provides support during end-to-end test execution.

The Quality Office monitors and witnesses tests and ensures that test procedures are followed and non conformances are correctly documented. The Configuration Management (CM) and Data Management (DM) organizations provide baselined items for accomplishing all levels of testing, and they support configuration audits. The IV&V contractor performs an independent assessment of the functionality and performance of ECS releases.

The Flight Operations Team (FOT) provides support to the test team during the development of test plans and procedures by identifying operational scenario candidates for incorporation into test case scenarios, and identifying data set needs for those tests.

Table 3.2-1 depicts the verification role of each organization during the development and integration and test stages of ECS. The organizations are mapped to the verification levels which correspond to an increase in scope from unit testing of individual modules to final operational testing leading up to launch.

Table 3.2-1. Primary Verification Roles

Organization	**Development Phase**	**I&T Phase**
Phase Review Milestone	***TRR***	***CSR/RRR***
Software Developers	Code & Unit Test	Fix Software Bugs
Integration Team	Integration Planning Integration Plans	Build System Integrate FOS Functions
FOS Test Team	Test Planning Monitor Development	Dry Run FOS Tests Execute Formal FOS Tests
Quality Office	Attend Walkthroughs Review Test Plans/Proc.	Monitor Integration Witness FOS Tests
M&O	Planning & Scheduling, Tools, Training	Provide S/W Libraries Control Test Environment
FOT	Member of Integration Team Review End-to-end Tests	Member of Integration Team

3.3 FOS Integration Approach

The integration team, comprised of FOS systems engineering, development, and test personnel heads the FOS integration effort. The FOS test team provides support to the integration team.

Upon successful completion of unit testing, software is merged to the subsystem group branch within Clearcase, and a subsystem build is performed. The software is then turned over to the integration team and migrated to the Integration Environment. Executables are copied from the release branch to the /net/beeper/fosb/dev/am1/bin directory for functional integration and interface checkout.

For software that completes unit testing with known problems and is turned over to the integration team, group level, Internal Non-conformance Reports (INCRs) will be entered into the "subsystem projects" of the Distributed Defect Tracking System (DDTS) to track the defects. Software problems/discrepancies that arise during the integration phase will also be tracked via INCRs and entered into the integration project of DDTS.

3.3.1 Test Procedure Walk-through & Checkout

During development and integration, applicable test procedures are reviewed by subsystem(s) developers, integration, the FOT, system engineering and QA representatives in order to ensure applicability of procedures to system functionality and assure requirements mapping is complete and accurate. The Test Team conducts the procedure walk-through while the development team provides support on an as-needed basis. QA monitors procedure walk-through progress.

As software components are successfully integrated, test procedures are checked against the software components that have been successfully integrated. Procedure checkout against the incremental threads will be conducted from the net/beeper/fosb/int/am1/bin directory. Any problems/discrepancies that arise during procedure checkout are entered into the DDTS as INCRs. The Test Team will conduct procedure check-out while the integration team provides support on an as needed basis. QA will monitor procedure checkout progress.

3.3.2 Preparation for Test Readiness

Upon successful completion of procedure check-out activities, a software turnover form (STF) is submitted requesting that the aggregate set of software be merged and built at the MAIN level. The STF requests that CM perform a build of the FOS software and executables from the build and that the software be made available for migration to GSFC. Executables are then copied to the EOC facility at GSFC (building 32) for dry run and formal test. Following migration to GSFC, a brief checkout is made by the Development, Integration and Test Organizations to ensure that the complete set of FOS software is migrated successfully and ready for test. This includes invoking all of the FOS Startup Scripts to ensure no data integrity loss of the FOS Software during the migration process.

3.4 FOS Test Approach

For each FOS internal build and formal release, the FOS Segment Development Organization performs unit testing of newly developed and heritage FOS software. During unit testing, the FOS Test Organization provides a test support role which includes monitoring software integration activity and supporting test execution. Following integration and unit testing, the FOS Test Organization and the ATO verify that the FOS integrated software meets Level 3 requirements as specified in the Functional and Performance Requirements Specification (#423-41-02), and also meets Level 4 requirements as specified in the RTM database

The FOS test approach focuses on three levels of testing. Level 1 testing focuses on the infrastructure testing ensuring the foundation of the system is robust. Level 2 testing emphasizes testing at the FOS subsystem level. Level 3 tests are end-to-end tests which emphasize the testing of the FOS as a whole, where previously tested functionality is exercised concurrently in a controlled test environment.

3.4.1 FOS Test Organization Responsibilities

The FOS Test Organization roles and responsibilities include the following:

- Develop test plans and test procedures in accordance with the FOS Test Organization's Build/Thread Plan, associated requirements documentation and FOT use case definition
- Accept unit-tested software from the Segment Development organizations.
- Conduct testing of threads and components following internal builds and incremental deliveries.
- Perform end-to-end testing as components are added to system configurations with a focus on internal and external interfaces.
- Conduct intra-segment interface verification.
- Report formal test results.
- Generate non conformance reports.
- Re-verify software fixes resulting from non conformance reports via regression testing.
- Work with the M&O and ESDIS organizations in support of operational ground system testing.
- Work with the IV&V contractor in support of interface tests.

3.4.2 FOS Test Phases

The following sections define FOS test activities performed during the FOS I&T phase.

3.4.2.1 Test Planning Phase

During the SDR-PDR timeframe, FOS Segment/System Integration & Test Plan (#319/DV1 and #402/VE1) outlines are developed by the FOS Test Organization utilizing high-level operations concepts developed by the Segment Development Organization in conjunction with the FOS build/thread plan and requirements allocation. During the PDR-CDR timeframe, the system/segment test plan descriptions are completed and the FOS Segment/System Integration & Test Plan (# 319/DV1 and #402/VE1) is made available for CCB approval. Also during this time frame, test data drivers, test dependencies, test configuration, and test location support needs are identified by a combined effort of the FOS Segment Development and FOS Test Organizations.

During the CDR-TRR time frame, the FOS Integration and Acceptance Test Procedures document (#322/DV2 and 411/VE1) is developed by the FOS System/Segment Test Organization using the FOS System and Segment Integration & Test Plan (#319/DV1 and #402/VE1) as an outline for test procedures.

3.4.2.2 Test Execution & Analysis Phase

The formal installation of Release B includes custom code and COTS software, executables, load modules, test data sets, test tools, and documentation at the EOC facility at GSFC (building 32). The formal installation at the operational sites is performed by the FOS Integration Team, supported by CMO and the M&O organizations.

Dry run and formal testing is performed at the EOC facility following successful migration of software from the EDF to the EOC. Test activities for Release B, are based on Release B Version 2.01.00 associated test cases and regression testing of test Release B Version 2.0.0 test cases. This philosophy provides a complete comprehensive testing of the entire FOS system. As the FOS system and the knowledge of the system matures, test cases may be reconstructed, merged, added or deleted based on a more current understanding of the system. These updated procedures form the basis for all FOS dry run and formal testing, and become an integral part of the FOS Integration and Acceptance Test Procedures document (#322/DV2 and 411/VE1).

The FOS Test Organization is responsible for test execution, with support from the FOS Segment Development Organization and ATO organization. All FOS segment test activity is performed using the FOS Integration and Acceptance Test Procedures document (#322/DV2 and 411/VE1). Non conformance software reports are written by the segment test engineer, test conductor or designee and delivered to the FOS Segment Development Organization.

All test analysis activity associated with the execution of test procedures (i.e. command data bit-busting, decommutation calculation analysis, etc.) is identified in the FOS Integration and Acceptance Test Procedures Document (#322/DV2 and 411/VE1) on a test by test basis. Analysis methods, analysis results, test data logs, event logs and Non-Conformance Reports (NCRs) written as a result of analysis activity are identified in the FOS Test Report Document (#324/DV3 and 412VE2).

3.4.2.3 Test Reporting Phase

FOS segment test reporting activity is performed by the FOS Test Organization for each formal release. All testing activity performed during the FOS test execution phase is logged by the test engineer and/or test conductor, with support from the NASA Technical Officer or representative, and the QA representative. These test logs (see Figure 3.4.3.3-1 below) along with data analysis results performed during the test analysis phase are used by the FOS Test Organization in developing the FOS Test Report Document (#324/DV3 and 412/VE2). These logs reside in the controlled EDHS Project Forms Area. Reporting information includes the results of each test, deviations was from the test procedures, data analysis methods and results, and NCRs identification.

Sequence:	
Test Procedure Name:	
Test Procedure ID:	
Test Location:	Site:
S/W Config./ Version:	
H/W Config./ Host Names:	
Test Data:	
Test Tools/ Scripts:	
Test Date:	
Witness(es):	
Comments:	Test Time:
NCRs Written:	
NCRs Verified:	
NCRs Un-Verified:	
Pass	Fail Partial Pass/Fail
1st Run	Formal Run Retest Release
Tester Signature(s)	**Witness Signature(s):**
_____	_____
_____	_____
_____	_____

Figure 3.4.3.3-1. Test Log Form

3.4.3 FOS Test Roles and Responsibilities

The following FOS Test personnel shall be responsible for the execution of FOS tests in the following manner:

- Test Engineer - The FOS segment test engineer, or appointed representative shall be responsible for the generation and publication of all FOS test plans and procedures.

- Test Conductor - The FOS test conductor, or appointed representative is responsible for establishing test configuration and ensuring test prerequisites are satisfied. The test conductor is also responsible for scheduling and coordinating the time and resources needed for specific tests, rescheduling tests following test failure, collecting test outputs and test logs, writing NCRs, and recording test results. The test conductor is also responsible for writing the segment test report following test completion.

- Test Participants - The FOS Segment Development Organization may assist the test conductor/engineer(s) in the performance of the test procedures. Other supporting organizations may include ATO, Maintenance and Operations (M&O) and Configuration and Data Management (CM). M&O will be responsible for reconfiguring the system as needed to control testing; CM will provide a controlled environment for the storing and maintaining of information about the test environment including hardware, software and test tool environments.

- Test Witnesses - Individuals invited to directly observe test conduct. This may include members from the M&O, or ESDIS organizations.

- Quality Assurance - During the segment test planning phase, the QA organization reviews the FOS I&T Plan for the traceability of FOS level 4 and level 3 requirements to the planned test cases. During the test procedure generation phase, QA reviews test procedures for test and requirements consistency between the FOS I&T Plan and FOS I&T Procedures. During the formal segment test execution phase, QA verifies the configuration of the software prior to the performance of the tests. QA also witnesses the tests to monitor that procedures are tested as written, and that problems and deviations are noted. During the test analysis and reporting phase, QA reviews the test report for accuracy and verifies that NCRs are written for all validated problems and entered into the non conformance tracking system.

3.4.4 Verification Methods

The four verification methods used during the FOS segment test period include inspection, analysis, demonstration, and test as defined below:

- Inspection - The visual, manual examination of the verification item and comparison to the applicable requirement or other compliance documentation, such as engineering drawings.

- Analysis - Technical or mathematical evaluation based on calculation, interpolation, or other analytical methods.
- Demonstration - Observation of the functional operation of the verification item in a controlled environment to yield qualitative results without the use of elaborate instrumentation, procedure, or special test equipment.
- Test - A procedure or action taken to determine under real or simulated conditions the capabilities, limitations, characteristics, effectiveness, reliability, or suitability of a material, device, system, or method.

Each requirement is verified by one or more of these methods. Verification method(s) are specified in the ECS Verification Plan (#194-401-VE1-002).

3.5 Test Resources

The following paragraphs in this section identify and describe the resources necessary to accomplish FOS testing. Included are identification of test facilities and hardware configurations.

3.5.1 Testing Facilities

The ECS Development Facility (EDF) located at the ECS facility in Upper Marlboro, Md. and the EOC facility at GSFC (building 32) are both utilized by the FOS Test Organization. Test procedure checkout, and early testing is performed in the EDF for integrated FOS software components. The developed software is migrated to the GSFC EOC Facility (building 32). Following software installation at the EOC, dry run and formal testing is performed by the FOS Test Team with support from the ATO organization.

3.5.2 Hardware Configuration

Figure 3.5.2-1 below provides the basic FOS hardware configuration used in support of FOS Test at the EDF and at the EOC. Additionally, for test cases requiring additional hardware not shown in the figure, specific hardware is listed under the associated test case's "Test Support" heading as described in this FOS Integration and Acceptance Test Procedures Document (#322/DV2 and 411/VE1).

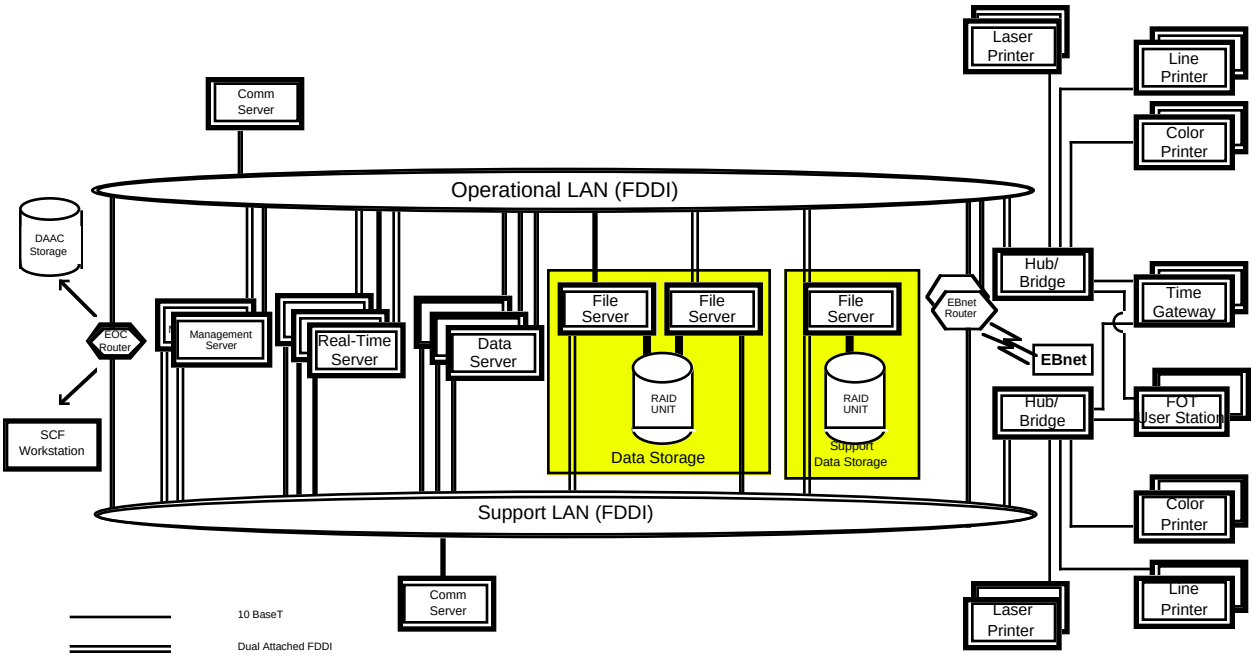

Figure 3.5.2-1. FOS Test Configuration

3.6 Test Data & Test Data Sources

In support of FOS Release B segment testing the following test data sources have been identified:

- EOSDIS Test System (ETS): The ETS will be used in the Release B timeframe for the transfer of "test" telemetry and spacecraft recorder data to the EOC by emulating EDOS or the AM-1 spacecraft. It will also be used for the transfer and acceptance of AM-1 spacecraft and instrument commands.

- Software Data Drivers: Provided in-house, data drivers will be provided by the FOS Development and Test Organizations when specific test data/interface simulation is not available via any other source. The aggregate set of data drivers will reside on a designated test user station which is accessed and controlled by the FOS Test Organization (see Appendix A for the aggregate set of test datasets). Software drivers utilized for the Release A timeframe include:

  - NCC GCMR acknowledgment/disposition message generator

  - Test Data Generator for real-time telemetry streams

  - Real-time Event Message Generator

- CODA Generator
- CLCW Generator
- SCS Summary Report

3.7 Test Tools

The FOS Development and Test Organizations utilize the following ECS selected COTS tools in support of the test effort:

- Requirements and Traceability Management Tool (RTM) - CASE tool which provides the means for creating, populating, and maintaining a data base containing requirements, verification, and design information. RTM provides the means for mapping Level 4 and Level 3 requirements to FOS test cases.
- ClearCase Configuration Management Tool - CM tool used to support configuration management for developing, testing and maintaining software.
- Distributed Defect Tracking System (DDTS) - discrepancy tracking tool used to record, track and report non conformances encountered during a test session.
- tcpdump utility - prints out the headers of packets on a network interface

3.8 Regression Testing

Regression testing (i.e. supplemental testing performed to ensure that existing software is not adversely affected by newly integrated software components) is performed following patch deliveries. As a general rule, the regression test case REG-3000FPB, designed to test critical functions from all nine FOS subsystems is performed during the regression test period, followed by selected test cases chosen by the test team. Cases chosen for regression test activity are those existing test cases which encompass the most functional paths related to software components modified as part of the patch. During the I&T phase, the FOS Test Organization, with the coordination of FOS development, system engineering and QA organizations is responsible for choosing the suite of tests performed for regression to ensure the chosen test suite provides adequate coverage of affected software. Regression test results for “patch” deliveries are documented in test reports delivered to NASA no later than one month following the completion of testing.

3.9 Discrepancy Reporting and Resolution

The Non conformance Reporting and Corrective Action (NRCA) system is the process for identifying, investigating, and resolving problems with the ECS during development, integration, installation, and formal test. To facilitate disposition and resolution of problems, the NRCA system and its processes emphasize tracking of responsibility, effective communication and delegation of authority. The NRCA system utilizes the DDTS to record and track software non conformances. DDTS is customized by ECS to accurately reflect the progress of Non

conformance Reports (NCRs) through resolution and captures necessary information to document that progress. Through the production of management reports, DDTS provides management visibility and metrics to insure that NCRs are being worked in a timely and effective manner.

During the execution and analysis phases of testing, all non conformance reports (NCRs) are written by the test engineer, test conductor, NASA Technical Officer/representative, or the QA representative.

The FOS Test organization uses the DDTS non conformance tracking and reporting software tool for tracking non conformances. Individual NCR information tracked includes the date the NCR was received, the subsystem the NCR is written against, the priority of the NCR, current resolution status of the NCR, and problem description.

3.10 FOS Integration and Test Schedule Overview

Table 3.10-1 identifies all tests and FOS integration milestones. The table includes both FOS internal milestones and ground tests planned by the ESDIS organization which require support from the FOS. The purpose of this table is to delineate the functionality required by the FOS to support these tests and to emphasize internal dependency milestone dates in which the FOS needs to have integrated this functionality.

Table 3.10-1. FOS Composite Test ScheduleÄ

TIME FROM LAUNCH (Months)	TEST NAME	TEST DATES	TEST DESCRIPTION	FOS REQUIREMENTS
Launch (L)				
L-22 Months	ASTER ICC Data Flow Test	9/5/96 9/10/96	ASTER access to EOC Planning & Scheduling information	ASTER-ICC land lines to the EDF operational; or ASTER ICC at EDF
L-20	IST 2-Way Data Flow Test	11/25/96 11/28/96	Basic EOC/IST communications; IST access to EOC Planning & Scheduling data.	Support Planning & Scheduling data flows of timelines and activities; Partial IST toolkits.
L-19	AM-1 spacecraft Bus Comp. Performance Test	12/6/96 12/20/96		EDOS/ETS IF; EBnet I/F; FOS User Interface (FUI), ODBs to support R/T TLM & SCC dump processing at EOC, ISTs , R/T telemetry processing and display, command procedures and script execution.
L-18	EOC Compat. Test #1	1/14/97 1/17/97	TBD	TBD
L-16	Comp. Performance Test #1	3/20/97 3/24/97	Spacecraft housekeeping tlm processing by the EOC; spacecraft and instrument dump processing by the EOC.	All forward and return links in the RF ICD; FUI
L-15	Command Management Test	4/8/97 4/11/97	CMD Load built at EOC. CMD verification following transmission to ETS/EDOS	R/T command uplink at all supported rates to either ETS or EDOS, depending on EDOS availability.
L-15	AM-1 Spacecraft RF Compat. Test	4/15/97 5/15/97	Multiple tests with TDRSS; demonstrate RF compatibility	All forward and return links in the RF ICD; FUI. TDRSS scheduling through NCC interface.

TIME FROM LAUNCH (Months)	TEST NAME	TEST DATES	TEST DESCRIPTION	FOS REQUIREMENTS
L-13	IST 2-Way Data Flow	6/2/97 6/6/97		Tailored telemetry processing at IST, receipt of command requests from IST; IST Toolkits, FUI
L-12	Mission SIM Readiness Test	7/7/97 7/11/97	Verify functional capability of s/c data base, perform spacecraft maneuvers, mission simulations.	All forward and return links required for support. real-time and contingency commanding. Not intended for verification of ground system.
L-12	EOC Compat. Test # 2	7/15/97 7/18/97	CMD RATES: 125 BPS, KBPS, 2KBPS, 10 KBPS. TLM Rates: 1/1, 16/16, 16/256, 16/516 KBPS R/T SCC Data, SSR Buffer Dump. EOC, EDOS, EBnet, WSGT, TDRSS support.	All forward and return links in the RF ICD; Comprehensive EOS Command and Telemetry demo. Test completed between L 13 months and L-3 months; completed prior to spacecraft end to end test.
L-11	AM-1 Spacecraft Thermal Vacuum Test	8/20/97 9/15/97	Activate S/C and instruments in vacuum; acquire live instrument data	real-time processing of TLM at rates: 1/1, 16/16, 16/256, 16/516 kbps. EOC sends commands to AM-1.
L-8	Comp. Performance Test #2	11/15/97 11/19/97	AM-1 sends R/T and SCC dump & HK TLM to SN; EDOS/DIF send data to EOC	Process all real-time data at all rates; process SCC dumps.
L-7	EDOS/ETS/ EBnet	12/15/97 2/10/97	Real-time and Contingency Commanding; real time telemetry receipt; dump data receipt	command uplink at all supported rates; real time telemetry receipt - all formats at all supported data rates. Dump receipt at 256/512 kbps.
L-6	EOC Compat. Test # 3	1/2/98 1/6/98	Demonstrate S/C compatibility to EOC command & TLM database	EOC use of validated command, telemetry, activity and constraint database.

TIME FROM LAUNCH (Months)	TEST NAME	TEST DATES	TEST DESCRIPTION	FOS REQUIREMENTS
L-4	AM-1 End-to End Test	3/3/98 3/8/98	Demonstrate integrated S/C and ground system compatibility	All forward and return links required for support; EOC sends commands and SCC & SI microprocessor loads; send commands
L-4	Mission OPS Simulation	3/9/98 3/20/98	Validate subset of nominal, contingency mission OPS procedures	100 hours of scheduling operations including contingency situations.
L-2	Comp. Performance Test #3	5/13/98 5/17/98	AM-1 send H/K TLM to EOC and EDOS via GSE & SN . EOC sends commands to AM-1 at VAFB via SN & GSE.	Real-time and SSR data processing. R/T command uplink at all supported rates via SN & GSE.
L-2	Ground Data System Test	5/18/98 5/31/98	All Command interfaces checked. All Scheduling Functions and interfaces checked. All S/C Data and Types checked.	All forward and return links required for support at VAFB. Includes DSN, GN & WOTS.
L-1	AM-1 Launch Site Readiness Test	6/2/98 6/5/98	SCS Provides data from VAFB to EDOS. EDOS sends Data to EOC. EOC sends attitude data to FDF & CMDS to VAFB via EDOS.	All forward and return links required for support at VAFB.
LAUNCH		6/30/98		

4. FOS Release B Version 2.01.00 Test Cases

Table 4-1. Release B Version 2.01.00 Test Cases

Analysis:
·ANA-2020B Spacecraft Clock Correlation Based on RDD Method
·ANA-2040B Special Processing Algorithms
·ANA-2060B Time Order Downlink Report
·ANA-2120B Analysis Request Manager
EDOS:
·EDOS-2002B Test Command Echo Exchange
·EDOS-2010B SCS Summary Report Processing
IST:
·IST-2000B IST Pool Management
REG:
·REG-3000FPB EOC Regression Test
TLM:
·TLM-2020B Decom - Context Dependent Telemetry
·TLM-2060B Derived Parameter Processing
CONT:
·CONT-2030B SSR Monitoring
DBS:
·DBS-3100FPB Database Management via Web Pages
FDF:
·FDF-3100FPB Disk Cleaner
FUI:
·FUI-3000FPB Roles Usability
SYS:
·SYS-3050FPB Generic String Management
·SYS-3060FPB Tivoli

Spacecraft Clock Correlation Based on RDD Method

Test Case No: ANA-2020B

Test Configuration: See Appendix G

Test Support: Manufacturing specifications for equipment in the EOC.

Test Case Description:

This test is designed to calculate the S/C clock error by use of the RDD algorithm. This value is given by the difference between the S/C time stamp and a UTC estimate of spacecraft time which is based on the ground receipt time. The input comes from simulated housekeeping telemetry, RCT measurements, and FDF predicts of the range stored in a file. The FDF range driver is run on the day of the test. Two cases are considered. The first case is for clock errors of 0 and 100 milliseconds with the telemetry data runs at 1 kb per second and the second case is with 16 kb per second.

Following sign-on, the RCTD measurements are entered using the tool FaCcClockFileDriver and stored in a file. The FDF predicts are generated using the tool FaCcFdfRangeDriver and also stored in a file. The Packet Generator starts generating telemetry data at 1 kb per second. The FDF predicts file is read and S/C clock error is calculated. An event message is displayed once per minute during simulated S/C contact giving the error of the S/C clock. For the first part of the test, the clock error is zero. This test runs at telemetry data rates of 1 kb and 16 kb per second. Snaps of the event messages are taken when an event occurs. An average RCTD value from this contact is stored in a file for the next contact. The file is browsed and verified that it is correct from the knowledge of the starting value (it should change). At the end of S/C contact, a final event message is generated giving the average clock bias for the entire contact. A snap is taken for comparison with the report that is to be generated. Finally, an ASCII report giving the average clock bias is generated.

Success Criteria:

This test is considered successful when the S/C clock error can be calculated by use of the RDD algorithm, the predicted S/C ranging data and RCTD measurements can be used as inputs to the RDD algorithm, and the predicted S/C ranging data can be calculated by interpolating or extrapolating to the nearest millisecond. Success is verified when the average clock bias is notified once per minute. It is successful when the capability to turn the process on/off can be demonstrated. The test is successful when a report is generated for each real-time pass during which clock correlation is performed and that the report contains: a) The start and stop times of the pass during which the correlation was performed, b) The S/C ID, c) The type of calculation used (RDD). It is successful when included in the report are the results from the clock correlation calculation, and the S/C time associated with the results. The test should be capable of generating a clock correlation bias of 0 millisecond and 100 milliseconds. The average RCTD values that are stored for the next pass for two tests are verified by comparison with starting data and noticing that they have changed.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	Login to an EOC User Station by entering a valid user name and password: Username: **fostest2** Password: **********	The Data Server and Real-time Server must be running. The login is accepted and a blank desktop area appears.	
2.	Bring up an xterm window: **openwin**	A console window and an xterm window are opened.	
3.	Set the environment variables: **setenv SCRIPT UserStation**	The environment variables are set.	
4.	Go to the setup directory: **test**	The current directory is /fosb/test/am1/scripts/setup.	
5.	Source the FosEnvVars file: **source FosEnvVars**	More environment variables are set.	

6.	Bring up the User Station: **FOS_LOGIN**	FOS Login screen appears with the user name.	
7.	Enter a valid password: Password: ********	The password is accepted.	
8.	Click on the Environment toggle button and select **'Operational'**. ** Do not select 'Standalone Mode' **.	'Operational' is selected.	
9.	Click on **'OK'**.	The FOS Login screen closes and the User Roles window pops up with a list of user roles displayed.	
10.	Click on the Spacecraft toggle button and select **'AM1'**.	'AM1' is selected.	
11.	Click on the Site toggle button and select **'EOC'**.	'EOC' is selected.	
12.	Select **'Command Activity Controller'** by highlighting it.	'Command Activity Controller' is selected.	
13.	Click on **'OK'**.	A working dialog box opens with the message 'Starting User Station. Please wait', indicating that the User Station startup script has not yet completed. The User Station startup is complete when Control Window comes up with the 'User Logged in' message.	
14.	Bring up the Event Display: From Control Window, click on **'Tools'**.	The Tool Selection Box window pops up.	
15.	Select '**Event Display-Global'** from the Tools menu.	'Event Display-Global' appears in the Selection box.	

16.	Click on **'OK'**.	The Tool Selection Box window closes and the Event Display window pops up.	
17.	Bring up a new xterm.		
18.	Set the environment variables for the User Station: **setenv SCRIPT UserStation**	The environment variables are set.	
19.	Go to the setup directory: **test**	The current directory is /fosb/test/am1/scripts/setup.	
20.	Set the environment variables: **source FosEnvVars**	More environment variables are set.	
21.	Change to the bin directory: **bin**	The current directory is /fosb/test/am1/bin/sun_sparc_5-5.	
22.	**Enter RCTD values for the Clock Correlation constant container**		
23.	Execute the FaCcClockFileDriver tool: **FaCcClockFileDriver**	Clock Config File Menu displayed. Prompts for the selection.	
24.	Your selection: Enter **3**		
25.	New value: Enter **1.15741e-11**	3) displays 1.15741e-11.	
26.	Your selection: Enter **4**		
27.	New value: Enter **1.15741e-11**	4) displays 1.15741e-11.	

28.	Your selection: Enter **5**		
29.	New value: Enter **1.15741e-11**	5) displays 1.15741e-11.	
30.	Your selection: Enter **6**		
31.	New value: Enter **1.15741e-11**	6) displays 1.15741e-11.	
32.	Your selection: Enter **7**		
33.	New value: Enter **1.15741e-11**	7) displays 1.15741e-11.	
34.	Your selection: Enter **8**		
35.	New value: Enter **1.15741e-11**	8) displays 1.15741e-11.	
36.	Your selection: Enter **9**		
37.	New value: Enter **1.15741e-11**	9) displays 1.15741e-11.	
38.	Your selection: Enter **10**		

39.	New value: Enter **1.15741e-11**	10) displays 1.15741e-11.	
40.	Your selection: Enter **11**		
41.	New value: Enter **1.15741e-11**	11) displays 1.15741e-11.	
42.	Your selection: Enter **12**		
43.	New value: Enter **1.15741e-11**	12) displays 1.15741e-11.	
44.	Your selection: Enter **13**		
45.	New value: Enter **4**	13) displays 4.	
46.	Your selection: Enter **14**		
47.	New value: Enter **3.47222e-11**	14) displays 3.47222e-11.	
48.	Your selection: Enter **15**		
49.	New value: Enter **5.78704e-10**	15) displays 5.78704e-10.	

50.	Your selection: Enter **16**		
51.	New value: Enter **8.10185e-11**	16) displays 8.10185e-11.	
52.	Your selection: Enter **17**		
53.	New value: Enter **2.31481e-07**	17) displays 2.31481e-07.	
54.	Your selection: Enter **18**		
55.	New value: Enter **2.99792e+08**	18) displays 2.99792e+08.	
56.	Your selection: Enter **19**		
57.	New value: Enter **CLOCK_ADJUST**	19) displays CLOCK_ADJUST.	
58.	Your selection: Enter **20**		
59.	New value: Enter **VALUE**	20) displays VALUE.	
60.	Your selection: Enter **23**		

61.	New value: Enter **-778.869**	23) displays -778.869.	
62.	Your selection: Enter **29**	Two menus are displayed.	
63.	Your selection: Enter **2**	29) displays Error Sample Menu.	
64.	Your selection: Enter **0**	The following messages displayed on the xterm: “Quitting Saving ODF file” The ClockOdf file is generated in the /fosb/test/am1/odf directory.	
65.	Take a snap for later comparison with its future value: **snap**		
66.	Verify the file: **cd /fosb/test/am1/odf** **ls ClockOdf**	The current directory is /fosb/test/am1/odf. The file is listed.	
67.	View the file: **more ClockOdf**	The file is viewed.	
68.	**Generate a day’s worth of FDF Range Predicts using the FaCcFdfRangeDriver tool**		

69.	Execute the FDF Range Driver tool: **FaCcFdfRangeDriver**	The following messages appear on xterm: "Welcome to the FDF Range File Driver Writing FDF header Writer FDF entries file successfully generated" The file by the name of FdFClock_1997.current_date is generated in the /fosb/test/am1/fdf directory.	
70.	Verify the file: **cd /fosb/test/am1/fdf** **ls FdFClock***	The current directory is /fosb/test/am1/fdf. The file is listed.	
71.	View the file: **more FdFClock_1997.current_date**	The file is viewed.	
72.	**Invoke the EDOS telemetry driver for the multicast of housekeeping telemetry packets containing timing information for processing**		
73.	Find the host and port numbers to configure: **cd /fosb/test/am1/config**	The current directory is /fosb/test/am1/config.	
74.	**more FoSwConfigData.cnfg**	The host and port are listed.	

75.	Connect to the default real-time operational string by entering the following ECL directive in Control Window: ECL: **STRING CONNECT STRING = 100 CONFIG = MIRROR** (Wait for string connection to complete before going to the next step)	The ECL directive disappears and the following messages appeared on Event Display and Control Window within several minutes of entering the 'CONNECT' directive: "Establishing FoPsParameterServer service … FoPsParameterServer process successfully configured Establishing FtDcDecom service … FtDcDecom process successfully configured Successfully connected to String 100 as Mirrored"	
76.	ECL: **TAKE GROUNDCONTROL STRING = 100**	The following messages appeared on Event Display and Control Window: "StringMgr process successfully configured Ground Control Authority has changed from <user_id> to <user_id>"	
77.	ECL: **LIMITS OFF STRING = 100**	Alarms and messages are turned off.	
78.	Start the Clock Correlation process: ECL: **CC START STRING = 100**	The ECL directive disappears and the following message appears on Event Display and Control Window: "Clock Correlation is starting for string 100"	
79.	Change to the bin directory on an xterm: **bin**	The current directory is /fosb/test/am1/bin/sun_sparc_5-5.	

80.	Start the Packet Generator: **FtPgPackGen**	The following messages appear on xterm where FtPgPackGen is running: "Packet Generator Restoring Tlm Streams Restoring Pids Setting packet and pid links Packet Generator is ready to receive directives"	
81.	**Receive data thru I channel with data rate at 1 kbps**		
82.	Enter the following ECL directive to the Control Window: ECL: **PG CONFIG HOST = 225.2.7.0 PORT = 20101 APID = 1**	The host and port are configured.	
83.	ECL: **PG DELAY MILLS = 16384 APID = 1**	The delay between H/K packets is set to 16*1024 ms.	

84.	ECL: **PG STARTDATA APID = 1 COUNT = -1**	The following message appears on xterm: "FtPgPackGen STARTDATA: Sending continuous packets for Apids: 1 sending packet #0, ccsds seq #0, master cycle 0, apid 1 sending packet #1, ccsds seq #1, master cycle 0, apid 1 sending packet #2, ccsds seq #2, master cycle 0, apid 1 :	
85.	Take snapshots every minute at the user station: **snap**	View the Events Display window to see one minute worth of data. The snaps are printed at the system printer. Collect the printouts for off-line analysis.	
86.	ECL: **PG STOPDATA APID = 1**	The following message appears on xterm: "FtPgPackGen STOPDATA: Data has stopped for apid 1"	
87.	ECL: **CLOCK END**	CC starts calculations. At the end of the run (LOS), an event message with the average clock correlation time is generated. At the end of a run (LOS), a report is also generated.	
88.	**Browse the report that contains the average RCTD value written at the end of the pass using the report browser**		
89.	From Control Window, click on **'Tools'**.	The Tool Selection Box window pops up.	

90.	Select **'Report_Browser'** from the Tools menu.	Report_Browser appears in the Selection box.	
91.	Click on **'OK'**.	The Tools Selection Box closes and the Netscape: Directory listing of /fosb/int/am1/reports window opens.	
92.	Select the **'rddclock'** directory.	A list of reports appear.	
93.	Select the report to browse.	The report is browsed. Verify that the Clock Correlation report contains the start and stop times of the pass during which the correlation was performed, the S/C ID, the type of calculation used (RDD). The report should also contain the average clock correlation value and the S/C time associated with the results.	
94.	Take a snap: **snap**	The screen is snapped.	
95.	Click on **'File'** and select **'Exit'** from the pull-down menu.	The Report_Browser exits out.	
96.	**Receive data thru Q channel with data rate at 16 kbps**		
97.	Start the Clock Correlation process: ECL: **CC START STRING = 100**	The ECL directive disappears and the following message appears on Event Display and Control Window: "Clock Correlation is starting for string 100"	
98.	Enter the following ECL directive to the Control Window: ECL: **PG CONFIG HOST = 225.2.7.0 PORT = 20110 APID = 1**	The host and port are configured.	

99.	ECL: **DELAY MILLS = 1024 APID = 1**	The delay between H/K packets is set to 1024 ms.	
100.	ECL: **PG STARTDATA APID = 1 COUNT = -1**	The flow of continuous H/K data has started.	
101.	Take snapshots every minute at the user station: **snap**	View the events display window to see one minute worth of data. The snaps are printed at the system printer. Collect the printouts for off-line analysis.	
102.	ECL: **PG STOPDATA APID = 1**	The flow of H/K data has stopped.	
103.	ECL: **CLOCK END**	CC starts calculations. At the end of the run (LOS), an event message with the average clock time is generated. At the end of a run (LOS), a report is also generated.	
104.	Take a snap: **snap**		
105.	**Browse the report that contains the average RCTD value written at the end of the pass using the report browser**		
106.	From Control Window, click on **'Tools'**.	The Tool Selection Box window pops up.	
107.	Select **'Report_Browser'** from the Tools menu.	Report_Browser appears in the Selection box.	
108.	Click on **'OK'**.	The Tools Selection Box closes and the Netscape: Directory listing of /net/beeper/fosb/int/AM1/reports window opens.	
109.	Select the **'rddclock'** directory.	A list of reports appear.	

110.	Select the report to browse.	Verify that the Clock Correlation report contains the start and stop times of the pass during which the correlation was performed, the S/C ID, the type of calculation used (RDD). The report should also contain the average clock correlation value and the S/C time associated with the results.	
111.	Take a snap: **snap**	The screen is snapped.	
112.	Click on **'File'** and select **'Exit'** from the pull-down menu.	The Report_Browser exits out.	
113.	End of test.		

Special Processing Algorithms Test Procedure

Test Case No: ANA-2040B

Test Configuration: See Appendix G

Test Support: None

Test Dependencies: Previously created user algorithm written in C or C++ code.

Test Case Description:

This test is designed to verify the ability to take user supplied algorithms and system algorithms (curve fit, Fast Fourier Transform, smooth fit and compute the root mean square). The user supplied algorithms are written in C or C++ code. The algorithm will be registered with 20 inputs and 20 outputs defined and assigned to telemetry mnemonics. An analysis request will be built with the same 20 input parameters selected. The analysis request will be submitted, the algorithm will be executed and a dataset will be generated. The results of the dataset are displayed in a Time Order Downlink Report. System algorithms are performed on the resulting dataset.

Success Criteria:

This test is considered successful when all of the user interface menus supporting special processing algorithms include the proper fields (parameter name, triggers, and symbols); User supplied algorithms uses 20 input and 20 output parameters and a dataset is generated; System algorithms (curve fit, Fast Fourier Transform, smoothing and computin root mean square) are performed on the dataset. The output of the analysis request is generated into a Time Order Downlink report and the dataset can be used as input to an analysis request that uses the user algorithm.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**<u>Start the Data Server.</u>** Reference Test Case SYS-2000B -- FOS Server Startup.	Data Server processes are running.	

2.	**<u>Start the Real-Time Server.</u>** Reference Test Case SYS-2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	**<u>Start the User Station.</u>** Reference Test Case SYS-2010B -- User Station Startup and Authentication.	The FOT User Station is running and the Control Window is displayed.	
4.	**<u>Invoke the Event Display.</u>** Click on ‘Tools’ from the control window	The Tools Dialog window is displayed	
5.	Select ‘Event_Display_Global’ from the control window tools menu. Click on the ‘OK’ button	The Event Display is displayed on the FOT User Station.	
6.	Click on ‘Filter’ from the pull down menu Select ‘Event Type’ Click ‘Bold’ button next to ANL & SYS Click ‘Apply’ Click ‘Close’	The Event_Display_Global will now display all ANA & SYS subsystem activities in bold.	
7.	**<u>Register the User Algorithm</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	

8.	Select ‘Algorithm_Registration’ Click on ‘OK’ button.	The toplevelShell Window is displayed and it contains the following fields: Source File Name Algorithm Description Registration results Status field	
9.	Click on ‘Select File’ button	The file selecyion box is displayed. The default directory path will be /fosb/test/am1/useralagrs/src.	
10.	From the Files list Select ‘**TwentyIO.C**’ Click on ‘OK’	The selected file will be displayed in the Source File name text box of the toplevelShell window.	
11.	Enter into the Algorithm Information text box: ‘**This will do 20 input and 20 output parameters**’ Click on the ‘Register’ button.	The algorithm is registered. The information will appear in the Algorithm Information text box. The Status field will display TwentyIO.C registration successfully completed.	
12.	Click on the File pull down menu Select ‘**QUIT**’	The toplevelShell window will close.	
13.	**Invoke the Analysis_Request_Builder** Click on the ‘Tools’ button	The Tools Dialog window and a list of tools is displayed to the user.	
14.	Select ‘Analysis_Request_Builder’. Click on ‘OK’ button.	The Analysis_Request_Builder window is displayed.	

15.	Click on the Algorithm box.	The algorithmWinSHELL window appears. It contains the following fields and buttons: Available Algorithms Algorithm Description Select Algorithms Assign Input Tlm Assign Output Tlm	
16.	From the Available Algorithms selection box, select '**TwentyIO**' registered algorithm. Click on the '**Assign Input Tlm…**' button	The fuAnAlgInputSHELL Window is displayed. Symbols associated witht he code of the registered algorithm will be displayed in the Input Symbols text box.	
17.	**Note:** Fields are displayed as the user selects a filter criteria. Invoke the Selection Filter Screen: Click on the '**Filter…**' button.	The selection Filter Screen is displayed and it contains the following fields and user interface menus: Spacecraft text area Instrument text area Sample Type text area Selected subsystem text area.	
18.	Select '**AM1**' in the Spacecraft text area.	Instruments associated with AM1 are displayed in the Instrument text area.	
19.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area.	

20.	Select '**V**' in the sample type text area Click on the 'Select' button.	The subsystem mnemonic AM1_EPS_V is displayed in the Selected text area.	
21.	Click the '**OK**' button.	The filter list is displayed in the Subsystems section of the fuAnAlgInputSHELL.	
22.	Click on the '**AM1_EPS_V**' toggle button in the subsystem area.	A list of mnemonics associated AM1_EPS_V are displayed in the Available Parameters text area.	
23.	Select '**EPS_VR_BBAT_CELL01A**' in the available parameters text area. Select '**mpsemisa1**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL01A and mpsemisa1 will be displayed in the Input Assignments area.	
24.	Click 'OK' button	A dialog box will appear indicating that 20 input parameters need to be selected.	
25.	In the dialog box Click 'Close' button.	The dialog box will close.	
26.	Select '**EPS_VR_BBAT_CELL01B**' in the available parameters text area. Select '**mpsemisa2**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL01B and mpsemisa2 will be displayed in the Input Assignments area.	

27.	Select '**EPS_VR_BBAT_CELL02A**' in the available parameters text area. Select '**mpsemisa3**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL02A and mpsemisa3 will be displayed in the Input Assignments area.	
28.	Select '**EPS_VR_BBAT_CELL02B**' in the available parameters text area. Select '**mpsemisa4**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL02B and mpsemisa4 will be displayed in the Input Assignments area.	
29.	Select '**EPS_VR_BBAT_CELL03A**' in the available parameters text area. Select '**mpsemisa5**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL03A and mpsemisa5 will be displayed in the Input Assignments area.	
30.	Select '**EPS_VR_BBAT_CELL03B**' in the available parameters text area. Select '**mpsemisa6**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL03B and mpsemisa6 will be displayed in the Input Assignments area.	

31.	Select '**EPS_VR_BBAT_CELL04A**' in the available parameters text area. Select '**mpsemisa7**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL04A and mpsemisa7 will be displayed in the Input Assignments area.	
32.	Select '**EPS_VR_BBAT_CELL04B**' in the available parameters text area. Select '**mpsemisa8**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL04B and mpsemisa8 will be displayed in the Input Assignments area.	
33.	Select '**EPS_VR_BBAT_CELL05A**' in the available parameters text area. Select '**mpsemisa9**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL05A and mpsemisa9 will be displayed in the Input Assignments area.	
34.	Select '**EPS_VR_BBAT_CELL05B**' in the available parameters text area. Select '**mpsemisa10**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL05B and mpsemisa10 will be displayed in the Input Assignments area.	

35.	Select '**EPS_VR_BBAT_CELL06A**' in the available parameters text area. Select '**mpsemisa11**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL06A and mpsemisa11 will be displayed in the Input Assignments area.	
36.	Select '**EPS_VR_BBAT_CELL06B**' in the available parameters text area. Select '**mpsemisa12**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL06B and mpsemisa12 will be displayed in the Input Assignments area.	
37.	Select '**EPS_VR_BBAT_CELL07A**' in the available parameters text area. Select '**mpsemisa13**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL07A and mpsemisa13 will be displayed in the Input Assignments area.	
38.	Select '**EPS_VR_BBAT_CELL07B**' in the available parameters text area. Select '**mpsemisa14**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL07B and mpsemisa14 will be displayed in the Input Assignments area.	

39.	Select '**EPS_VR_BBAT_CELL08A**' in the available parameters text area. Select '**mpsemisa15**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL08A and mpsemisa15 will be displayed in the Input Assignments area.	
40.	Select '**EPS_VR_BBAT_CELL08B**' in the available parameters text area. Select '**mpsemisa16**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL08B and mpsemisa16 will be displayed in the Input Assignments area.	
41.	Select '**EPS_VR_BBAT_CELL09A**' in the available parameters text area. Select '**mpsemisa17**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL09A and mpsemisa17 will be displayed in the Input Assignments area.	
42.	Select '**EPS_VR_BBAT_CELL09B**' in the available parameters text area. Select '**mpsemisa18**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL09B and mpsemisa18 will be displayed in the Input Assignments area.	

43.	Select '**EPS_VR_BBAT_CELL10A**' in the available parameters text area. Select '**mpsemisa19**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL10A and mpsemisa19 will be displayed in the Input Assignments area.	
44.	Select '**EPS_VR_BBAT_CELL10B**' in the available parameters text area. Select '**mpsemisa20**' Input Symbol from the Input Symbol selection box Click on the 'Assign' button.	EPS_VR_BBAT_CELL10B and mpsemisa20 will be displayed in the Input Assignments area.	
45.	Click on the '**AM1_EPS_V**' toggle button.	The list of mnemonics in the Available Parameters text area removed.	
46.	Click the 'Set Timer Every' button Enter: **10** secs Click the 'Apply' button.	Every 10 secs the algorithm will be executed on the mnemonic.	
47.	Click on 'OK' button.	The fuAnAlgInputSHELL window is closed and the algorithmWinSHELL window is displayed.	
48.	Click on the '**Assign Output Tlm…**' button	The fuAnAlgOutputSHELL Window is displayed. Symbols associated with the code of the registered algorithm will be displayed in the Input Symbols test box.	

49.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM1**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
50.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM2**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
51.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM3**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

52.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM4**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
53.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM5**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
54.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM6**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

55.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM7**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
56.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM8**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
57.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM9**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

58.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM10**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
59.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM11**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
60.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM12**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

61.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM13**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
62.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM14**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
63.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM15**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

64.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM16**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
65.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM17**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
66.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM18**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	

67.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM19**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
68.	In the New Parameter text box, enter a new parameter name. ‘**AM1_OUT_PARM20**’ From the Output Symbols box, select an associated output symbol. Click on ‘Assign’ button.	Output parameters and Output Symbols appear in the Output assignments box.	
69.	Click on ‘**OK**’ button.	The fuAnAlgOutputSHELL window is closed and the algorithmWinSHELL window is displayed.	
70.	Click on ‘Apply’ button	The algorithm will appear in the selected algorithm area.	
71.	Click on ‘**OK**’ button.	The algorithmWinSHELL window is closed and the Analysis_Request_Builder window is displayed.	
72.	**<u>Create an Analysis Request</u>** Enter into the request name field. **Algo1**	Algo1 appears in the Request Name field.	
73.	Click the mouse on the ‘Process On This User Station’ icon to select data to be processed on that work station.	Process On This User Station icon should show selected.	

74.	Click the mouse on the ‘All Data’ button in the Data Quality box.	The ‘All Data’ button should show selected	
75.	**<u>Selecting Telemetry Mnemonics</u>** Click on the ‘Select Telemetry…’ button.	The Telemetry Selector window is displayed.	
76.	**Note:** Fields are displayed as the user selects a filter criteria. Invoke the Selection Filter Screen: Click on the ‘Filter…’ button.	The Selection Filter Screen is displayed	
77.	Select ‘AM1’ in the Spacecraft text area.	Instruments associated with AM1 are displayed in the Instrument text area.	
78.	Select ‘EPS’ in the Instrument text area.	Sample Types associated EPS are displayed in the Sample Type text area.	
79.	Select ‘V’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_EPS_V is displaye din the Selected text area.	
80.	Click on the ‘OK’ button	The filter list is displayed in the Analysis Telemetry Selector window in the Subsystems section.	
81.	Click on the ‘AM1_EPS_V’ toggle button.	The list of mnemonics associated with AM1_EPS_V are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

82.	Select: ‘EPS_VR_BBAT_CELL01A’ ‘EPS_VR_BBAT_CELL01B’ ‘EPS_VR_BBAT_CELL02A’ ‘EPS_VR_BBAT_CELL02B’ ‘EPS_VR_BBAT_CELL03A’ ‘EPS_VR_BBAT_CELL03B’ ‘EPS_VR_BBAT_CELL04A’ ‘EPS_VR_BBAT_CELL04B’ ‘EPS_VR_BBAT_CELL05A’ ‘EPS_VR_BBAT_CELL05B’ ‘EPS_VR_BBAT_CELL06A’ ‘EPS_VR_BBAT_CELL06B’ ‘EPS_VR_BBAT_CELL07A’ ‘EPS_VR_BBAT_CELL07B’ ‘EPS_VR_BBAT_CELL08A’ ‘EPS_VR_BBAT_CELL08B’ ‘EPS_VR_BBAT_CELL09A’ ‘EPS_VR_BBAT_CELL09B’ ‘EPS_VR_BBAT_CELL10A’ ‘EPS_VR_BBAT_CELL10B’ Select a sampling rate. Click the ‘All Data’ button Click the ‘Select’ button	Mnemonics EPS_VR_BBAT_CELL01A EPS_VR_BBAT_CELL01B EPS_VR_BBAT_CELL02A EPS_VR_BBAT_CELL02B EPS_VR_BBAT_CELL03A EPS_VR_BBAT_CELL03B EPS_VR_BBAT_CELL04A EPS_VR_BBAT_CELL04B EPS_VR_BBAT_CELL05A EPS_VR_BBAT_CELL05B EPS_VR_BBAT_CELL06A EPS_VR_BBAT_CELL06B EPS_VR_BBAT_CELL07A EPS_VR_BBAT_CELL07B EPS_VR_BBAT_CELL08A EPS_VR_BBAT_CELL08B EPS_VR_BBAT_CELL09A EPS_VR_BBAT_CELL09B EPS_VR_BBAT_CELL10A EPS_VR_BBAT_CELL10B along with the selected sampling rates are displayes in the Selected Parameters field.	

83.	**<u>Selecting Start and Stop Times</u>** Click on the ‘Select Time’ button	The Selected Pair Times window is displayed.	
84.	Click the ‘Select’ button	The Pair Time Selector window is displayed	
85.	Click the ‘Absolute’ button	The Absolute button is selected	
86.	Click the ‘Time’ button	The Time button is selected	
87.	Click the ‘Specify End Time’ button	The Specify End Time button is selected	
88.	Enter into the start date field: **1997/348**	1997/348 is displayed in start date field	
89.	Enter into the start time field: **17:00:00.000**	17:00:00.000 is displayed in start time field	
90.	Enter into the stop date field: **1997/348**	1997/348 is displayed in stop date field	
91.	Enter into the stop time field: **18:00:00.000**	18:00:00.000 is displayed in stop time field	
92.	Click the ‘OK’ button	The selected start and stop times match the start and stop times in the Selected Pair Times window.	
93.	Select an output dataset name for the analysis request Click the output dataset name toggle button. Enter the name of the output dataset (request name): **Algo1**	Algo1 will be displayed in the Output Dataset Name box.	

94.	**<u>Save the analysis request</u>** Click on the File pull down menu	A list of options appears.	
95.	Select ‘Save as …’	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
96.	Enter the name of the request: **A1ATAlgs_Base** Click the ‘OK’ button	A dialog box informing the user that the file was saved.	
97.	**<u>Save the analysis request</u>** Click on the File pull down menu	A list of options appears.	
98.	Select ‘Save as …’	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
99.	Enter the name of the request: **A1ATAlgs** Click the ‘OK’ button	A dialog box informing the user that the file was saved.	
100.	Click the ‘Close’ button in the information dialog box.	The dialog box will close	
101.	Click the ‘OK’ button in the Analysis Request Builder window	A dataset for the given options selected has been submitted for generation.	

102.	Monitor the Event Display for the message Analysis Request X has started on host N. Where X = the number of the request and N = the Name of the Host machine that started the request.	Wait for an event message indicating that the analysis request is complete. In the Events Display window a message will be displayed 'Analysis Request X completed on Host N.	
103.	**<u>Invoke the Analysis_Request_Builder</u>** Click on the 'Tools' button	The Tools Dialog window and a list of tools is displayed to the user.	
104.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis_Request_Builder window is displayed.	
105.	Click on the File pull down menu	A list of options appear	
106.	Select 'Open'	A File Selection window is displayed	
107.	Select 'A1ATAlgs_Base' Click the 'OK' button	The Analysis Request named A1ATAlgs_Base is displayed and the request status will indicate Read/Edit.	
108.	Click on the Algorithm box	The algorithmWinSHELL window appears.	
109.	From the Select Algorithms selection box Select TwentyIO Click on 'Assign Input Tlm…' button	The fuAnAlgInputSHELL window is displayed	
110.	In the fuAnAlgInputSHELL window Deselect Timer trigger	The Timer trigger button will be deselected.	
111.	Invoke the Selection Filter Screen: Click on the '**Filter…**' button.	The selection Filter Screen is displayed.	

112.	Select '**AM1**' in the Spacecraft text area.	Instruments associated with AM1 are displayed in the Instrument text area.	
113.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area.	
114.	Select '**V**' in the sample type text area Click on the 'Select' button.	The subsystem mnemonic AM1_EPS_V is displayed in the Selected text area.	
115.	Click the '**OK**' button.	The filter list is displayed in the Subsystems section of the fuAnAlgInputSHELL.	
116.	Click on the '**AM1_EPS_V**' toggle button in the subsystem area.	A list of mnemonics associated AM1_EPS_V are displayed in the Available Parameters text area.	
117.	Select '**EPS_VR_BBAT_CELL01A**' in the available parameters text area. Click the 'Use Parameter' button Click the 'Apply' button.	EPS_VR_BBAT_CELL01A will appear in the Selected Triggers box.	
118.	Click the 'OK' button	The fuAnAlgInputSHELL window is closed and the algorithmWinSHELL is displayed.	
119.	Click the 'OK' button.	The algorithmWinSHELL is closed and the Analysis_Request_Builder Window is displayed.	
120.	**<u>Create an Analysis Request</u>** Enter into the request name field: **Algo2**	Algo2 appears in the Request Name field.	

121.	Ensure the start and stop times are correct	The start and stop times should reflect: 1997/348 17:00:00.000 1997/348 18:00:00.000	
122.	Select an output dataset name for the analysis request. Click the output dataset name and toggle buton. Enter the name of the output dataset (request name): **Algo2**	Algo2 will be displayed in the Output Dataset Name box.	
123.	**<u>Save the analysis request</u>** Click on the File pull down menu.	A list of options will appear.	
124.	Select ‘Save as …’	A File Selection window is displayed	
125.	Enter the name of the request: **Algo2** Click the ‘OK’ button	A dialog box informing the user the file was saved will appear.	
126.	Click the ‘Close’ button in the information dialog box.	The dialog box will close.	
127.	Click the ‘OK’ button in the Analysis Request Builder window	A dataset for the given options selected has been submitted for generation.	

128.	Monitor the Event Display for the message Analysis Request X has started on host N. Where X = the number of the request and N = the Name of the Host machine that started the request.	Wait for an event message indicating that the analysis request is complete. In the Events Display window a message will be displayed 'Analysis Request X completed on Host N.	
129.	**<u>Invoke the Analysis_Request_Builder</u>** Click on the 'Tools' button	The Tools Dialog window and a list of tools is displayed to the user.	
130.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis_Request_Builder window is displayed.	
131.	Click on the File pull down menu	A list of options appear	
132.	Select 'Open'	A File Selection window is displayed	
133.	Select 'A1ATAlgs_Base' Click the 'OK' button	The Analysis Request named A1ATAlgs_Base is displayed and the request status will indicate Read/Edit.	
134.	Click on the Algorithm box	The algorithmWinSHELL window appears.	
135.	From the Select Algorithms selection box Select TwentyIO Click on 'Assign Input Tlm…' button	The fuAnAlgInputSHELL window is displayed	

136.	In the fuAnAlgInputSHELL window Select EPS_VR_BBAT_CELL01A in the Selected Triggers box. Click 'Remove' button Click the 'Use Parameter' button	The parameter will be deselected.	
137.	Click the 'Set Timer Every' button Enter: **10 secs** Click the 'Apply' button.	Every 10 secs the algorithm will be executed on the mnemonic.	
138.	Click the 'OK' button	The fuAnAlgInputSHELL window is closed and the algorithmWinSHELL is displayed.	
139.	Click the 'OK' button.	The algorithmWinSHELL is closed and the Analysis_Request_Builder Window is displayed.	
140.	**<u>Create an Analysis Request</u>** Enter into the request name field: **Algo3**	Algo3 appears in the Request Name field.	
141.	Ensure the start and stop times are correct	The start and stop times should reflect: 1997/348 17:00:00.000 1997/348 18:00:00.000	

142.	Select an output dataset name for the analysis request. Click the output dataset name and toggle buton. Enter the name of the output dataset (request name): **Algo3**	Algo3 will be displayed in the Output Dataset Name box.	
143.	Select an input dataset name for the analysis request. Click the input dataset name and toggle buton. Enter the name of the input dataset (request name): **A1ATAlgs_*filename***	The A1ATAlgs_*filename* is displayed in the datsetset as input text box.	
144.	**<u>Save the analysis request</u>** Click on the File pull down menu.	A list of options will appear.	
145.	Select 'Save as …'	A File Selection window is displayed	
146.	Enter the name of the request: **Algo3** Click the 'OK' button	A dialog box informing the user the file was saved will appear.	
147.	Click the 'Close' button in the information dialog box.	The dialog box will close.	
148.	Click the 'OK' button in the Analysis Request Builder window	A dataset for the given options selected has been submitted for generation.	

149.	Monitor the Event Display for the message Analysis Request X has started on host N. Where X = the number of the request and N = the Name of the Host machine that started the request.	Wait for an event message indicating that the analysis request is complete. In the Events Display window a message will be displayed 'Analysis Request X completed on Host N.	
150.	Place the mouse pointer on the screen and activate the pull down menu by pressing the right most mouse button. Select Programs Select X-term	An X-term window will open.	
151.	Go to the "datasets" directory and do a long listing for the A1ATAlgs dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The A1ATAlgs dataset will appear in the datasets directory.	
152.	Go to the "setup" directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** %:**setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
153.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	

154.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
155.	Enter the TLM dataset name: **A1ATAlgs _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
156.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
157.	Enter: **A1ATAlgs**	The FaDrReaderDriver will generate the report.	
158.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
159.	Go to the "reports" directory and do a long listing for the A1ATAlgs. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The A1ATAlgs will be displayed as A1ATAlgs.report	
160.	**<u>Print a Time Order Downlink Report</u>** %:**lp A1ATAlgs.report**	The report will print. Via off line analysis the report will display the results of the algorithm executed every 10 secs.	

161.	Go to the “datasets” directory and do a long listing for the Algo2 dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The Algo2 dataset will appear in the datasets directory.	
162.	Go to the “setup” directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** %:**setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
163.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
164.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
165.	Enter the TLM dataset name: **Algo2 _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
166.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
167.	Enter: **Algo2**	The FaDrReaderDriver will generate the report.	

168.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
169.	Go to the "reports" directory and do a long listing for the Algo2. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The Algo2 will be displayed as Algo2.report	
170.	**<u>Print a Time Order Downlink Report</u>** %:**lp Algo2.report**	The report will print. Via off line analysis the report will display the results of the algorithm executed every time EPS_VR_BBAT_CELL01A appears.	
171.	Go to the "datasets" directory and do a long listing for the Algo3 dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The Algo3 dataset will appear in the datasets directory.	
172.	Go to the "setup" directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** %:**setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
173.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	

174.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
175.	Enter the TLM dataset name: **Algo3 _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
176.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
177.	Enter: **Algo3**	The FaDrReaderDriver will generate the report.	
178.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
179.	Go to the "reports" directory and do a long listing for the Algo2. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The Algo3 will be displayed as Algo3.report	
180.	**<u>Print a Time Order Downlink Report</u>** %:**lp Algo3.report**	The report will print. Via off line analysis the report will display the results of the algorithm executed using A1ATAlgs as input to the request.	

181.	**<u>System Algorithms</u>** **<u>Fast Fourier Transform</u>** Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
182.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
183.	Enter the TLM dataset name: **A1ATAlgs _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
184.	Enter: **8** to perform Fast Fourier Transform.	The ReaderDriver prompt for a PID to be transformed.	
185.	Enter: **1766**	The FaDrReaderDriver will execute Fast Fourier Transform on PID 1766 and display the results on in the window.	
186.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	

187.	**<u>System Algorithms</u>** **<u>Data Smoothing</u>** Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
188.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
189.	Enter the TLM dataset name: **A1ATAlgs _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
190.	Enter: **9** to perform Data Smoothing.	The ReaderDriver prompt for a PID to be smoothed.	
191.	Enter: **1766**	The ReaderDriver prompt for a rate to be smoothed - greater than 0.	
192.	Enter: **7** as a smoothing rate	The FaDrReaderDriver will execute Data Smoothing on PID 1766 and display the results on in the window.	

193.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
194.	**<u>System Algorithms</u>** **<u>Curve Fit</u>** Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
195.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
196.	Enter the TLM dataset name: **A1ATAlgs _*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
197.	Enter: **10** to perform Curve Fitting.	The ReaderDriver prompt for an independent PID to be regressed. Use zero if time is the independent PID.	
198.	Enter: **0**	The ReaderDriver prompt for a degree of polynomial to be fitted.	
199.	Enter: **9**	The FaDrReaderDriver will execute cure fitting on PID 1766 and display the results on in the window.	

200.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
201.	End of test.		

Time Order Downlink Report Test Procedure

Test Case No: ANA-2060B

Test Configuration: See Appendix G

Test Support: None

Test Dependencies: Previously created dataset that contains one EU conversion and one raw value.

Test Case Description:

This test is designed to verify the ability to a generate and print a Time Order Downlink Report based on information selected from a combination of user interface and analysis tool options from a previously defined dataset.

The test begins with the initialization of the EOC to support off-line analysis processing. A previously created Analysis Request is retrieved to verify that request processing has been completed. A Time Order Downlink Report is generated from the previously created analysis request, with selected options including request name and start/stop time interval and desired parameters (parameter selection will include at least one EU conversion value and one raw value) . The Time Order Downlink Report is saved and submitted. The next portion of the test reflects the ability to create a Custom Report. A custom report is created using ASCII files, off-line products, screen snaps and other products in to a report. Margins and fonts will be changed and existing templates used. The last portion of the test will reflect the ability to display the results of analysis requests in the form of graphs and tables.

Success Criteria:

Via off-line analysis, it is determined that the Time Order Downlink Report content matches dataset values, and report values match database definitions for a sample of the displayed parameters. The report output matches the start/stop time specified in the Time Order Downlink Report request. All mnemonics resident on the report are displayed in the order in which they are sampled by the spacecraft. Output from analysis requests can be displayed in the form of graphs and tables. Custom reports can be generated and these reports use *ASCII files, off-line products, screen snaps and other products in to a report. Margins and fonts will be changed and existing templates used. Not Tested this release.*

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**<u>Start the Data Server.</u>** Reference Test Case SYS-2000B -- FOS Server Startup.	Data Server processes are running.	
2.	**<u>Start the Real-Time Server.</u>** Reference Test Case SYS-2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	**<u>Start the User Station.</u>** Reference Test Case SYS-2010B -- User Station Startup and Authentication.	The FOT User Station is running and the Control Window is displayed.	
4.	**<u>Invoke the Event Display.</u>** Click on ‘Tools’ from the control window	The Tools Dialog window is displayed	
5.	Select ‘Event_Display_Global’ from the control window tools menu. Click on the ‘OK’ button	The Event Display is displayed on the FOT User Station.	
6.	**<u>Invoke a previously saved Analysis Request</u>** Select ‘Tools’ from the control window	The Tools Dialog window is displayed	
7.	Select ‘Analysis Request Builder’ Click on the ‘OK’ button	The Analysis Request Builder is displayed	
8.	Click on the File pull down menu Select ‘Open’	The File Selection window is displayed	

9.	Select '**Time_Ordered_Downlink**' Click on 'OK' button	Analysis Request Time_Ordered_Downlink is displayed A dialog box will appear indicating that the request has already been sent and modifying the request is not allowed.	
10.	Click the 'Close' button	The dialog box will disappear. The request status will be "submitted".	
11.	Click on 'Cancel' button.	The Analysis Request window will close.	
12.	Place the mouse pointer on the screen and activate the pull down menu by pressing the right most mouse button. Select Programs Select X-term	An X-term window will open.	
13.	Go to the "datasets" directory and do a long listing for the **Time_Ordered_Downlink** dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The Time_Ordered dataset will appear in the datasets directory.	
14.	Go to the "setup" directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** %:**setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
15.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	

16.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
17.	Enter the TLM dataset name: **Time_Ordered_Downlink_*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
18.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
19.	Enter: **TimeOrderReport**	The FaDrReaderDriver will generate the report.	
20.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
21.	Go to the "reports" directory and do a long listing for the TimeOrderReport. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The TimeOrderReport will be displayed as TimeOrderReport.report	
22.	**<u>Print a Time Order Downlink Report</u>** %:**lp TimeOrderReport.report**	The report will print.	

23.	**<u>Print a Time Order Downlink Report</u>** **Functionality unavailable at this time.** Select 'Report Generator' from the control window tools menu.	The Report Generator window is displayed	
24.	Click the On-Demand toggle button Select Spacecraft type 'AM1' Select Report Category 'ANA' Select from Available Reports text area 'Time Order Downlink Report' Click 'OK' button	The On-Demand Report Specification window is displayed.	
25.	Click on 'Retrieve Report'	A dialog box will appear indicating no report will has been generated yet.	
26.	Click on 'Close' button	The dialog box will close.	
27.	Click on 'New Report' button.	The On-Demand Specification window is displayed.	
28.	Enter Start Time: **TBD**	Report Start Time is displayed	
29.	Enter Stop Time: **TBD** (less than 1)	An error dialog box is displayed indicating the time selection is invalid	
30.	Click the mouse on 'Close' button in the dialog box	Dialog box will close	

31.	Enter Start Time: **TBD**	Report Start Time is displayed	
32.	Enter Stop Time: **TBD**	Report Stop Time is displayed	
33.	Enter Data Set: ***filename***	The Dataset to be used to create the report will be displayed along with all the mnemonics in that dataset.	
34.	Select parameters used in the report: Click on 'Filter' button	The Selection Filter Window is displayed.	
35.	Select the Spacecraft type '**AM1**'	The Instruments associated with AM1 the will be displayed in the Instrument text area	
36.	Select '**SDU**' in the Instrument text area. Click on 'Select' button.	The subsystem mnemonic AM1_SDU is displayed in the Selected text area.	
37.	Select '**CHD**' in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area.	
38.	Select '**C**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_CDH_C is displayed in the Selected text area.	
39.	Select '**T**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_CDH_T is displayed in the Selected text area.	
40.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area.	

41.	Select '**I**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_EPS_I is displayed in the Selected text area.	
42.	Select '**GNC**' in the Instrument text area.	Sample Types associated with GNC are displayed in the Sample Type text area.	
43.	Select '**S**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_GNC_S is displayed in the Selected text area.	
44.	Select '**MOD**' in the Instrument text area.	Sample Types associated with MOD are displayed in the Sample Type text area.	
45.	Select '**T**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_MOD_T is displayed in the Selected text area.	
46.	Select '**PMS**' in the Instrument text area.	Sample Types associated with PMS are displayed in the Sample Type text area.	
47.	Select '**B**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_PMS_B is displayed in the Selected text area.	
48.	Click "OK" button	The Display Item Parameter Selector window is displayed.	
49.	Click on the '**AM1_SDU**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_SDU are displayed in the text area.	
50.	Select '**SDU_SCTIME**' in the available parameter text area Click on the → button	SDU_SCTIME is displayed in the Selected text area.	
51.	Click on the '**AM1_SDU**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	

52.	Click on the '**AM1_CDH_C**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_CDH_C are displayed in the text area.	
53.	Select '**CDH_CR_SSR1_RECPBUS**' in the available parameter text area Click on the → button	CDH_CR_SSR1_RECPBUS is displayed in the Selected text area.	
54.	Click on the '**AM1_CDH_C**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
55.	Click on the '**AM1_CDH_T**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_CDH_T are displayed in the text area.	
56.	Select '**CDH_TR_MOD_BDU_EPCB'** in the available parameter text area Click on the → button	CDH_TR_MOD_BDU_EPCB is displayed in the Selected text area.	
57.	Click on the '**AM1_CDH_T'** toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
58.	Click on the '**AM1_EPS_I**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_EPS_I are displayed in the text area.	
59.	Select '**EPS_IR_QLTY1'** in the available parameter text area Click on the → button	EPS_IR_QLTY1 is displayed in the Selected text area.	
60.	Click on the '**AM1_EPS_I**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
61.	Click on the '**AM1_GNC_S**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_GNC_S are displayed in the text area.	

62.	Select '**GNC_SR_DPARM1'** in the available parameter text area Click on the → button	GNC_SR_DPARM1 is displayed in the Selected text area.	
63.	Click on the '**AM1_GNC_S**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
64.	Click on the '**AM1_MOD_T**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_MOD_T are displayed in the text area.	
65.	Select '**MOD_TP_BB_TEMP10H'** in the available parameter text area Click on the → button	MOD_TP_BB_TEMP10H is displayed in the Selected text area.	
66.	Click on the '**AM1_MOD_T**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
67.	Click on the '**AM1_PMS_B**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_PMS_B are displayed in the text area.	
68.	Select '**PMS_BR_LATCHVLV2_OPN'** in the available parameter text area Click on the → button	PMS_BR_LATCHVLV2_OPN is displayed in the Selected text area.	
69.	Click on the '**AM1_PMS_B**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
70.	Click 'Apply' button	The report will generate	
71.	Click on 'Retrieve Report'	Netscape is activated and the Report Browser appears.	

72.	In the Reports Browser window, scroll down to the Time Order Down Link reports folder. Double click on the folder.	The folder will open and display a list of Time Order Down Link Reports.	
73.	Double click on *filename*.	The file will open and be displayed in the Time Ordered format.	
74.	Select *filename* Click on the File pull down menu on Netscape.	A list of options will appear.	
75.	Select Print	A dialog box will open asking what printer to use.	
76.	Enter *printername* in the text box.	The report will print	
77.	Retrieve the report	Via off line analysis verify the report contains the following information: The date and time of the report The starting spacecraft time of the data The ending spacecraft time of the data Telemetry mnemonics are either of EU conversion or raw value The telemetry parameters are in order in which they are sampled by the spacecraft Spacecraft time for each telemetry mnemonic is provided in the report.	

78.	**<u>Custom Report</u>** **Functionality unavailable at this time.** Select 'Report Generator' from the control window tools menu.	The Report Selector window will be displayed.	
79.	Click on 'Custom' button	The custom Report Specification window will open.	
80.	**<u>Custom Report Template</u>** **Functionality unavailable at this time.** Select 'Custom Report' from the control window tools menu.	The Custom Report window will be displayed. Verify that it contains the following field and user interfaces: ASCII files off-line analysis products screen snaps descriptive text other routine reports Margins Fonts Existing templates	
81.	Click on 'Margins'	The Margin Selector window will appear	

82.	Enter into the TOP text field **1** Enter into the BOTTOM text field **1** Enter into the LEFT text field **1** Enter into the RIGHT text field **1**	The margins will be set and the Margin Selector window will close.	
83.	Click on ‘Font’ pull down menu	A listing of the available fonts will be displayed.	
84.	Click on ‘Insert ASCII files’	The ASCII files selector window will open.	
85.	Select the **TBD** file to be inserted into the report and Click on ‘Apply’	The **TBD** file will be inserted into the report.	
86.	Click on ‘Insert Snap’	A listing of screen snaps will be displayed.	
87.	Select **TBD** screen snap Click on ‘Apply’	The **TBD** screen snap will be inserted into the report.	
88.	From the File pull down menu Select ‘Save As…’	A message dialog box will be displayed.	
89.	Enter **CustomReport1** Press Return	CustomReport1 will be saved.	
90.	**<u>Verify the report was saved</u>** Select ‘Open’ from the file pull down menu.	A list of file options will be displayed.	

91.	Select **CustomReport1** file Click on ‘Open’	**CustomReport1** will open and will look like the orginal.	
92.	Click on ‘Cancel’	The file will close.	
93.	Select ‘Report Generator’ from the control window tools menu.	The Report Selector window will be displayed.	
94.	Click on ‘Custom’ button	The custom Report Specification window will open.	
95.	Click on ‘Modify’	A list of reports will be displayed	
96.	Select a report to modify.	The selected report will be hightlighted.	
97.	Click on ‘Open’	The selected report will be displayed.	
98.	Select ‘Analysis Product’ Click on ‘Apply’	A list of Analysis Products will be displayed	
99.	Select **TBD** product Click on ‘Insert’ Click on ‘Apply’	The selected analysis product will be inserted into the custom report.	
100.	Click on ‘Modify’	A list of reports will be displayed	
101.	Select a **TBD** report to Modify Click on ‘Open’	The selected report will be displayed.	
102.	Select ‘Text’ Click on ‘Apply’	A list of predefined text will be displayed.	

103.	Select a **TBD** text option. Click on 'Insert' Click on 'Apply'	The selected text will be inserted into the report.	
104.	From the File pull down menu Select 'Save As…'	A message dialog box will be displayed.	
105.	Enter **TBD** file name Press Return	The **TBD** file will be saved.	
106.	Click on 'Print'	The report will print. Verify the information contained in the report is correct.	
107.	Select 'Custom Report' from the control window tools menu.	The Custom Report window will be displayed.	
108.	Click on 'Report Templates'	A list of the report templates will be displayed.	
109.	Select **TBD** Click on 'Delete'	A message dialog box will be displayed.	
110.	Click on 'Yes'	The report template will be deleted.	
111.	**Graph - Telemetry Values vs Time** Invoke the Analysis Request Builder_ Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
112.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis Request Builder window is displayed	
113.	Click the File pull down menu.	A list of options appears.	

114.	Select ‘Open’.	The File Selection window is displayed.	
115.	Select ‘**Time_Order_Downlink**’. Click the ‘OK’ button.	An Analysis Request Information dialog box will appear stating: This request was already sent… Modifying or resending this request will not be permitted.	
116.	Click the ‘Close’ button in the dialog box.	The request is displayed.	
117.	Check the Request Status text area in the Analysis Request Builder window.	The Request Status will indicate Submitted.	
118.	Click the ‘Cancel’ button.	The Analysis Request Builder window will close.	
119.	**<u>Plot a Graph</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
120.	Select ‘Display_Builder’. Click on ‘OK’ button.	The Display_Builder windows are displayed	
121.	In the Display Builder Pallette window tool bar, Select ‘Page’	A list of options appear.	
122.	Select ‘Logical String Management’	The Dynamic Page Logical String Management window appears.	

123.	In the Dynamic Page Logical String Management window: From the Source button pull down menu, Select '**Offline**' Click '**ADD**' button.	A filter window appears displaying a listing of the available datasets.	
124.	In the filter window: Select **Time_Order_downlink_1997348174647_2.meta** Click '**OK**'	The selected file will appear in the Dynamic Page Logical String Management window.	
125.	In the Dynamic Page Logical String Management window Click "**OK**"	The Dynamic Page Logical String Management window will disappear.	
126.	In the Display Builder Pallette window, Click '**2D**' button Move the mouse to the Dynamic Page and click the mouse.	A graph display page appears.	
127.	In the Display Item Data Sources window Click '**ADD**'	The Display Item Parameter Selector window appears.	
128.	In the Display Item Parameter Selector window Click '**Filter**'	The Selection Filter window appears.	
129.	Select the Spacecraft type '**AM1**'	The Instruments associated with AM1 the will be displayed in the Instrument text area	

130.	Select '**SDU**' in the Instrument text area. Click on 'Select' button.	The subsystem mnemonic AM1_SDU is displayed in the Selected text area.	
131.	Select '**CHD**' in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area.	
132.	Select '**C**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_CDH_C is displayed in the Selected text area.	
133.	Select '**T**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_CDH_T is displayed in the Selected text area.	
134.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area.	
135.	Select '**I**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_EPS_I is displayed in the Selected text area.	
136.	Select '**GNC**' in the Instrument text area.	Sample Types associated with GNC are displayed in the Sample Type text area.	
137.	Select '**S**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_GNC_S is displayed in the Selected text area.	
138.	Select '**MOD**' in the Instrument text area.	Sample Types associated with MOD are displayed in the Sample Type text area.	
139.	Select '**T**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_MOD_T is displayed in the Selected text area.	
140.	Select '**PMS**' in the Instrument text area.	Sample Types associated with PMS are displayed in the Sample Type text area.	

141.	Select '**B**' in the sample type text area Click on the 'Select' button	The subsystem mnemonic AM1_PMS_B is displayed in the Selected text area.	
142.	Click "OK" button	The Display Item Parameter Selector window is displayed.	
143.	Click on the '**AM1_SDU**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_SDU are displayed in the text area.	
144.	Select '**SDU_SCTIME**' in the available parameter text area Click on the → button	SDU_SCTIME is displayed in the Selected text area.	
145.	Click on the '**AM1_SDU**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
146.	Click on the '**AM1_CDH_C**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_CDH_C are displayed in the text area.	
147.	Select '**CDH_CR_SSR1_RECPBUS**' in the available parameter text area Click on the → button	CDH_CR_SSR1_RECPBUS is displayed in the Selected text area.	
148.	Click on the '**AM1_CDH_C**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
149.	Click on the '**AM1_CDH_T**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_CDH_T are displayed in the text area.	
150.	Select '**CDH_TR_MOD_BDU_EPCB'** in the available parameter text area Click on the → button	CDH_TR_MOD_BDU_EPCB is displayed in the Selected text area.	

151.	Click on the '**AM1_CDH_T**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
152.	Click on the '**AM1_EPS_I**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_EPS_I are displayed in the text area.	
153.	Select '**EPS_IR_QLTY1'** in the available parameter text area Click on the → button	EPS_IR_QLTY1 is displayed in the Selected text area.	
154.	Click on the '**AM1_EPS_I**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
155.	Click on the '**AM1_GNC_S**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_GNC_S are displayed in the text area.	
156.	Select '**GNC_SR_DPARM1'** in the available parameter text area Click on the → button	GNC_SR_DPARM1 is displayed in the Selected text area.	
157.	Click on the '**AM1_GNC_S**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
158.	Click on the '**AM1_MOD_T**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_MOD_T are displayed in the text area.	
159.	Select '**MOD_TP_BB_TEMP10H'** in the available parameter text area Click on the → button	MOD_TP_BB_TEMP10H is displayed in the Selected text area.	
160.	Click on the '**AM1_MOD_T**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	

161.	Click on the '**AM1_PMS_B**' toggle button in the Selection Filter area.	A list mnemonics associated with AM1_PMS_B are displayed in the text area.	
162.	Select '**PMS_BR_LATCHVLV2_OPN'** in the available parameter text area Click on the → button	PMS_BR_LATCHVLV2_OPN is displayed in the Selected text area.	
163.	Click on the '**AM1_PMS_B**' toggle button in the Selection Filter area.	The list of mnemonics in the available text area are removed.	
164.	Click "OK" button	The list of select mnemonics will be displayed in the Display Items Parameter Selector window.	
165.	In the Display Item Format window: Select the 'Axes', 'Legend', 'Grid', 'Footer' toggle buttons	The selected toggles button will be selected.	
166.	Select 'Axes' from the Edit pull down menu	Axes will be displayed	
167.	Select the X Axis Parameter **SDU_SCTIME**	SDU_SCTIME will be displayed in the X Axis Parameter Label text area.	
168.	Enter the X Axis Display Min **'-747.8477'**	The dataset start time in J2000 format will be displayed in the X Axis Display Min text area.	
169.	Enter the X Axis Display Max **'-747.8352'**	The dataset stop time in J2000 format will be displayed in the X Axis Display Max text area.	
170.	Enter the Y Axis Display Max **'10'**	1000 will be displayed in the Y Axis Display Max text area.	

171.	Enter the graph title in the ‘Title’ box **Graphin**	The title will be displayed in the Title text box.	
172.	Enter the X Axis Label **‘SpaceCraft Time’**	SpaceCraft Time will be displayed in the X Axis Label text area.	
173.	Enter the Y Axis Label **‘Mnemonics’**	Mnemonics will be displayed in the Y Axis Label text area.	
174.	Enter the X Axis Display Interval **‘5’**	**5 sec** will be displayed in the X Axis Display Interval text area.	
175.	Enter the X Axis Grid Granularity **‘1’**	1 will be displayed in the X Axis Grid Granularity text area.	
176.	Enter the Y Axis Display Min **‘5’**	5 will be displayed in the Y Axis Display Min text area.	
177.	Enter the Y Axis Grid Granularity **‘1’**	1 will be displayed in the Y Axis Grid Granularity text area.	
178.	Click on ‘Apply’ button	The desired attributes are saved	
179.	Select ‘Legend’ from Edit pull down menu	Settings for Legend will be displayed	
180.	Select from the Positional toggle area ‘**East**’	South toggle button will be selected	
181.	Select from the Border Type toggle area ‘**Shadow**’	Shadow toggle button will be selected	

182.	Click on ‘Apply’ button	The desired attributes are saved	
183.	Select ‘Footer’ from Edit pull down menu	Settings for Footer will be displayed	
184.	Enter into the Footer text box: **This is a graph called Graphin.**	The text will appear in the footer text area.	
185.	Select from the Border Type toggle area ‘**Shadow**’	Shadow toggle button will be selected	
186.	Click on ‘Apply’ button	The desired attributes are saved	
187.	Select ‘Color and Line Style’ from Edit pull down menu	Settings for Color and Line Style will be displayed	
188.	Select **CDH_TR_MOD_BDU_EPCB** in the parameter box	CDH_TR_MOD_BDU_EPCB is highlighted	
189.	Select from the Line Attributes pull down menu ‘**Dotted**’	Dotted will be displayed.	
190.	Select from the Point Attributes pull down menu ‘**Circle**’	Circle will be displayed.	
191.	Select from the Color Attributes pull down menu ‘**Red**’	Red will be displayed.	
192.	Select from the Limit Line Attributes pull down menu ‘**Dotted**’	Dotted will be displayed.	
193.	Click on ‘Apply’ button	The desired attributes are applied.	

194.	Select **CDH_CR_SSR1_RECVPBBUS** parameter in the parameter box	CDH_CR_SSR1_RECVPBBUS is highlighted	
195.	Select from the Line Attributes pull down menu ‘**Long Dash**’	Long Dash will be displayed.	
196.	Select from the Point Attributes pull down menu ‘**Square**’	Square will be displayed.	
197.	Select from the Color Attributes pull down menu ‘**Yellow**’	Yellow will be displayed.	
198.	Select from the Limit Line Attributes pull down menu ‘**Dashed**’	Dashed will be displayed.	
199.	Click on ‘Apply’ button	The desired attributes are applied.	
200.	Select **EPS_IR_QLTY1** parameter in the parameter box	EPS_IR_QLTY1 is highlighted	
201.	Select from the Line Attributes pull down menu ‘**Solid**’	Solid will be displayed.	
202.	Select from the Point Attributes pull down menu ‘**Triangle**’	Triangle will be displayed.	
203.	Select from the Color Attributes pull down menu ‘**Cyan**’	Cyan will be displayed.	

204.	Select from the Limit Line Attributes pull down menu ‘**Solid**’	Solid will be displayed.	
205.	Click on ‘Apply’ button	The desired attributes are applied.	
206.	Select **GNC_SR_DPRAM1** parameter in the parameter box	GNC_SR_DPRAM1 is highlighted	
207.	Select from the Line Attributes pull down menu ‘**Long Short Dash**’	Long Short Dash will be displayed.	
208.	Select from the Point Attributes pull down menu ‘**Star**’	Star will be displayed.	
209.	Select from the Color Attributes pull down menu ‘**Green**’	Green will be displayed.	
210.	Select from the Limit Line Attributes pull down menu ‘**Solid**’	Solid will be displayed.	
211.	Select **MOD_TP_BB_TEMP10H** parameter in the parameter box	MOD_TP_BB_TEMP10H is highlighted	
212.	Select from the Line Attributes pull down menu ‘**Short Dash**’	Short Dash will be displayed.	
213.	Select from the Point Attributes pull down menu ‘**Cross**’	Cross will be displayed.	

214.	Select from the Color Attributes pull down menu ‘**White**’	White will be displayed.	
215.	Select from the Limit Line Attributes pull down menu ‘**Solid**’	Solid will be displayed.	
216.	Select **PMS_BR_LATCHVLV2_OPN** parameter in the parameter box	PMS_BR_LATCHVLV2_OPN is highlighted	
217.	Select from the Line Attributes pull down menu ‘**Dash Dot**’	Dash Dot will be displayed.	
218.	Select from the Point Attributes pull down menu ‘**Diamond**’	Diamond will be displayed.	
219.	Select from the Color Attributes pull down menu ‘**Magenta**’	Magenta will be displayed.	
220.	Select from the Limit Line Attributes pull down menu ‘**Solid**’	Solid will be displayed.	
221.	Click on ‘Apply’ button	The desired attributes are applied.	
222.	In the Display Builder Pallette window From the Tool Bar Select ‘**File**’	A pull down menu with options will apppear.	
223.	Select ‘**Save As …**’	A filter window will appear.	

224.	In the Filter window Click on '**System**' button Enter the '**ANAGraph**' in the bottom filter text bar. Click the '**OK**' button.	The directory structure will change to reflect the system directory and the file will be saved there.	
225.	In the Display Builder Pallette window From the Tool Bar Select '**Build to CM**'	In the Display Control Window the message Build to CM complete will be displayed.	
226.	In the Display Builder Pallette window From the Tool Bar Select '**File**'	A pull down menu with options will appear.	
227.	Select '**Save As …**'	A filter window will appear.	
228.	In the Filter window Click on '**Local**' button Enter the '**ANAGraph**' in the bottom filter text bar. Click the '**OK**' button.	The directory structure will change to reflect the local directory and the file will be saved there.	
229.	In the Display Builder Pallette window From the Tool Bar Select '**Build to Local**'	In the Display Control Window the message Build to Local complete will be displayed.	

230.	In the Control Window Click on the ‘Tlm Wins’ button	A list of tlm pages are displayed to the user	
231.	Select ‘**ANAGraph**’	ANAGraph page will be displayed.	
232.	In a terminal window enter snapframe Place the mouse on the graph and click.	The graph will print out.	

233.	Verify the selected criteria match displayed information.	In the Display page: The display legend will be located in the East corner CDH_TR_MOD_BDU_EPCB will be Dotted, Circle, Red CDH_CR_SSR1_RECPBBUS will be Long Dash, Square, Yellow, & Dotted limit lines EPS_IR_QLTY1 will be Solid, Triangle, Cyan, & Dashed limit lines GNC_SR_DPARM1 will be Long Short Dash, Star, Green, & Solid limit lines MOD_TP_BB_TEMP10H will be Dotted, Cross, White, & Solid limit lines PMS_BR_LATCHVLV2_OPN is not in the graph. The X axis is labeled SpaceCraft Time The Y axis is labeled Mnemonics The graph is titled Graphin The Footer is: This is a graph called graphin The Footer & Legend box are shadowed.	
234.	Click on a mnemonic and verify the minimum, current, and maximum values for a selected telemetry parameter are displayed.	The values will be displayed in the value boxes.	

235.	**<u>To Print the Graph</u>** Display the graph on the screen Using the mouse pulldown menu Select ‘snapshot” Select sideways (Landscape) or upright (Portrait).	The graph will be printed.	
236.	Click on ‘Zoom In’ button	A selected area of the graph will be enlarged (Zoomed in on).	
237.	Click on ‘Zoom Out’ button	The graph will return to it’s original state.	
238.	Bring up Graphin four times In a terminal window enter snapframe	This will print the whole screen of four graphs.	
239.	**<u>Telemetry Value vs Telemetry</u>** **Functionality unavailable at this time.**		
240.	**<u>Tables</u>** **Functionality unavailable at this time.** Invoke a previously saved Analysis Request Select ‘Tools’ from the control window	The Tools Dialog window is displayed	
241.	Select ‘Analysis_Request_Builder’. Click on ‘OK’ button.	The Analysis Request Builder window is displayed	
242.	Click the File pull down menu.	A list of options appears.	
243.	Select ‘Open’.	The File Selection window is displayed.	

244.	Check the Request Status text area in the Analysis Request Builder window.	The Request Status will indicate Read/Edit Request.	
245.	Click on the 'Tlm Wins' button	A list of tlm pages are displayed to the user	
246.	Select 'Tablein'	Tablein page will be displayed.	
247.	**<u>Save a Table</u>** Click on File pull down Menu Select 'Save As…'	A dialog box will appear	
248.	Enter '**Tablein**' in the dialog box Click 'OK' button	The dialog box will close and the Table will be saved.	
249.	**<u>Print the Table</u>** Display the Table on the screen In a terminal window enter screen snap	The Table will be printed. Verify the table contains: 50 Parameters associated time at each interval the mnemonic of each telemetry value title current range of time is displayed.	
250.	Invoke a previously saved Analysis Request Select 'Tools' from the control window	The Tools Dialog window is displayed	
251.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis Request Builder window is displayed	
252.	Click the File pull down menu.	A list of options appears.	

253.	Select ‘Open’.	The File Selection window is displayed.	
254.	Select ‘**TableARTemp**’. Click the ‘OK’ button.	The Analysis Request named TableARTemp is displayed	
255.	Check the Request Status text area in the Analysis Request Builder window.	The Request Status will indicate Read/Edit Request.	
256.	Select an output dataset name for the analysis request. Click the output dataset name toggle button. Enter the name of the output dataset (request name): **Tablein2**	Tablein2 will be displayed in the Output Dataset Name box.	
257.	Click on ‘Table’ toggle button Click ‘Format’ button	The ‘Table Format’ window is displayed	
258.	**<u>Select Parameters</u>** Select ‘**All**’ parameters from the Available text area. Click on the → button	The selected parameters will be displayed in the Selected text area	
259.	Enter ‘**Tablein2**’ in the Title text area	**Tablein2** will be displayed	
260.	Select Column Names Click on ‘Descriptor’ button	The Column Names will be displayed by Descriptor.	

261.	**<u>Save the analysis request</u>** Save the analysis request. Click on the File pull down menu.	A list of options appears.	
262.	Select ‘Save as…’.	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
263.	Enter the name of the request: **Tablein2** Click the ‘OK’ button.	A dialog box informing the user that the file was saved.	
264.	Click the ‘Close’ button in the information dialog box.	The dialog box will close.	
265.	Click the ‘OK’ button.	The Analysis Request has been resubmitted	
266.	Click on the ‘Tlm Wins’ button	A list of tlm pages are displayed to the user	
267.	Select ‘Tablein2’	Tablein2 page will be displayed.	
268.	End of test.		

Analysis Request Manager Test Procedure

Test Case No: ANA-2120B

Test Configuration: See Appendix G

Test Support: Twenty (20) previously saved analysis requests. These previously saved requests will be built using various options (Local only, EOC only, good data only, all data). At least one request will be built as a user specified statistics request.

Test Dependencies: Previously archived telemetry files.

Test Case Description:

This test is designed to verify the ability to manage all requests for data analysis. This includes simultaneous processing of multiple requests as well as a queue of requests waiting to be processed. This test will also verify selection filter capabilities and user-specified statistics report content. The test begins with the initialization of the EOC. The Analysis Request Builder tool is invoked and a historical request is generated, with selected options including request name, start/stop time interval, parameter names, and sampling rates. During the mnemonic selection portion of the request, all selection filter capabilities are verified. Previously built analysis requests are submitted for generation in order to fill the queue. The queue is checked to ensure the accuracy of the status of each request submitted. Various options will be tested on the queue (change a priority of a request, delete a request select products). At least one of the requests will be a user-specified statistics request. After the request has completed, an ASCII report is generated and checked. This report will be checked for correct header information as well as data accuracy. Another request will be built and submitted using a dataset from a prviously completed request as input. Following completion of this request, an ASCII report is generated and checked.

Success Criteria:

This test is considered successful when the system processes 20 request simultaneously and *the queue is able to hold/display 10 requests; Each request displays the request name, a status, and percentage complete Not tested this release*; When selecting a parameter for analysis, the user is able to filter according to spacecraft IDs, subsystems, instruments, and ground systems; One or more instruments and spacecraft subsystems may be selected for each spacecraft as a filter criteria; The user is provided with the capability to generate an ASCII report from a user-specified statistics request; The statistics report contains header information consisting of a date and time of the report, a spacecraft start and stop time, and an interval type for the statistic; For each parameter, the statistics report contains a mnemonic name, minimum value, maximum value, mean value, standard deviation, number of samples, and spacecraft time for the minimum and maximum values. *The request queue will allow the user to assign a priority to a pending request, delete a request, and select output products for a completed request Not tested this release.* The user can submit an Analysis Request using a previously saved dataset as input and generate it's own dataset output.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**Start the Data Server**. Reference Test Case SYS-2000B -- FOS Server Startup.	Data Server processes are running.	
2.	**Start the Real-Time Server**. Reference Test Case SYS-2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	**Start the User Station**. Reference Test Case SYS-2010B -- User Station Startup and Authentication. Start up eight (8) User Stations and perform steps 4 - 6 on all eight User Stations.	The FOT User Station is running and the 'Control Window' is displayed.	

4.	**<u>Bring up the Event Display</u>**. Note: This section must be performed on all eight User Stations Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
5.	Select 'Event_Display_Gobal' from the control window tools menu. Click on 'OK' button.	The 'Event Display' is up on the User Station.	
6.	Click on 'Filter' from the pull down menu Select 'Event Type' Click 'Bold' button next to ANL and SYS Click 'Apply' Click 'Close'	The Event_Display_Gobal will now display all ANA and SYS subsystem activities in bold.	
7.	**<u>Configure the Request Manager</u>** On User Station one: In the 'Control Window' , in the ECL directive box type: >**RM CHANGESTATE NEW = IDLE *userstationname*** Where ***userstationname*** is the name of User Station one.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is idle. User Station one will not process any analysis requests.	

8.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = _LOCAL *userstationname*** Where ***userstationname*** is the name of User Station two.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is local. User Station two will only process analysis requests locally submitted from that User Station.	
9.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station three.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station three will process any analysis requests.	
10.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station four.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station four will process any analysis requests.	
11.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station five.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station five will process any analysis requests.	

12.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station six.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station six will process any analysis requests.	
13.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station seven.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station seven will process any analysis requests.	
14.	In the ‘Control Window’ , in the ECL directive box type: >**RM CHANGESTATE NEW = GLOBAL *userstationname*** Where ***userstationname*** is the name of User Station eight.	A message will appear in the events display window indicating that the state of the request manager for ***userstationname*** is global. User Station eight will process any analysis requests.	
15.	**<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
16.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
17.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	

18.	Select ‘Time_Order_Downlink’. Click the ‘OK’ button.	Analysis Request Time_Order_Downlink is displayed **Note:** No changes will be made to request1. The following steps verify filter capabilities.	
19.	**<u>Select Telemetry Points</u>** Click on the ‘Select Telemetry …’ button.	The Telemetry Selector window is displayed.	
20.	Click on the ‘Filter…’ button.	The Selection Filter Screen is displayed.	
21.	**Note:** Fields are displayed as the user selects a filter criteria. Select ‘**AM1**’ in the Spacecraft text area.	A list of ground systems, spacecraft subsystems, and instruments are displayed in the Instrument text. field and they include: AST EPS SDU CEA GCM SMS CEF GNC TCS CDH MIS SYS COM MOD FS1 EAS MOP FS2 EDS PMS UPD	
22.	Select ‘**AST**’ in the Instrument/Subsystem text area.	Sample Types associated with AST are displayed in the Sample Type text area	
23.	Click the ‘Select’ button.	The subsystem mnemonic AM1_AST is displayed in the Selected text area.	
24.	Select ‘**CDH**’ in the Instrument/Subsystem text area. Select ‘**B**’ in the Sample Type text area. Click the ‘Select’ button.	Sample Types associated with AM1_CDH_B are displayed in the Selected text area	

25.	Select '**GNC**' in the Instrument/Subsystem text area.	Sample Types associated with AM1_GNC are displayed in the Sample Type text area	
26.	Click the 'Select' button.	The subsystem mnemonic AM1_GNC is displayed in the Selected text area.	
27.	Click the 'OK' button.	The selected subsystems are displayed in the Subsystems text area.	
28.	Click the '**AM1_AST**' toggle button.	Mnemonics are associated with AM1_AST are displayed in the Available Parameters text area.	
29.	Click the '**AM1_AST**' toggle button.	Mnemonics are associated with AM1_AST are removed from the Available Parameters text area.	
30.	Click the '**AM1_CDH_B**' toggle button.	Mnemonics are associated with AM1_CDH_B are displayed in the Available Parameters text area.	
31.	Click the '**AM1_CDH_B**' toggle button.	Mnemonics are associated with AM1_CDH_B are removed from the Available Parameters text area.	
32.	Click the '**AM1_GNC**' toggle button.	Mnemonics are associated with AM1_GNC are displayed in the Available Parameters text area.	
33.	Click the '**AM1_GNC**' toggle button.	Mnemonics are associated with AM1_GNC are removed from the Available Parameters text area.	
34.	Click on the 'Filter …' button	The Selection Filter Window is displayed	
35.	Select '**AM1**' in the Spacecraft text area.	A list of ground systems, spacecraft subsystems and instruments is displayed in the Instrument text area.	
36.	Select '**CEA**' in the Instrument/Subsystem text area.	A list of telemetry sample types is displayed in the Sample Text area.	
37.	Click the 'Select' button.	The subsystem mnemonic AM1_CEA is displayed in the Selected text area.	

38.	Select '**TCS**' in the Instrument/Subsystem text area.	A list of telemetry sample types is displayed in the Sample Text area.	
39.	Click the 'Select' button.	The subsystem mnemonic AM1_TCS is displayed in the Selected text area.	
40.	Select '**AM1_AST**' in the Selected text area. Click the 'Remove' button	The subsystem AM1_AST is not in the Selected text area.	
41.	Click the 'OK' button.	The selected subsystems will be displayed in the Subsystems text area.	
42.	Click the '**AM1_TCS**' toggle button.	Mnemonics are associated with AM1_TCS are displayed in the Available Parameters text area.	
43.	Click the '**CANCEL**' button	The Analysis Telemetry Selector window will close.	
44.	Click the '**OK**' button	Time_Order_Downlink will be submitted for dataset generation.	
45.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
46.	Submit previously saved Analysis Request for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
47.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	

48.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
49.	Select ‘Use_As_Input’. Click the ‘OK’ button.	Analysis Request Derived is displayed.	
50.	Click the ‘OK’ button	Use_As_Input will be submitted for dataset generation.	
51.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
52.	Submit previously saved Analysis Request for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
53.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
54.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
55.	Select ‘Derived’. Click the ‘OK’ button.	Analysis Request Derived is displayed.	
56.	Click the ‘OK’ button	Use_As_Input will be submitted for dataset generation.	

57.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
58.	**<u>On User Station two</u>** Submit previously saved Analysis Request for dataset generation. **<u>Invoke a previously saved Analysis Request</u>**, Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
59.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
60.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
61.	Select 'User_Stats'. Click the 'OK' button.	Analysis Request User_Stats is displayed.	
62.	Click the 'OK' button	User_Stats will be submitted for dataset generation.	
63.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	

64.	Submit previously saved Analysis Request 5 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>**, Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
65.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
66.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
67.	Select 'request5'. Click the 'OK' button.	Analysis Request request5 is displayed.	
68.	Click the 'OK' button	request5 will be submitted for dataset generation.	
69.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**. (User Station 2)	
70.	Submit previously saved Analysis Request 6 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>**, Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
71.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	

72.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
73.	Select ‘request6’. Click the ‘OK’ button.	Analysis Request request6 is displayed.	
74.	Click the ‘OK’ button	request6 will be submitted for dataset generation.	
75.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
76.	**<u>On User Station three:</u>** Submit previously saved Analysis Request 7 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>**, Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
77.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
78.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
79.	Select ‘request7’. Click the ‘OK’ button.	Analysis Request request7 is displayed.	
80.	Click the ‘OK’ button	request7 will be submitted for dataset generation.	

81.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
82.	Submit previously saved Analysis Request 8 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>**, Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
83.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
84.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
85.	Select 'request8'. Click the 'OK' button.	Analysis Request request8 is displayed.	
86.	Click the 'OK' button	request8 will be submitted for dataset generation.	
87.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
88.	Submit previously saved Analysis Request 9 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	

89.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
90.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
91.	Select ‘request9’. Click the ‘OK’ button.	Analysis Request request9 is displayed.	
92.	Click the ‘OK’ button	request9 will be submitted for dataset generation.	
93.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
94.	**<u>On User Station four:</u>** Submit previously saved Analysis Request 10 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
95.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
96.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	

97.	Select ‘request10’. Click the ‘OK’ button.	Analysis Request request10 is displayed.	
98.	Click the ‘OK’ button	request10 will be submitted for dataset generation.	
99.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
100.	Submit previously saved Analysis Request 11 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
101.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
102.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
103.	Select ‘request11’. Click the ‘OK’ button.	Analysis Request request11 is displayed.	
104.	Click the ‘OK’ button	request11 will be submitted for dataset generation.	
105.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	

106.	Submit previously saved Analysis Request 12 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
107.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
108.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
109.	Select 'request12'. Click the 'OK' button.	Analysis Request request12 is displayed.	
110.	Click the 'OK' button	request12 will be submitted for dataset generation.	
111.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
112.	**<u>On User Station five:</u>** Submit previously saved Analysis Request 13 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
113.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	

114.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
115.	Select ‘request13’. Click the ‘OK’ button.	Analysis Request request13 is displayed.	
116.	Click the ‘OK’ button	request13 will be submitted for dataset generation.	
117.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
118.	Submit previously saved Analysis Request 14 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
119.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
120.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
121.	Select ‘request14’. Click the ‘OK’ button.	Analysis Request request14 is displayed.	
122.	Click the ‘OK’ button	request14 will be submitted for dataset generation.	

123.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
124.	Submit previously saved Analysis Request 15 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
125.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
126.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
127.	Select 'request15'. Click the 'OK' button.	Analysis Request request15 is displayed.	
128.	Click the 'OK' button	request15 will be submitted for dataset generation.	
129.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	

130.	**<u>On User Station six:</u>** Submit previously saved Analysis Request 16 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
131.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
132.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
133.	Select 'request16'. Click the 'OK' button.	Analysis Request request16 is displayed.	
134.	Click the 'OK' button	request16 will be submitted for dataset generation.	
135.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
136.	Submit previously saved Analysis Request 17 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
137.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	

138.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
139.	Select ‘request17’. Click the ‘OK’ button.	Analysis Request request17 is displayed.	
140.	Click the ‘OK’ button	request17 will be submitted for dataset generation.	
141.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
142.	Submit previously saved Analysis Request 18 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the ‘Tools’ button.	The Tools Dialog window and a list of tools is displayed to the user.	
143.	Select ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
144.	Click on the File pull down menu. Select ‘Open’.	The File Selection window is displayed.	
145.	Select ‘request18’. Click the ‘OK’ button.	Analysis Request request18 is displayed.	
146.	Click the ‘OK’ button	request18 will be submitted for dataset generation.	

147.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
148.	**<u>On User Station seven:</u>** Submit previously saved Analysis Request 19 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
149.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
150.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
151.	Select 'request19'. Click the 'OK' button.	Analysis Request request19 is displayed.	
152.	Click the 'OK' button	request19 will be submitted for dataset generation.	
153.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	

154.	Submit previously saved Analysis Request 20 for dataset generation. **<u>Invoke a previously saved Analysis Request</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
155.	Select 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
156.	Click on the File pull down menu. Select 'Open'.	The File Selection window is displayed.	
157.	Select 'request20'. Click the 'OK' button.	Analysis Request request20 is displayed.	
158.	Click the 'OK' button	request20 will be submitted for dataset generation.	
159.	Monitor the Event Display for the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the User Station that started the request.	The Events Display will indicate that Analysis Request **X** has started on Host **N**.	
160.	**<u>On User Station eight:</u>** Monitor the events display for messages indicating that no analysis requests were processed from that User Station.	No analysis requests were processed from User Station eight.	

161.	**<u>View the Analysis Request Queue</u>** Select 'Display Window' from the control window tools menu.	The Analysis Request Queue will be displayed. Verify the following: 10 requests are in the queue The request queue displays an estimated percentage complete for each request The request queue displays a status for each request and the status will be one of the following: Request submitted Request currently being processed Request complete	
162.	Delete a request from the queue Select '**TBD**' request from the queue Click on 'Delete' button	**TBD** will be deleted from the queue.	
163.	Assign a priority Select '**TBD**' request from the queue Click on 'Priority' button Select a priority	**TBD** priority will be changed.	
164.	Select '**TBD**' request from the queue Click on 'Products' button	The **TBD** window will be displayed	
165.	**<u>Access a Previously Saved Dataset</u>** Invoke the Analysis Request Builder Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	

166.	Click on ‘Analysis_Request_Builder’. Click on the ‘OK’ button.	The Analysis Request Builder window is displayed.	
167.	**<u>Create an Analysis Request</u>** Enter into the request name field: **Usedasinput**	Usedasinput appears in the Request Name field	
168.	Click the ‘Process on This User Station’ button to select data to be processed on that workstation.	‘Process on This User Station’ button should show selected	
169.	Click the ‘All Data’ button in the Data Quality box.	The ‘All Data’ button should show selected	
170.	**<u>Selecting Telemetry Mnemonics</u>** Note: The telemetry mnemonics selected are in the input dataset Click on the ‘Select Telemetry …’ button.	The Telemetry Selector window is displayed.	
171.	Invoke the Selection Filter Screen: Click on the ‘Filter…’ button.	The Selection Filter Screen is displayed.	
172.	**Note:** Fields are displayed as the user selects a filter criteria. Select ‘AM1’ in the Spacecraft text area.	Instruments associated with AM1 are displayed in the Instrument text area	
173.	Select ‘**CDH**’ in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area	
174.	Select ‘**C**’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_CDH_C is displayed in the Selected text area.	

175.	Select '**T**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_CDH_T is displayed in the Selected text area.	
176.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area	
177.	Select '**I**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_EPS_I is displayed in the Selected text area.	
178.	Click the 'OK' button.	The filter list is displayed in the Analysis Telemetry Selector window in the Subsystems section.	
179.	Click the **'AM1_CDH_C'** toggle button.	A list of mnemonics associated AM1_CDH_C with are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	
180.	Select **'CDH_CR_SSR1_RECPBBUS'** in the available parameters text area. Select a sampling rate. Click the 'All Data' button. Click the 'Select' button.	CDH_CR_SSR1_RECPBBUS along with the selected sample rate are displayed in the Selected Parameters field.	
181.	Click on the '**AM1_CDH_C**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
182.	Click on the '**AM1_CDH_T**' toggle button.	A list of mnemonics associated with AM1_CDH_T are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

183.	Select '**CDH_TR_MOD_BDU_EPCB**' in the available parameters text area. Select a sampling rate. Click the 'All Data' button. Click the 'Select' button.	CDH_TR_MOD_BDU_EPCB along with the selected sample rate are displayed in the Selected Parameters field.	
184.	Click on the '**AM1_CDH_T**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
185.	Select '**AM1_EPS_I**' toggle button in the Subsystem text area.	A list of mnemonics associated AM1_EPS_I with are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	
186.	Select **'EPS_IR_QLTY_1'** in the available parameters text area. Select a sampling rate. Click the 'All Data' button. Click the 'Select' button.	EPS_IR_QLTY_1 along with the selected sample rate are displayed in the Selected Parameters field.	
187.	Click on the '**AM1_EPS_I**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
188.	Click the 'OK' button.	Telemetry points and associated sample rates selected match the Selected Telemetry table in the Analysis Request window.	
189.	**<u>Selecting Start and Stop Times</u>** Note: The times selected must be in the range of the input dataset. Click on the 'Select Time' button.	The Selected Pair Times window is displayed.	

190.	Click the ‘Select’ button	The Pair Time Selector window is displayed.	
191.	Click the ‘Absolute’ button.	The ‘Absolute’ button is selected	
192.	Click the ‘Time’ button.	The ‘Time’ button is selected	
193.	Click the ‘Specify End Time’ button.	The ‘Specify End Time’ button is selected	
194.	Enter into the start date field: **1997/348**	1997/348 is displayed in start date field	
195.	Enter into the start time field: **15:00:00.000**	15:00:00.000 is displayed in start time field	
196.	Enter into the stop date field: **1997/348**	1997/348 is displayed in stop date field	
197.	Enter into the stop time field: **16:00:00.000**	16:00:00.000 is displayed in stop time field	
198.	Click the ‘OK’ button.	The selected start and stop times match the start and stop times in the Selected Pair Times window.	
199.	Click the ‘OK’ button.	The selected start and stop times match the Selected Times table in the Analysis Request window.	
200.	Select an output dataset name for the analysis request. Click the output dataset name toggle button. Enter the name of the output dataset (request name): **Datasetasinput**	Datasetasinput will be displayed in the text box.	

201.	Select an input dataset name for the analysis request. Click the input dataset name toggle button. Enter the name of the output dataset (request name): **Use_As_Input**	Use_As_Input will be displayed in the text box.	
202.	**<u>Save the analysis request</u>** Save the analysis request. Click on the File pull down menu.	A list of options appears.	
203.	Select 'Save as…'.	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
204.	Enter the name of the request: **Datasetasinput** Click the 'OK' button.	A dialog box informing the user that the file was saved.	
205.	Click the 'Close' button in the information dialog box.	The dialog box will close.	
206.	Click the 'OK' button in the Analysis Request Builder window.	The Analysis Request has been resubmitted	
207.	Monitor the time the Event Display received the message Analysis Request **X** has started on Host **N**. Where X = the number of the request and N = the Name of the Host machine that started the request.	Wait for an event message indicating that the analysis request is complete. In the Events Display window, a message will be displayed 'Analysis Request **X** completed on Host **N**.'	

208.	**<u>Invoke the Analysis Request Builder</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
209.	Click on 'Analysis_Request_Builder'. Click on the 'OK' button.	The Analysis Request Builder window is displayed.	
210.	Click the File pull down menu.	A list of options appears.	
211.	Select 'Open'.	The File Selection window is displayed.	
212.	Select '**ANA2120Template'**. Click the 'OK' button.	The Analysis Request named ANA2120Template is displayed	
213.	Check the Request Status text area in the Analysis Request Builder window.	The Request Status will indicate Read/Edit Request.	
214.	**<u>Create an Analysis Request</u>** Enter into the request name field: **Usedasinput1**	Usedasinput1 appears in the Request Name field	
215.	Click the 'Process on This User Station' button to select data to be processed in the EOC.	'Process on This User Station' button should show selected	
216.	Click the 'All Data' button in the Data Quality box.	The 'All Data' button should show selected	
217.	**<u>Selecting Start and Stop Times</u>** Note: The times selected will be out of range of the input dataset. Click on the 'Select Time' button.	The Pair Time Selector window is displayed.	
218.	Click the 'Select' button	The Pair Time Selector window is displayed.	

219.	Click the ‘Absolute’ button.	The ‘Absolute’ button is selected	
220.	Click the ‘Time’ button.	The ‘Time’ button is selected	
221.	Click the ‘Specify End Time’ button.	The ‘Specify End Time’ button is selected	
222.	Enter into the start date field: **1997/348**	1997/348 is displayed in start date field	
223.	Enter into the start time field: **13:00:00.000**	13:00:00.000 is displayed in start time field	
224.	Enter into the stop date field: **1997/348**	1997/348 is displayed in stop date field	
225.	Enter into the stop time field: **14:00:00.000**	14:00:00.000 is displayed in stop time field	
226.	Click the ‘OK’ button.	The Selected Pair Times window is displayed.	
227.	Click the ‘OK’ button.	The selected start and stop times match the Selected Times table in the Analysis Request window.	
228.	Select an output dataset name for the analysis request. Click the output dataset name toggle button. Enter the name of the output dataset (request name): **Datasetasinput1**	Datasetasinput1 will be displayed in the text box.	

229.	Select an input dataset name for the analysis request. Click the input dataset name toggle button. Enter the name of the output dataset (request name): **Use_As_Input**	Use_As_Input will be displayed in the text box.	
230.	**<u>Save the analysis request</u>** Save the analysis request. Click on the File pull down menu.	A list of options appears.	
231.	Select ‘Save as…’.	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
232.	Enter the name of the request: **Usedasinput1** Click the ‘OK’ button.	A dialog box informing the user that the file was saved.	
233.	Click the ‘Close’ button in the information dialog box.	The dialog box will close.	
234.	Click the ‘OK’ button.	The Analysis Request has been resubmitted Wait for an event message indicating that the analysis request is unable to process due to database unable to locate times for request.	

235.	Place the mouse pointer on the screen and activate the pull down menu by pressing the right most mouse button. Select Programs Select X-term	An X-term window will open.	
236.	Go to the datasets directory and do a long listing for the **Datasetasinput** dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The **Datasetasinput** dataset will appear in the datasets directory. Two files will have been created, Datasetasinput.data & Datasetasinput.meta and they contain data.	
237.	Go to the "setup" directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** **%:setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
238.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
239.	Follow the menu prompts: Enter: **1** for Telemetry	The ReaderDriver will respond with a prompt	
240.	Enter the TLM dataset name: **Datasetasinput_*YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	

241.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
242.	Enter: **Datasetasinput**	The FaDrReaderDriver will generate the report.	
243.	Enter: **0** to quit the FaDrReaderDriver	The FaDrReaderDriver will quit.	
244.	Go to the “reports” directory and do a long listing for the TimeOrderReport. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The Report will be displayed as Datasetasinput.report	
245.	**<u>Print a Time Order Downlink Report</u>** %:**lp Datasetasinput.report**	The report will print.	
246.	**<u>Print Report</u>** Select ‘Report Selector’ from the control window tools menu.	The Report Selector window is displayed	

247.	Click the On-Demand toggle button Select Spacecraft type ‘AM1’ Select Report Category ‘ANA’ Select from Available Reports text area ‘Time Order Down Link Report’ Click ‘OK’ button	The On-Demand Report Specification window is displayed. (Dataset as input verification)	
248.	Enter Start Time: **1997/348 15:00:00.000**	Report Start Time is displayed	
249.	Enter Stop Time: **1997/348 16:00:00.000**	Report Stop Time is displayed	
250.	Enter Data Set: **Usedasinput**	The Dataset to be used to crate the report will be displayed	
251.	Select parameters used in the report: Click on ‘Filter’ button	The Selection Filter Window is displayed.	
252.	Select the Spacecraft type ‘**AM1**’	The instruments associated with AM1 will be displayed n the Instrument text area.	
253.	Select ‘**CDH**’ in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area	
254.	Select ‘**C**’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_CDH_C is displayed in the Selected text area.	

255.	Select '**T**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_CDH_T is displayed in the Selected text area.	
256.	Select '**EPS**' in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area	
257.	Select '**I**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_EPS_I is displayed in the Selected text area.	
258.	Click on the 'OK' button	The selected parameters will be displayed in the Selection Filter Area of the On-Demand Report Selector window.	
259.	Click the **'AM1_CDH_C'** toggle button.	A list of mnemonics associated AM1_CDH_C with are displayed in the Selection Filter Area of the On-Demand Report Selector window.	
260.	Select **'CDH_CR_SSR1_RECPBBUS'** from the text area. Click on the → button	CDH_CR_SSR1_RECPBBUS is displayed in the Selected text area.	
261.	Click on the '**AM1_CDH_C**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
262.	Click on the '**AM1_CDH_T**' toggle button.	A list of mnemonics associated with AM1_CDH_T are displayed in the Selection Filter Area of the On-Demand Report Selector window.	
263.	Select '**CDH_TR_MOD_BDU_EPCB**' from the text area. Click on the → button	CDH_TR_MOD_BDU_EPCB is displayed in the Selected text area.	

264.	Click on the '**AM1_CDH_T**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
265.	Select '**AM1_EPS_I**' toggle button in the Subsystem text area.	A list of mnemonics associated AM1_EPS_I with are displayed in the Selection Filter Area of the On-Demand Report Selector window.	
266.	Select **'EPS_IR_QLTY_1'** from the text area. Click on the → button	EPS_IR_QLTY_1 is displayed in the Selected text area.	
267.	Click on the '**AM1_EPS_I**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
268.	Click the 'OK' button.	The report will generate.	
269.	Click on 'Retrieve Report'	A list of available reports will be displayed	
270.	Select 'Time Order Down Link' Click 'Apply' button	The report will print	
271.	Retrieve the Time Order Down Link Report ASCII printout. Verify via off line analysis →	The output of this dataset was derived from the input dataset.	
272.	Place the mouse pointer on the screen and activate the pull down menu by pressing the right most mouse button. Select Programs Select X-term	An X-term window will open.	

273.	Go to the “datasets” directory and do a long listing for the **User_Stats** dataset. %:**cd /fosb/test/am1/datasets** %:**ll -ltr**	The User_Stats will appear in the datasets directory.	
274.	Go to the “setup” directory and source FosEnvVars %:**cd /fosb/test/am1/scripts/setup** **%:setenv SCRIPT UserStation** %:**source FosEnvVars**	The environment is configured to run the FaDrReaderDriver.	
275.	Execute the FaDrReaderDriver **$BIN_DIR/FaDrReaderDriver**	The driver is executed.	
276.	Follow the menu prompts: Enter: **2** for User Stats	The ReaderDriver will respond with a prompt	
277.	Enter the TLM dataset name: **User_Stats_ *YYYYDOYHHMMSS_NN***	The ReaderDriver will execute and read the TLM file. Another menu will appear	
278.	Enter: **6** to generate a report.	The ReaderDriver prompt for a new for the report.	
279.	Enter: **User_Stats**	The FaDrReaderDriver will generate the report.	

280.	Enter: **0** to quit the FaDrReaderDriver.	The FaDrReaderDriver will quit.	
281.	Go to the “reports” directory and do a long listing for the TimeOrderReport. %:**cd /fosb/test/am1/reports** %:**ll -ltr**	The Report will be displayed as User_Stats.stats	
282.	**<u>Print a User Stats Report</u>** %:**lp User_Stats.stats**	The report will print.	
283.	**<u>Print Report</u>** Select ‘Report Selector’ from the control window tools menu.	The Report Selector window is displayed	
284.	Click the On-Demand toggle button Select Spacecraft type ‘AM1’ Select Report Category ‘ANA’ Select from Available Reports text area ‘User Specified Statistics’ Click ‘OK’ button	The On-Demand Report Specification window is displayed.	
285.	Enter Start Time: **1997/348 15:00:00.000**	Report Start Time is displayed	
286.	Enter Stop Time: **1997/348 16:00:00.000**	Report Stop Time is displayed	

287.	Enter Data Set: **Usedasinput**	The Dataset to be used to crate the report will be displayed	
288.	Select parameters used in the report: Click on ‘Filter’ button	The Selection Filter Window is displayed.	
289.	Select the Spacecraft type ‘**AM1**’	The instruments associated with AM1 will be displayed n the Instrument text area.	
290.	Select ‘**CDH**’ in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area	
291.	Select ‘**C**’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_CDH_C is displayed in the Selected text area.	
292.	Select ‘**T**’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_CDH_T is displayed in the Selected text area.	
293.	Select ‘**EPS**’ in the Instrument text area.	Sample Types associated with EPS are displayed in the Sample Type text area	
294.	Select ‘**I**’ in the sample type text area. Click on the ‘Select’ button.	The subsystem mnemonic AM1_EPS_I is displayed in the Selected text area.	
295.	Click on the ‘OK’ button	The selected parameters will be displayed in the Selection Filter Area of the On-Demand Report Selector window.	
296.	Click the **‘AM1_CDH_C’** toggle button.	A list of mnemonics associated AM1_CDH_C with are displayed in the Selection Filter Area of the On-Demand Report Selector window.	

297.	Select **'CDH_CR_SSR1_RECPBBUS'** from the text area. Click on the → button	CDH_CR_SSR1_RECPBBUS is displayed in the Selected text area.	
298.	Click on the '**AM1_CDH_C**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
299.	Click on the '**AM1_CDH_T**' toggle button.	A list of mnemonics associated with AM1_CDH_T are displayed in the Selection Filter Area of the On-Demand Report Selector window.	
300.	Select '**CDH_TR_MOD_BDU_EPCB**' from the text area. Click on the → button	CDH_TR_MOD_BDU_EPCB is displayed in the Selected text area.	
301.	Click on the '**AM1_CDH_T**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
302.	Select '**AM1_EPS_I**' toggle button in the Subsystem text area.	A list of mnemonics associated AM1_EPS_I with are displayed in the Selection Filter Area of the On-Demand Report Selector window.	
303.	Select **'EPS_IR_QLTY_1'** from the text area. Click on the → button	EPS_IR_QLTY_1 is displayed in the Selected text area.	
304.	Click on the '**AM1_EPS_I**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
305.	Click 'OK' button	The report will generate	
306.	Click on 'Retrieve Report'	A list of available reports will be displayed	
307.	Select the 'User Specified Statistics' Click 'Apply' button	The report will print	

308.	Retrieve the User Specified Statistics ASCII printout	Verify the report header contains the following: Date and time of the report The starting spacecraft time of the data The ending spacecraft time of the data The interval type of the statistic Verify each telemetry point has an associated mnemonic name in the report. Verify the report contains the following information: Minimum value within each interval time Spacecraft time for each minimum value Maximum value within each interval time Spacecraft time for each maximum value Mean value for each interval time Standard deviation for each interval time Number of samples occurring within each interval time.	
309.	End of test.		

Test Command Echo Exchange Test Procedure

Test Case No: EDOS-2002B

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers, one EOC user station; FOS Server and EOC user station startup scripts; Command Echo Block (CEB) message generator; tcpdump.

Test Case Description:

This test is designed to verify that the EOC can transmit Command Test Blocks (CTBs) to EDOS, receive corresponding Command Echo Blocks (CEBs) from EDOS, allow the user to specify the timeout value for receipt of CEBs, and generate event messages upon occurrence of a timeout and receipt of CEBs. Following initialization of FOS servers and EOC user station, the user invokes the Event Display and connects to String 100. The user attempts to send, via ECL directive, several CTBs with invalid timeout values, which result in syntax errors. A valid CTB is sent, which results in an event message indicating a CEB has not been received within the timeout limit. The user remotely logs in to the Real-Time Server and invokes the CEB driver, which emulates EDOS. When the CEB driver is running, a CEB is sent to the EOC for each CTB received by the driver. The tcpdump tool is utilized to monitor CTB and CEB message traffic. CEBs are sent within the timeout limit, and event messages indicate receipt of CEBs. Finally the CEB driver is terminated, CTBs with valid timeout values are sent, and an event message indicates a CEB has not been received within the timeout limit.

Success Criteria:

This test is successful when the EOC sends CTBs; receives CEBs; allows the user to specify the timeout value for receipt of CEBs; and generates appropriate event messages when timeouts occur and when CEBs are received.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: **********	The login is accepted and several cmdtool windows appear	

2.	(This step is necessary only if the Data Server, Real-Time Server, and User Station are not up.) Execute applicable steps of 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) procedure to bring up FOS servers and EOC user station	The Data Server, Real-Time Server, and User Station are initialized.	
3.	Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	
4.	Connect mirrored to string 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR**	The following event message appears (after several minutes): 'Successfully connected to string 100'.	
5.	Initiate the tcpdump tool to capture outgoing CTB and incoming CEB messages. In a new cmdtool window, enter the following: %: **tcpdump -v port 20x54** x=0 for Operational LAN x=1 for Support LAN_	The following message appears in the cmdtool window: 'listening on le0' (Operational LAN) or 'listening on le1' (Support LAN)	

6.	Attempt to send a Command Test Block (CTB) and set the Command Echo Block (CEB) timeout value to a negative number by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST TIMEOUT=≠ 5**	A syntax error on the ECL directive is received	
7.	Attempt to send a Command Test Block (CTB) and set the Command Echo Block (CEB) timeout to a non-numeric character by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST TIMEOUT=A**	A syntax error on the ECL directive is received	
8.	Send a Command Test Block (CTB) and set the Command Echo Block (CEB) timeout to the default value (5 seconds) by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST**	A message in the window where tcpdump is running indicates that a CTB has been sent. The following event message is displayed after about 5 seconds: 'EDOS has not sent a Command Echo Block within the timeout limit'.	
9.	Send a CTB and change the CEB timeout value to 15 seconds by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST TIMEOUT=15**	A message in the window where tcpdump is running indicates that a CTB has been sent. The following event message is displayed after about 15 seconds: 'EDOS has not sent a Command Echo Block within the timeout limit'.	

10.	Remotely log in to the Real-Time Server by entering the following in a new cmdtool window: %: **rlogin <Real-Time Server>**	A UNIX prompt is received from the Real-Time Server.	
11.	Invoke the CEB generator for the transmission of a CEB to the EOC by entering the following in the same cmdtool window: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT RealTimeServer** %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/dec_osf_3-2** %: **EdosEchoDriver**	The message 'Edos connection created' appears in the same window, indicating the 'EdosEchoDriver' tool is ready to respond to CTBs	
12.	Send a CTB and change the CEB timeout value to 60 seconds by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST TIMEOUT=60**	Messages in the window where tcpdump is running indicate that a CTB has been sent and a CEB received. Messages in the window where EdosEchoDriver is running indicate that a CTB has been received and a CEB sent. The following event message is displayed: 'Command Echo Block received from EDOS'.	

13.	Send a CTB and change the timeout value to the default value (5 seconds) by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST**	Messages in the window where tcpdump is running indicate that a CTB has been sent and a CEB received. Messages in the window where EdosEchoDriver is running indicate that a CTB has been received and a CEB sent. The following event message is displayed: 'Command Echo Block received from EDOS'.	
14.	In the window containing the 'EdosEchoDriver', depress the following two keys simultaneously: Ctrl C	The 'EdosEchoDriver' tool quits, and a UNIX prompt is received from the Real-Time Server.	
15.	Exit from the Real-Time Server by entering the following in the same cmdtool window. %: **exit**	A UNIX prompt is received from the User Station	
16.	Send a CTB and change the timeout value to 30 seconds by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST TIMEOUT=30**	A message in the window where tcpdump is running indicates that a CTB has been sent. The following event message is displayed after about 30 seconds: 'EDOS has not sent a Command Echo Block within the timeout limit'.	

17.	Send a Command Test Block (CTB) and set the Command Echo Block (CEB) timeout to the default value (5 seconds) by entering the following in the ECL directive line of the Control Window: ECL> **EDOS COMMTEST**	A message in the window where tcpdump is running indicates that a CTB has been sent. The following event message is displayed after about 5 seconds: 'EDOS has not sent a Command Echo Block within the timeout limit'.	
18.	In the window containing tcpdump, depress the following two keys simultaneously: Ctrl C	The 'tcpdump' tool quits, and a UNIX prompt is received from the user station.	
19.	End of test.		

SCS Summary Report Processing Test Procedure

Test Case No: EDOS-2010B

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers, one EOC user station; FOS Server and User Station startup scripts; valid and invalid Spacecraft Contact Session (SCS) Summary Report binary data and associated signal file in external host.

Test Case Description:

This test is designed to verify that the EOC can receive SCS Summary Report binary data, archive these data, convert them to ASCII format, and generate a formatted report. Following initialization of the FOS Data Server and EOC user station, the user brings up the Event Display. The user logs in to an emulated EDOS host at the EOC (or telnets to an external host) containing valid and invalid SCS Summary Report binary data files. These files and their associated signal file are sent from the external host to the EOC via FTP. Event messages appear on the EOC user station indicating receipt of these data. A comparison is made among the SCS Summary Report binary data sent from the external host and archived by the EOC. The valid data are converted to ASCII report format. Event messages indicating processing status are generated, and the resulting ASCII report is stored.

The user then invokes the Report Generator tool to display the ASCII report. This tool is also used to convert archived binary data to ASCII report format.

Success Criteria:

This test is successful when the EOC receives and archives SCS Summary Report binary data from an external host; automatically converts these binary data to ASCII report format; and provides the user with the capability to display formatted reports from the ASCII and binary data.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**Transmit and Process Valid SCS Summary Report test follows**	(No expected result/output; information only)	

2.	**<u>EOC user station</u>**: Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: ************	The login is accepted and several cmdtool windows appear	
3.	**<u>EOC user station</u>** Remotely log in to the Data Server, and check the current File Watcher cycle time by entering the following in a cmdtool window: %: **rlogin <EOC Data Server>** Password: ********** %: **env | grep FDFW** Note the current File Watcher cycle time so it can be reset later	The remote login is successful. The following response appears: 'FDFW_TIMEOUT=xxxx' (xxxx = current File Watcher cycle time in seconds)	

4.	**<u>EOC user station</u>** (This step is optional. Use it to change the File Watcher cycle time) Reset the time interval for EOC search of SCS Summary Report data files to 60 seconds by entering the following in the same cmdtool window on the Data Server: %: **ps -ea | grep FdFw** %: **kill <FdFwFileWatcher process id>** %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT DataServer** %: **setenv FDFW_TIMEOUT 60** %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/dec_osf_3-2** %: **FdFwFileWatcher &** %: **ps -ea | grep FdFw** %: **env | grep FDFW**	The former FdFwFileWatcher process terminates. The new FdFwFileWatcher process is shown. The following response appears: 'FDFW_TIMEOUT=60'	

5.	**<u>EOC user station</u>**: (This step is necessary only if the Data Server and User Station are not up.) Execute applicable steps of 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) procedure to bring up FOS servers and EOC user station	The Data Server and User Station are initialized.	
6.	**<u>EOC user station</u>**: Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	

7.	**<u>EOC user station</u>**: (Execute this step only if there is no external host at the EOC that contains SCS Summary Report test data files.) Telnet to an EDF host that contains SCS Summary Report test data files by entering the following in a cmdtool window: %: **telnet 155.157.100.xxx** xxx = 100 (beeper), 117 (muttly), or 130 (traveler) login: **<user name>** Password: ********** (Note: This cmdtool window is referred to as 'External host' in the following steps) (Skip the next step)	The telnet is accepted	

8.	**<u>Emulated EDOS host at EOC</u>**: (Execute this step only if there is an external workstation at the EOC that contains SCS Summary Report test data files.) Log in to the emulated EDOS host, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: ********** (Note: The cmdtool windows that come up are referred to as 'External host' in the following steps)	The login is accepted and several cmdtool windows appear	
9.	**<u>External host</u>**: From the applicable cmdtool window on the external host, access the directory and file containing the SCS Summary Report binary data %: **cd /net/beeper/fosb/int/am1/testdata** (if telnet) %: **cd /<applicable directory>** (if external host at EOC) %: **ls -lrt** Note the size of the applicable files to be sent to the EOC.	The directory containing the files to be sent is displayed.	

10.	**<u>External host</u>**: In the same cmdtool window, establish an FTP connection with the EOC server %: ftp **<EOC Data Server>** Name: **<user name>** Password: ************	An 'ftp' prompt appears on the external host	
11.	**<u>External host</u>**: Send **valid** SCS Summary Report binary data file to the EOC via FTP. In the same cmdtool window, initiate an FTP 'put' command to send the SCS Summary Report binary data file to the EOC: ftp> **cd /fosb/test/am1/external/edos/summary** ftp> **bin** ftp> **put S042WSG97108184438.CSR** *(Wait for completion of file transfer.)*	Message appears on the external host indicating that the transfer is complete	

12.	**External host**: Send a 'signal file' (indicating completion of SCS Summary Report binary data file transfer) to the EOC via FTP. In the same cmdtool window, initiate a FTP 'put' command to send the 'signal file' to the EOC. ftp> **put S042WSG97108184438.CSR.XFR** *(Wait for completion of file transfer)*	**External host**: Message appears indicating that the transfer is complete. **EOC user station**: (Note: This takes might take a complete File Watcher cycle to occur.) The following messages appear on the Event Display: A message indicating SCS Summary Report data has been received; 'FaCsReportMonitor processing Spacecraft Contact Session report <filename>'; 'FaCsReportMonitor successfully processed Spacecraft Contact Session report <filename>'.	
13.	**Transmit Invalid SCS Summary Report test follows**	(No expected result/output; information only)	
14.	**External host**: Send **invalid** SCS Summary Report binary data file with to the EOC via FTP. In the same cmdtool window, initiate an FTP 'put' command to send the SCS Summary Report data file to the EOC: ftp> **put S042WSG97222120000.CSR** *(Wait for completion of file transfer.)*	Message appears on the external host indicating that the transfer is complete	

15.	**<u>External host</u>**: Send a ‘signal file’ (indicating completion of SCS Summary Report data file transfer) to the EOC using FTP. In the same cmdtool window, initiate a FTP ‘put’ command to send the ‘signal file’ to the EOC. ftp> **put S042WSG97222120000.CSR.XFR** *(Wait for completion of file transfer)*	**<u>External host</u>**: Message appears indicating that the transfer is complete. **<u>EOC user station</u>**: (Note: This takes might take a complete File Watcher cycle to occur.) The following messages appear on the Event Display: A message indicating SCS Summary Report data has been received; ‘FaCsReportMonitor processing Spacecraft Contact Session report S042WSG97222120000.CSR‘ ‘FaCsReportMonitor failed processing Spacecraft Contact Session report S042WSG97222120000.CSR: <reason>‘	
16.	**<u>External host</u>**: Terminate the FTP session by entering the following in the same cmdtool window:. ftp> **quit**	A UNIX prompt (%) appears in the cmdtool window	

17.	**<u>External host</u>**: Display the directory containing the SCS Summary Report binary data files by entering the following in the same cmdtool window: %: **ls -lrt** Note the size and time of the applicable file.	The valid SCS Summary Report binary data files just sent is included in the files listing	
18.	**<u>External host</u>**: Represent the contents of the **valid** SCS Summary Report binary data file in hexidecimal by entering the following in the same cmdtool window: %: **od -x S042WSG97108184438.CSR**	Valid SCS Summary Report binary data file is displayed as a hexidecimal dump	
19.	**<u>External host</u>**: Represent the contents of the **invalid** SCS Summary Report binary data file in hexidecimal by entering the following in the same cmdtool window: %: **od -x S042WSG97222120000.CSR**	Invalid SCS Summary Report binary data file is displayed as a hexidecimal dump	
20.	**<u>EOC user station</u>**: List the SCS Summary Report binary data files archived by entering the following in a cmdtool window: %: **cd /fosb/test/am1/reports** %: **ls -lrt** Note the filename and time of the applicable file.	The SCS Summary Report binary data files are included in the directory listing. The size of the applicable files and the date/time are consistent with the file transfers.	

21.	**<u>EOC user station</u>**: Represent the contents of the **valid** EOC SCS Summary Report binary data file in hexidecimal by entering the following in the same cmdtool window: %: **od -x S042WSG97108184438.CSR**	Valid SCS Summary Report binary data file contents are displayed as a hexidecimal dump	
22.	**<u>EOC user station</u>**: Print the hexidecimal dump by entering the following in a cmdtool window: %: **snapframe**	Valid SCS Summary Report hexidecimal dump is printed	
23.	**<u>EOC user station</u>**: Represent the contents of the **invalid** EOC SCS Summary Report binary data file in hexidecimal by entering the following in the same cmdtool window: %: **od -x S042WSG97222120000.CSR**	Invalid SCS Summary Report binary data file is displayed as a hexidecimal dump	
24.	**<u>EOC user station</u>**: Print the hexidecimal dump by entering the following in a cmdtool window: %: **snapframe**	Invalid SCS Summary Report hexidecimal dump is printed	
25.	Compare the contents of the SCS Summary Report data file archive at the EOC with that sent by the External Host.	The SCS Summary Report data file contents at the EOC and External Host are identical	

26.	**<u>EOC user station</u>** (This step is optional. Use it to reset the File Watcher cycle time) Reset the time interval for EOC search of SCS Summary Report data files to its former value (in seconds) by entering the following in the same cmdtool window where File Watcher was previously started: %: **ps -ea | grep FdFw** %: **kill <FdFwFileWatcher process id>** %: **setenv FDFW_TIMEOUT xxxx** xxxx = former File Watcher cycle time %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/dec_osf_3-2** %: **FdFwFileWatcher &** %: **ps -ea | grep FdFw** %: **env | grep FDFW** %: **exit**	The current FdFwFileWatcher process terminates. The new FdFwFileWatcher process is shown. The following response appears: 'FDFW_TIMEOUT=xxxx' (xxxx = former File Watcher cycle time in seconds) A UNIX prompt is received from the EOC User Station.	
27.	**Display SCS Summary Report test follows**	(No expected result/output; information only)	

28.	**<u>EOC user station</u>**: Invoke the Global Event Display. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Report_Generator’	The ‘Tools’ menu comes up, then closes. The ‘Report Selector’ window comes up.	
29.	**<u>EOC user station</u>**: In the Report Selector window, specify the following: Report Type: **Periodic** Spacecraft: **AM1** Report Category: **ANA** Available Reports: **Spacecraft Contact Session Summary (Periodic)** Click on ‘Apply’	The ‘Periodic Report Selector’ window comes up	

30.	**<u>EOC user station</u>**: In the 'Periodic Report Selector' window, specify the following: Start Time: **YYYY/DDD HH:MM:SS.mmm** Stop Time: **YYYY/DDD HH:MM:SS.mmm** (Note: Specify times that include the SCS Summary Report processed earlier as a result of file transfer.) Report Output Options: **Browser** Click on 'Retrieve Report' Click on 'Apply'.	A list of SCS Summary Report ASCII data files is displayed in the large box in the same window	
31.	**<u>EOC user station</u>**: In the 'Periodic Report Selector' window, select the filename with the time corresponding to the SCS Summary Report ASCII data file generated previously. Click on 'OK'.	The 'Periodic Report Selector' window closes. The SCS Summary Report ASCII data file appears on the screen.	
32.	**<u>EOC user station</u>**: Print the formatted SCS Summary Report just displayed by entering the following in a cmdtool window: %: **snapframe**	The formatted SCS Summary Report is printed	

33.	**<u>EOC user station</u>**: In the Report Selector window, specify the following: Report Type: **On Demand** Spacecraft: **AM1** Report Category: **ANA** Available Reports: **Spacecraft Contact Session Summary (On Demand)** Click on 'OK'.	The 'Report Selector' window closes. The 'On_Demand Report Selector' window comes up.	
34.	**<u>EOC user station</u>**: In the 'On-Demand Report Selector' window, specify the following: Click on 'New Report'	The 'On_Demand Report Specification' window comes up	
35.	**<u>EOC user station</u>**: Process *valid* SCS Summary Report data archived earlier. In the 'On-Demand Report Specification' window, specify the following: Directory: **/fosb/test/am1/reports** File: **S042WSG97108184438.CSR** Click on 'OK'.	The 'On-Demand Report Specification' window closes. A dialog box appears with the message 'Spacecraft Contact Session Report Generating' The following messages appear in the Event Display: 'FaCsReport Monitor processing Spacecraft Contact Session report S042WSG97108184438.CSR'; 'FaCsReport Monitor successfully processed Spacecraft Contact Session report S042WSG97108184438.CSR'	

36.	**<u>EOC user station</u>**: Process *invalid* SCS Summary Report data archived earlier. In the 'On-Demand Report Specification' window, specify the following: Directory: **/fosb/test/am1/reports** File: **S042WSG97222120000.CSR** Click on 'OK'.	The 'On-Demand Report Specification' window closes. A dialog box appears with the message 'Spacecraft Contact Session Report Generating' The following messages appear in the Event Display: 'FaCsReportMonitor processing Spacecraft Contact Session report S042WSG97222120000.CSR' 'FaCsReportMonitor failed processing Spacecraft Contact Session report S042WSG97222120000.CSR: <reason>'	
37.	**<u>EOC user station</u>**: List the SCS Summary Report ASCII files by entering the following in a cmdtool window: %: **cd /fosb/test/am1/reports/scs** %: **ls -lrt** Note the size and time of the applicable file.	The SCS Summary Report ASCII data file just generated from the *valid* data is included in the directory listing. The size of this file and the date/time are consistent with file generation. (No ASCII file is generated from the *invalid* data.)	

38.	**<u>EOC user station</u>**: In the 'On-Demand Report Selector' window, specify the following: Start Time: **YYYY/DDD HH:MM:SS.mmm** Stop Time: **YYYY/DDD HH:MM:SS.mmm** (Note: Specify times that include the SCS Summary Report just processed as a result of user request.) Report Output Options: **Printer** Click on 'Retrieve Report' Click on 'OK'.	A list of SCS Summary Report ASCII data files is displayed in the large box in the same window.	
39.	**<u>EOC user station</u>**: In the 'On-Demand Report Selector' window, select the file with the time corresponding to the SCS Summary Report ASCII data file generated as a result of user request. Click on 'OK'.	The 'On-Demand Report Selector' window closes. The SCS Summary Report ASCII data file is printed.	
40.	**<u>EOC user station</u>**: Compare the two reports generated via the Report Generator.	The information generated via the Report Generator are consistent with each other.	
41.	End of test.		

IST Pool Management Test Procedure

Test Case No: IST-2000B

Test Configuration: See Appendix G

Test Support: Powered-up FOS Data Server, one EOC user station; three emulated ISTs (two of which should be the same type, e.g., CERES); FOS Server, EOC User Station, and IST startup scripts.

Test Case Description:

This test is designed to verify that the EOC can administer the allocation of IST connections, including additional IST connections; monitor IST startup and shutdown; support dedicated, and a pool of non-dedicated, IST connections based on IST type and location; and support simultaneous IST connections. The user configures the database table containing IST pool management information ('ist_counter') to an initial state. Several iterations of logging into/logging out of ISTs and reconfiguring the 'ist_counter' database table are performed. IST logins are allowed in some instances, and denied in other cases, depending on the configuration of the 'ist_counter' database table. EOC User Station login and shutdown, as it pertains to overall FOS pool management, is included for completeness.

Success Criteria:

This test is successful when the EOC can administer the allocation of IST connections, including additional IST connections; monitor IST startup and shutdown; support dedicated, and a pool of non-dedicated, IST connections based on IST type and location; and support simultaneous IST connections.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	EOC User Station -- Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: ************	The login is accepted and two UNIX cmdtool windows appear	

2.	(This step is necessary only if the Data Server is not up.) Execute applicable steps of 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) procedure to bring up the Data Server.	The Data Server is initialized.	
3.	Display the database table containing IST pool management information by entering the following in a cmdtool window: %: **isql -Ufos_dba -Pfos_dba (sql** is alias**)** 1> **use am1_fos_ops** 2> **go** 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed	
4.	Print the database table containing IST pool management information by entering the following in a cmdtool window: %: **snapframe**	The 'ist_counter' database table is printed so it can be reset to current values later in this test procedure	

5.	Edit the 'ist_counter' database table and set to 0 all values, except for UndedTotal, by entering these sql commands: 1> **update ist_counter** 2> **set XxxYyyyy = 0** (XxxYyyyy = column name in ist_counter table; Xxx = instrument/location; Yyyyy = **Current, Total, Unded, Flag**) 3> **go** Repeat this sequence for each column name in the 'ist_counter' table, except for 'UndedTotal'	All values in the 'ist_counter' database table are set to 0 (except for UndedTotal)	
6.	Edit the 'ist_counter' database table and set to 1 the total number of non-dedicated ('pool') connections allowed by entering these sql commands: 1> **update ist_counter** 2> **set UndedTotal = 1** 3> **go**	The 'UndedTotal' value is set to 1	
7.	Display the database table containing IST pool management information by entering the sql commands below: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0, except for 'UndedTotal', which is 1	

8.	IST #1 -- Log in to IST #1 (CERES) using UNIX login procedure, by entering User Name and Password: Username: **<user name>** Password: ************	The login is accepted and several UNIX windows appear	
9.	IST #1 -- Attempt to bring up IST #1 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	
10.	IST #1 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
11.	IST #1 -- In the 'User Roles' window, specify the following: Roles: Select 'Read Only'; Click 'OK' button. Close the Error Dialog box.	An Error Dialog box comes up indicating there are no available connections. (There are no dedicated connections available for this IST, and this IST is not allowed to use the available non-dedicated connection from the pool.) The Error Dialog box closes.	

12.	Edit the 'ist_counter' database table and set the flag to allow CERES, MISR, and the EOC to use non-dedicated connections by entering these sql commands: 1> **update ist_counter** 2> **set CeresFlag = 1** 3> **go** 1> **update ist_counter** 2> **set MisrFlag = 1** 3> **go** 1> **update ist_counter** 2> **set EocFlag = 1** 3> **go**	The applicable values are changed in the 'ist_counter' table	
13.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following, which are 1: CeresFlag, Misr Flag, EocFlag, and UndedTotal	
14.	IST #1 -- Bring up IST #1 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	

15.	IST #1 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
16.	IST #1 -- In the User Roles window, specify the following: Roles: Select 'Read Only' Click 'OK' button *(Wait for user station startup completion)*	A dialog box appears with the message 'Starting User Station. Please Wait', indicating that the user station startup script has not yet completed. User station startup is complete when the Control Window comes up.	
17.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following, which are 1: CeresUnded, CeresFlag, Misr Flag, EocFlag, and UndedTotal	
18.	IST #2 -- Log in to IST #2 (MISR) using UNIX login procedure, by entering User Name and Password: Username: **<user name>** Password: *********	The login is accepted and several UNIX windows appear	

19.	IST #2 -- Attempt to bring up IST #2 (MISR) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	
20.	IST #2 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
21.	IST #2 -- In the 'User Roles' window, specify the following: Roles: Select 'Read Only'; Click 'OK' button. Close the Error Dialog box.	An Error Dialog box comes up indicating there are no available connections. (There are no dedicated connections available for this IST, and there are no non-dedicated connections available from the pool.) The Error Dialog box closes.	
22.	EOC User Station -- Execute applicable portions of the 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) to attempt to bring up an EOC User Station.	An Error Dialog box comes up indicating there are no available connections. (There are no dedicated connections available for EOC User Stations, and there are no non-dedicated connections available from the pool.) The Error Dialog box closes.	

23.	Edit the 'ist_counter' database table to allow dedicated connections for CERES, MISR, and EOC User Stations and to increase the size of the non-dedicated pool by entering these sql commands: 1> **update ist_counter** 2> **set CeresTotal = 1** 3> **go** 1> **update ist_counter** 2> **set MisrTotal = 1** 3> **go** 1> **update ist_counter** 2> **set UndedTotal = 2** 3> **go** 1> **update ist_counter** 2> **set EocTotal = 36** 3> **go**	The applicable values are changed in the 'ist_counter' table	
24.	Display the database table containing IST pool management information by entering the sql commands below: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresTotal, CeresUnded, CeresFlag, MisrTotal, MisrFlag, and EocFlag; Value of 2: Unded Total; Value of 36: EocTotal	

25.	EOC User Station -- Execute applicable portions of the 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) to bring up an EOC User Station. *(Wait for initialization to complete before proceeding to the next step)*	The EOC user station is initialized when the Control Window appears.	
26.	Display the database table containing IST pool management information by entering the sql commands below: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresTotal, CeresUnded, CeresFlag, MisrTotal, MisrFlag, EocCurrent, and EocFlag; Value of 2: Unded Total; Value of 36: EocTotal	
27.	IST #2 -- Bring up IST #2 (MISR) by entering the following in a cmdtool window: %: **cd /data/fosb/ist/am1/scripts/setup** (**test** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	
28.	IST #2 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	

29.	IST #2 -- In the User Roles window, specify the following: Roles: Select 'Read Only' Click 'OK' button *(Wait for user station startup completion)*	A dialog box appears with the message 'Starting User Station. Please Wait', indicating that the user station startup script has not yet completed. User station startup is complete when the Control Window comes up.	
30.	EOC User Station -- Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresTotal, CeresUnded, CeresFlag, MisrCurrent, MisrTotal, MisrFlag, EocCurrent, and EocFlag; Value of 2: Unded Total; Value of 36: EocTotal	
31.	IST #3 -- Log in to IST #3 (CERES) using UNIX login procedure, by entering User Name and Password: Username: **<user name>** Password: ************	The login is accepted and several UNIX windows appear	
32.	IST #3 -- Bring up IST #3 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	

33.	IST #3 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
34.	IST #3 -- In the User Roles window, specify the following: Roles: Select 'Read Only' Click 'OK' button *(Wait for user station startup completion)*	A dialog box appears with the message 'Starting User Station. Please Wait', indicating that the user station startup script has not yet completed. User station startup is complete when the Control Window comes up.	
35.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresCurrent, CeresTotal, CeresUnded, CeresFlag, MisrCurrent, MisrTotal, MisrFlag, EocCurrent, and EocFlag; Value of 2: Unded Total; Value of 36: EocTotal	

36.	IST #1 -- Bring down IST #1 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IstKill** Note: Ensure the 'Environment Controller' process is killed before proceeding to the next step	The CERES IST is brought down	
37.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresCurrent, CeresTotal, CeresFlag, MisrCurrent, MisrTotal, and MisrFlag; Value of 2: Unded Total Value of 36: EocTotal	
38.	Edit the 'ist_counter' database table and set to 0 the total number of non-dedicated ('pool') connections allowed by entering the sql commands below: Max # non-dedicated connection (all sites) 1> **update ist_counter** 2> **set UndedTotal = 0** 3> **go**	The applicable values are changed in the 'ist_counter' table	

39.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresCurrent, CeresTotal, CeresFlag, MisrCurrent, MisrTotal, MisrFlag, EocCurrent, and EocFlag; Value of 36: EocTotal	
40.	IST #1 -- Attempt to bring up IST #1 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	
41.	IST #1 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
42.	IST #1 -- In the 'User Roles' window, specify the following: Roles: Select 'Read Only'; Click 'OK' button. Close the Error Dialog box.	An Error Dialog box comes up indicating there are no available connections. (There are no dedicated connections available for this IST, and there are no non-dedicated connections available from the pool.) The Error Dialog box closes.	

43.	Edit the 'ist_counter' database table to allow 2 dedicated CERES connections and set the non-dedicated pool size to 1 by entering these sql commands below: 1> **update ist_counter** 2> **set CeresTotal = 2** 3> **go** 1> **update ist_counter** 2> **set UndedTotal = 1** 3> **go**	The applicable values are changed in the 'ist_counter' table	
44.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresCurrent, CeresFlag, MisrCurrent, MisrTotal, MisrFlag, EocCurrent, EocFlag, and UndedTotal; Value of 2: Ceres Total; Value of 36: EocTotal	
45.	IST #1 -- Bring up IST #1 (CERES) by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &**	The 'FOS Login' screen comes up	

46.	IST #1 -- In the 'FOS Login' screen, enter name and associated password as necessary: User: **<user name>** Password: ********** Click 'OK' button.	The 'FOS Login' screen closes. The 'User Roles' window comes up.	
47.	IST #1 -- In the User Roles window, specify the following: Roles: Select 'Read Only' Click 'OK' button *(Wait for user station startup completion)*	A dialog box appears with the message 'Starting User Station. Please Wait', indicating that the user station startup script has not yet completed. User station startup is complete when the Control Window comes up.	
48.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresFlag, MisrCurrent, MisrTotal, MisrFlag, EocCurrent, EocFlag, and UndedTotal; Value of 2: CeresCurrent, and Ceres Total; Value of 36: EocTotal	

49.	EOC User Station -- Bring down the EOC User Station by entering the following in a cmdtool window: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **MyKill** Note: Ensure the 'Environment Controller' proces is killed before proceeding to the next step	The EOC User Station is brought down	
50.	IST #1 #2 #3 -- Bring down all ISTs by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IstKill** Note: Ensure the 'Environment Controller' process is killed before proceeding to the next step	All ISTs are brought down	
51.	Display the database table containing IST pool management information by entering these sql commands: 1> **select * from ist_counter** 2> **go**	The 'ist_counter' database table is displayed, and all values are 0 except the following: Value of 1: CeresFlag, MisrTotal, MisrFlag, EocFlag, and UndedTotal; Value of 2: Ceres Total; Value of 36: EocTotal	

52.	Edit the ‘ist_counter’ database table and reset the table name values to their original settings by entering these sql commands: 1> **update ist_counter** 2> **set XxxYyyyy = <original value>** (XxxYyyyy = column name in ist_counter table; Xxx = instrument/location; Yyyyy = **Current, Total, Unded, Flag**) 3> **go** Repeat this sequence for each column name in the ‘ist_counter’ table	The ‘ist_counter’ database table is reset to its original values	
53.	Display the database table containing IST pool management information by entering these sql commands below: 1> **select * from ist_counter** 2> **go**	The ‘ist_counter’ database table is displayed and all values are reset to their original values	
54.	End of test.		

EOC Regression Test Procedure (FOS Post B)

Test Case No: REG-3000FPB

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers; EOC LAN; two EOC user stations ('User Station 1' is used for remote access to the Data Server and Real-Time Server for server startup, real-time tools execution, and server shutdown); FOS Server and User Station startup and shutdown scripts; 'FtPgPackGen' telemetry and 'sc' CLCW drivers; and pre-built telemetry display pages.

Test Case Description:

This test is designed to verify critical FOS functionality after a Post-Release B delivery or patch has been installed at the mini-EOC (Releases 2.0.x) or EOC (Releases 2.0.1 and 2.01.00). The test provides a reasonable level of confidence that the delivery or patch has not adversely impacted FOS functionality. Fundamental planning and scheduling, command, telemetry, and analysis capabilities are confirmed prior to executing the FOS test procedures that are specifically affected by the delivery or patch.

Note: This test procedure is tailored to a DEC Data Server and Real-Time Server and SUN User Stations. Other configurations will have slightly different entry fields for some steps.

Success Criteria:

This test is successful when fundamental planning and scheduling, command, telemetry, and analysis capabilities are not adversely affected by the newly installed delivery or patch.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**<u>FOS Server and User Station Startup</u>**	(No expected result/output; information only)	

2.	User Station #1 #2 -- Log in to the EOC user stations, using UNIX login procedure, by entering a **valid** name and associated password: Username: **<user name>** Password: ************	User Station #1 #2 -- The login is accepted and several cmdtool windows appear	
3.	**Data Server Startup test follows**	(No expected result/output; information only)	
4.	User Station #1 – Remotely log in to the Data Server by entering the following in two cmdtool windows (#1 & #2): %: **rlogin <Data Server>**	User Station #1 -- A UNIX prompt is received from the Data Server.	
5.	User Station #1 -- Verify that the Sybase Server has been initialized on the Data Server by entering the following in cmdtool window #1: %: **isql** Password: **<Return/Enter key>**	User Station #1 -- After the 'isql' command, the user is prompted for a password (implying that the Sybase Server is up). After the Return/Enter key is pressed, a UNIX prompt is received from the Data Server.	
6.	User Station #1 -- In cmdtool window #1, remove all endpoints, on this server and the entire system, that might have remained from the previous session: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **rm_all.sh** %: **rm_all.sh**	User Station #1 -- The message '(0 rows affected)' appears, indicating there are no endpoints on the system.	

7.	User Station #1 -- In cmdtool window #1, view the processes on this server by entering the following: %: **ps -ea** Scan the resulting display for any FOS processes that might have remained from the previous session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...', '/fosb/test/AM1/bin/sun_sparc...', or 'TlmArchiver'.) (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this server by entering the following once again: %: **ps -ea**	User Station #1 -- There are no FOS processes on this server.	
8.	User Station #1 -- Invoke the Data Server startup script by entering the following in cmdtool window #1: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **source DataServerStartup** Note the time when this 'source' command is entered.	User Station #1 -- Data Server startup script messages are displayed in cmdtool window #1	

9.	User Station #1 -- (Note: Execute this step several times starting no later than 2 minutes after the startup script was invoked.) Display the number of endpoints and list of processes on this server by entering the following in cmdtool window #2: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **show.sh | grep affected** %: **show_all.sh | grep affected** %: **ps -ea** *(Wait for startup script completion)* Note the time when the Data Server startup script completes.	User Station #1 -- Data Server startup script is complete when the following occur: the 'show.sh' command indicates there are 80 endpoints on the Data Server: '(80 rows affected)' is displayed first; the 'show_all.sh' command indicates there are 128 endpoints on the system: '(128 rows affected) is displayed first; the 'ps -ea' command displays the 'FuClParserServer' process. The Data Server startup script completes within 5 minutes.	
10.	User Station #1 -- With the cursor in cmdtool window #1, click on 'Enter/Return' button on the keyboard	User Station #1 -- The 'Enter/Return' key results in a UNIX prompt without any 'exit' messages. (Note: If no UNIX prompt is received or there is an indication that a process has exited, then the server did not properly initialize. In this case, execute the applicable steps of the 'Data Server Shutdown' test, below, to bring down the Data Server, and consider notifying the Integration Team or System Administrator. Then re-run the 'Data Server Startup' test above.)	
11.	**User Station Startup test follows**	(No expected result/output; information only)	

12.	In a cmdtool window, view the processes on this server by entering the following: %: **ps -ax** Scan the resulting display for any FOS processes that might have remained from the previous session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...' or '/fosb/test/AM1/bin/sun_sparc...'. (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this server by entering the following once again: %: **ps -ax**	There are no FOS applications processes executing on this user station.	
13.	Invoke the FOS Login screen by entering the following in a cmdtool window: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **FOS_LOGIN &**	FOS Login screen appears	

14.	From the FOS Login screen, enter a **valid** name and associated password: User: **<user name>** Password: ********** Environment: Select 'Operational' (Note: Do *not* click on 'Standalone Mode' button) Click 'OK' button.	FOS Login screen closes. The User Roles window comes up.	
15.	From the User Roles window, specify the following: Spacecraft: Select 'AM1' Site: Select 'EOC' Roles: Select 'Command Activity Controller' Click 'OK' button *(Wait for user station startup completion)*	A dialog box appears with the message 'Starting User Station. Please Wait', indicating that the user station startup script has not yet completed. User station startup is complete when the Control Window comes up.	
16.	Display the number of endpoints for the EOC user station by entering the following in another cmdtool window. %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **show.sh | grep affected**	The number of endpoints displayed on the User Station is 8: '(8 rows affected)' is displayed.	

17.	Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up. The 'Event Display' comes up.	
18.	**Real-Time Server Startup test follows**	(No expected result/output; information only)	
19.	User Station #1 -- Remotely log in to the Real-Time Server by entering the following in two cmdtool windows (#3 & #4): %: **rlogin <Real-Time Server>**	User Station #1 -- A UNIX prompt is received from the Real-Time Server.	

20.	User Station #1 -- In cmdtool window #3, view the processes on this server by entering the following: %: **ps -ea** Scan the resulting display for any FOS processes that might have remained from the previous session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...', '/fosb/test/AM1/bin/sun_sparc...', or 'TlmArchiver'.) (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this server by entering the following once again: %: **ps -ea**	User Station #1 -- There are no FOS processes on this server.	
21.	User Station #1 -- Invoke the Real-Time Server startup script by entering the following in the cmdtool window #3: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **source RealTimeServerStartup**	User Station #1 – Real-Time Server startup script messages are displayed in cmdtool window #3	

22.	User Station #1 -- (Note: Execute this step several times starting no later than 2 minutes after the startup script was invoked.) Display the number of endpoints and list of processes on this server by entering the following in cmdtool window #4: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **show.sh | grep affected** %: **ps -ea** *(Wait for startup script completion)*	Real-Time Server Startup script is complete when the following occur: User Station #1 -- The 'show.sh' command indicates there are 33 endpoints on the Real-Time Server: '(33 rows affected)' is displayed first; the 'ps -ea' command displays the 'FrRpRepeater' process. User Station #2 -- The Event Display contains the message 'Active Processing for string 100 was Created'. (Note: If there is an indication that a process has exited, then the server did not properly initialize. In this case, execute the applicable steps of the 'Real-Time Server Shutdown' test, below, to bring down the Real-Time Server, and consider notifying the Integration Team or System Administrator. Then re-run the 'Real-Time Server Startup' test above.)	

1.	**<u>Activity Definition</u>**	(No expected result/output; information only)	
2.	Within the Control window click the 'Tools' button.	The Tools dialog box appears.	
3.	Select the 'Activity Definer' option. Click the 'OK' button.	The Tools dialog box closes. The 'Activity Definer' window appears.	
4.	Select the 'New' option under the 'File' menu.	The New dialog box appears.	
5.	Enter the following new activity name: **Reg_ ATCAct_DDD** Select the 'AM1 ASTER' as the resource name. Click the 'OK' button.	The 'New' dialog box closes. Within the 'Activity Definer' window the Activity Name updates with 'Reg_ ATCAct_DDD'. The Resource Name updates with 'AM1 ASTER'	
6.	Select the 'Commands' option under the 'Modify' menu.	The 'Commands' dialog box appears. The selected resource is AM1 ASTER. ASTER commands are listed in the 'Available Commands' field.	

7.	**<u>Selecting Commands</u>** Insert **ATC commands** into the ASTER activity**.** In the 'Commands' window, click on 'ATC Command' button. Select the following **ATC commands** from the 'Available Commands' field and specify an offset time: **AST_TURN_ON_C_TDP** **START + 00:01:00** Click the 'Add' button. **AST_TURN_OFF_C_TDP** **START + 00:02:00** Click the 'Add' button. Click the 'Apply' Button	The command and the offset time appear in the 'Selected Commands' field with any associated parameters. The 'Items' field in the 'Activity Definer' window is updated with the commands from the 'Selected Commands' field in chronological order.	

8.	Insert **Ground commands** into the ASTER activity**.** In the 'Commands' window, click on 'Ground Command' button. Select the following **Ground commands** from the 'Available Commands' field and specify an offset time: Click on 'Ground' button. **AST_TURN_ON_C_TQL** **STOP - 00:04:00** Click the 'Add' button. **AST_TURN_OFF_C_TQL** **STOP - 00:03:00** Click the 'Add' button. Click the 'Apply' button.	The command and the offset time appear in the 'Selected Commands' field with any associated parameters. The 'Items' field in the 'Activity Definer' window is updated with the commands from the 'Selected Commands' field in chronological order.	
9.	Insert a **WAIT** directive into the ASTER activity. In the 'Activity Definer' window, select the 'ECL directives' option under the 'Modify' menu. In the ECL Directives window, ECS Command Language Editor box, enter 'WAIT'. Enter an offset time of **START + 00:01:30** Click the 'Add' button. Click the 'Apply' Button. Click the 'OK' Button.	The 'ECL Directives' window comes up. The 'WAIT' directive is inserted chronologically into the 'Items' field in the 'Activity Definer' window in chronological order. The 'ECL Directives' dialog box closes.	

10.	Insert two more **ATC commands** into the ASTER activity**.** In the 'Commands' window, click on 'ATC Command' button. Select the following **ATC commands** from the 'Available Commands' field and specify an offset time: **AST_ENABLE_SVH** **STOP - 00:02:00** Click the 'Add' button. **AST_DISABLE_SVH** **STOP - 00:01:00** Click the 'Add' button. Click the 'Apply' Button. Click the OK' Button.	The command and the offset time appear in the 'Selected Commands' field with any associated parameters. The 'Items' field in the 'Activity Definer' window is updated with the commands from the 'Selected Commands' field in chronological order. The 'Commands' dialog box closes.	
11.	Within the 'Activity Definer' window, place the cursor in the 'Activity Description' field. Enter the following description of the activity: **This activity is defined for the AM1 ASTER instrument as part of the FOS Post-Release B test effort**.	The text description appears in the 'Activity Description' box.	
12.	Within the 'Activity Definer' window, select the 'Scheduling Info' option under the 'Modify' menu.	The 'Activity Default Scheduling Information' dialog box appears.	

13.	**<u>Selecting Default Scheduling Information</u>** Click the Start Time toggle button. Click the Duration toggle button. Enter a start time. **20:00:00** (DDD is the current day of the year) Enter a Duration of **60** and select the unit 'Minute'. Click the 'OK' button.	The 'Activity Default Scheduling Information' dialog box closes. The information is stored with the activity.	
14.	In the 'Activity Definer' window, select the 'Save' option under the 'File' menu.	The open activity is saved with the current changes. The 'Activity Name' field is appended with a '.1'. (This indicates version 1 of this activity.) An event message indicates that the Resource Model created new activity 'Reg_ ATCAct_DDD.1'	
15.	Select the 'Close' option under the 'File' menu. Select the 'Exit' option under the 'File' menu.	The current activity closes and a blank template appears. The 'Activity Definer' window closes.	

1.	**<u>Activity Scheduling</u>**	(No expected result/output; information only)	
2.	Within the Control window click the 'Tools' button.	The Tools dialog box appears.	
3.	Select the 'Timeline' option. Click the 'OK' button.	The Tools dialog box closes. The 'Timeline' window appears.	
4.	Within the 'Timeline' window, select the 'Open' option under the File menu.	The Open Plan dialog box appears.	
5.	Select the Master Plan. Enter a start time. **YYYY/DDD HH:MM:SS** (DDD is the current day of the year) Enter a stop date and time. **YYYY/DDD HH:MM:SS** Click the 'OK' button	The Open Plan dialog box closes. The timeline updates with the requested time period and plan name as Master Plan:1.	
6.	Within the Control window click the 'Tools' button.	The Tools dialog box appears.	
7.	Select the 'General_Scheduler' option. Click the 'OK' button.	The Tools dialog box closes. The 'General Scheduler' window appears.	
8.	From the General Scheduler window, click the 'Resource' button and select 'AM1 ASTER'.	AM1 ASTER appears on the 'Resource' button.	

9.	Select the ‘Activities’ option from the ‘Filter’ menu.	A list of activities defined under the AM1 ASTER resource appears in the Activities field.	
10.	Select the ‘Reg_ATCAct_DDD.1’ activity for scheduling. Select the ‘Master Plan:1’ as the scheduling plan.	The selected activity and plan are highlighted. Default scheduling information specified earlier as part of Activity Definition is displayed.	
11.	Select the ‘Impact’ option under the Action menu.	The Impact button is selected.	
12.	Select the ‘Start Time’ and ‘Stop Time’ toggle buttons Enter a start date and time (in the future). **YYYY/DDD HH:MM:SS** (DDD is the current day of the year) Enter a stop date and time (in the future). **YYYY/DDD HH:MM:SS** Click the ‘Schedule’ icon.	The activity is scheduled on the EOS Timeline Master Plan:1 window in the scheduled location for the ASTER resource. An event message indicates that the Resource Model scheduled activity ‘Reg_ ATCAct_DDD.1’ as an AM1 ASTER resource on the Master Plan for the time scheduled.	
13.	In the ‘General Scheduler’ window, click the ‘Exit’ button under the File menu.	The ‘General Scheduler’ window closes.	
14.	Within the Timeline window, click the ‘Save’ button under the File menu.	An event message indicates that the Master Plan is being saved and has been successfully merged.	

1.	**<u>DAS/ATC Load Generation/Validation</u>**	(No expected result/output; information only)	
2.	Within the Control window click the 'Tools' button.	The Tools dialog box appears.	
3.	Select the 'Load Generator' option. Click the 'OK' button.	The Tools dialog box closes. The Load Generator window appears.	

4.	In the Load Generator window: Click the ‘DAS/ATC Load’ toggle button. Select the Master Plan. Enter the DAS Time: Start Date **YYYY/DDD** Start Time **HH:MM:00** Stop Date **YYYY/DDD** Stop Time **HH:MM:00** (‘DDD’ is the current day of the year) Enter the Uplink Request: Start Date **YYYY/DDD** Start Time **HH:MM:00** Stop Date **YYYY/DDD** Stop Time **HH:MM:00** Click the ‘Submit’ icon.	A ‘Completed’ message appears in the ‘Completed’ box of the Load Generator window. The ‘EOS Timeline’ window contains a new ‘DAS’ corresponding to the DAS Time entered and the ‘Reg_ ATCAct_DDD.1’ activity. An event message indicates successful processing and completion of the DAS. The following files are stored in the directory ‘fosb/test/am1/loads/atc’: AM1_ATC_YYYYDDDxx_x_1.cnt (load contents) AM1_ATC_YYYYDDDxx_x_1_01_OF_01.img (load image) The following file is stored in the directory ‘fosb/test/am1/loads/uplink’: AM1_ATC_YYYYDDDxx_x_1_01_OF_01.upl (load uplink). The ATC commands are included in the directory ‘/fosb/test/am1/reports/integrated’: Intergrated_Report_YYYYDDDxx_x	
5.	List the ATC load file created by entering the following in a cmdtool window: %: **cd /fosb/test/am1/reports** %: **ls -lrt *ATC***	A report file (.rpt) for the ATC load just generated is included in the file listing.	

6.	View the ATC load report by entering the following in a cmdtool window: %: **more <ATC load report filename>**	The following items and values, among others, are displayed: Load name: Consistent with filename Valid uplink period: As specified in load generation Number of commands: As specified in load definition Commands Table: As specified in load definition	
7.	In the 'Load Generator' window, select the 'Exit' option under the 'File' menu.	The Load Generator window closes.	
8.	Within the Timeline click the 'Save' button under the File menu.	An event message indicates that the Master Plan is being saved and has been successfully merged.	
9.	Within the Timeline window, select the 'Close' option under the File menu. Exit the blank timeline template by selecting the 'Exit' option under the File menu.	The Master Plan:1 closes. A blank timeline template appears, which also closes.	
10.	From a cmdtool window: %: **isql -Ufos_dba -P********* (**sql** is alias 1> **use am1_fos_ops** 2> **go** 1> **select * from fos_load_cat** 2> **go** 1> **quit**	The updated load catalogs within the DMS database contain the name 'AM1_ATC_YYYYDDDxx_0_1'	

1.	**<u>RTS Load Definition, Validation, and Generation</u>**	(No expected result/output; information only)	
2.	Within the Control window click the 'Tools' button.	The Tools dialog box appears.	
3.	Select the 'RTS Load Builder' option. Click the 'OK' button.	The Tools dialog box closes. The 'RTS Load Builder' window appears.	
4.	**<u>Define an RTS load</u>** In the Selection window: Select Spacecraft Id Select Subsystem RTS #: (1-128) Purpose: (Short text field) CMD #: (1, 2, ...) Time & S/C Time: (2 & 1.024, 3 & 2.048, etc.)	The Subsystem and Spacecraft selected appear in the appropriate text fields. The RTSs associated with the Subsystem and Spacecraft appear in the Table Template Selection window.	
5.	Select 'Directive Builder' from the Utility pull down menu	The 'Directive Builder' appears	

6.	Select commands. Filter on the following: 'AM1_XXX' (Note: XXX refers to the subsystem) Click Select. Click 'OK' button Click on 'AM1_XXX' Select a command in the Commands list box. Deselect on the selected directive Double click on the selected directive Double click on one of the parameters (if applicable) Click 'OK', and then 'Insert'.	The Filter window closes and the filter selection appears in the filter box within the Directive Builder window. The Commands list box contains command directives. Any qualifiers/parameters associated with that command are displayed in the 'Selection Templates' list box. The command directive is placed in the ECL text field box. The command parameter is appended to the command. There is no value associated with the parameter. The command is inserted in the text area of the RTS Builder, and the Filter window closes.	
7.	Repeat the 'Define an RTS load' subprocedure to enter additional commands	The commands selected appear in the text area of the RTS Load Builder	
8.	**<u>Validate an RTS Load</u>** From RTS Load Builder window, click on the 'Validate' button.	Message in the status line window indicate that RTS load validation was successfully completed. The status button displays 'PASS' in green.	

9.	**<u>Generate an RTS load:</u>** From RTS Load Builder window, click on 'Generate' button. Enter an absolute start and stop time for the Valid Uplink Period or Click on 'Select Time' for default values. Start> **YYYY/DDD HH:MM:SS.mmm** Stop> **YYYY/DDD HH:MM:SS.mmm** Click on 'OK' button.	The RTS Generator dialog box will be displayed. The RTS #, Spacecraft, Sub/Instr, and Purpose Fields will be filled if those exist in the RTS Load Builder window The Start Time and Stop Time fields for Valid Period will be filled in. A command is in the 'Load Initiate' text field. The RTS Generator dialog box closes. A request to generate the RTS load is sent to CMS. The returned generation status from CMS will be displayed in the status line of the RTS Load Builder window: 'Load Generation complete' The status button displays 'PASS' in green. Event messages indicate the load generation started and completed. Note: Any error encountered during RTS load generation will be displayed in an Error Dialog box.	
10.	**<u>Verify RTS load files and contents</u>** List the RTS load image and contents files created by entering the following in a cmdtool window: %: **cd /fosb/test/am1/loads/rts** %: **ls -lrt**	An image file (.img) and a contents file (.cnt) for the RTS load just generated are included in the file listing.	
11.	List the RTS load uplink file created by entering the following in a cmdtool window: %: **cd /fosb/test/am1/loads/uplink** %: **ls -lrt *RTS***	An uplink file (.upl) for the RTS load just generated is included in the file listing.	

12.	List the RTS load files created by entering the following in a cmdtool window: %: **cd /fosb/test/am1/reports** %: **ls -lrt *RTS***	A report file (.rpt) for the RTS load just generated is included in the file listing.	
13.	View the RTS load report by entering the following in a cmdtool window: %: **more <RTS load report filename>**	The following items and values, among others, are displayed: Load name: Consistent with filename Load type: 'RTS' Valid uplink period: As specified in load generation Number of commands: As specified in load definition RTCS Commands Table: As specified in load definition	
14.	View the RTS load catalog entry in the load catalog table in Sybase. In the 'RTS Load Builder' window, under the File option, select 'Open'. Provide the information requested in the dialog box. Click on 'Load Catalog'. Iconify the 'RTS Load Builder' window.	The filename for the RTS load just generated will appear in the Load Catalog list box. The 'RTS Load Builder' window is iconified.	

1.	**<u>Command Preparation</u>**	(No expected result/output; information only)	
2.	**<u>Take Ground Control & Command Control</u>** Connect mirrored to logical String 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): 'Successfully connected to String 100 as Mirrored'. A 'status' window containing several SYS parameters comes up.	
3.	Take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: 'Ground Control Authority has changed from <former user or EcDNull> to <User #1> for string 100'	
4.	Take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	User Station #1 -- The following event message appears: 'Command Authority has changed from <former user or EcDNull> to <User #1> for string 100'	
5.	**<u>Start 'sc' driver to emulate CLCWs</u>** Enter the following in a new cmdtool window. %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT UserStation** %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/sun_sparc_5-5** (**bin** is alias) %: **sc AM1 100 Ops**	User Station #1 -- The remote login to the Real-Time Server is successful. The following message appears repeatedly in the Real-Time Server cmdtool window: 'sc Waiting for messages'	

6.	Initiate the tcpdump tool to capture real-time, operational commands. In a new cmdtool window, enter the following: %: **tcpdump -v port 20x58** x=0 for Operational LAN x=1 for Support LAN	The following message appears in the cmdtool window: 'listening on le0' (Applies to Operational LAN) 'listening on le1' (Applies to Support LAN)	
7.	**<u>View ground script prior to uplink</u>** Initiate the Ground Script Display Window. Click on the Tools button from Control window. Select 'Ground_Script_Display'. Click OK.	The Tools dialog box appears. Ground Display Window appears in the selection text box. The Ground Script Display Window is displayed.	
8.	Select a ground script to display. Using the 'File' pull down menu in 'Ground Script Display' window select the 'Open' option.	A time selector dialog box appears	

9.	In the ‘Ground Script Display’ dialog: Select ‘AM1’ for Spacecraft Select ‘Operational’ for Mode In the ‘Pair Time Selector’ window: Click ‘Select Time’ button Use the times corresponding to the DAS generated earlier. Start Time: **YYYY/DDD HH:MM:00.000** Stop Time: **YYYY/DDD HH:MM:00.000** (‘DDD’ is the current day of the year) s/c: Select ‘AM1’ Click ‘OK’	The ‘Ground Script Display’ dialog closes. The ‘Pair Time Selector’ window comes up. The times entered will be displayed in the start and stop time text fields. The times and corresponding directives are displayed in the body of the ‘Ground Script Display’ window. The ‘Pair Time Selector’ window closes.	
10.	Close Ground Script Display Window Under the File menu, click on the ‘Quit’ button. Click ‘OK’	A confirmation dialog box appears, prompting user ‘Do you really want to quit?’ The Ground Script Display window is no longer in view.	

1.	**<u>Ground Script & Manual Commanding</u>**	(No expected result/output; information only)	
2.	**<u>Perform command initialization</u>** From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1**	The 'Tools' menu comes up. The 'Command Control Window' comes up. The Command Control dialog box comes up and then closes after user input.	
3.	In the 'Config' pull-down menu of the 'Command Control Window', set the following: Cmd Verification (CV): Off Tlm Verification (TV): Off In the 'Command Control Window', enter the following in the CMD field: **FOP INIT CHECK** Hit 'return/enter' key on keyboard. Click on 'Resume' button Click on 'Send' button Click on 'Suspend' button	In the 'Command Control Window', the following occurs: The 'CV' and 'TV' indicators are both 'Off'. The 'DIRECTIVE' column contains 'FOP INIT CHECK'. After the 'Resume' button is clicked, the Send/Cancel options are activated. After the 'Send' button is clicked, the STATUS column includes 'Processed -2 | Sent to subsys'. The following event message appears: 'Protocol Info: FOP INIT with CLCW check successful'.	

4.	**<u>Load the DAS commands into the ground Script.</u>** Select a ground script for execution. Click on the 'Load' button in the Command Control window.	A Pair Time Selector window appears.	
5.	In the 'Pair Time Selector' window: Enter the DAS start and stop times of the ground script selected for execution. Start Time: **YYYY/DDD HH:MM:SS.mmm** ('DDD' is the current day of the year) press the Enter key Stop Time: **YYYY/DDD HH:MM:SS.mmm** press the Enter key Click 'OK'	A WARNING dialog box appears with dates and times specified, prompting user to load ground script.	
6.	In the Warning Dialog box, click 'OK' to load the ground script.	The 'Pair Time Selector' window closes. An Information Dialog appears indicating the Ground Script has been saved. An event message indicates the Ground Script was successfully created.	

7.	In the Information Dialog, click ‘Close’	The following items are properly displayed in the Command Control window. ground script start time ground script stop time spacecraft id associated with ground script ground script status - Suspend (default) ground script processing mode - Auto (default) current bias time Applicable commands/directives	
8.	In the ‘Config’ menu of the ‘Command Control Window’: Turn Telemetry Verification (TV): ‘Off’. Turn Command Verification (CV): ‘Off’	The ‘CV’ and ‘TV’ indicators are both ‘OFF’	
9.	(This step is optional.) Put ground script in confirmation mode enter MODE STEP. Note: This makes for easier manipulation.	The Mode displayed is changed from ‘Auto’ to ‘Step’.	

10.	**<u>Insert a real-time command into the ground script</u>**. Click on ‘%AST_TURN_OFF_C_TDP’ In the ‘Command Control Window’, enter the following real-time command in the CMD field: **/AST_TURN_OFF_C_SDP** Hit ‘return/enter’ key on keyboard.	The ‘%AST_TURN_OFF_C_TDP’ command is highlighted in the ground script. The /AST_TURN_OFF_C_SDP’ command is inserted just above the ‘%AST_TURN_OFF_C_TDP’ command in the ‘Directive’ column..	
11.	Execute the ground script. Click on ‘Resume’ button Click on ‘Send’ button Click on ‘Override’ button if necessary	In the ‘Command Control Window’, the following occurs: After the ‘Resume’ button is clicked, the Send/Cancel options are activated. The following event messages appear: ‘Command XXXXXXXXXX was successfully build with binary = ...’; ‘CLTU id XXXXXXXXXX placed in command data block number x’; ‘Command Data Block number x sent to EDOS’; For each command prior to the WAIT directive in the Command Control Window, the STATUS column includes something like ‘CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys’. A message in the window where tcpdump is running indicates that a command has been sent. The ground script stops at the WAIT directive	

12.	Bypass the WAIT command by clicking on the ‘Continue’ button. Click on ‘Send’ button. Click on ‘Suspend’ button.	The non-ATC commands following the ‘WAIT’ directive in the Ground Script are transmitted. The following event messages appear: ‘Command XXXXXXXXXX was successfully build with binary = ...’; ‘CLTU id XXXXXXXXXX placed in command data block number x’; ‘Command Data Block number x sent to EDOS’; For each command prior to the WAIT directive in the Command Control Window, the STATUS column includes something like ‘CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys’. A message in the window where tcpdump is running indicates that a command has been sent.	

13.	**<u>Critical command execution</u>** In the ‘Command Control Window’, enter two critical commands in the CMD field: **/COM_ENABLE_SBT1_AON** Hit ‘return/enter’ key on keyboard. **/COM_ENABLE_SBT2_AON** Hit ‘return/enter’ key on keyboard. Click the ‘Resume’ button. Click the ‘Send’ button. Click the ‘Continue’ button. Click ‘allow’ button for each command. Click on ‘Suspend’ button. Repeat above button clicks, as necessary, to execute the second critical command	A send/cancel and an allow/cancel message will flash in the status column of the Command Control window. The following event messages appear: ‘Command XXXXXXXXXX is CRITICAL’; ‘Critical command XXXXXXXXX was ALLOWED’; ‘Command XXXXXXXXXX was successfully build with binary = ...’; ‘CLTU id XXXXXXXXXX placed in command data block number x’; ‘Command Data Block number x sent to EDOS’; For each critical command: The STATUS column includes something like ‘CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys’. A message in the window where tcpdump is running indicates that a command has been sent.	

1.	**<u>PROC Execution, Load Uplinking, Dumps, and Image Compare</u>**	(No expected result/output; information only)	
2.	**<u>Execute a Command Procedure</u>** Enter the following in a cmdtool window to change to the PROC directory: %: **cd /fosb/test/am1/procs** %: **ls -lrt** Search the directory for a recent PROC, i.e., a filename that has the same filename with a '.xdr' extension. In the 'Command Control Window', enter the following in the CMD field: CMD: **START <PROC filename>** Hit 'return/enter' key on keyboard. Click the 'Resume' button. Click the 'Send' button. Click the 'Suspend' button. Click the 'Resume' button.	A list of PROC filenames appears. The PROC entered is appended to the directives column in the Command Control Window. When the 'Send' button is clicked, the PROC contents are displayed in the Command Control Window. When the second 'Resume' button is clicked, the PROC contents are executed. The following event message appears for each command in the PROC: 'Command Data Block number x sent to EDOS'. The STATUS column in the Command Control Window includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. A message in the window where tcpdump is running indicates that a command has been sent.	

3.	**<u>Uplink an RTS Load</u>** Enter the following in a cmdtool window to change to list RTS load uplink files: %: **cd /fosb/test/am1/loads/uplink** %: **ls -lrt *RTS*** Select an RTS load uplink file	A list of RTS load uplink filenames appears	
4.	Ensure the RTS load has an entry in the load catalog table in Sybase. In the 'RTS Load Builder' window, under the File option, select 'Open'. Provide the information requested in the dialog box. Click on 'Load Catalog'.	The filename for the applicable RTS load will appear in the Load Catalog list box	
5.	In the 'Command Control Window', enter the following in the CMD field: CMD: **LOAD <RTS filename> 1 1** Hit 'return/enter' key on keyboard. Click the 'Resume' button. Click the 'Send' button. Click the 'Suspend' button.	The RTS load entered is appended to the directives column in the Command Control Window. The following event message appears for each command in the load: 'Command Data Block number x sent to EDOS'. The STATUS column in the Command Control Window includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. A message in the window where tcpdump is running indicates that the RTS commands have been sent.	

6.	**<u>Update the ground reference Table image</u>** Enter the following directive from the Control window ECL> **MUN <loadname-including partitions> YYYY:DDD:HH:MM:SS.mmm**	A event message is generated indicating the Table Memory model has been updated.	
7.	**<u>View ground reference image</u>** Click on 'TOOLS' button on Control window. Select 'Report Generator'. Click 'OK'. Select 'Ground Reference Image Reports (On Demand)'. Select 'Table'. Enter Table Name, Start and End locations in the text boxes provided. Click 'Ok'.	The Report Generator tool is displayed Ground Reference Image Reports (On Demand) window is displayed. FUI will submit the request to the CMS memory model and a ground image report will be generated in the reports/image directory.	
8.	From the CMD input line in the Command Control window enter the following commands to uplink the load, initiate the dump for 16K diagnostic rate ECL> **/FS1_DUMP_TBLINIT1 TABLE_ID=<*tableid*> WORD_OFFSET=<*wordoffset*> WORD_COUNT<*wordcount*>**	Once the telemetry receives the dump message, a file is opened, the file is closed when the number of words for the particular RT addressed is received. CMS processes dump. An event message indicates that the dump is finished The ground reference image has been updated	

9.	**<u>Verification of formatted dump file</u>** The dump input file is formatted and a formatted dump image file is generated. Go to the proper CMS directory % **cd /fosb/test/am1/reports/table** % **ls -ltr**	The CMS memory image receives the message, reads the input dump file, formats the data from the input file, and generates a formatted dump image file. This file will be used for dump compares and dump conversions. Verify there is a <filename>.fdmp associated the Telemetry <filename>.dmp	
10.	Verify the ground reference image was updated. Repeat **<u>Ground Reference Image</u>** steps.		
11.	**<u>Generate a RTS Dump Compare</u>** From the Command Control window, enter the RTS image compare directive ECL> **IMGCMP RTS DUMP=<.dmpFilename> LOAD= <.img Filename>** Note: File Extensions are not needed.	The command will be inserted into the text area of the CCW. A send/cancel message will flash in the status column of the Command Control window. The command will be executed. The request is automatically sent to CMS for processing. CMS will generate a list of table values from the binary in the dump file. The computed value from the dump file is compared to the value for the field in the table definition. A report is generated for any miscompares.	
12.	**<u>View Comparison Report</u>** % **cd /fosb/test/am1/reports/compare** % **ls -ltr** % **more <filename>**	The files in the directory will be displayed in reverse time order.	

13.	From the Control window, enter the image report directive and the dump file name that is to be reported. ECL> **IMGRPT TABLE = <filename>**	A dump report request is sent to the CMS memory image subsystem. A report is generated by CMS. An event message is generated when the report is finished.	
14.	Repeat **<u>View Ground Reference Image</u>**.		
15.	**<u>Uplink a Table Load</u>** Enter the following in a cmdtool window to change to list Table load uplink files: %: **cd /fosb/test/am1/loads/uplink** %: **ls -lrt *TBL*** Select a Table load uplink file	A list of Table load uplink filenames appears	
16.	In the 'Command Control Window', enter the following in the CMD field: CMD: **LOAD <TBL filename> 1 1** Hit 'return/enter' key on keyboard. Click the 'Resume' button. Click the 'Send' button. Click the 'Suspend' button.	The Table load entered is appended to the directives column in the Command Control Window. The following event message appears for each command in the load: 'Command Data Block number x sent to EDOS'. The STATUS column in the Command Control Window includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. A message in the window where tcpdump is running indicates that a command has been sent.	

17.	**<u>Uplink a Microprocessor (Binary) Load</u>** Enter the following in a cmdtool window to change to list Microprocessor load uplink files: %: **cd /fosb/test/am1/loads/uplink** %: **ls -lrt *MPR*** Select a Microprocessor load uplink file	A list of Microprocessor load uplink filenames appears.	
18.	In the 'Command Control Window', enter the following in the CMD field: CMD: **LOAD <MPR filename> 1 1** Hit 'return/enter' key on keyboard. Click the 'Resume' button. Click the 'Send' button. Click the 'Suspend' button.	The Microprocessor load entered is appended to the directives column in the Command Control Window. The following event message appears for each command in the load: 'Command Data Block number x sent to EDOS'. The STATUS column in the Command Control Window includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. A message in the window where tcpdump is running indicates that a command has been sent.	
19.	**<u>Uplink a Flight Software (Binary) Load</u>** Enter the following in a cmdtool window to change to list Flight Software load uplink files: %: **cd /fosb/test/am1/loads/uplink** %: **ls -lrt *FSW*** Select a Flight Software load uplink file	A list of Flight Software load uplink filenames appears.	

20.	In the 'Command Control Window', enter the following in the CMD field: CMD: **LOAD <FSW filename> 1 1** Hit 'return/enter' key on keyboard. Click the 'Resume' button. Click the 'Send' button. Click the 'Suspend' button.	The Flight Software load entered is appended to the directives column in the Command Control Window. The following event message appears for each command in the load: 'Command Data Block number x sent to EDOS'. The STATUS column in the Command Control Window includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. A message in the window where tcpdump is running indicates that a command has been sent.	
21.	Enter the following to change directory to tlmarchive: %: **cd /fosb/test/am1/tlmarchive** % **ls -lrt**	A logging file for the command link control word (CLCW.log) is generated with current date and time stamp in directory /fosb/test/am1/tlmarchive.	
22.	Check for command data block log file: %: **cd /fosb/test/am1/reports** %: **ls -ltr**	A log file for the command data block (CDB.log) is generated with current date and timestamp in directory /fosb/test/am1/reports. CDB.log is generated.	
23.	Terminate the current ground script by clicking on 'Quit' from the File pull-down menu.	A dialog box appears prompting user for certainty. The Command Control window closes.	
24.	In the window containing tcpdump, depress the following two keys simultaneously: Ctrl C	The 'tcpdump' tool quits, and a UNIX prompt is received from the user station.	

1.	**<u>Logical String Manipulation</u>**	(No expected result/output; information only)	
2.	**<u>Create a Simulation/Training String (101)</u>** Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TRAINING SERVER=1**	The following event message appears: 'Active Processing for string 101 was Created.'	
3.	**<u>Command Preparation for String 101</u>** Connect mirrored to logical String 101. Enter the following ECL directive: ECL> **STRING CONNECT STRING=101 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): 'Successfully connected to String 101 as Mirrored'. A 'status' window containing several SYS parameters comes up.	
4.	Take ground control for String 101. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=101**	The following event message appears: 'Ground Control Authority has changed from <former user or EcDNull> to <User #1> for string 101'	
5.	Take command for String 101. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=101**	User Station #1 -- The following event message appears: 'Command Authority has changed from <former user or EcDNull> to <User #1> for string 101'	

6.	Remotely log in to the Real-Time Server by entering the following in a new cmdtool window. %: **rlogin <RealTimeServer>** At the Real-Time Server prompt, enter the following: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT RealTimeServer** %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/sun_sparc_5-5** (**bin** is alias) %: **sc AM1 101 Training**	The remote login to the Real-Time Server is successful. The following message appears repeatedly in the Real-Time Server cmdtool window: 'sc Waiting for messages'	
7.	Initiate the tcpdump tool to capture real-time, operational commands. In a new cmdtool window, enter the following: %: **tcpdump -v port 20x98** x=0 for Operational LAN x=1 for Support LAN	The following message appears in the cmdtool window: 'listening on le0' (Applies to Operational LAN) 'listening on le1' (Applies to Support LAN)	

8.	From the Control window, bring up the ‘Command Control Window’. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Command_Control’ In the Command Control dialog box, enter the following: String ID: **101** Spacecraft ID: **AM1**	The ‘Tools’ menu comes up. The ‘Command Control Window’ comes up. The Command Control dialog box comes up and then closes after user input.	
9.	In the ‘Config’ pull-down menu of the ‘Command Control Window’, set the following: Cmd Verification (CV): Off Tlm Verification (TV): Off In the ‘Command Control Window’, enter the following in the CMD field: **FOP INIT NOCHECK** Hit ‘return/enter’ key on keyboard. Click on ‘Resume’ button Click on ‘Send’ button Click on ‘Suspend’ button	In the ‘Command Control Window’, the following occurs: The ‘CV’ and ‘TV’ indicators are both ‘Off’. The ‘DIRECTIVE’ column contains ‘FOP INIT NOCHECK’. After the ‘Resume’ button is clicked, the Send/Cancel options are activated. After the ‘Send’ button is clicked, the STATUS column includes ‘Processed -2 | Sent to subsys’.	

10.	**<u>Execute a real-time command for String 101</u>**. Click on '%AST_TURN_OFF_C_TDP' In the 'Command Control Window', enter the following real-time command in the CMD field: **/AST_TURN_OFF_C_SDP** Hit 'return/enter' key on keyboard.	The '/AST_TURN_OFF_C_SDP' command is inserted in the 'Directive' column..	
11.	Click on 'Resume' button Click on 'Send' button	In the 'Command Control Window', the following occurs: After the 'Resume' button is clicked, the Send/Cancel options are activated. For each command prior to the WAIT directive in the ground script: After the 'Send' button is clicked, the STATUS column includes something like 'CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'. The following event messages appear: 'Command XXXXXXXXXX was successfully build with binary = ...'; 'CLTU id XXXXXXXXXX placed in command data block number x'; 'Command Data Block number x sent to EDOS'. A message in the window where tcpdump is running indicates that a command has been sent.	
12.	Terminate the current ground script by clicking on 'Exit' from the File pull-down menu.	A dialog box appears prompting user for certainty. The Command Control window closes.	

13.	User Station #1 -- In the window containing tcpdump, depress the following two keys simultaneously: Ctrl C	User Station #1 -- The 'tcpdump' tool quits, and a UNIX prompt is received from the user station.	
14.	**<u>Delete String 101</u>** Attempt to delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Unable to delete String 101 when users are connected. Suggest notifying users to disconnect from String.'	
15.	Disconnect from String 101. Enter the following ECL directive: ECL> **STRING DISCONNECT STRING=101**	The following event messages appear: 'User successfully disconnected from String 101'	
16.	Delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Active processing for String 101 was deleted.'	
17.	Attempt to connect mirrored to String 101. Enter the following ECL directive: ECL> **STRING CONNECT STRING=101 CONFIG=MIRROR**	The following event message appears: 'Unable to locate string 101. User should make sure directive contains correct string ID.'	
18.	**<u>Create a Simulation/Test String (101)</u>** Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TEST SERVER=1**	The following event message appears: 'Active Processing for string 101 was Created.'	

19.	Execute the 'Command Preparation for String 101' subprocedure with the following exceptions: At the Real-Time Server prompt, enter the following: %: **sc AM1 101 Test** In the window where tcpdump was running, enter the following: %: **tcpdump -v port 20x59** x=0 for Operational LAN x=1 for Support LAN	Ground control and command authority are authorized. The sc and tcpdump tools come up. The Command Control Window appears.	
20.	Execute the 'Execute a real-time command for String 101' subprocedure	The following event messages appear: FOP-related and AST_TURN_OFF_C_SDP-related messages as indicated in the 'Logical String Command Subprocedure.' A message in the window where tcpdump is running indicates that a command has been sent.	
21.	Execute the 'Delete String 101' subprocedure	The following event messages appear: 'Active processing for String 101 was deleted.'	
22.	**<u>Create a Real-Time/Test String (101)</u>** Enter the following ECL directive: ECL> **STRING CREATE REALTIME SPACECRAFTID=AM1 MODE=TEST SERVER=1**	The following event message appears: 'Active Processing for string 101 was Created.'	

23.	Execute the 'Command Preparation for String 101' subprocedure with the following exceptions: At the Real-Time Server prompt, enter the following: %: **sc AM1 101 Test** In the window where tcpdump was running, enter the following: %: **tcpdump -v port 20x59** x=0 for Operational LAN x=1 for Support LAN	Ground control and command authority are authorized. The sc and tcpdump tools come up. The Command Control Window appears.	
24.	Execute the 'Execute a real-time command for String 101' subprocedure	The following event messages appear: FOP-related and AST_TURN_OFF_C_SDP-related messages as indicated in the 'Logical String Command Subprocedure.' A message in the window where tcpdump is running indicates that a command has been sent.	
25.	Terminate the current ground script by clicking on 'Exit' from the File pull-down menu.	A dialog box appears prompting user for certainty. The Command Control window closes.	
26.	User Station #1 -- In the window containing tcpdump, depress the following two keys simultaneously: **Ctrl C**	User Station #1 -- The 'tcpdump' tool quits, and a UNIX prompt is received from the user station.	

27.	User Station #1 -- In the window containing the remote login to the Real-Time Server for the ‘sc’ tool, depress the following two keys simultaneously: **Ctrl C**	User Station #1 -- The ‘sc’ tool quits, and a UNIX prompt is received from the Real-Time Server.	

1.	**<u>Housekeeping Telemetry Processing</u>**	(No expected result/output; information only)	
2.	At the user station, display the EDU 'Header' alphanumeric page which displays telemetry header field values by entering the following in the ECL directive line of the Control window: ECL> **PAGE Header**	Verify the Header window appears at the user station and contains the following fields: -Static flags for all descriptors -Spacecraft time (SDU_SCTIME) -Data source (spacecraft ID) (EDS_SCID) -Quality indicator (EDS_QUALITY) -APID number (SDU_PCKT_APID) -Packet sequence count SDU_PACKET_SEQ) -Header ID (SDU_SEC_HEADER) -Packet length count (SDU_PCKT_LENGTH) -Mstr. Cycle Count (EDS_CYCLE_COUNT) -Header Length (EDS_CCSDS_HDR_LENGTH) -CCSDC Version (SDU_CCSDS_VER) 'STATIC' flags should be present for all descriptors.	
3.	At the user station, display the 'Regression alphanumeric page, which displays Housekeeping mnemonic values, by entering the following in the ECL directive line of the Control window: ECL> **PAGE Regression**	The 'Regression' display appears at the user station and contains many telemetry parameters: 'STATIC' flags should be present for all descriptors.	
4.	Move the cursor over the 'Header' alphanumeric page.		

5.	Click the mouse on the right button.		
6.	Choose Data Source Selector from the menu.	The Data Source Selector window will appear.	
7.	Highlight the 'Assigned Connection' windows on the left and then highlight the 'Established Connection' for the I channel on the right.	Both rows will become highlighted.	
8.	Click the mouse on the 'Switch Connection' button.	The message 'Data Sources Switched Successfully' will appear in the status box.	
9.	Click the mouse on the 'Close' button.	The 'Data Source Selector' window will disappear.	
10.	Move the cursor over the 'Regression' alphanumeric page and repeat steps 5-10.	The 'Data Source Selector' window will disappear.	
11.	Invoke the telemetry driver for the multicast of telemetry packets. In a new cmdtool window, enter the following: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT UserStation** %: **source FosEnvVars** %:**cd/fosb/test/am1/bin/sun_sparc_5-5** (**bin** is alias) %: **FtPgPackGen**	The following message appears in the window where the FtPgPackGen tool is running: 'Packet Generator is ready to receive directives.'	

12.	Start the multicast of real-time/operational/I-channel housekeeping telemetry packets for processing. Enter the following ECL directives: ECL> **PG CONFIG HOST=225.2.7.00 PORT=20001 APID=1** ECL> **PG STARTDATA APID=1 COUNT=64** (Note: The IP address and port number is in the file '/fosb/test/am1/config/FoSwConfigData.cnfg'.) Note the telemetry start time for the Analysis Request portion of this test procedure.	Telemetry values are updated on the 'Header' and 'Regression' Housekeeping Telemetry display pages, and the STATIC flag indicators ('S') no longer appear as parameters are updated. The STATIC flag indicators ('S') reappear shortly after the telemetry stops flowing.	
13.	List the telemetry files archived by entering the following in a cmdtool window: %: **cd /fosb/test/am1/tlmarchive** %: **ls -lrt**	A filename corresponding to the date/hour of the Housekeeping telemetry data received is included among the list of archived filenames. The size of the applicable file is non-zero and the time is consistent with the recent Housekeeping telemetry data.	

1.	**<u>Analysis Dataset Generation</u>**	(No expected result/output; information only)	
2.	In the Event Display, click on 'Filter' from the pull down menu Select 'Event Type' Click 'Bold' button next to ANL & SYS Click 'Apply' Click 'Close'	The Event_Display_Gobal will now display all ANA subsystem activities in bold.	
3.	**<u>Invoke the Analysis Request Builder</u>** Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
4.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis Request Builder window is displayed and it contains the following fields and user interface menus: Request Name Processing site of data (local or EOC) Data quality Select Telemetry Select Time Product Options Product Formats Algorithms	

5.	**<u>Create an Analysis Request</u>** Enter into the request name field: **Reg_AnlReq_DDD**	Reg_AnlReq_DDD appears in the Request Name field.	
6.	Click the mouse on the 'EOC Only' icon to select data to be processed in the EOC.	'EOC Only' icon should show selected.	
7.	Click the mouse on the 'All Data' button in the Data Quality box.	The 'All Data' button should show selected.	
8.	**<u>Selecting Telemetry Mnemonics</u>** Click on the 'Select Telemetry …' button.	The Telemetry Selector window is displayed and it contains the following fields and user interface menus: Subsystems Available Parameters Sampling rates Statistics interval time Selected Parameters Data Filters The possible choices in the sampling rate field include: All data Changes only Every Nth sample where N equals a user specified number.	

9.	**Note:** Fields are displayed as the user selects a filter criteria. Invoke the Selection Filter Screen: Click on the 'Filter…' button.	The Selection Filter Screen is displayed and it contains the following fields and user interface menus: Spacecraft text area Instrument text area Sample Type text area Selected subsystem text area	
10.	Select '**AM1**' in the Spacecraft text area.	Instruments associated with AM1 are displayed in the Instrument text area.	
11.	Select '**CDH**' in the Instrument text area.	Sample Types associated with CDH are displayed in the Sample Type text area.	
12.	Select '**B**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_CDH_B is displayed in the Selected text area.	
13.	Select '**CEA**' in the Instrument text area.	Sample Types associated with CEA are displayed in the Sample Type text area.	
14.	Select '**C**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_CEA_C is displayed in the Selected text area.	
15.	Select '**V**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_CEA_V is displayed in the Selected text area.	
16.	Select '**EAS**' in the Instrument text area.	Sample Types associated with EAS are displayed in the Sample Type text area.	

17.	Select '**B**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_EAS_B is displayed in the Selected text area.	
18.	Select '**FS1**' in the Instrument text area.	Sample Types associated with FS1 are displayed in the Sample Type text area.	
19.	Select '**N**' in the sample type text area. Click on the 'Select' button.	The subsystem mnemonic AM1_FS1_N is displayed in the Selected text area.	
20.	Select '**SDU**' in the Instrument text area.	Sample Types associated with SDU are displayed in the Sample Type text area.	
21.	Click on the 'Select' button.	The subsystem mnemonic AM1_SDU is displayed in the Selected text area.	
22.	Click the 'OK' button.	The filter list is displayed in the Analysis Telemetry Selector window in the Subsystems section.	
23.	**Health & Safety telemetry points and sampling rate** Click on the '**AM1_EAS_B**' toggle button in the subsystems text area.	A list of mnemonics associated with AM1_EAS_B are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

24.	Select: **'EAS_BR_HGA_BOX1A_ARM'** **'EAS_BR_NEA_BUSA'** **'EAS_BR_SA_BOXE1A_ARM'** **'EAS_BR_SA_BOXI2A_ARM'** **'EAS_BR_SA_CAN2A_ARM'** in the available parameters text area. Select a sampling rate. Click the 'All Data' button. Click the 'Select' button.	Mnemonics: EAS_BR_HGA_BOX1A_ARM EAS_BR_NEA_BUSA EAS_BR_SA_BOXE1A_ARM EAS_BR_SA_BOXI2A_ARM EAS_BR_SA_CAN2A_ARM along with the selected sample rate are displayed in the Selected Parameters field.	
25.	Click on the '**AM1_EAS_B**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
26.	**Standby telemetry points with a statistics interval.** Select **'AM1_CDH_B'** toggle button in the Subsystem text area.	A list of mnemonics associated AM1_CDH_B with are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

27.	Select: **'CDH_BR_ACT_DPPLRRCVD'** **'CDH_BR_ACT_LV_UMB_IF'** **'CDH_BR_CDHBU_VALDAT'** **'CDH_BR_SCT_MSGFULL'** in the available parameters text area. Select a sampling rate. Click the 'Changes Only' button. Click the 'Select' button.	Mnemonics: CDH_BR_ACT_DPPLRRCVD CDH_BR_ACT_LV_UMB_IF CDH_BR_CDHBU_VALDAT CDH_BR_SCT_MSGFULL along with the selected sample rate are displayed in the Selected Parameters field.	
28.	Click on the '**AM1_CDH_B**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
29.	**Housekeeping telemetry points with a statistics interval.** Select **'AM1_CEA_C'** toggle button in the Subsystem text area.	A list of mnemonics associated with AM1_CEA_C are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

30.	Select: **'CEA_CS_INSTR_ID'** **'CEA_CS_LWSTPTT'** **'CEA_CS_SWSTPTT'** **'CEA_CS_TSTPTT'** in the available parameters text area. Select a sample rate. Enter into the 'Nth sample' field: **1** Click the 'Select' button.	Mnemonics: CEA_CS_INSTR_ID CEA_CS_LWSTPTT CEA_CS_SWSTPTT CEA_CS_TSTPTT along with the selected sample rate are displayed in the Selected Parameters field.	
31.	Click on the '**AM1_CEA_C**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
32.	Select **'AM1_CEA_V'** toggle button in the Subsystem text area.	A list of mnemonics associated with AM1_CEA_V are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

33.	Select: **'CEA_VR_NVBMON'** **'CEA_VR_P15VMON'** **'CEA_VR_P5MON'** **'CEA_VR_SPSS2'** **'CEA_VR_SPST1'** in the available parameters text area. Select a sample rate. Enter into the 'Nth sample' field: **5** Click the 'Select' button.	Mnemonics: CEA_VR_NVBMON CEA_VR_P15VMON CEA_VR_P5MON CEA_VR_SPSS2 CEA_VR_SPST1 along with the selected sample rate are displayed in the Selected Parameters field.	
34.	Click on the '**AM1_CEA_V**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
35.	Select **'AM1_FS1_N'** toggle button in the Subsystem text area.	A list of mnemonics associated with AM1_FS1_N are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	

36.	Select: **'FS1_NR_ACQ_MODE11'** **'FS1_NR_ACQ_MODE23'** **'FS1_NR_ESAOUT_H2F'** **'FS1_NR_IRU_CNG1_R2'** **'FS1_NR_IRU_CNG2_Y2'** in the available parameters text area. Select a sample rate. Enter into the 'Nth sample' field: **10** Click the 'Select' button.	Mnemonics: FS1_NR_ACQ_MODE11 FS1_NR_ACQ_MODE23 FS1_NR_ESAOUT_H2F FS1_NR_IRU_CNG1_R2 FS1_NR_IRU_CNG2_Y2 along with the selected sample rate are displayed in the Selected Parameters field.	
37.	Click on the '**AM1_FS1_N**' toggle button.	The list of mnemonics in the Available Parameters text area are removed.	
38.	Click on the '**AM1_SDU**' toggle button.	A list of mnemonics associated with AM1_SDU are displayed in the Available Parameters text area of the Analysis Telemetry Selector window.	
39.	Select **'SDU_SCTIME'** in the available parameters text area. Select a sample rate. Enter into the 'Nth sample' field: **1** Click the 'Select' button.	SDU_SCTIME along with the selected sample rate are displayed in the Selected Parameters field.	

40.	Click the ‘OK’ button.	Telemetry points and associated sample rates selected match the Selected Telemetry table in the Analysis Request window.	
41.	Save the analysis request. Click on the File pull down menu.	A list of options appears. These options include new, open, save, save as, delete, and quit.	
42.	Select ‘Save as…’.	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
43.	Enter the name of the request: **Reg_FPB_Anl_DDD** Click the ‘OK’ button.	An error message is displayed indicating that the time selection is missing from the request.	
44.	Click the ‘Close’ button in the error dialog box.	The error dialog box will close.	
45.	**<u>Selecting Start and Stop Times</u>** Click on the ‘Select Time’ button.	The Selected Pair Times window is displayed and it contains the following fields and user interfaces: Start and Stop Times Select Remove	
46.	Click the ‘Select’ button	The Pair Time Selector window is displayed and includes the following fields and user interface menus: Type of pair time (Absolute or Relative) Start/stop key (Time or Event) Specify selection (End Time, End Event, or Duration)	
47.	Click the ‘Absolute’ button.	The ‘Absolute’ button is selected.	

48.	Click the ‘Time’ button.	The ‘Time’ button is selected.	
49.	Click the ‘Specify End Time’ button.	The ‘Specify End Time’ button is selected.	
50.	Enter into the stop time field: **HH:MM:SS.mmm** Use the time from the telemetry data processed earlier in this test procedure	The time entered is displayed in stop time field.	
51.	Enter into the start time field: **HH:MM:SS.mmm** Use the time from the telemetry data processed earlier in this test procedure	The time entered is displayed in start time field.	
52.	Enter into the start date field: **YYYY/DDD** (DDD is the current day of the year)	YYYY/DDD is displayed in start date field.	
53.	Enter into the stop date field: **YYYY/DDD** (DDD is the current day of the year)	YYYY/DDD is displayed in stop date field.	
54.	Click the ‘OK’ button.	The selected start and stop times match the start and stop times in the Selected Pair Times window.	

55.	Select an output dataset name for the analysis request. Click the output dataset name toggle button. Enter the name of the output dataset (request name): **Reg_AnlReq_DDD**	Reg_AnlReq_DDD will be displayed in the Output Dataset Name box.	
56.	Click the CarryOut File Name toggle button.	This will generate a carry out file with the same names as the Analysis Request.	
57.	**<u>Save the analysis request</u>** Click on the File pull down menu.	A list of options appears.	
58.	Select 'Save as…'.	A File Selection window is displayed with a default directory path in the selection field. The default directory path will be /fosb/test/am1/data/FUI/requests/.	
59.	Enter the name of the request: **Reg_AnlReq_DDD** Click the 'OK' button.	A dialog box informing the user that the file was saved.	
60.	Click the 'Close' button in the information dialog box.	The dialog box will close.	
61.	Click the 'OK' button in the Analysis Request Builder window.	A dataset for the given options selected has been submitted for generated.	

62.	Monitor the time the Event Display received the message 'Analysis Request **X** has started on Host **N**'. Monitor the time the Event Display received the message 'Analysis Request **X** is completed on Host **N'**. Where X = the number of the request and N = the Name of the Host machine that started the request.	Wait for an event message indicating that the analysis request is complete. The following event message is displayed: 'Analysis Request **X** completed on Host **N**.'	
63.	**<u>Verify the analysis request was saved</u>**. Invoke the Analysis Request Builder_ Click on the 'Tools' button.	The Tools Dialog window and a list of tools is displayed to the user.	
64.	Select 'Analysis_Request_Builder'. Click on 'OK' button.	The Analysis Request Builder window is displayed.	
65.	Click the File pull down menu.	A list of options appears.	
66.	Select 'Open'.	The File Selection window is displayed.	
67.	Select 'Reg_AnlReq_DDD' Click the 'OK' button.	An Analysis Request Information dialog box will appear stating: This request was already sent. Modifying or resending this request will not be permitted.	
68.	Click the 'Close' button in the dialog box.	A request is displayed and that it matches the previously saved request.	
69.	Check the Request Status text area in the Analysis Request Builder window.	The Request Status will indicate Submitted.	

70.	Click the ‘Cancel’ button.	The Analysis Request Builder window will close.	
71.	**<u>Verify that a dataset was created</u>** Enter the following in a terminal window: %:**cd /fosb/test/am1/datasets** %:**ls -lrt**	A listing of the contents of the directory datasets is displayed containing files named Reg_AnlReq_DDD.meta, Reg_AnlReq_DDD.data	
72.	Enter the following in a terminal window: %:**cd /fosb/test/am1/data** %:**ls -la**	A long listing of the contents of the directory data is displayed containing files named Reg_AnlReq_DDD.out.	

1.	**<u>Real time Tables and Graphs</u>**	(No expected result/output; information only)	
2.	Log onto 1 FOT User Station. Start the User Station. Reference Test Case SYS2010B -- User Station Startup and Authentication.	The FOT User Station is running and the 'Control Window' is displayed.	
3.	Connect to Operational String. From the directive dialog box inside of the Control window on the UserStation, issue the following directive: **STRING CONNECT STRING=100 CONFIG=MIRROR**	Look for below message inside of event display area: 'Successfully connected to String 100'	
4.	Select 'Display Builder' from the Tools dialog box. 1. Click on 'Tools' from the Environment Control Window. 2. Click on 'Display Builder'. 3. Click on 'OK'.	A suite of Display Builder windows will appear on the screen. 1. Display Builder Palette 2. Display Builder (Blank) 3. Display Item Data Sources 4. Display Item Format 5. Display Builder Console	
5.	From the 'Display Builder Palette'; 1. Click on '2D Graph'. 2. Drag mouse to the blank 'Display Builder' window and drop in desired location.	The boundaries for the 2D Graph will appear in the blank 'Display Builder' window.	

6.	Enlarge the 'Display Builder' window so the boundaries of the '2D Graph' are visible. 1. Click on the right side of the 'Display Builder' window and drag to the right until all four sides of the '2D Graph' are totally visible.	All four sides of the '2D Graph' will be visible inside the 'Display Builder' window.	
7.	***Select Graph data sources***	***Information only.***	
8.	Select the Data Source from the 'Display Builder Palette'; 1. Click on 'Page'. 2. Click on 'Logical String Management'. 3. Click on the 'Spacecraft' button and select 'AM1'. 4. Click on the 'Source' button and select 'Real Time'. 5. Click on the 'Mode' button and select 'Operational'. 6. Click on 'Add'. 7. Click 'OK'	'AM1 RealTime Operational Default' will be displayed in the 'Logical String Management' box.	

9.	Select the mnemonic/parameter ‘Filters’ from the ‘Display Items Data Sources’ window. 1. Click on the ‘Add’ button. 2. Click on the ‘Filter’ button. 3. Click on ‘AM1’ for ‘Spacecraft’. 4. Click on ‘CDH’ for ‘Instrument’. 5. Click on the ‘Select’ button. 6. Click on ‘EPS’ for ‘Instrument’. 7. Click on the ‘Select’ button. 8. Click on ‘SDU’ for ‘Instrument’. 9. Click on the ‘Select’ button. 10. Click on the ‘OK’ button.	The desired subsystem or instrument will appear in the ‘Selection Filter’ window, AM1_CDH AM1_EPS AM1_SDU	

10.	Select the desired mnemonics. 1. Click on 'AM1_CDH' from the 'Selection Filter' list. Wait for the mnemonics to show in the box under 'Available Parameters'. 2. Click on 'CDH_BR_SFEALPCMDREJ' from the 'Available Parameters' list. 3. Click on the arrow button '→'. 4. Repeat items 1 and 2 of this procedure for the following: CDH_BR_ SFEABLPCMDREJ CDH_BR_SSR1_HKDIS 1. Click on the 'OK'.	The mnemonics are selected for the graph.	
11.	Deselect the mnemonics. 2. Click on the 'Add' button from the 'Display Item Data Sources' window. 3. Click on the '←All' button. 4. Click on 'AM1_CDH'. 5. Wait for the 'Available Parameters' box to return.	1. The '←All' button will move the selected mnemonics back to the 'Available Parameters' list. 2. The mnemonics will disappear from the 'Available Parameters' box. The 'Available Parameters' box will be empty	

12.	Select the desired mnemonics. 1. Click on 'AM1_EPS' from the 'Selection Filter' list. Wait for the mnemonics to show in the box under 'Available Parameters'. 2. Click on 'EPS_IR_PDU_EPC_INPA' from the 'Available Parameters' box. 3. Click on the arrow button '→'. 4. Repeat items 1 and 2 of this step for the following: EPS_IR_PDU_EPC_INPB EPS_VR_ADE_EPCA 1. Click on the 'OK'.	The mnemonics are selected for the graph.	
13.	Deselect the mnemonics. 2. Click on the 'Add' button from the 'Display Item Data Sources' window. 3. Click on the '←All' button. 4. Click on 'AM1_CDH'. 5. Wait for the 'Available Parameters' box to return.	1. The '←All' button will move the selected mnemonics back to the 'Available Parameters' list. ***1.*** The mnemonics will disappear from the 'Available Parameters' box. The 'Available Parameters' box will be empty.	

14.	Select the desired mnemonics. 1. Click on 'AM1_SDU' from the 'Selection Filter' list. Wait for the mnemonics to show in the box under 'Available Parameters'. 2. Click on 'SDU_SCTIME' from the 'Available Parameters' box. 3. Click on the arrow button '→'. 4. Click on the 'OK'.	2. The mnemonic is selected for the graph.	
15.	***Customize mnemonics/parameters***	***Information only***	

16.	From the ‘Display Item Format’ window select the ‘Legend’ and ‘Title’. 1. Click on the ‘Edit’ button. 2. Click on ‘Legend’. ***Next to the ‘Title’ heading;*** 3. Click inside the ‘Title’ box and enter: ‘**FUI≠ 2110B**’ ***Next to the ‘Show’ heading;*** 1. Ensure the ‘Legend’ box is depressed. ***Next to the ‘Position’ heading;*** 1. Click on ‘Northeast’.. ***Next to the ‘Border Type’ heading;*** 1. Click on ‘Etched In’. 2. Click on ‘Apply’.	The mnemonics will be positioned in the upper right hand corner of the graph inside a box.	

17.	From the ‘Display Item Format Window’ select the ‘Axes’. 1. Click on the ‘Edit’ button. 2. Click on ‘Axes’. 3. Next to the ‘X Axis Label’ heading; Enter ‘SDU_SCTIME’. 4. Next to ‘X Axis Parameter’; Click on ‘SDU_SCTIIME’. 5. Next to the ‘X Axis Display Interval’ heading; Leave the default value of 0.00347 6. Next to the ‘Y Axis Label’ heading; Enter ‘Mnemonics’ Leave the default values of ‘0.00000’ for the other fields. 7. Click on ‘Apply’.	The Axis will be selected for the graph.	

18.	From the 'Display Item Format Window' select the 'Color & Line Style' 1. Click on the 'Edit' button select 'Color & Line Style'. 2. Click on the first parameter from the 'Parameter' list. Ensure it is highlighted. 3. Click on the 'Line' button and click on 'None' 4. Click on the 'Point' button and click on 'Dot'. 5. Click on the 'Color' button and click on 'Red' 6. Click on the 'Limit Line' button and click on 'Solid'. 7. Click on 'Apply'. 8. Click on the second parameter from the 'Parameter' list. Ensure it is highlighted. 9. Click on the 'Line' button and click on 'Long Dash' 10. Click on the 'Point' button and click on 'Box'. 11. Click on the 'Color' button and click on 'Green' 12. Click on the 'Limit Line' button and click on 'Solid'. 13. Click on 'Apply'. 14. Click on the third parameter from the 'Parameter' list. Ensure it is highlighted. 15. Click on the 'Line' button and click on 'Dotted' 16. Click on the 'Point' button and click on 'Triangle'.	The 'Legend' will change to reflect the attributes selected for the mnemonics.	

19.	1. Click on the ‘Color’ button and click on ‘Yellow’ 2. Click on the ‘Limit Line’ button and click on ‘Long Dash’ 3. Click on ‘Apply’. 4. Click on the fourth parameter from the ‘Parameter’ list. Ensure it is highlighted. 5. Click on the ‘Line’ button and click on ‘Short Dash’ 6. Click on the ‘Point’ button and click on ‘Diamond’. 7. Click on the ‘Color’ button and click on ‘Cyan’ 8. Click on the ‘Limit Line’ button and click on ‘Dotted’. 9. Click on ‘Apply’. 10. Click on the fifth parameter from the ‘Parameter’ list. Ensure it is highlighted. 11. Click on the ‘Line’ button and click on ‘Long Short Dash’ 12. Click on the ‘Point’ button and click on ‘Star’. 13. Click on the ‘Color’ button and click on ‘Magenta’ 14. Click on the ‘Limit Line’ button and click on ‘Solid’.		

20.	1. Click on ‘Apply’. 2. Click on the sixth parameter from the ‘Parameter’ list. Ensure it is highlighted. 3. Click on the ‘Line’ button and click on ‘Dash Dot’ 4. Click on the ‘Point’ button and click on ‘Circle’. 5. Click on the ‘Color’ button and click on ‘Blue’ 6. Click on the ‘Limit Line’ button and click on ‘Long Dash’. 7. Click on ‘Apply’.		
21.	From the ‘Display Item Format’ window select the ‘Footer’ 1. Click on the ‘Edit’ button and select ‘Footer’ 2. Next to the ‘Show’ heading depress the ‘Footer’ box. 3. Next to the ‘Text’ heading enter ‘**080797**’. 4. Next to the ‘Border Type’ click on ‘Etched in’. 5. Click on ‘Apply’		
22.	***Save Graph as ‘file’ and Build Graph to System***	***Information only***	

23.	From the 'Display Builder Palette' window; 1. Click on 'File'. 2. Click on 'Save As'. 3. Click on 'System'. 4. Click inside the 'Selection' box and type; '/fosb/test/AM1/displaydefs/FUI_2110B_GRAPH' 5. Click on 'OK'. 6. Click on 'File'. 7. Click on 'Build to CM'.	Graph will be saved to targeted directory. Graph will be built to the System. ***Console Window message:*** *Saving /fosb/test/AM1/displaydefs/FUI_2110B_GRAPH* *Done.* *Invoked Build to CM executable* *Build to CM complete.*	
24.	***Save Graph as 'file' and Build Graph to Local***	***Information only***	

25.	From the 'Display Builder Palette' window; 1. Click on 'File'. 2. Click on 'Save As'. 3. Click on 'Local'. 4. Click inside the 'Selection' box and type; '/home/fostest1/pages/FUI_2110B_GRAPH' 5. Click on 'OK'. 6. Click on 'File'. 7. Click on 'Build to Local'. 8. Click on 'File'. 9. Click on 'Quit'.	Graph will be saved to targeted directory. Graph will be built to Local machine ***Console Window message:*** *Saving /home/fostest1/pages/FUI_2110B_GRAPH* *Done.* *Invoked Build to Local executable* *Build to Local complete.* Display Builder windows will disappear.	
26.	Recall graph to plot. 1. From the 'Control Window' click on 'Tlm Wins'. 2. Click on the file name 'FUI_2110B_GRAPH' 3. Click on 'OK'.	The graph will appear.	
27.	***Initiate the Packet Generator (packGen)***	***Information only***	

28.	Open a X-Term window, at the UNIX prompt type; 1. % cd /fosb/test/AM1/scripts/setup 2. or use alias test 3. % setenv SCRIPT UserStation 4. % source PackGenEnvVars 5. % cd /fosb/test/AM1/bin/sun_sparc_5-5 6. or use alias bin 7. % packGen Valid data type = **am1-hk** IP address = **225.2.7.00** Port number = **20001** Number of packets = **-1** (infinite) packet delay = **3000** Return	Packet Generator is running and the Graph is updating.	
29.	Demonstrate Min, Max, and Current values of a current mnemonic. 1. Click on Mnemonic inside of graph display with left mouse button. *2.* Min, Max, and Current values should appear at the bottom of the graph display with the associated mnemonic displayed in the Parameter box.		

30.	Display ‘Limit Lines’ From the graph click on the ‘**Limits: ON/OFF**’ box.	The Limit Lines will be displayed.	
31.	From a UNIX prompt, stop ‘packGen’ by executing ‘**cntl C**’.		
32.	***Edit Graph***	***Information only***	
33.	From the ‘Display Builder Palette’ window; 1. Click on ‘File’ 2. Click on ‘Open’ 3. Click on ‘Local’. 4. Click inside the ‘Selection’ box and type; ‘/home/fostest1/pages/FUI_2110B_GRAPH’ 5. Click on ‘OK’. 6. Click inside the graph boundaries to see the legend and access the windows.	The graph and the Display Builder windows will appear.	

34.	Edit graph ‘ X Axis’ from the ‘Display Item Data Sources’ Window; 1. Click on the ‘SDU_SCTIME’ and highlight. 2. Click on ‘Remove’. 3. Click on ‘Add’ 4. Click on the all button ‘🡐 All’ if there are parameters listed under ‘Selected Parameters’ 5. Deselect whatever mnemonics are displayed under ‘Available Parameters’ by clicking on its associated ‘Selection Filter’. 6. Wait for the ‘Available Parameters’ box to return. 7. Click on ‘AM1_CDH’ from the ‘Selection Filter’ list. Wait for the mnemonics to show in the box under ‘Available Parameters’. 8. Click on ‘CDH_BR_SSR1_HKRATE from the ‘Available Parameters’ box. 9. Click on the arrow button ‘→’. 10. Click on ‘OK’	SDU_SCTIME will be removed.	

35.	From the 'Display Item Format Window' select the 'Axes'. 1. Click on the 'Edit' button. 2. Click on 'Axes' **Next to the 'X Axis Label' heading**; *3.* Enter 'CDH_BR_SSR1_HKBRATE' **Next to 'X Axis Parameter'**; 4. Click on 'X Axis Parameter' box and click on 5. 'CDH_BR_SSR1_HKBRATE **Next to the 'X Axis Display Interval' heading;** 6. Leave the default value of 0.00347 **Next to the 'Y Axis Label' heading**; 7. Enter '**Mnemonics**' 8. Leave the default values of '0.00000' for the other fields. 9. Click on 'Apply'.	Replace the X Axis with 'CDH_BR_SSR1_HKBRATE'.	
36.	***Save Graph as 'file' and Build Graph to Local***	***Information only***	

37.	From the ‘Display Builder Palette’ window; 1. Click on ‘File’. 2. Click on ‘Save As’. 3. Click on ‘Local’. 4. Click inside the ‘Selection’ box and type; ‘/home/fostest1/pages/FUI_2110B_Graph2’. 5. Click on ‘OK’. 6. Click on ‘File’. 7. Click on ‘Build to Local’. 8. Click on ‘File’. 9. Click on ‘Quit’.	Graph will be saved to targeted directory. Graph will be built to Local machine ***Console Window message:*** *Saving /home/fostest1/pages/FUI_2110B_Graph2* *Done.* *Invoked Build to Local executable* *Build to Local complete.* Display Builder windows will disappear.	
38.	Recall graph to plot. 1. From the ‘Control Window’ click on ‘Tlm Wins’. 2. Click on the file name ‘FUI_2110B_GRAPH2’ 3. Click on ‘OK’.	The graph will appear.	
39.	***Initiate the Packet Generator (packGen)***	***Information only***	

40.	Open a X-Term window, at the UNIX prompt type; 1. % **cd /fosb/test/AM1/scripts/setup** or use alias **test** 2. % **source PackGenEnvVars** **3.** % cd **/fosb/test/AM1/bin/sun_sparc_5-5** or use alias **bin** **4.** % **packGen** Valid data type = **am1-hk** IP address = **225.2.7.00** Port number = **20001** Number of packets = **-1** (infinite) packet delay = **3000** 5. Return	Packet Generator is running and the Graph is updating.	
41.	Demonstrate Min, Max, and Current values of a current mnemonic. 1. Click on Mnemonic inside of graph display with left mouse button. ***2.*** Min, Max, and Current values should appear at the bottom of the graph display with the associated mnemonic displayed in the Parameter box.	Mnemonic against a mnemonic graph is displayed.	

42.	Display ‘Limit Lines’ From the graph click on the ‘**Limits: ON/OFF**’ box.	The Limit Lines will be displayed.	
43.	From a UNIX prompt, stop ‘PackGen’ by executing ‘**cntl C**’.	PackGen has terminated.	
44.	***Edit Graph***	***Information only***	
45.	1. Click on the ‘Tools’ button from the environment control window. 2. Click on ‘Display Builder’. 3. From the ‘Display Builder Palette’ window; Click on ‘File’ Click on ‘Open’ Click on ‘Local’. Click inside the ‘Selection’ box and type; ‘/home/fostest1/pages/FUI_2110B_GRAPH’ Click on ‘OK’. Click inside the graph boundaries to see the legend and access the windows.	The graph and Display Builder windows will appear.	

46.	Edit graph ‘Grid’ and ‘Granularity’ from the ‘Display Item Format’ window; 1. Click on the ‘Edit’ button and select ‘Axes’ 2. Depress the ‘Grid’ box if not already depressed. 3. Change the ‘X Axis Grid Granularity’ to a ‘3.00000’ 4. Change the Y Axis Grid Granularity’ to a ‘4.00000’. 5. Next to the ‘X Axis Label’ heading; Enter ‘**SDU_SCTIME**’. Next to ‘X Axis Parameter’; Click on ‘**SDU_SCTIIME**’. Next to the ‘X Axis Display Interval’ heading; Leave the default value of 0.00347 Next to the ‘Y Axis Label’ heading; Enter ‘**Mnemonics**’ Leave the default values of ‘0.00000’ for the other fields. Click on ‘Apply’.	The graph will change to reflect the new options	

47.	1. Click on the 'Edit' button and select 'Color & Line Style'. 2. Click on the 'Grid Line Style' button and select 'Solid' Click on 'Apply'.	The graph will reflect the options chosen.	
48.	***Save Graph as 'file' and Build Graph to Local***	***Information only***	
49.	From the 'Display Builder Palette' window; 1. Click on 'File' 2. Click on 'Save As' 3. Click on 'Local'. 4. Click inside the 'Selection' box and type; '/home/fostest1/pages/FUI_2110B_GRAPH3' 5. Click on 'OK'. 6. Click on 'File' 7. Click on 'Build to Local'. 8. Click on 'File'. Click on 'Quit'.	Graph will be saved to targeted directory. Graph will be built to Local machine ***Console Window message:*** *Saving /home/fostest1/pages/FUI_2110B_GRAPH3* *Done.* *Invoked Build to Local executable* *Build to Local complete.* Display Builder windows will disappear.	
50.	Recall graph to plot. 1. From the 'Control Window' click on 'Tlm Wins'. 2. Click on the file name 'FUI_2110B_GRAPH3' 3. Click on 'OK'.	The graph will appear.	

51.	***Initiate the Packet Generator (packGen)***	***Information only***	
52.	Open a X-Term window, at the UNIX prompt type; 1. % **setenv SCRIPT UserStation** 2. % **cd /fosb/test/AM1/scripts/setup** or use alias **test** 3. % **source PackGenEnvVars** **4.** % cd **/fosb/test/AM1/bin/sun_sparc_5-5** or use alias **bin** **5.** % **packGen** Valid data type = **am1-hk** IP address = **225.2.7.00** Port number = **20001** Number of packets = **-1** (infinite) packet delay = **3000** 6. Return	Packet Generator is running and the Graph is updating.	

53.	Demonstrate Min, Max, and Current values of a current mnemonic. 1. Click on Mnemonic inside of graph display with left mouse button. ***2.*** Min, Max, and Current values should appear at the bottom of the graph display with the associated mnemonic displayed in the Parameter box.	Min and Max values are displayed in the display window.	
54.	From a UNIX prompt, stop 'PackGen' by executing '**cntl C**'.	PackGen is terminated.	
55.	Position 4 graphs on UserStation screen 1. Click on 'Tlm Wins'. 2. Click on 'FUI_2110B_GRAPH','FUI_2110B_GRAPH2' and ,'FUI_2110B_GRAPH3'. 3. Click on 'FUI_2110B_GRAPH3' again. 4. Position all 4 graphs on the screen and use the 'Snapshot' tool to print to a local printer as landscape and portrait.	The four graphs appear.	

56.	Delete a Graph from the 'Display Builder Palette'; 1. Click on 'Display Builder' from the 'Tools' menu. 2. Click on 'Delete File' 3. Click on 'Local or System' filter bar 4. Select 'Graph' from the Files box by scrolling to the filename, and then highlighting filename **FUI_2110B_GRAPH** 5. Click on the 'OK' button. 6. Repeat this step for 2'nd file **FUI_2110B_GRAPH.pmss**' extension and delete from 'both' Local and System.	Graph will be deleted.	
57.	***Create a Table,*** *Quit and restart Display Builder.*	***Information only***	
58.	Select 'Display Builder' from the Tools dialog box. 1. Click on 'Tools' from the Environment Control Window. 2. Click on 'Display Builder'. 3. Click on 'OK'.	A suite of Display Builder windows will appear on the screen. 1. Display Builder Palette 2. Display Builder (Blank) 3. Display Item Data Sources 4. Display Item Format 5. Display Builder Console	

59.	From the ‘Display Builder Palette’; 1. Click on ‘Table’. 2. Drag mouse to the blank ‘Display Builder’ window and drop in desired location.	The boundaries for the Table will appear in the blank ‘Display Builder’ window.	
60.	***Select Table data sources***	***Information only.***	
61.	Select the Data Source from the ‘Display Builder Palette’; 1. Click on ‘Page’. 2. Click on ‘Logical String Management’. 3. Click on the ‘Spacecraft’ button and select ‘AM1’. 4. Click on the ‘Source’ button and select ‘Real Time’. 5. Click on the ‘Mode’ button and select ‘Operational’. 6. Click on ‘Add’. 7. Click ‘OK’	‘AM1 RealTime Operational Default’ will be displayed in the ‘Logical String Management’ box.	

62.	Select the mnemonic/parameter ‘Filters’ from the ‘Display Items Data Sources’ window. 1. Click on the ‘Add’ button. 2. Click on the ‘Filter’ button. 3. Click on ‘AM1’ for ‘Spacecraft’. 4. Click on ‘CDH’ for ‘Instrument’. 5. Click on the ‘Select’ button. 6. Click on ‘EPS’ for ‘Instrument’. 7. Click on the ‘Select’ button. Click on the ‘OK’ button.	The desired subsystem or instrument will appear in the ‘Selection Filter’ window, AM1_CDH AM1_EPS	

63.	Select the desired mnemonics. 1. Click on ‘AM1_CDH’ from the ‘Selection Filter’ list. Wait for the mnemonics to show in the box under ‘Available Parameters’. 2. Click on ‘CDH_BR_SFEALPCMDREJ’ from the ‘Available Parameters’ list. 3. Click on the arrow button ‘→’. 4. Repeat items 1 and 2 of this procedure for the following: CDH_BR_ SFEBLPCMDREJ CDH_BR_SSR1_HKDIS and 22 more mnemonics of your choice. Click on the ‘OK’.	The mnemonics are selected for the table.	
64.	Deselect the mnemonics. 1. Click on the ‘Add’ button from the ‘Display Item Data Sources’ window. 2. Click on the ‘←All’ button. 3. Click on ‘AM1_CDH’. 4. Wait for the ‘Available Parameters’ box to return.	1. The ‘←All’ button will move the selected mnemonics back to the ‘Available Parameters’ list. ***2.*** The mnemonics will disappear from the ‘Available Parameters’ box. The ‘Available Parameters’ box will be empty	

65.	Select the desired mnemonics. 1. Click on 'AM1_EPS' from the 'Selection Filter' list. Wait for the mnemonics to show in the box under 'Available Parameters'. 2. Click on 'EPS_IR_PDU_EPC_INPA' from the 'Available Parameters' box. 3. Click on the arrow button '→'. 4. Repeat items 1 and 2 of this step for the following: EPS_IR_PDU_EPC_INPB EPS_VR_ADE_EPCA and 22 more mnemonics of your choice. Click on the 'OK'.	The mnemonics are selected for the table. There will be 50 mnemonic parameters in the table.	
66.	From the 'Display Item Format' window select the table 'Title and Mnemonic/Descriptor' 1. Click inside the 'Title' box and enter; '**FUI_2110B**'. 2. Ensure the 'Mnemonic' box is depressed. 3. Click on 'Apply'.	The mnemonic will be displayed.	
67.	***Save Table as 'file' and Build Table to System***	***Information only***	

68.	From the 'Display Builder Palette' window; 1. Click on 'File'. 2. Click on 'Save As'. 3. Click on 'System'. Click inside the 'Selection' box and type; **/fosb/test/AM1/displaydefs/FUI_2110B_Tabl e** 4. Click on 'OK'. 5. Click on 'File'. 6. Click on 'Build to CM'.	The table will be saved to targeted directory. The table will be built to the System. ***Console Window message:*** *Saving /fosb/test/AM1/displaydefs/FUI_2110B_Table* *Done.* *Invoked Build to CM executable* *Build to CM complete.*	
69.	***Save Table as 'file' and Build Table to Local***	***Information only***	

70.	From the 'Display Builder Palette' window; 1. Click on 'File'. 2. Click on 'Save As'. 3. Click on 'Local'. 4. Click inside the 'Selection' box and type; '/home/fostest1/pages/FUI_2110B_Table' 5. Click on 'OK'. 6. Click on 'File'. 7. Click on 'Build to Local'. 8. Click on 'File'. 9. Click on 'Quit'.	The table will be saved to targeted directory. The table will be built to Local machine ***Console Window message:*** *Saving /home/fostest1/pages/FUI_2110B_Table* *Done.* *Invoked Build to Local executable* *Build to Local complete.* Display Builder windows will disappear.	
71.	Recall table. 1. From the 'Control Window' click on 'Tlm Wins'. 2. Click on the file name 'FUI_2110B_Table' 3. Click on 'OK'.	The table will appear.	
72.	***Initiate the Packet Generator (packGen)***	***Information only***	

73.	Open a X-Term window, at the UNIX prompt type; 1. % **cd /fosb/test/AM1/scripts/setup** or use alias **test** 2. % **setenv SCRIPT UserStation** **3.** % **source PackGenEnvVars** **4.** % cd **/fosb/test/AM1/bin/sun_sparc_5-5** or use alias **bin** **5.** % **packGen** a. Valid data type = **am1-hk** b. IP address = **225.2.7.00** c. Port number = **20001** d. Number of packets = **-1** (infinite) e. packet delay = **3000** f. Return	Packet Generator is running and the Table is updating. The table should have 50 mnemonic parameters updating with values.	
74.	From a UNIX prompt, stop 'PackGen' by executing '**cntl C**'.	PackGen has terminated.	
75.	***Edit Table***	***Information Only***	

76.	From the 'Display Builder Palette' window; 1. Click on 'File' 2. Click on 'Open' 3. Click on 'Local'. 4. Click inside the 'Selection' box and type; '/home/fostest1/pages/FUI_2110B_Table' 5. Click on 'OK'. 6. Click inside the graph boundaries to see the legend and access the windows.	The table and the Display Builder windows will appear.	
77.	From the 'Display Item Format' window select the table 'Title and Mnemonic/Descriptor' 1. Depress the 'Descriptor' box. ***2.*** Click on 'OK'.	The descriptor will be displayed.	
78.	***Save Table as 'file' and Build Table to Local***	***Information only***	

79.	From the 'Display Builder Palette' window; 1. Click on 'File'. 2. Click on 'Save As'. 3. Click on 'Local'. 4. Click inside the 'Selection' box and type; '/home/fostest1/pages/FUI_2110B_Table2' 5. Click on 'OK'. 6. Click on 'File'. 7. Click on 'Build to Local'. 8. Click on 'File'. 9. Click on 'Quit'.	Table will be saved to targeted directory. Table will be built to Local machine ***Console Window message:*** *Saving /home/fostest1/pages/FUI_2110B_Table2* *Done.* *Invoked Build to Local executable* *Build to Local complete.* Display Builder windows will disappear.	
80.	Recall table. 1. From the 'Control Window' click on 'Tlm Wins'. 2. Click on the file name 'FUI_2110B_Table2' 3. Click on 'Apply'.	The table will appear.	
81.	***Initiate the Packet Generator (packGen)***	***Information only***	

82.	1. Open a X-Term window, at the UNIX prompt type; 2. % **cd /fosb/test/AM1/scripts/setup** or use alias **test** 3. % **setenv SCRIPT UserStation** **4.** % **source PackGenEnvVars** **5.** % cd **/fosb/test/AM1/bin/sun_sparc_5-5** or use alias **bin** **6.** % **packGen** Valid data type = **am1-hk** IP address = **225.2.7.00** Port number = **20001** Number of packets = **-1** (infinite) packet delay = **3000** Return	Packet Generator is running and the Table is updating. The table will update with 50 descriptor parameters.	
83.	From a UNIX prompt, stop 'PackGen' by executing '**cntl C**'.	PackGen is terminated.	

1.	**<u>FOS Server and User Station Shutdown</u>**	(No expected result/output; information only)	
2.	**<u>Delete String 101</u>** Disconnect from String 101. Enter the following ECL directive: ECL> **STRING DISCONNECT STRING=101**	The following event messages appear: 'User successfully disconnected from String 101'	
3.	Delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Active processing for String 101 was deleted.'	
4.	**Real-Time Server Shutdown test follows**	(No expected result/output; information only)	
5.	User Station #1 -- Terminate the processes on the Real-Time Server by entering the following in cmdtool window #4: %: **MyKill** *(Wait for MyKill completion)*	User Station #1 -- MyKill is complete when a UNIX prompt is received from the Real-Time Server	

6.	User Station #1 -- In cmdtool window #4, view the processes on this server by entering the following: %: **ps -ea** Scan the resulting display for any FOS processes that might remain from the current session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...', '/fosb/test/AM1/bin/sun_sparc...', or 'TlmArchiver'.) (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this server by entering the following once again: %: **ps -ea**	User Station #1 -- There are no FOS processes on this server.	
7.	User Station #1 -- Remove all endpoints on this server that still remain from the current session by entering the following in cmdtool window #4: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **rm.sh**	User Station #1 -- The message '(0 rows affected)' appears, indicating there are no endpoints on this server.	

8.	User Station #1 -- Exit from the Real-Time Server by entering the following in cmdtool windows #3 & #4. %: **exit**	User Station #1 -- A UNIX prompt is received from the User Station	
9.	User Station #1 -- Close cmdtool windows #3 & #4 by entering the following in these cmdtool windows. %: **exit**	User Station #1 -- The cmdtool windows close	
10.	**User Station Shutdown test follows**	(No expected result/output; information only)	
11.	Terminate the processes on the User Station by entering the following in a cmdtool window: %: **MyKill** *(Wait for MyKill completion)*	MyKill is complete when a UNIX prompt is received from the User Station	

12.	In a cmdtool window, view the processes on this user station by entering the following: %: **ps -ax** Scan the resulting display for any FOS processes that might have remained from the previous session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...' or '/fosb/test/AM1/bin/sun_sparc...'.) (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this User Station by entering the following once again: %: **ps -ax**	There are no FOS processes on this User Station.	
13.	Remove all endpoints on this User Station that still remain from the current session by entering the following in a cmdtool window: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **rm.sh**	The message '(0 rows affected)' appears, indicating there are no endpoints on this User Station.	
14.	Close all cmdtool windows by entering the following in these cmdtool windows. %: **exit**	The cmdtool windows close.	

15.	Terminate this session by using the right mouse button to click on 'Exit'	The user session terminates and a 'login' prompt appears.	
16.	**Data Server Shutdown test follows**	(No expected result/output; information only)	
17.	User Station #1 -- Terminate all processes on the Data Server by entering the following in cmdtool window #2: %: **MyKill** *(Wait for MyKill completion)*	User Station #1 -- MyKill is complete when a UNIX prompt is received from the Data Server	
18.	User Station #1 -- In cmdtool window #2, view the processes on this server by entering the following: %: **ps -ea** Scan the resulting display for any FOS processes that might remain from the current session. If processes remain, terminate them unconditionally by entering the following: %: **kill -9 <processid ... processid>** (Note: FOS processes begin with 'FxXx...', '/fosb/test/AM1/bin/sun_sparc...', or 'TlmArchiver'.) (Note: Execute all 'kill' commands on the higher-numbered processes first.) Double-check the list of processes on this server by entering the following once again: %: **ps -ea**	User Station #1 -- There are no FOS processes on this server	

19.	User Station #1 -- Remove all endpoints, on this server and the entire system, that still remain from the current session by entering the following in cmdtool window #2: %: **cd /fosb/test/am1/scripts/setup (test** is alias) %: **rm_all.sh** %: **rm_all.sh**	User Station #1 -- The message '(0 rows affected)' appears, indicating there are no endpoints on the system.	
20.	User Station #1 -- Exit from the Data Server by entering the following in cmdtool windows #1 & #2: %: **exit**	User Station #1 -- A UNIX prompt is received from the User Station	
21.	User Station #1 -- Close all cmdtool windows by entering the following in these cmdtool windows. %: **exit**	User Station #1 -- The cmdtool windows close	
22.	User Station #1 -- Terminate this session by using the right mouse button to click on 'Exit'	User Station #1 -- The user session terminates and a 'login' prompt appears.	
23.	End of test.		

TLM-2020B Decom - Context Dependent Telemetry

Test Case No.: TLM 2020B

Test Configuration: See Appendix G

Test Support: Telemetry packet driver "packGen" supporting multiple APIDs, valid sequence counts, packet length, time stamp and telemetry data values. Previously defined alphanumeric display page "Context", which includes all test and context key mnemonics. Housekeeping telemetry mnemonics defined in the I&T database with offsets matching those output by the telemetry data driver; test mnemonic TBS(1) contains 16 pre-defined switch ranges based on its key mnemonic TBS(2). Test mnemonic TBS(3) contains switch ranges based on a derived mnemonic (TBS(4)) value. A predefined value file that is used by the Telemetry packet generator to input raw values for each test mnemonic and its representative key/derived parameter calculation.

Test Case Description:

This test is designed to verify the ability of the FOS to automatically compute values of specified mnemonics based on context key mnemonics, whether the key be a discrete mnemonic key or derived parameter mnemonic.

Following sign-on, an alphanumeric telemetry page which includes EU conversion values for mnemonics and their context keys (both discrete and derived parameter keys) is invoked at the user station. The telemetry data driver is initiated, broadcasting housekeeping telemetry onto the FOS LAN in the form of EDUs. As telemetry packets are received and the telemetry information decommutated, telemetry displays are viewed and snapped at specified times. These specified times coincide with EU changes initiated by the telemetry packet generator for specified mnemonic keys. Steps are then provided to ensure that when context keys are static or marked with bad quality, the output value of associated mnemonics are also marked as static.

Success Criteria:

This test is considered successful when all EU converted values as shown on the display page match EU values from specified EU algorithm information when the context key value is applied, for both discrete parameters and derived parameter input. All context-associated mnemonics providing input to EU specifications, when marked as bad quality or static, result in static condition for the output mnemonics.

Step Id	Action	Expected Result/Output	Pass/ Fail

1.	Log onto an EOC workstation. Start the Data Server. Reference Test Case SYS2000B -- FOS Server Startup.	Data Server processes are running.	
2.	Start the Real-Time Server. Reference Test Case SYS2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	Log onto an FOT User Station. Start the User Station. Reference Test Case SYS2010B -- User Station Startup and Authentication.	The FOT User Station is running and the 'Control Window' is displayed.	
4.	Bring up the Event Display. Select 'Event_Display' from the control window tools menu.	The 'Event Display' is up on the FOT User Station.	
5.	At user station fose8oe, connect to a real-time operational string, take ground control and display the "Context" display page: ECL> **STRING CONNECT** **STRING=100** **CONFIG=MIRROR** ECL> **TAKE GROUNDCONTROL** **STRING=100** ECL> **P Context**	Verify the following messages appear in the Event Display window: "Successfully connected to string 100". "Workstation fose8oe Given Ground control Authority" Verify the Context alphanumeric display appears at the user station and the following are displayed: Mnemonic TBS(1) and its context key TBS(2). Mnemonic TBS(3) and its context derived parameter key TBS(4) and SDU_PACKET_SEQ.	

6.	**<u>EU based on Context Key:</u>** At the real-time server, invoke the EDOS telemetry driver for the multicast of Housekeeping telemetry packets for processing. a. In a new terminal window, enter the following: %: **cd /fos/test/am1/scripts/setup** %: **source packGenEnvVars** %:**cd/fos/test/am1/bin/sun_sparc_5-5** %: p**ackGen** Enter tlm type: **am1-hk** At the packGen prompt enter the following: IP address = **225.2.7.00** Port number = **20000** Number of packets to send: **-1** Packet delay in milliseconds: **8000** Note: The file used by the packet generator will change the value of mnemonic TBS(1)'s context key (mnemonic TBS(2)), every major cycle, beginning with packet number **TBS.**	Verify (after one master cycle) that each mnemonic's "NODATA" and "STATIC" flag indicators no longer appear on any of the display pages and that the mnemonics are marked as active.	

7.	View the "Context" page and when packet TBS is received, snap the telemetry page by entering the following inside a terminal window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis to ensure the proper calculation of the EU value based on its context key. See table TLM2020B-1.	
8.	Repeat step 9 for fifteen more iterations (i.e. every major cycle following the receipt of packet TBS). Note: the context key TBS(2) changes value each major cycle, causing TBS(1)'s equation value to change.	The snaps are printed at the system printer. Collect the printouts for off-line analysis to ensure the proper calculations of the EU value of mnemonic TBS(1) based on context key TBS(2). See Table TLM2020B-1.	
9.	**<u>EU based on Context Key of Derived Parameter:</u>** The selected packet generator file will change the value of mnemonic TBS(3)'s EU context keyed derived parameter (TBS(4)) every master cycle starting at packet number **TBS**, but will keep mnemonic TBS(3) at a constant raw value setting. View the "Context" page and when packet TBS is received, snap the telemetry page by entering the following inside a terminal window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis to ensure the proper calculation of mnemonic TBS(3) based on its context key TBS(4). See table TLM2020B-2.	
10.	Repeat step 11 two more iterations (i.e. every major cycle following the receipt of packet TBS). Note: the derived parameter key result change should result in an EU value change for mnemonic TBS(3) each major cycle, beginning with packet number **TBS.**	The snaps are printed at the system printer. Collect the printouts for off-line analysis to ensure the proper calculations of the EU value of mnemonic TBS(3) based on its derived input of TBS(4). See Table TLM2020B-2.	

11.	**<u>Context Dependency for Bad Quality Key:</u>** Note: The packGenHKValues file will cause bad quality conditions for all mnemonics TBS(1)-TBS(4). Note: The selected packet generator file will change the value of mnemonic TBS(1)'s EU context key TBS(2) every master cycle starting at packet number **TBS**.		
12.	View the Event Display page	Verify that event message TBD is displayed stating sequence error detection.	
13.	View the "Context" page and when packet TBS is received, snap the telemetry page by entering the following inside a terminal window: %: **snap**	The snap is printed at the system printer. Verify that all mnemonics are flagged with the Static and Questionable Quality indicators.	
14.	Repeat step 18 two more iterations (i.e. every major cycle following the receipt of packet TBS). Note: the derived parameter key result change should result in an EU value change for mnemonic TBS(3) each major cycle, beginning with packet number **TBS.**	The snaps are printed at the system printer. Verify that mnemonics TBS(1) and TBS(3) are constant for each snap iteration (i.e. calculation is not performed due to questionable quality data).	

15.	**<u>Context Dependency - Static Key:</u>** Note: FREQ file set to skip packet TBS, which causes a STATIC condition for mnemonic TBS(1)'s context key (TBS(2)). Note: The selected packet generator file will change the value of mnemonic TBS(1)'s EU context key TBS(2) every master cycle starting at packet number **TBS**. View the Event Display page	Verify that event message TBS event message is displayed stating missing packet.	
16.	View the "Context" page and when packet TBS is received, snap the telemetry page by entering the following inside a terminal window: %: **snap**	The snap is printed at the system printer. Verify that mnemonics TBS(1) and TBS(2) are flagged with the Static indicators.	
17.	Repeat step 23 two more iterations (i.e. every major cycle following the receipt of packet TBS).	The snaps are printed at the system printer. Verify that mnemonics TBS(1) and TBS(3) remain flagged as STATIC and values on the display for these mnemonics do not change.	
18.	Stop the telemetry driver by entering CTRL-C in the telemetry driver windows.		
19.	Log off User Station.		
20.	End of test.		

TABLE TLM2020B-1

TBS(2) Key Value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
TBS(1)EU Value	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS	TBS

TABLE TLM2020B-2

TBS(4) Key Value	TBS	TBS	TBS
TBS(3) EU Value	TBS	TBS	TBS

TLM 2060B - Derived Parameter Processing

Test Case No.: TLM-2060B

Test Configuration: See Appendix G

Test Support: Telemetry packet driver "packGen" supporting multiple APIDs, valid sequence counts, packet length, time stamp and telemetry data values. Previously defined alphanumeric display pages "Header" and "DRParm". Housekeeping telemetry mnemonics defined in the I&T database with offsets matching those output by the telemetry data driver. Fifty-five (55) derived parameters (TBS(1)…..TBS(55) and TBS(A)….TBS(G) which are defined using arithmetic operators (addition, subtraction, negation, multiplication, division, sine, arcsine, cosine, arccosine, tangent, and arctangent).

Test Description:

This test is designed to verify the FOS's capability of processing spacecraft/instrument Housekeeping data via special computations using predefined algorithms. These simple calculations will be done via derived parameters. Derived parameters are built by combining existing parameters via arithmetic or logical functions. It will be possible to use predefined analog, discrete, constant, or other derived values as a source to build a new derived parameter.

Following sign-on, alphanumeric telemetry pages which include parameter and associated parameter Decom value displays are invoked at the user station. The telemetry data driver is initiated, broadcasting Housekeeping telemetry onto the FOS LAN in the form of EDU's. As telemetry packets are received and the telemetry information decommutated, telemetry displays are viewed and snapped at specified times. Parameter values residing on alphanumeric displays are analyzed post-test to ensure derived parameter values match scripted values for specific mnemonics.

Success Criteria:

The test is considered successful when all Housekeeping mnemonics are decommutated and calculated as specified and match data driven values; values as seen on multiple user stations match data driven values; and static and NODATA flags are disabled from alphanumeric telemetry displays upon active data periods.

Step Id	Action	Expected Result/Output	Pass/ Fail

1.	Log onto an EOC workstation. Start the Data Server. Reference Test Case SYS2000B -- FOS Server Startup.	Data Server processes are running.	
2.	Start the Real-Time Server. Reference Test Case SYS2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	Log onto an FOT User Station. Start the User Station. Reference Test Case SYS2010B -- User Station Startup and Authentication.	The FOT User Station is running and the 'Control Window' is displayed.	
4.	Bring up the Event Display. Select 'Event_Display' from the control window tools menu.	The 'Event Display' is up on the FOT User Station.	
5.	Connect to a real-time operational string, to accept Health & Safety data, by entering the following in the ECL directive line of the Control window: ECL>**STRING CONNECT STRING=100 CONFIG= MIRROR** ECL>**TAKE GROUNDCONTROL STRING=100**	The following message will appear in the Event Display window: **"**Successfully connected to string 100".	

6.	At the user station, display the EDU Header and "DRParm" alphanumeric pages which displays telemetry header field values by entering the following: ECL>**P Header** ECL>**P DRParm**	Verify the Header window appears at the user station and contains the following fields: Mnemonic descriptors Static flags for all descriptors NODATA flags for all descriptors Spacecraft time (SDU_SCTIME) Data source (spacecraft ID) (EDS_SCID) Quality indicator (EDS_QUALITY) APID number (SDU_PCKT_APID) Packet sequence count SDU_PACKET_SEQ) Packet length count (SDU_PCKT_LENGTH) CCSDC Version (SDU_CCSDS_VER) Verify the "DRParm" display appears at the user station and contains the following: Mnemonics TBS(1)…..TBS(7) Mnemonics TBS(A)….TBS(G)	
7.	Disable the limit notification messages for all parameters by entering the following in the ECL directive line of the Control window: ECL> **LIMITS ALL MESSAGE=OFF**	A message TBS will appear in the Event Display window stating that all limit messages have been turned off.	

8.	Invoke the EDOS telemetry driver for the multicast of Housekeeping telemetry packets for processing. In a new terminal window, enter the following: %: **cd /fos/test/am1/scripts/setup** %: **source A2tlmEnvVars** %: **cd /fos/test/am1/bin/sun_sparc_5-5** %: **A2tlm** Enter tlm type: **am1-hk** At the A2tlm prompt enter the following: IP address = **224.2.7.20** Port number = **20000** Number of packets to send: **-1** Packet delay in milliseconds: **8000**	Verify that the following message appears on the screen: "%s Decom: Ready to receive telemetry packets." Verify that telemetry begins to flow.	
9.	View the real-time server and when packet V is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	All mnemonics will be marked "NODATA" and "STATIC" flag indicators will appear the display page.	

10.	View the real-time server and when packet W is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis. Mnemonics TBS(1), TBS(3), TBS(4) and TBS(F)'s "NODATA" and "STATIC" flag indicators no longer appear on the "DRParm" display page and the mnemonics are marked as active. All other mnemonics TBS(2), TBS(5), TBS(6), TBS(7), TBS(A), TBS(B), TBS(C), TBS (D), will be marked "NODATA" and "STATIC" flag indicators will appear the display page.	
11.	View the real-time server and when packet X is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis. The Housekeeping mnemonics TBS(5), TBS(6), TBS(7), TBS(B), and TBS(C)'s "NODATA" or "STATIC" flag indicators no longer appear on the display page and the mnemonics are marked as active. The Housekeeping mnemonics TBS(2), TBS(A), TBS(D), TBS(E) and TBS(G)'s "NODATA" and "STATIC" flag indicators will still appear on the display page.	
12.	View the real-time server and when packet Y is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis. All Housekeeping mnemonics "NODATA" or "STATIC" flag indicators no longer appear on the display page and all mnemonics are marked as active.	

13.	View the real-time server and when packet Z is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
14.	Via offline analysis, verify that mnemonics SDU_SCTIME, EDS_SCID, EDS_QUALITY, SDU_PCKT_APID, SDU_PCKT_LENGTH, SDU_CCSDS_VER, and SDU_PACKET_SEQ as shown on screen snaps of the user station match values specified in Table TLM2060B-1.	The mnemonics, as shown on the screen snaps of the user station, will match the values specified in Table TLM2060B-1.	
15.	Via offline analysis, verify that the Housekeeping telemetry mnemonics, as shown on screen snaps of the user station, match values specified in Table TLM2060B-1.	The Health & Safety telemetry mnemonic TBS(2), as shown on screen snaps of the user station, will match values specified in Table TLM2060B-1.	
16.	**<u>Disabling of Derived Processing</u>** Disable the derived parameter processing by entering the following in the ECL directive line of the Control window: ECL> **DERIVED TBS(F)=0**	A message TBS will appear in the Event Display window stating that derived parameter processing for mnemonic TBS(F) has been disabled.	
17.	View the real-time server and when packet V is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	

18.	View the real-time server and when packet W is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
19.	View the real-time server and when packet X is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
20.	View the real-time server and when packet Y is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
21.	View the real-time server and when packet Z is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
22.	Via offline analysis, verify that mnemonics SDU_SCTIME, EDS_SCID, EDS_QUALITY, SDU_PCKT_APID, SDU_PCKT_LENGTH, SDU_CCSDS_VER, and SDU_PACKET_SEQ as shown on screen snaps of the user station match values specified in Table TLM2060B-2.	The mnemonics, as shown on the screen snaps of the user station, will match the values specified in Table TLM2060B-2.	

23.	Via offline analysis, verify that the Housekeeping telemetry mnemonics, as shown on screen snaps of the user station, match values specified in Table TLM2060B-2.	The Health & Safety telemetry mnemonic TBS(2), as shown on screen snaps of the user station, will match values specified in Table TLM2060B-2.	
24.	**<u>Derived Processing Interval Adjustment</u>** Adjust the evaluation/update rate of mnemonic TBS(F) by entering the following in the ECL directive line of the Control window: ECL> **DERIVED TBS(F)=30**	A message TBS will appear in the Event Display window stating that interval for derived parameter re-evaluation for mnemonic TBS(F) has been set to 30 seconds.	
25.	View the real-time server and when packet W is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
26.	View the real-time server and when packet X is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
27.	View the real-time server and when packet Y is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	

28.	View the real-time server and when packet Z is sent, snap the telemetry page DRParm at the user station by entering the following inside the console window: %: **snap**	The snap is printed at the system printer. Collect the printout for off-line analysis.	
29.	Via offline analysis, verify that mnemonics SDU_SCTIME, EDS_SCID, EDS_QUALITY, SDU_PCKT_APID, SDU_PCKT_LENGTH, SDU_CCSDS_VER, and SDU_PACKET_SEQ as shown on screen snaps of the user station match values specified in Table TLM2060B-3.	The mnemonics, as shown on the screen snaps of the user station, will match the values specified in Table TLM2060B-3.	
30.	Via offline analysis, verify that the Housekeeping telemetry mnemonics TBS(1), TBS(4), and TBS(F), as shown on screen snaps of the user station, match values specified in Table TLM2060B-3.	The Health & Safety telemetry mnemonic TBS(2), as shown on screen snaps of the user station, will match values specified in Table TLM2060B-3.	
31.	Attempt to adjust the evaluation/update rate of mnemonic TBS(F) to less than (1) spacecraft clock second by entering the following in the ECL directive line of the Control window: ECL> **DERIVED TBS(F)=.5**	An event message TBS appears on the Event display window stating that (.5) is not a valid interval value.	
32.	Exit the telemetry driver by entering CTRL-C in the console window where the Telemetry driver was running.		
33.	Log off the user station(s).		

CONT-2030B-SSR Monitoring

Test Case No.: CONT- 2030B

Test Configuration: See Appendix G

Test Support: Telemetry Simulator, FtPgPackGen, for generating AM-1 Housekeeping telemetry packets, UPD simulator, upd and RcmClient, for simulating messages from the NCC. RT Works to display SSR Buffer Management. Resource Model, SSR Updater, Communication Contact Scheduler, Timeline, and General Scheduler for test preparation.

Test Case Description: This test is designed to show that the AM-1 Solid State Recorder (SSR) buffers can be monitored in real-time by the SSR Manager. The SSR Manager will detect and handle RF failures, via UPD messages that report the status of the buffers at the end of each contact. That notification will be provided when a user attempts to schedule science data collection activities that cause an overflow of any of the SSR buffers. In addition, S/C data volume will be monitored by the planning and scheduling software along with predictions of the SSR buffer status based on science collection activities. It is designed to show that the capability exists to change the SSR buffer playback order of the science data instruments. SSR Manager shall provide an analysis window that contains buffer pointers, buffer status, playback state and RF failures.

Following sign-on, The system will be brought up. The AM-1 Telemetry, the UPD data will be started to run on the system. As the different segments of the data pass through the system, requirements will be verified by the displays and expected behavior of the system. The system will then be brought down.

Success Criteria: This test is considered successful when the SSR Manager has the capability to:

- monitor the SSR buffer status in real-time, detect RF failures, and report the state for such failures
- report and verify the status of the SSR buffer at the end of each contact
- accept NCC User Performance Data (UPD) and
- recommend recovery procedures to correct for and RF link faults
- display updated SSR buffer status
- change the SSR buffer playback order of the science data instruments
- display a window that contains buffer pointers, buffer status, playback state, and RF failures

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	Log in to an EOC user station, using the UNIX login procedure, by entering a valid User Name and Password: Username: **fostest2** Password: XXXXXX	The login is accepted and a blank desktop area appears.	
2.	Start the Data Server. Reference Test Case SYS2000B—FOS Server Startup	Data Server Processes are running.	
3.	Start the Real-Time Server. Reference Test Case SYS2000B—FOS Server Startup	Real-Time Server Processes are running.	

4.	Start the User Station. Reference Test Case SYS2010B—User Station Startup and Authentication.	The FOT User Station is running and the 'Control Window' is displayed.	
5.	Invoke the Event Display by selecting Event Display Global from the tools menu. *(Wait for completion of Real-Time Server startup script before going to the next step.)*	The Event Display window appears on the EOC user station Real-Time Server startup script is complete when the following message appears on the Event Display: 'String 100 was created'	
6.	Connect to the default real-time operational string by entering the following in the ECL directive line of the Control Window: ECL>**STRING CONNECT STRING=100** **CONFIG=MIRROR** *(Wait for string connection to complete before going to the next step)*	The following event message appears within several minutes of entering the 'CONNECT' directive: 'Successfully connected to String 100'	
7.	Take groundcontrol and command control by entering the ECL directives: ECL>**TAKE COMMAND STRING=100** ECL>**TAKE GROUNDCONTROL STRING=100**		
8.	Request NCC UPD messages from the upd simulator by entering the following directive: ECL>**NCC UPD ENABLE**	The UPD driver does not send UPDs until both the Enable directive and UPD driver configuration is performed. UPD driver configuration will performed in step 23.	
9.	Open the Master Plan using FPTlTimeline.	Open the Master Plan for a whole day.	

10.	Arrange the resources displayed on the timeline in order to aid test execution. Specifically, display TDRS In-View periods, AM1 Communications resource, K-Band Downlink resource, AM1 SSR resource along with SSR buffers.		
11.	Define activity for K-band down-link. From the Activity Definer tool select <file>, <new>, enter an activity name, select appropriate resource <AM1 K-Band SA Downlink>, select <OK>, select <Modify> and enter 'S00' for the NCC CODE. Save the activity.	An event message will be displayed stating the new activity was successfully created.	
12.	Define an activity for AM1 Communications. From the Activity Definer tool select <file>, <new>, enter an activity name, select appropriate resource <AM1 Communications>, select <OK>, select <Modify - Complex Activity>, choose <Resource Selection> and select activity defined in step 11. Set Start and Stop Times to +15 and -15 seconds, respectively. Click <Add> and <Ok>. Select <Modify> and enter 'S01' for the NCC CODE. Save the activity.	An event message will be displayed stating the new activity was successfully created.	
13.	Define activities to place Science Instruments in Data Collection Mode. From the Activity Definer tool select <file>, <new>, enter an activity name, select appropriate resource (e.g. AM1 MODIS Formatter),	An event message will be displayed stating the new activity was successfully created.	

14.	Using the FpGsGeneralScheduler, schedule the activities from step 13, which will cause a buffer overflow. Save the Master Plan.	Make sure the activity schedules will make the SSR Buffer overflow.	
15.	Verify that the resource model recalculates the predicted buffer volumes and displays the changes on the timeline. Verify that the timeline turns color to indicate the buffer overflow condition. Use FpRmResourceModel and FpTlTimeline.	This demonstrates the ability of the software to notify the user when he attempts to schedule science data collection activities that cause overflow of any of the buffers.	
16.	Using the Communications Contact Scheduler, schedule 7 contact sessions. Save the Master Plan.		
17.	Verify that the resource model recalculates the predicted buffer volumes and displays the changes reflecting SSR Buffer Playback activities on the timeline.		
18.	Start RTworks dataserver using the ECL directive: ECL>**EA ENABLE STRING=100**	This steps starts a dataserver which provides the link for passing data between the FOS Applications and the RTworks Application.	
19.	From the FUI Environment Control window. Select Tools, select SSR Display and then select ssr_top Verify that the SSR monitor pages are displayed.		
20.	From an Xterm window run the SSRStartUp script out of scripts directory.	This starts the SSR Manager.	
21.	Verify receipt of buffer predicts from PAS, SSR Updater.	This can be verified through SSR Manager's display window.	
22.	Verify the SSR Dump Command request is created and sent to the FUI command request window.	This will occur before AOS is scheduled. Currently this time is set to 30 seconds.	

23.	Look at thecommand requests.		
24.	At AOS start the UPD simulator. See RcmClient usage instructions.	Use nominal data in TABLE CONT-2030B-2 column 1.	
25.	At AOS start sending simulated AM1 HK data using FtPgPackGen. See FtPgPackGen usage instructions.	Use mnemonics in TABLE CONT-2030B-1 column1. This nominal data with no errors.	
26.	Send the first SSR Buffer Dump Command request be clicking the 'SEND' button on the FUI Command Request Window.		
27.	Using FtPgPackGen, adjust telemetry mnemonic values to simulate the dumping of this SSR Buffer.	See FtPgPackGen usage instructions for details on how to perform this step. The mnemonic to be adjusted is TBD and should take values in the range of nn to mm. This will be determined at run-time, by examining the buffer dump requests.	
28.	View the RTworks display page.	All readings should be nominal for this case. Verify that the SSR Manager has a display that contains buffer pointers, buffer status, playback state, information about RF failures and information about recovery from data dropout.	
29.	Upon completion of the first Buffer Dump Command request, send the second request.		
30.	Using FtPgPackGen, adjust telemetry mnemonic values to simulate the dumping of this SSR Buffer.	See FtPgPackGen usage instructions for details on how to perform this step. The mnemonic to be adjusted is TBD and should take values in the range of nn to mm. This will be determined at run-time, by examining the buffer dump requests.	

31.	View the RT Works display page.	All readings should be nominal for this buffer playback. Verify that the SSR Manager has a display that contains buffer pointers, buffer status, playback state, information about RF failures and information about recovery from data dropout.	
32.	Upon completion of the second Buffer Dump Command request, send the third request.		
33.	Using FtPgPackGen, adjust telemetry mnemonic values to simulate the dumping of this SSR Buffer.	See FtPgPackGen usage instructions for details on how to perform this step. The mnemonic to be adjusted is TBD and should take values in the range of nn to mm. This will be determined at run-time, by examining the buffer dump requests.	
34.	View the RT Works display page.	All readings should be nominal for this buffer playback.	
35.	Upon completion of the third Buffer Dump Command request, send the fourth request.		
36.	Using FtPgPackGen, adjust telemetry mnemonic values to simulate the dumping of this SSR Buffer.	See FtPgPackGen usage instructions for details on how to perform this step. The mnemonic to be adjusted is TBD and should take values in the range of nn to mm. This will be determined at run-time, by examining the buffer dump requests.	
37.	View the RT Works display page.	All readings should be nominal for this buffer playback.	
38.	Allow to continue till LOS.		
39.	Verify upon completion of the S/C contact SSR buffer actuals are sent to PAS.	SSR Updater will compare actuals to predicts.	

40.	Verify that SSR Updater makes a correction to the SSR Buffer graphs on Timelines.	This correction will be for the amount that the predicts differed from the actuals.	
41.	Leave the system up and verify that the SSR Management tool requests the buffer predicts for the next contact session and creates the SSR Dump Command Request.	This will occur prior to the AOS of the next AOS. Currently this time is set to 5 minutes.	
42.	Bring down the FtPgPackGen		
43.	Stop the flow of the NCC UPD messages by entering the following directive: ECL>**NCC UPD DISABLE**		
44.	Repeat steps 19 - 42 except use UPD data that indicates the RF link was broke. Use the UPD data in Table CONT-2030B-2 column 2.	The SSR monitor should indicate that there was an RF link failure and should provide a recovery procedure. The appropriate recovery procedure should be a message indicating that NCC UPD data detects a data dropout, the recommended recovery procedure is to contact the NCC to determine the cause of the problem..	
45.	Change the order of SSR Buffer playbacks by editing the following file: /net/data/giraffes/RTWORKS_SSR/bufferOrder.cfg		
46.	*Repeat steps 19 - 42.*	*Look at the command requests they should be changed from the first test. Take a snap to verify this. Snap is printed at system printer. Collect for off-line analysis.*	

TABLE CONT-2030B-1

Telemetry Mnemonics	Starting Value	Low Value	High Value	Status
CDH_NR_SSR1_LRSSSCNT	1	-	-	Static
CDH_NR_SSR1_MISSSCNT	16	-	-	Static
CDH_NR_SSR1_MODSSCNT	27	-	-	Static
CDH_NR_SSR1_ASTSSCNT	49	-	-	Static
CDH_NR_SSR1_TSHSSCNT	1	-	-	Static
CDH_NR_SSR1_SC0RECTR	0	0	516	Increasing
CDH_NR_SSR1_SC1RECTR	0	0	516	Increasing
CDH_NR_SSR1_SC2RECTR	0	0	8256	Increasing
CDH_NR_SSR1_SC3RECTR	0	0	13932	Increasing
CDH_NR_SSR1_SC4RECTR	0	0	25284	Increasing
CDH_NR_SSR1_SC0PBCTR	CDH_NR_SSR1_SC0RECTR	0	516	Decreasing
CDH_NR_SSR1_SC1PBCTR	CDH_NR_SSR1_SC1RECTR	0	516	Decreasing
CDH_NR_SSR1_SC2PBCTR	CDH_NR_SSR1_SC2RECTR	0	8256	Decreasing
CDH_NR_SSR1_SC3PBCTR	CDH_NR_SSR1_SC3RECTR	0	13932	Decreasing

Telemetry Mnemonics	Starting Value	Low Value	High Value	Status
CDH_NR_SSR1_SC4PBCTR	CDH_NR_SSR1_SC4RECTR	0	25284	Decreasing
CDH_BR_SSR1_SCPB	0	0	1	Toggled

Notes: The RECTR mnemonics are the recording buffers, they will increase at a slow rate throughout the SCS, but they will be reset to 0 at the beginning of the specific buffer playback. The PBCTR mnemonics are the playback buffer counters, they will be stable at 0 until the specific buffer is dumped, at which point it will take on the value of the RECTR mnemonic and begin decreasing at a moderate rate. The SCPB mnemonic is to indicate playback, 0 = off 1=ongoing, this will change values appropriately during test execution

TABLE CONT- 2030B-3

UPD Mnemonics	Initial Value	AOS Value	LOS Value	Error Value
UPD_K2_STATUS	2	0	2	
UPD_K2_DATA_VALIDITY	0	0	0	
UPD_K2_I_LOCK	0	1	0	
UPD_K2_I_SIG	12345	12345	12345	
UPD_K2_Q_LOCK	0	1	0	
UPD_K2_Q_SIG	23456	23456	23456	
UPD_K2_I_SYN_LOCK	0	1	0	
UPD_K2_Q_SYN_LOCK	0	1	0	
UPD_K2_I_BER	0	1	0	

UPD Mnemonics	Initial Value	AOS Value	LOS Value	Error Value
UPD_K2_Q_BER	0	1	0	
UPD_S1_STATUS	2	0	2	
UPD_S1_DATA_VALIDITY	0	0	0	
UPD_S1_1_RCVR	0	1	0	
UPD_S1_1_SIG	12345	12345	12345	
UPD_S1_ILOCK	0	1	0	
UPD_S1_QLOCK	0	1	0	
UPD_S1_IBER	1	1	1	
UPD_S1_QBER	1	1	1	

Database Management via Web Pages Test Procedure

Test Case No: DBS-3100FPB

Test Configuration: See Appendix G

Test Support: A web browser (Netscape) and JAVA executables.

Test Description:

This test is designed to verify DMS provides the user with the capability to modify, add, or delete a command, telemetry, or event Project Database (PDB) definitions that reside in the FOS database.

Success Criteria:

The success of this test is based on the user's capability to edit FOS PDB definition files. Using the FOS Database Utility Web pages the user should be able to modify, add, or delete a command, telemetry, or event definition.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	Log onto an EOC workstation. Enter a user name and password.	username: password: A desktop appears with a xterm window	
2.	Initiate FOS Database Utilities (JAVA) through a web browser (Netscape). From the Unix prompt enter %**netscape**	The Netscape home is displayed.	

3.	Enter the following http address in the location text box: **http://elmyra.hitc.com/db_util/db_util_dba.html** and press “Enter”.	The FOS Database Utilities home page appears.	
4.	Select the “Database Access” option to modify, delete or add a Telemetry definition.	The FOS Database Edits web page appears.	
5.	Click the mouse on “PDB Telemetry Definitions”	The FOS Telemetry Parameters window appears.	
6.	Type “MOP_WEB_TST” in the Telemetry Mnemonic field. Click on the “Find” button. Click on the “Submit” button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in no match(es).	
7.	Close the Parameter Search Results window.	The window is closed.	

8.	**<u>Insertion of Parameters - Name/ID</u>** Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST1** Parameter Type: **A** Parameter ID: **30001** Description: **Web Page Test1** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST1 is HK/EU Converted.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
9.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

10.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST2** Parameter Type: **A** Parameter ID: **30002** Description: **Web Page Test2** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST2 is H&S with Red/Yellow Limits.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
11.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

12.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST3** Parameter Type: **A** Parameter ID: **30003** Description: **Web Page Test3** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST3 is Standby/EU Converted with Red/Yellow Limits.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
13.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window are empty.	

14.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST4** Parameter Type: **D** Parameter ID: **30004** Description: **Web Page Test4** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST4 is a is a Discrete mnemonic with 5 states.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
15.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

16.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST5** Parameter Type: **A** Parameter ID: **30005** Description: **Web Page Test4A** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST5 is a Mnemonic Used for Context Dependent mnemonics.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
17.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

18.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST5A** Parameter Type: **A** Parameter ID: **30006** Description: **Web Page Test4B** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST5A is a Context Dependent mnemonic.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
19.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

20.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST5B** Parameter Type: **A** Parameter ID: **30007** Description: **Web Page Test4C** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST5B is a Context Dependent mnemonic.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
21.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

22.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST5C** Parameter Type: **A** Parameter ID: **30008** Description: **Web Page Test4D** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST5C is a Context Dependent mnemonic.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
23.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	

24.	Enter the following data in the chosen fields in the FOS Telemetry Parameters window: Telemetry Mnemonic: **MOP_WEB_TST5D** Parameter Type: **A** Parameter ID: **30009** Description: **Web Page Test5** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button. **Note:** *Mnemonic MOP_WEB_TST5D is a context Dependent Mnemonic.*	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
25.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameters window.	All fields in the FOS Telemetry Parameters window will become blank.	
26.	In the FOS Telemetry Parameters window: Enter "**MOP_WEB"** in the Telemetry Mnemonic field Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 9 match(es). Verify the results for the mnemonic MOP_WEB_TST1, MOP_WEB_TST2, and MOP_WEB_TST3 match those in Table DBS2030-1.	
27.	In the Parameter Search Results window: Click the mouse on the Parameter "MOP_WEB_TST1".	The Mnemonic, and it's associated fields become highlighted.	

28.	Click the mouse on the “Parameter Location” in the Parameter Search Results window.	The FOS Telemetry Parameter Location window appears with the Telemetry Mnemonic and Parameter ID fields already completed.	
29.	**<u>Insertion of Parameters - Location</u>** In the FOS Telemetry Parameter Location window, enter the following: Application Process Identifier: **1** Cycle ID: **10** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **100** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the “Add” button. Click the mouse on the “Submit” button.	The event message *“Insert Complete”* will appear on the Info: line in the FOS Telemetry Parameters window.	

30.	Repeat the prior step with the following information: Application Process Identifier: **1** Cycle ID: **30** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **200** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
31.	Repeat the prior step with the following information: Application Process Identifier: **1** Cycle ID: **40** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **300** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	

32.	Repeat the prior step with the following information: Application Process Identifier: **1** Cycle ID: **50** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **400** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
33.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Location Information window. Close the Parameter Search Results window.	All fields in the FOS Telemetry Parameter Location Information window will become blank and the Parameter Search Results window is closed.	
34.	FOS Telemetry Parameter Location Information window: Enter "**MOP_WEB_TST1**" in the Telemetry Mnemonic field. Click the mouse on the "Find" button. Click the mouse on the "Submit" button	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 4 match(es). Verify the results for the mnemonic MOP_WEB_TST1, match those in Table DBS2030-2.	

35.	Close the Parameter Search Results window. Click the mouse on the “Clear Form” button in the FOS Telemetry Parameter Location Information window: To Update the mnemonic MOP_WEB_TST1, Enter the following information in the FOS Telemetry Parameter Location Information window: Application Process Identifier: **1** Cycle ID: **40** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **800** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the “Update” button. Click the mouse on the “Submit” button.	The Parameter Search Results window will close. The event message *“Update Complete”* will appear on the Info: line in the FOS Telemetry Parameters window.	

36.	Remove the mnemonic MOP_WEB_TST1 from telemetry packet 40 by entering the following in the FOS Telemetry Parameter Location Information window: Application Process Identifier: **1** Cycle ID: **10** Comp Size: **1** Parameter ID: **30001** Telemetry Instance: **1** Comp Number: **1** Packet Offset: **100** Delta Time: **2** Enter the specific password. (**fosops**) Click the mouse on the "Remove" button. Click the mouse on the "Submit" button.	The event message *"Removal Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
37.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Location Information window. Close the Parameter Search Results window.	All fields in the FOS Telemetry Parameter Location Information window will become blank and the Parameter Search Results window is closed.	

38.	Enter the following information in the FOS Telemetry Parameter Location Information window: Telemetry Mnemonic: **MOP_WEB_TST1** Parameter ID: **30001** Cycle ID: **10** Click the mouse on the "Find" button. Click the mouse on the "Submit" button	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 0 match(es).	
39.	Click the mouse on the "Cancel" button in the FOS Telemetry Parameter Location Information window. Close the Parameter Search Results window.	The FOS Telemetry Parameter Location Information and the Parameter Search Results windows are closed.	
40.	**<u>Limit Set Development</u>** FOS Telemetry Parameter Location Information window: Enter "**MOP_WEB_TST2**" in the Telemetry Mnemonic field. Click the mouse on the "Find" button. Click the mouse on the "Submit" button	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 0 match(es).	
41.	Close the Parameter Search Results window.	The Parameter Search Results window is closed.	

42.	In the Original Parameter Search Results window: Click the mouse on the Parameter "MOP_WEB_TST2".	The Mnemonic, and it's associated fields become highlighted.	
43.	Click the mouse on the "Red/Yellow Limits" button in the Parameter Search Results window.	The FOS Telemetry Parameter Red/Yellow Limits Information window appears with the Telemetry Parameter ID and Telemetry Mnemonic fields filled in with the information corresponding to MOP_WEB_TST2.	
44.	Click the mouse on the "Find" button in the Fos Telemetry Parameter Red/Yellow Limits Information window.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in no match(es).	
45.	Create a Red/Yellow Limit set for the mnemonic MOP_WEB_TST2 by entering the following in the FOS Telemetry Parameter Red/Yellow Limits information: Limit Set: **1** Dneu indicator: **UI** Red Low: **5** Yellow Low: **10** Yellow High: **15** Red High: **20** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
46.	Click the mouse on the "Clear Form" button.	All fields in the FOS Telemetry Parameter Location Information window will become blank.	

47.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Telemetry Parameter ID: **30002** Telemetry Mnemonic: **MOP_WEB_TST2** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 1 match(es). Verify the search results for the mnemonic MOP_WEB_TST2 Red/Yellow Limits Table DBS2030-4.	
48.	Close the Parameter Search Results window that contains the Red/Yellow Limit set for MOP_WEB_TST2.	The Parameter Search Results window is closed.	
49.	Create a second Red/Yellow Limit set for the mnemonic MOP_WEB_TST2 by entering the following in the FOS Telemetry Parameter Red/Yellow Limits information: Limit Set: **2** Dneu indicator: **UI** Red Low: **25** Yellow Low: **50** Yellow High: **75** Red High: **100** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	

50.	Create a Third Red/Yellow Limit set for the mnemonic MOP_WEB_TST2 by entering the following in the FOS Telemetry Parameter Red/Yellow Limits information: Limit Set: **2** Dneu indicator: **UI** Red Low: **25** Yellow Low: **50** Yellow High: **75** Red High: **100** Enter the specific password. (**fosops**) Click the mouse on the "Update" button. Click the mouse on the "Submit" button.	The event message *"Update Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
51.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Red/Yellow Limits Information window.	All fields in the FOS Telemetry Parameter Location Information window will become blank.	
52.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Telemetry Parameter ID: **30002** Telemetry Mnemonic: **MOP_WEB_TST2** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 1 match(es). Verify the search results for the mnemonic MOP_WEB_TST2 Red/Yellow Limits Table DBS2030-4A.	
53.	Click the mouse on the "Cancel" button in the Parameter Search Results window that contains the Red/Yellow Limit set for MOP_WEB_TST2.	The Parameter Search Results window is closed.	

54.	Delete the third Red/Yellow Limit set by entering the following in the FOS Telemetry Parameter Red/Yellow Limits Information: Telemetry Parameter ID: **30002** Telemetry Mnemonic: **MOP_WEB_TST2** Limit Set: **3** Enter the specific password. (**fosops**) Click the mouse on the "Remove" button. Click the mouse on the "Submit" button.	The event message *"Removal Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
55.	Click the mouse on the "Clear form" button in the FOS Telemetry Parameter Red/Yellow Limits Information window.	All fields in the FOS Telemetry Parameter Location Information window will become blank.	
56.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Telemetry Parameter ID: **30002** Telemetry Mnemonic: **MOP_WEB_TST2** Limit Set: **3** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 0 match(es).	
57.	Click the mouse on the "Cancel" button in the FOS Telemetry Parameter Location Information window. Close the Parameter Search Results window.	The FOS Telemetry Parameter Location Information and the Parameter Search Results windows are closed.	

58.	**<u>EU Conversion Insertion</u>** In the Original Parameter Search Results window: Click the mouse on the Parameter "MOP_WEB_TST3".	The Mnemonic, and it's associated fields become highlighted.	
59.	Click the mouse on the "Polynomial Coefficients" button in the Parameter Search Results window.	The FOS Telemetry Parameter Polynomial Coefficients Information window appears.	
60.	Click the mouse on the "Find" button in the FOS Telemetry Parameter Polynomial Coefficients Information window.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in no match(es).	
61.	Create a Polynomial Conversion Equation for the mnemonic MOP_WEB_TST3 by entering the following in the FOS Telemetry Parameter Polynomial Coefficients Information window: Polynomial Number: **10** Polynomial Name: **Voltage** Coefficient 0: **5.0** Coefficient 1: **- 2.11** Coefficient 2: **3.67** Coefficient 3: **2.4** Coefficient 4: **- 0.99** Coefficient 5: **- 0.01** Coefficient 6: **4.1** Coefficient 7: **6.9** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	

62.	In the Original Parameter Search Results window: Click the mouse on the Parameter "MOP_WEB_TST4.	The Mnemonic, and it's associated fields become highlighted.	
63.	Create a Polynomial Conversion Equation for the mnemonic MOP_WEB_TST4 by entering the following in the FOS Telemetry Parameter Polynomial Coefficients Information window: Polynomial Number: **20** Polynomial Name: **Amperage** Coefficient 0: **0.01** Coefficient 1: **2.11** Coefficient 2: **- 3.1** Coefficient 3: **- 2.4** Coefficient 4: **3.99** Coefficient 5: **4.01** Coefficient 6: **- 2.1** Coefficient 7: **0.11** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
64.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Telemetry Mnemonic: **MOP_WEB** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 2 match(es). Verify the search results for the mnemonic MOP_WEB_TST3 and MOP_WEB_TST4 match the Table DBS2030-5.	

65.	Click the mouse on the "Cancel" button in the Parameter Search Results window that contains the Polynomial Coefficients for each mnemonic.	The Parameter Search Results window is closed.	
66.	Change the 3rd Coefficient in the polynomial conversion equation for MOP_WEB_TST3 by entering the following in the FOS Telemetry Parameter Polynomial Coefficients Information window: Polynomial Number: **10** Polynomial Name: **Voltage** Coefficient 0: **5.0** Coefficient 1: **- 2.11** Coefficient 2: **3.67** Coefficient 3: **8.9** Coefficient 4: **- 0.99** Coefficient 5: **- 0.01** Coefficient 6: **4.1** Coefficient 7: **6.9** Enter the specific password. (**fosops**) Click the mouse on the "Update" button. Click the mouse on the "Submit" button.	The event message *"Update Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
67.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Polynomial Number: **10** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 1 match(es). Verify the search results for the mnemonic match Table DBS2030-5A.	

68.	Click the mouse on the "Cancel" button in the Parameter Search Results window that contains the Polynomial Coefficients for each mnemonic.	The Parameter Search Results window is closed.	
69.	Delete the Polynomial Conversion Equation by entering the following in the FOS Telemetry Parameter Polynomial Coefficients Information window: Polynomial Number: **20** Enter the specific password. (**fosops**) Click the mouse on the "Remove" button. Click the mouse on the "Submit" button.	The event message *"Removal Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
70.	Click the mouse on the "Clear form" button in the FOS Telemetry Parameter Red/Yellow Limits Information window.	All fields in the FOS Telemetry Parameter Location Information window will become blank.	
71.	In the FOS Telemetry Parameter Red/Yellow Limits Information window, enter the following: Polynomial Number: **20** Polynomial Name: **Amperage** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 0 match(es).	
72.	Click the mouse on the "Cancel" button in the FOS Telemetry Parameter Location Information window. Close the Parameter Search Results window.	The FOS Telemetry Parameter Location Information and the Parameter Search Results windows are closed.	

73.	**<u>Insertion of Discrete Mnemonics</u>** In the Original Parameter Search Results window: Click the mouse on the Parameter "MOP_WEB_TST4".	The Mnemonic, and it's associated fields become highlighted.	
74.	Click the mouse on the "Discrete States" button in the Parameter Search Results window.	The FOS Telemetry Parameter Discrete States Information window appears.	
75.	Enter the following in the Telemetry Parameter ID field of the Telemetry Parameter Discrete States Information window: Telemetry Parameter ID: **30004** Click the mouse on the "Find" button in the FOS Telemetry Parameter Polynomial Coefficients Information window.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in no match(es).	
76.	Click the mouse on the "Cancel" button in the Parameter Search Results window that contains the Polynomial Coefficients for each mnemonic.	The Parameter Search Results window is closed.	

77.	Create a Discrete State for the mnemonic MOP_WEB_TST4 by entering the following in the FOS Telemetry Parameter Discrete States Information window: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Minimum Value: **0** Maximum Value: **5** State Text: **ENABLED** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
78.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Discrete States Information window.	All fields in the FOS Telemetry Parameter Discrete States Information window will become blank.	

79.	Create a 2nd Discrete State for the mnemonic MOP_WEB_TST4 by entering the following in the FOS Telemetry Parameter Discrete States Information window: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Minimum Value: **6** Maximum Value: **14** State Text: **OFF** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
80.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Discrete States Information window.	All fields in the FOS Telemetry Parameter Discrete States Information window will become blank.	

81.	Create a 3rd Discrete State for the mnemonic MOP_WEB_TST4 by entering the following in the FOS Telemetry Parameter Discrete States Information window: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Minimum Value: **15** Maximum Value: **21** State Text: **DISABLED** Enter the specific password. (**fosops**) Click the mouse on the "Add" button. Click the mouse on the "Submit" button.	The event message *"Insert Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
82.	In the FOS Telemetry Parameter Discrete States Information window, enter the following: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 3 match(es). Verify the search results for the mnemonic match Table DBS2030-6.	

83.	Modify the Maximum Value and the State Text of the "DISABLED" state by entering the following in the Discrete States Information window: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Minimum Value: **15** Maximum Value: **30** State Text: **ALL_DISABLED** Enter the specific password. (**fosops**) Click the mouse on the "Update" button. Click the mouse on the "Submit" button.	The event message *"Update Complete"* will appear on the Info: line in the FOS Telemetry Parameters window.	
84.	Click the mouse on the "Clear Form" button in the FOS Telemetry Parameter Discrete States Information window.	All fields in the FOS Telemetry Parameter Discrete States Information window will become blank.	
85.	In the FOS Telemetry Parameter Discrete States Information window, enter the following: Telemetry Parameter ID: **30004** Telemetry Mnemonic: **MOP_WEB_TST4** Click the mouse on the "Find" button. Click the mouse on the "Submit" button.	Results of Find criteria will be displayed on the screen in the Parameter Search Results window. The search will result in 1 match(es). Verify the search results for the mnemonic match Table DBS2030-6A.	

86.	Click the mouse on the “Cancel” button in the FOS Telemetry Parameter Discrete States Information window. Click the mouse on the “Cancel” in the Parameter Search Results window.	The FOS Telemetry Parameter Location Information and the Parameter Search Results windows are closed.	
87.	**<u>Insertion of Context Dependent Mnemonics</u>** In the Original Parameter Search Results window: Click the mouse on the Parameter “MOP_WEB_TST5”.	The Mnemonic, and it’s associated fields become highlighted.	
88.	Click the mouse on the “Context” button in the Parameter Search Results window.	The FOS Telemetry Parameter Context Information window appears.	
89.	End of test.	End of test.	

FDF3100FPB - Disk Cleaner

Test No.: FDF-3100FPB

Test Title: Disk Cleaner

Test Support: A test script containing data files (which are older than 30 minutes) in directories such as tlmarchive, and entries in database tables (file_meta, fos_Event_Archive) which are older than 30 minutes.

Test Description: This test is designed to verify the ability delete files and/or change their status in the database tables which have been moved to long-term storage.

Following sign-on, files are entered into the directories and tables to be cleaned. Disk cleaner is then initiated. It is then verified that all directories have been cleaned out and database tables have been updated to reflect the status of the files in the script.

Success Criteria: This test is considered successful when all files have been cleaned from the directories and all database tables have been updated.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	Log onto an EOC workstation. Start the Data Server. Reference Test Case SYS2000B -- FOS Server Startup.	Data Server processes are running.	
2.	Start the Real-Time Server. Reference Test Case SYS2000B -- FOS Server Startup.	Real-Time Server processes are running.	
3.	Enter the following in an X-term window: **% setenv TEST_DISK to 900** **% setenv FDDC_TIMEOUT to 1800**		

4.	Enter the following in an X-term window: %FdDbDiskCleaner	Disk Cleaner will begin to clean directories and tables.	
5.	Verify through sybase that file_meta and fos_Event_Archive have been updated and/or cleaned out.	Files older than 15 minutes will be deleted and/or updated in file_meta.	
6.	Verify in each directory listed in table FDF-3100FPB(1) that all files older than 15 minutes have been cleaned out.	All files older than 15 minutes will no longer be in the directory.	
7.	Log off the user station(s).		
8.	End of Test		

Roles Usability Test Procedure

Test Case No: FUI-3000FPB

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers; EOC LAN; EOC user station; emulated IST; and FOS Server and User Station startup scripts.

Test Case Description:

This test is designed to verify that user roles are enforced for five FOS tools, i.e., Command Control Window, Command Request, RTS Load Builder, Binary Load Builder, and Room Builder. The 'user_roles' database table is edited, as necessary, to restrict an IST user to 'Read-Only' privileges and to provide an EOC user the privileges associated with various user roles. The user specifies the 'Read-Only' role as part of the FOS login process, brings up the IST and EOC user station, and then attempts to use 12 FOS (including 7 Planning & Scheduling) tools for which user roles enforcement is intended. The privileges for each user role are pre-defined in the '/fosb/test/am1/config/RoleTask' file, which is the basis for determining the ability/inability to create, generate, save, or schedule using these tools. The user selects the 'Roles' button from the Control Window and selects a different role, then attempts to use the FOS tools as before. This process is repeated for each user role.

Note: Since Planning & Scheduling tool privileges are limited to PAS Scheduler and PAS Definer roles, these tools are exercised for the Read-Only, PAS Scheduler, and PAS Definer roles. Also, since the Read-Only role has the most limited privileges, it is selected prior to most other user roles to ensure that privileges are correctly enforced upon each role change (and *not* carried over from the previous role selection).

Success Criteria:

This test is successful when an IST site can be restricted to 'Read-Only' privileges; and user roles are correctly enforced for 12 FOS tools (Command Control Window, Command Request, RTS Load Builder, Binary Load Builder, Room Builder, Activity Definer, BAP Definer, Activity Recycler, Constraint Definer, General Scheduler, Contact Scheduler, and Load Generator) as they apply to eight user roles (Command Activity Controller, Data Base Administrator, Generic User, Instrument Controller, Operations Controller, Read-Only, PAS Scheduler, and PAS Definer).

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	EOC -- Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<EOC user name>** Password: ************	The login is accepted and two UNIX cmdtool windows appear	
2.	IST -- Log in to an emulated IST, using UNIX login procedure, by entering User Name and Password Username: **<IST user name>** Password: ************	The login is accepted and two UNIX cmdtool windows appear	
3.	**User Roles Setup (IST & EOC)**	(No expected result/output; information only)	

4.	EOC -- Display the database table containing user roles information by entering the following in a cmdtool window: %: **isql -Ufos_dba -Pfos_dba (sql** is alias) 1> **use am1_fos_ops** 2> **go** 1> **select * from user_roles where user_name=‘<IST user name>‘** 2> **select * from user_roles where user_name=‘<EOC user name>‘** 3> **go** *Note carefully the current contents of the user_roles table prior to making deletions in the next step, since the user-roles table will be reset to its former contents at the end of this test.*	The rows that apply to these IST and EOC user names in the ‘user_roles’ database table are displayed	

5.	*Note carefully the current contents of the user_roles table prior to making deletions in this step, since the user-roles table will be reset to its former contents at the end of this test.* EOC -- Search the user_roles table to see if the logged on IST and EOC user names have any privileges. Delete these rows. Enter the following sql commands, as necessary: 1> **delete from user_roles where user_name='<IST user name>'** 2> **delete from user_roles where user_name='<EOC user name>'** 3> **go** 1> **select * from user_roles where user_name='<IST user name>'** 2> **select * from user_roles where user_name='<EOC user name>'** 3> **go**	The 'user_roles' database table is updated and displayed. No rows for these IST and EOC user names are included.	

6.	EOC -- Update database table for this user name for the Read-Only role at the IST. Enter the following sql commands: 1> **insert into user_roles values (‘<IST user name>‘, 1, 0, 0, 1, ‘<IST host>‘)** 2> **go** 1> **select * from user_roles where user_name=’<IST user name>‘** 2> **go**	The ‘user_roles’ database table is updated and displayed. It includes Read-Only privileges for this user name at the IST.	
7.	EOC -- Update database table for this user name for 6 roles (user_type) at the EOC (Command Activity Controller and Operations Controller excluded). Enter the following sql commands: 1> **insert into user_roles values (‘<EOC user name>‘, 1, 2, x, 1, ‘<EOC user station>‘)** Note: x is 0, 1, 3, 4, 6, 7. Repeat this insert command for all 6 user roles. 7> **go** 1> **select * from user_roles where user_name=’<EOC user name>‘** 2> **go**	The ‘user_roles’ database table is updated and displayed. It includes 6 roles (user_type) for this user name at the EOC (Command Activity Controller and Operations Controller excluded).	
8.	**<u>FOS Server, EOC User Station, and IST Startup</u>**	(No expected result/output; information only)	

9.	Note: This step is necessary only if the Data Server is not up. EOC -- Execute applicable portions of the 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) to bring up FOS Data Server. *(Wait for initialization of the Data Server to complete before going to the next step)*	The FOS Data Server is properly initialized	
10.	EOC -- Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) test procedure to bring up an EOC user station. In the User Roles window, select 'Read-Only'. *(Wait for completion of user station startup)*	User station startup is complete when the Control Window comes up	
11.	IST -- Bring up an emulated IST by entering the following in a cmdtool window: %: **cd /data/fos/ist/am1/scripts/setup** (**setup** is alias) %: **IST_LOGIN &** In the User Roles window, select 'Read-Only'. *(Wait for initialization to complete before proceeding to the next step)*	The IST is initialized when the Control Window appears.	

12.	EOC & IST -- Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	
13.	Note: This step is necessary only if the Real Time Server is not up. EOC -- Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) procedure to bring up the Real-Time Server *(Wait for completion of Real-Time Server startup before going to the next step.)*	Real-Time Server Startup is complete when the following message appears in the Event Display: 'Active processing for String 100 was created.'	
14.	**<u>Read-Only Privileges (EOC)</u>**	(No expected result/output; information only)	
15.	Connect mirrored to logical String 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): 'Successfully connected to String 100 as Mirrored'.	
16.	Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: '<IST user name> is not authorized for Ground Control privilege.'	

17.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: '<IST user name> is not authorized for Command privilege.'	
18.	From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1** Close Command Monitor Window	The 'Tools' window comes up, then closes. The Command *Monitor* Window comes up, then closes.	
19.	From the Control window, bring up the 'Command Request Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Request'. Click on 'Create' button. Close dialog box and Command Request window.	The 'Tools' window comes up, then closes. The Command Request window comes up. A dialog box indicates that the user is *not* authorized to create a Command Request. The dialog box and Command Request windows close.	

20.	From the Control window, bring up the ‘Binary Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Binary_Load_Builder’ In the Binary Load Builder window, select a Load Contents file. Click on ‘Generate’. Close dialog box and Binary Load Builder window.	The ‘Tools’ window comes up, then closes. The Binary Load Builder window comes up. A dialog box indicates that the user does *not* have authorization to generate a binary load. The dialog box and Binary Load Builder windows close.	
21.	From the Control window, bring up the ‘RTS Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘RTS_Load_Builder’. In the RTS Load Builder window, under File pull-down menu, select ‘Open’. Select an RTS load contents file from the ‘Open’ dialog box. In the ‘Open’ dialog box, click on ‘OK’. in the RTS Load Builder window, click on ‘Generate’. Close dialog box and RTS Load Builder window.	The ‘Tools’ window comes up, then closes. The RTS Load Builder window comes up. An ‘Open’ dialog box comes up, then closes after user selection. Command information is displayed in the large area in the RTS Load Builder window. A dialog box indicates that the user does *not* have authorization to generate an RTS load. The dialog box and RTS Load Builder windows close.	

22.	**<u>Planning & Scheduling Tools (Start)</u>** From the Control window, bring up the Timeline window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Timeline'. Click on 'Open' under the 'File' pull-down menu. Select the Master Plan. Enter start/stop times as necessary. Click on 'OK' button.	The 'Tools' window comes up, then closes. The Timeline and Open Plan windows comes up. The Open Plan window closes. The timeline updates with the requested time period and plan name as Master Plan:1.	
23.	From the Control window, bring up the Activity Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Activity_Definer'. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the activity. Close dialog box and Activity Definer windows.	The 'Tools' window comes up, then closes. The Activity Definer and activity selection windows comes up. A dialog box indicates that the user is *not* authorized to save an activity. The dialog box and Activity Definer windows close.	

24.	From the Control window, bring up the BAP Definer window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘BAP_Definer’. Click on ‘Open’ under the ‘File’ pull-down menu. Select the ‘AM1’ resource, or another resource that contains existing BAPs. Select a BAP. Click on ‘Save As’ under the ‘File’ pull-down menu, and enter another name for saving the BAP. Close dialog box and BAP Definer windows.	The ‘Tools’ window comes up, then closes. The BAP Definer and BAP selection windows comes up. A dialog box indicates that the user is *not* authorized to save a BAP. The dialog box and BAP Definer windows close.	
25.	From the Control window, bring up the General Scheduler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘General_Scheduler. Click on ‘Open’ under the ‘File’ pull-down menu. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. Select an activity and ‘Master Plan’. Enter/modify start/stop times as necessary. Click on ‘Schedule’ icon. Close dialog box.	The ‘Tools’ window comes up, then closes. The General Scheduler window comes up. A dialog box indicates that the user is *not* authorized to schedule an activity. The dialog box closes.	

26.	From the Control window, bring up the Activity Recycler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Activity_Recycler’. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. In the ‘Timeline’ window, select an activity that applies to the resource just selected, then click on the ‘Cut’ icon. In the Activity Recycler window, select the activity just recycled. In the Activity Recycler window, click on ‘Schedule’. Close dialog box, Activity Recycler, and General Scheduler windows.	The ‘Tools’ window comes up, then closes. The Activity Recycler and activity selection windows comes up. The activity selected for cutting disappears from the ‘Timeline’ window and appears in the ‘Activity Recycler’ window. A dialog box indicates that the user is *not* authorized to schedule recycled activities. The dialog box, Activity Recycler, and General Scheduler windows close.	

27.	From the Control window, bring up the Constraint Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Constraint_Definer. Click on 'Open' under the 'File' pull-down menu. Select a constraint definition. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the constraints. Close dialog box and Constraint Definer windows.	The 'Tools' window comes up, then closes. The Constraint Definer and Open Constraint windows come up. A dialog box indicates that the user is *not* authorized to define constraints. The dialog box, Open Constraint, and Constraint Definer windows close.	
28.	From the Control window, bring up the Contact Scheduler window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Contact_Scheduler. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity and 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Schedule' icon. Close dialog box and Contact Scheduler windows.	The 'Tools' window comes up, then closes. The Contact Scheduler window comes up. A dialog box indicates that the user is *not* authorized to schedule a contact. The dialog box and Contact Scheduler windows close.	

29.	From the Control window, bring up the Load Generator window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Load_Generator'. Click the 'DAS/ATC Load' button and select 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Submit' icon. Close dialog box, Load Generator, and Timeline windows. **<u>Planning & Scheduling Tools (End)</u>**	The 'Tools' window comes up, then closes. The Load Generator window comes up. A dialog box indicates that the user is *not* authorized to generate an ATC load. The dialog box, Load Generator, and Timeline windows close.	
30.	From the Control window, bring up the 'Room Builder' tool. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Room_Builder'. In 'Define Room' window,: For 'Name', enter **RubeRoom2** Click on 'Local', 'Default', 'Tile', and 'Temporary' buttons. Click on 'OK'. Close dialog box and Define Room window.	A 'Define Room' window comes up. The Event Display closes, then reopens with no events. The 'Define Room' window closes. A dialog box indicates that the user is *not* authorized to build a Room.	

31.	Close the Event Display window.	The Event Display window then closes.	
32.	**<u>Read-Only Privileges (IST)</u>**	(No expected result/output; information only)	
33.	Execute the steps under 'Read-Only Privileges (EOC)' with the following exception: There is no 'Command_Control' selection in the 'Tools' menu.	The user successfully connects to String 100. The user is *not* authorized for Ground Control or Command privilege. The user is *not* authorized to create, generate, save, or schedule using the following tools: Command Request; Binary Load Builder; RTS Load Builder; Activity Definer; BAP Definer; Activity Recycler; Constraint Definer; General Scheduler; Contact Scheduler; Load Generator; Room Builder.	
34.	**<u>DBA Privileges (EOC)</u>**	(No expected result/output; information only)	

35.	Change the user role to Database Administrator (DBA). In the 'Control Window', click on the 'Roles' button. In User Roles window, select 'Database Administrator'.	The User Roles window comes up, then closes after user selection.	
36.	Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'.	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	
37.	Connect mirrored to logical String 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): 'Successfully connected to String 100 as Mirrored'.	
38.	Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: '<EOC user name> is not authorized for Ground Control Privilege.'	
39.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: '<EOC user name> is not authorized for Command Authority Privilege.'	

40.	From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1** Close the Command Monitor Window	The 'Tools' window comes up, then closes. The Command *Monitor* Window comes up, then closes.	
41.	From the Control window, bring up the 'Command Request Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Request'. Click on 'Create' button. Close 'Command Request Creation' and 'Command Request' windows.	The 'Tools' window comes up, then closes. The Command Request window comes up. 'Command Request Creation' window comes up. 'Command Request Creation', and 'Command Request' windows close.	

42.	From the Control window, bring up the ‘Binary Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Binary_Load_Builder’. In the Binary Load Builder window, select a Load Contents file. Click on ‘Generate’. Close Binary Load Builder window.	The ‘Tools’ window comes up, then closes. The Binary Load Builder window comes up then closes. Binary load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate a binary load.	
43.	From the Control window, bring up the ‘RTS Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘RTS_Load_Builder’. In the RTS Load Builder window, under File pull-down menu, select ‘Open’. Select an RTS load contents file from the ‘Open’ dialog box. In the ‘Open’ dialog box, click on ‘OK’. in the RTS Load Builder window, click on ‘Generate’. Close RTS Load Builder window.	The ‘Tools’ window comes up, then closes. The RTS Load Builder window comes up, then closes. RTS load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate an RTS.	

44.	From the Control window, bring up the ‘Room Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Room_Builder’. In ‘Define Room’ window,: For ‘Name’, enter **RubeRoom2** Click on ‘Local’, ‘Default’, ‘Tile’, and ‘Temporary’ buttons. Click on ‘OK’.	A ‘Define Room’ window comes up. There is *no* error dialog that indicates the user is not authorized to generate a room. The ‘Define Room’ window closes.	
45.	Close the Event Display window.	The Event Display window then closes.	
46.	**Generic User Privileges (EOC)**	(No expected result/output; information only)	
47.	Change the user role to Generic User. In the ‘Control Window’, click on the ‘Roles’ button. In the User Roles window, select ‘Generic User’.	The User Roles window comes up, then closes after user selection.	
48.	Invoke the Global Event Display. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Event_Display-Global’.	The ‘Tools’ menu comes up, then closes. The ‘Event Display’ comes up.	

49.	Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: '<EOC user name> is not authorized for Ground Control privilege.'	
50.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: '<EOC user name> is not authorized for Command privilege.'	
51.	From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1** Close Command Monitor Window	The 'Tools' window comes up, then closes. The Command *Monitor* Window comes up, then closes.	

52.	From the Control window, bring up the ‘Command Request Window’. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Command_Request’. Click on ‘Create’ button. Close ‘Command Request Creation’ and ‘Command Request’ windows.	The ‘Tools’ window comes up, then closes. The Command Request window comes up. ‘Command Request Creation’ window comes up. ‘Command Request Creation’, and ‘Command Request’ windows close.	
53.	From the Control window, bring up the ‘Binary Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Binary_Load_Builder’ In the Binary Load Builder window, select a Load Contents file. Click on ‘Generate’. Close dialog box and Binary Load Builder window.	The ‘Tools’ window comes up, then closes. The Binary Load Builder window comes up. A dialog box indicates that the user does *not* have authorization to generate a binary load. The dialog box and Binary Load Builder windows close.	

54.	From the Control window, bring up the ‘RTS Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘RTS_Load_Builder’. In the RTS Load Builder window, under File pull-down menu, select ‘Open’. Select an RTS load contents file from the ‘Open’ dialog box. In the ‘Open’ dialog box, click on ‘OK’. in the RTS Load Builder window, click on ‘Generate’. Close dialog box and RTS Load Builder window.	The ‘Tools’ window comes up, then closes. The RTS Load Builder window comes up. An ‘Open’ dialog box comes up, then closes after user selection. Command information is displayed in the large area in the RTS Load Builder window. A dialog box indicates that the user does *not* have authorization to generate an RTS load. The dialog box and RTS Load Builder windows close.	
55.	From the Control window, bring up the ‘Room Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Room_Builder’. In ‘Define Room’ window,: For ‘Name’, enter **RubeRoom2** Click on ‘Local’, ‘Default’, ‘Tile’, and ‘Temporary’ buttons. Click on ‘OK’.	A ‘Define Room’ window comes up. There is *no* error dialog that indicates user is not authorized to generate a room. The ‘Define Room’ window closes.	
56.	Close the Event Display window.	The Event Display window then closes.	

57.	**<u>Instrument Controller Privileges (EOC)</u>**	(No expected result/output; information only)	
58.	Execute the steps under 'DBA Privileges (EOC)' with the following exception: In the User Roles window, select 'Instrument Controller'.	The user is *not* authorized for Ground Control or Command privilege. The following tools come up: Event Display; Command *Monitor* Window; Command Request; Binary Load Builder; RTS Load Builder; Room Builder.	
59.	**<u>Read-Only Privileges (EOC) (2)</u>**	(No expected result/output; information only)	
60.	Change the user role to Read-Only. In the 'Control Window', click on the 'Roles' button. In the User Roles window, select 'Read Only'.	The User Roles window comes up, then closes after user selection.	
61.	**<u>PAS Definer Privileges (EOC)</u>**	(No expected result/output; information only)	

62.	Execute the steps under 'DBA Privileges (EOC)' with the following exception: In the User Roles window, select 'PAS Definer'.	The user is *not* authorized for Ground Control or Command privilege. The following tools come up: Event Display; Command *Monitor* Window; Command Request; Binary Load Builder; RTS Load Builder; Room Builder.	
63.	**<u>Planning & Scheduling Tools (Start)</u>** From the Control window, bring up the Timeline window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Timeline'. Click on 'Open' under the 'File' pull-down menu. Select the Master Plan. Enter start/stop times as necessary. Click on 'OK' button.	The 'Tools' window comes up, then closes. The Timeline and Open Plan windows comes up. The Open Plan window closes. The timeline updates with the requested time period and plan name as Master Plan:1.	

64.	From the Control window, bring up the Activity Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Activity_Definer'. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the activity. Close Activity Definer window.	The 'Tools' window comes up, then closes. The Activity Definer and activity selection windows comes up. Saving the activity definition starts, i.e., there is *no* error dialog that indicates the user is not authorized to save an activity definition. The Activity Definer window closes.	
65.	From the Control window, bring up the BAP Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'BAP_Definer'. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1' resource, or another resource that contains existing BAPs. Select a BAP. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the BAP. Close BAP Definer window.	The 'Tools' window comes up, then closes. The BAP Definer and BAP selection windows comes up. Saving the BAP definition starts, i.e., there is *no* error dialog that indicates the user is not authorized to save a BAP definition. The BAP Definer window closes.	

66.	From the Control window, bring up the General Scheduler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘General_Scheduler. Click on ‘Open’ under the ‘File’ pull-down menu. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. Select an activity and ‘Master Plan’. Enter/modify start/stop times as necessary. Click on ‘Schedule’ icon.	The ‘Tools’ window comes up, then closes. The General Scheduler window comes up. Activity scheduling starts, i.e., there is *no* error dialog that indicates the user is not authorized to schedule an activity.	

67.	From the Control window, bring up the Activity Recycler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Activity_Recycler’. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. In the ‘Timeline’ window, select an activity that applies to the resource just selected, then click on the ‘Cut’ icon. In the Activity Recycler window, select the activity just recycled. In the Activity Recycler window, click on ‘Schedule’. Close Activity Recycler and General Scheduler windows.	The ‘Tools’ window comes up, then closes. The Activity Recycler and activity selection windows comes up. The activity selected for cutting disappears from the ‘Timeline’ window and appears in the ‘Activity Recycler’ window. The recycled activity that has just been scheduled reappears in the ‘Timeline’ window. The Activity Recycler and General Scheduler windows close.	

68.	From the Control window, bring up the Constraint Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Constraint_Definer. Click on 'Open' under the 'File' pull-down menu. Select an existing constraint. Click on 'Apply'. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the constraints. Close Constraint Definer window.	The 'Tools' window comes up, then closes. The Constraint Definer and Open Constraint windows come up. Saving constraint definitions starts, i.e., there is *no* error dialog that indicates the user is not authorized to save constraint definitions. The Open Constraint and Constraint Definer windows close.	
69.	From the Control window, bring up the Contact Scheduler window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Contact_Scheduler. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity and 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Schedule' icon. Close Contact Scheduler window.	The 'Tools' window comes up, then closes. The Contact Scheduler window comes up. Contact scheduling starts, i.e., there is *no* error dialog that indicates the user is not authorized to schedule a contact. The Contact Scheduler window closes.	

70.	From the Control window, bring up the Load Generator window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Load_Generator'. Click the 'DAS/ATC Load' button and select 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Submit' icon. Close Load Generator and Timeline windows. **Planning & Scheduling Tools (End)**	The 'Tools' window comes up, then closes. The Load Generator window comes up. ATC load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate an ATC load. The Load Generator and Timeline windows close.	
71.	**Read-Only Privileges (EOC) (3)**	(No expected result/output; information only)	
72.	Change the user role to Read-Only. In the 'Control Window', click on the 'Roles' button. In the User Roles window, select 'Read Only'.	The User Roles window comes up, then closes after user selection.	
73.	PAS Scheduler Privileges (EOC)	(No expected result/output; information only)	

74.	Execute the steps under 'DBA Privileges (EOC)' with the following exception: In the User Roles window, select 'PAS Scheduler'.	The user is *not* authorized for Ground Control or Command privilege. The following tools come up: Event Display; Command *Monitor* Window; Command Request; Binary Load Builder; RTS Load Builder; Room Builder.	
75.	**<u>Planning & Scheduling Tools (Start)</u>** From the Control window, bring up the Timeline window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Timeline'. Click on 'Open' under the 'File' pull-down menu. Select the Master Plan. Enter start/stop times as necessary. Click on 'OK' button.	The 'Tools' window comes up, then closes. The Timeline and Open Plan windows comes up. The Open Plan window closes. The timeline updates with the requested time period and plan name as Master Plan:1.	

76.	From the Control window, bring up the Activity Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Activity_Definer'. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the activity. Close dialog box and Activity Definer windows.	The 'Tools' window comes up, then closes. The Activity Definer and activity selection windows comes up. A dialog box indicates that the user is *not* authorized to save an activity. The dialog box and Activity Definer windows close.	
77.	From the Control window, bring up the BAP Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'BAP_Definer'. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1' resource, or another resource that contains existing BAPs. Select a BAP. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the BAP. Close BAP Definer window.	The 'Tools' window comes up, then closes. The BAP Definer and BAP selection windows comes up. Saving the BAP definition starts, i.e., there is *no* error dialog that indicates the user is not authorized to save a BAP definition. The BAP Definer window closes.	

78.	From the Control window, bring up the General Scheduler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘General_Scheduler. Click on ‘Open’ under the ‘File’ pull-down menu. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. Select an activity and ‘Master Plan’. Enter/modify start/stop times as necessary. Click on ‘Schedule’ icon.	The ‘Tools’ window comes up, then closes. The General Scheduler window comes up. Activity scheduling starts, i.e., there is *no* error dialog that indicates the user is not authorized to schedule an activity.	

79.	From the Control window, bring up the Activity Recycler window. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Activity_Recycler’. Select the ‘AM1 ASTER’ resource, or another resource that contains existing activities. In the ‘Timeline’ window, select an activity that applies to the resource just selected, then click on the ‘Cut’ icon. In the Activity Recycler window, select the activity just recycled. In the Activity Recycler window, click on ‘Schedule’. Close Activity Recycler and General Scheduler windows.	The ‘Tools’ window comes up, then closes. The Activity Recycler and activity selection windows comes up. The activity selected for cutting disappears from the ‘Timeline’ window and appears in the ‘Activity Recycler’ window. The recycled activity that has just been scheduled reappears in the ‘Timeline’ window. The Activity Recycler and General Scheduler windows close.	

80.	From the Control window, bring up the Constraint Definer window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Constraint_Definer. Click on 'Open' under the 'File' pull-down menu. Select an existing constraint. Click on 'Apply'. Click on 'Save As' under the 'File' pull-down menu, and enter another name for saving the constraints. Close dialog box and Constraint Definer windows.	The 'Tools' window comes up, then closes. The Constraint Definer and Open Constraint windows come up. A dialog box indicates that the user is *not* authorized to define constraints. The dialog box, Open Constraint, and Constraint Definer windows close.	
81.	From the Control window, bring up the Contact Scheduler window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Contact_Scheduler. Click on 'Open' under the 'File' pull-down menu. Select the 'AM1 ASTER' resource, or another resource that contains existing activities. Select an activity and 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Schedule' icon. Close Contact Scheduler window.	The 'Tools' window comes up, then closes. The Contact Scheduler window comes up. Contact scheduling starts, i.e., there is *no* error dialog that indicates the user is not authorized to schedule a contact. The Contact Scheduler window closes.	

82.	From the Control window, bring up the Load Generator window. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Load_Generator'. Click the 'DAS/ATC Load' button and select 'Master Plan'. Enter/modify start/stop times as necessary. Click on 'Submit' icon. Close Load Generator and Timeline windows. **Planning & Scheduling Tools (End)**	The 'Tools' window comes up, then closes. The Load Generator window comes up. ATC load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate an ATC load. The Load Generator and Timeline windows close.	
83.	**Read-Only Privileges (EOC) (4)**	(No expected result/output; information only)	
84.	Change the user role to Read-Only. In the 'Control Window', click on the 'Roles' button. In the User Roles window, select 'Read Only'.	The User Roles window comes up, then closes after user selection.	
85.	**CAC & Operations Controller User Role Setup (EOC)**	(No expected result/output; information only)	
86.	EOC -- Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) test procedure to shutdown an EOC user station. In the User Roles window, select 'Read-Only'. *(Wait for completion of user station startup)*	User station shutdown is complete when there are no FOS processes and no endpoints for this user station.	

87.	Update database table for this user name for CAC & Operations Controller roles (user_type) at the EOC. Enter the following sql commands: 1> **insert into user_roles values (‘<EOC user name>‘, 1, 2, 2, 1, ‘<this user station>‘)** 2> **insert into user_roles values (‘<EOC user name>‘, 1, 2, 5, 1, ‘<this user station>‘)** 3> **go** 1> **select * from user_roles where user_name=’<EOC user name>‘** 2> **go**	The ‘user_roles’ database table is updated and displayed. It includes all 8 user roles (user_type) (including CAC & Operations Controller) for this user name at the EOC.	
88.	EOC -- Execute applicable steps of the ‘FOS Server and User Station Startup and Shutdown’ (SYS-2000B) test procedure to bring up an EOC user station. In the User Roles window, select ‘Operations Controller’. *(Wait for completion of user station startup)*	User station startup is complete when the Control Window comes up.	
89.	**<u>Operations Controller Privileges (EOC)</u>**	(No expected result/output; information only)	

90.	Invoke the Global Event Display. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Event_Display-Global’.	The ‘Tools’ menu comes up, then closes. The ‘Event Display’ comes up.	
91.	Connect mirrored to logical String 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): ‘Successfully connected to String 100 as Mirrored’.	
92.	Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: ‘Ground Control Authority has changed from <former user or EcDNull> to <EOC user name> for string 100‘	
93.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: ‘Command Authority has changed from <former user or EcDNull> to <EOC user name> for string 100‘	

94.	From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1** Close Command Control Window	The 'Tools' window comes up, then closes. The Command *Control* Window comes up, then closes.	
95.	From the Control window, bring up the 'Command Request Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Request'. Click on 'Create' button. In 'Command Request Creation' window, click on 'AddCmds' button. In 'Command Builder' window, select a command. Click on 'Submit'. Close 'Command Builder', 'Command Request Creation', and 'Command Request' windows.	The 'Tools' window comes up, then closes. The Command Request window comes up. 'Command Request Creation' window and 'Command Builder' window comes up. Command selected is displayed in 'Command Request Creation' window. 'Command Builder', 'Command Request Creation', and 'Command Request' windows close. A dialog box indicates a Command Request has been submitted.	

96.	From the Control window, bring up the ‘Binary Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘Binary_Load_Builder’ In the Binary Load Builder window, select a Load Contents file. Click on ‘Generate’. Close Binary Load Builder window.	The ‘Tools’ window comes up, then closes. The Binary Load Builder window comes up then closes. Binary load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate a binary load.	
97.	From the Control window, bring up the ‘RTS Load Builder’ tool. In the ‘Control Window’, click on the ‘Tools’ button. In the ‘Tools’ menu, select ‘RTS_Load_Builder’. In the RTS Load Builder window, under File pull-down menu, select ‘Open’. Select an RTS load contents file from the ‘Open’ dialog box. In the ‘Open’ dialog box, click on ‘OK’. in the RTS Load Builder window, click on ‘Generate’. Close RTS Load Builder window.	The ‘Tools’ window comes up, then closes. The RTS Load Builder window comes up, then closes. RTS load generation starts, i.e., there is *no* error dialog that indicates the user is not authorized to generate an RTS.	

98.	From the Control window, bring up the 'Room Builder' tool. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Room_Builder'. In 'Define Room' window,: For 'Name', enter **RubeRoom2** Click on 'Local', 'Default', 'Tile', and 'Temporary' buttons. Click on 'OK'.	A 'Define Room' window comes up. There is *no* error dialog that indicates the user is not authorized to generate a room. The 'Define Room' window closes.	
99.	Close the Event Display window.	The Event Display window then closes.	
100.	**Read-Only Privileges (EOC) (5)**	(No expected result/output; information only)	
101.	Change the user role to Read-Only. In the 'Control Window', click on the 'Roles' button. In the User Roles window, select 'Read Only'.	The User Roles window comes up, then closes after user selection.	
102.	**Command Activity Controller (CAC) Privileges (EOC)**	(No expected result/output; information only)	

103.	Execute the steps under 'Operations Controller Privileges (EOC)' with the following exception: In the User Roles window, select 'Command Activity Controller'.	The user already has Ground Control and Command privilege. The following tools come up: Event Display; Command *Control* Window; Command Request (There is *no* dialog box that indicates a Command Request has been submitted); Binary Load Builder; RTS Load Builder; Room Builder.	
104.	**<u>User Roles Reset (IST & EOC)</u>**	(No expected result/output; information only)	

105.	Delete from the user_roles table those rows that were inserted by this test procedure. 1> **delete from user_roles where user_name='<IST user name>'** 2> **delete from user_roles where user_name='<EOC user name>'** 3> **go** Display the contents of the user_roles table for these IST and EOC user names. 1> **select * from user_roles where user_name='<IST user name>'** 2> **select * from user_roles where user_name='<EOC user name>'** 3> **go**	The 'user_roles' table shows there are no rows for these IST and EOC user names	

106.	Using the user-roles configuration noted near the beginning of this test procedure, insert into the user_roles table, as necessary, those rows that were deleted. 1> **insert into user_roles values (‘<IST user name>‘, 1, 0, x, x, ’<IST host>‘** 2> **insert into user_roles values (‘<EOC user name>‘, 1, 2, x, x, ’<EOC user station>‘** x> **go** Display the contents of the user_roles table for these EOC and IST user names. 1> **select * from user_roles where user_name=’<IST user name>‘** 2> **select * from user_roles where user_name=’<EOC user name>‘** 3> **go** Display the contents of the entire user_roles table. 1> **select * from user_roles** 2> **go** 1> **quit**	The ‘user_roles’ table is reset to its former contents for these IST and EOC user names and displayed. The ‘user_roles’ table is displayed and contains the same contents as prior to execution of this test procedure.	
107.	End of test.		

Generic String Management Test Procedure

Test Case No: SYS-3050FPB

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers including two Real-Time servers; EOC LAN; FOS Server and User Station startup scripts; 'sc' CLCW driver; and pre-built display page containing SYS mnemonics.

Test Case Description:

This test is designed to verify that string-related FOS functions conform to the new Generic String Manager. The test also confirms that the 'user_roles' database table is utilized for ground control and command authorization. Fundamental conformance to the new Generic String Manager is demonstrated for string-related processes of telemetry and telemetry archiving, spacecraft activity log monitoring, ground control and command authorization, NCC reconfiguration, commanding and ground script control, logical string manipulation, and backup string creation.

Success Criteria:

This test is successful when string-related processes of telemetry and archiving, spacecraft activity log monitoring, ground control and command authorization, NCC reconfiguration, commanding and ground script control, logical string manipulation, and backup string creation conform to the new Generic String Manager; and the 'user_roles' database table is used for granting ground control and command authority.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**<u>FOS Server and User Station Startup and Telemetry Archiving and Activity Log Conformance</u>**	(No expected result/output; information only)	

2.	Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: ************	The login is accepted and two UNIX cmdtool windows appear	
3.	Execute applicable portions of the 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) to bring up FOS Data Server. *(Wait for initialization of the Data Server to complete before going to the next step)*	The FOS Data Server is properly initialized	
4.	Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) test procedure to bring up the EOC user stations *(Wait for completion of user station startup)*	User station startup is complete when the Control Window comes up	
5.	Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	

6.	Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) procedure to bring up the **active** Real-Time Server *(Wait for completion of Real-Time Server startup before going to the next step.)*	**Active** Real-Time Server Startup is complete when the following message appears in the Event Display: 'Active processing for String 100 was created.' 6 Telemetry Archiver (FdArTlmArchiver) and 1 Activity Log Monitor (FaAlActivityLogMonitor) processes initialize normally.	
7.	Connect mirrored to logical String 100. Enter the following ECL directive: ECL> **STRING CONNECT STRING=100 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): 'Successfully connected to String 100 as Mirrored'.	
8.	**<u>Ground Control & Command Privileges</u>**	(No expected result/output; information only)	
9.	**<u>Remove user's privileges from database table</u>** Display the database table containing user roles information by entering the following in a cmdtool window: %: **isql -Ufos_dba -Pfos_dba (sql** is alias**)** 1> **use am1_fos_ops** 2> **go** 1> **select * from user_roles** 2> **go**	The 'user_roles' database table is displayed	

10.	Search the user_roles table to see if the logged on user name has ground control and command privileges for AM1 for Operations, Test, or Training modes (strings) on any user_station. Enter the following sql commands: 1> **select * from user_roles where user_name=‘<this user name>‘ and spacecraft=1 and user_type=2** 2> **go** Note in particular all rows where: Column 1 (user_name) = this user name, and Column 2 (spacecraft) = 1, and Column 4 (user_type) = 2.	A list of all rows for this user for AM1 and for Ground Control and Command privileges are displayed.	
11.	*Note: Check with other users on the system before proceeding with this step.* Delete all rows that meet the Columns 1/2/4 criteria specified in the previous step. Enter the following sql commands, as necessary: 1> **delete from user_roles where user_name=’<this user name>‘ and spacecraft=1 and user_type=2** 2> **go** 1> **select * from user_roles** 2> **go**	The ‘user_roles’ database table is updated and displayed. It does *not* include the combination of Ground Control and Command privileges for AM1 for any mode (string) and for this user.	

12.	**<u>Attempt to take Ground Control & Command</u>** Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event messages appear: '<User #1> is not authorized for Ground Control Privilege'; 'Both User <User #1> and Workstation <User Station #1> must be authorized for Ground Control Authority privilege'.	
13.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: '<User #1> is not authorized for Command Authority Privilege'; 'Both User <User #1> and Workstation <User Station #1> must be authorized for Command Authority privilege'.	

14.	Search the user_roles table to see if any user name has ground control and command privileges for AM1 for Operations mode (string) on this user station. Enter the following sql commands: 1> **select * from user_roles where spacecraft=1 and user_type=2 and mode=1 and host=‘<this user station>‘** 2> **go** This shows all rows where: Column 2 (spacecraft) = 1, and Column 4 (user_type) = 2, and Column 5 (mode) = 1, and Column 6 (host) = this user station. *Note carefully the current contents of the user_roles table prior to making deletions in the next step.*	A list of all rows for AM1 for Ground Control and Command privileges for the Operations mode (string) and for this user station are displayed.	

15.	*Note: Check with other users on the system before proceeding with this step.* Delete all rows that meet the Columns 2/4/5/6 criteria specified above. Enter the following sql commands, as necessary: 1> **delete from user_roles where spacecraft=1 and user_type=2 and mode=1 and host=‘<this user station>‘** 2> **go** 1> **select * from user_roles** 2> **go** Re-insert all rows deleted previously that were associated with this user name for AM1 for the Operations mode (string), but only for *other* user stations. Enter the following sql commands: 1> **insert into user_roles values (‘<this user name>‘, 1, x, 2, 1, ‘<other user station>‘)** Repeat the insert commands as necessary. 2> **go** 1> **select * from user_roles** 2> **go**	The ‘user_roles’ database table is updated and displayed. It does *not* include the combination of Ground Control and Command privileges for AM1 for the Operations mode (string) and for *this* user station. It does, however, include the combination of Ground Control and Command privileges for AM1 for the Operations mode (string) for this user name and for *other* user stations.	

16.	**<u>Attempt to take Ground Control & Command</u>** Attempt to take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event messages appear: 'User station <User station #1> is not authorized for Ground Control privilege'; 'Both User <User #1> and Workstation <User Station #1> must be authorized for Ground Control Authority privilege'.	
17.	Attempt to take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event messages appear: 'User station <User station #1> is not authorized for Command Authority privilege'; 'Both User <User #1> and Workstation <User Station #1> must be authorized for Command Authority privilege'.	
18.	**<u>Update database table containing privileges</u>** Re-insert all rows deleted previously for *other* users that have not yet been re-inserted. 1> **insert into user_roles values ('<other user name>', 1, x, 2, 1, '<this user station>')** Repeat the insert commands as necessary. 2> **go** 1> **select * from user_roles** 2> **go**	The 'user_roles' database table is updated and displayed. It is identical to the table contents prior to deleting rows in preceding steps except that rows inserted in the last several steps appear at the bottom of the table.	

19.	**<u>Take Ground Control &Command (String 100)</u>** Take ground control for String 100. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=100**	The following event message appears: 'Ground Control Authority has changed from <former user or EcDNull> to <User #1> for string 100'	
20.	Take command for String 100. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=100**	The following event message appears: 'Command Authority has changed from <former user or EcDNull> to <User #1> for string 100'	
21.	Bring up the 'Failover-Monitoring' display page. In the 'Control Window', click on the 'TlmWins' button. In the 'Tlm Wins' menu, select 'Failover-Monitoring.	The Failover Monitoring page appears and includes the following system parameter values: SYS_STRING_ID = 100 SYS_DATA_SRC = Realtime SYS_MODE = OPS SYS_CMD_AUTHOR_ID = <User #1> SYS_CMD_AUTHOR_WS_ID = <This user station> SYS_GRND_CNTRL_ID = <User #1> SYS_GRND_CNTRL_WS_ID = <This user station> SYS_RTS_ID = 1 SYS_BACKUP_RTS_ID = 0 SYS_INACTIVE_RTS_ID = 0	
22.	**<u>Telemetry Conformance</u>**	(No expected result/output; information only)	

23.	Turn off the decommutation of telemetry for String 100 by entering the following in the ECL directive line of the Control window: ECL> **DECOM SEL=ALL MODE=OFF STRING=100**	Event message indicates successful reconfiguration of telemetry decommutation process.	
24.	Turn off the decommutation of telemetry for String 100 by entering the following in the ECL directive line of the Control window: ECL> **DECOM SEL=ALL MODE=ON STRING=100**	Event message indicates successful reconfiguration of telemetry decommutation process.	
25.	**RCM Conformance**	(No expected result/output; information only)	
26.	Change the reconfiguration of TDRS id. Enter the following ECL directive in the Control window. ECL> **RCCONFIG STRING=100 TDRS=E00**	Event message indicates TDRS re-configured to E00.	
27.	**Command & Ground Script Conformance**	(No expected result/output; information only)	

28.	**<u>Start 'sc' driver to emulate CLCWs</u>** User Station #1 – Remotely log in to the Real-Time Server by entering the following in a new cmdtool window. %: **rlogin <RealTimeServer>** At the Real-Time Server prompt, enter the following: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **setenv SCRIPT RealTimeServer** %: **source FosEnvVars** %: **cd /fosb/test/am1/bin/sun_sparc_5-5** (**bin** is alias) %: **sc AM1 100 Ops**	User Station #1 -- The remote login to the Real-Time Server is successful. The following message appears repeatedly in the Real-Time Server cmdtool window: 'sc Waiting for messages'	
29.	**<u>Perform command initialization</u>** From the Control window, bring up the 'Command Control Window'. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Command_Control' In the Command Control dialog box, enter the following: String ID: **100** Spacecraft ID: **AM1**	The 'Tools' menu comes up, then closes after user selection. The Command Control dialog box comes up, then closes after user input. A working dialog box comes up, stating that the user should wait. The working dialog box closes when the 'Command Control Window' comes up.	

30.	**<u>Configure Frame Operation Procedure (FOP)</u>** In the ‘Config’ pull-down menu of the ‘Command Control Window’, set the following: Cmd Verification (CV): Off Tlm Verification (TV): Off In the ‘Command Control Window’, enter the following in the CMD field: **FOP INIT CHECK** Hit ‘return/enter’ key on keyboard. Click on ‘Resume’ button Click on ‘Send’ button Click on ‘Suspend’ button	In the ‘Command Control Window’, the following occurs: The ‘CV’ and ‘TV’ indicators are both ‘Off’. The ‘DIRECTIVE’ column contains ‘FOP INIT CHECK’. After the ‘Resume’ button is clicked, the Send/Cancel options are activated. After the ‘Send’ button is clicked, the STATUS column includes ‘Processed -2 | Sent to subsys’. The following event message appears: ‘Protocol Info: FOP INIT with CLCW check successful’.	

31.	**<u>Execute a real-time command</u>** In the 'Command Control Window', enter the following real-time command in the CMD field: **/AST_TURN_OFF_C_SDP** Hit 'return/enter' key on keyboard. Click on 'Resume' button Click on 'Send' button Click on 'Override' button if necessary Click on 'Suspend' button.	The /AST_TURN_OFF_C_SDP' command is inserted in the 'Directive' column. After the 'Resume' button is clicked, the Send/Cancel options are activated. The following event messages appear: 'Command XXXXXXXXXX was successfully build with binary = ...'; 'CLTU id XXXXXXXXXX placed in command data block number x'; 'Command Data Block number x sent to EDOS'; 'Command XXXXXXXXXX timed out -- verification failure.' The STATUS column includes processing status information, such as 'TV Fail -3 | CV Pass -2 | Processed -2 | Sent to FOP | Sent to subsys'.	
32.	In the window containing the remote login to the Real-Time Server for the 'sc' tool, depress the following two keys simultaneously: **Ctrl C**	The 'sc' tool quits, and a UNIX prompt is received from the Real-Time Server.	
33.	**<u>Logical String Manipulation</u>**	(No expected result/output; information only)	
34.	**<u>Create a Simulation/Training String (101)</u>** Attempt to create a Simulation/Training string. Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TRAINING SERVER=1**	The following event messages appear: 'User does not have ground control authority'; '<User #1> is not authorized for GroundControl Privilege'.	

35.	Update database table containing Ground Control and Command privileges for this user name, for AM1, for the *Training* mode (string). Enter the following sql commands: 1> **insert into user_roles values (‘<this user name>‘, 1, 2, 2, 3, ‘<this user station>‘)** 2> **go** 1> **select * from user_roles** 2> **go**	The ‘user_roles’ database table is updated and displayed. It includes the combination of Ground Control and Command privileges for this user name for AM1 for the Training mode (string).	
36.	Create a Simulation/Training string. Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TRAINING SERVER=1**	The following event message appears: ‘Active Processing for string 101 was Created.’	
37.	**<u>Command Preparation for String 101</u>** Connect mirrored to logical String 101. Enter the following ECL directive: ECL> **STRING CONNECT STRING=101 CONFIG=MIRROR** *(Wait for string connection to complete)*	The following event message appears (after several minutes): ‘Successfully connected to String 101 as Mirrored’. A ‘status’ window containing several SYS parameters comes up.	
38.	Take ground control for String 101. Enter the following ECL directive: ECL> **TAKE GROUNDCONTROL STRING=101**	The following event message appears: ‘Ground Control Authority has changed from <former user or EcDNull> to <User #1> for string 101‘	

39.	Take command for String 101. Enter the following ECL directive: ECL> **TAKE COMMAND STRING=101**	User Station #1 -- The following event message appears: 'Command Authority has changed from <former user or EcDNull> to <User #1> for string 101'	
40.	Bring up the 'Failover-Monitoring' display page. In the 'Control Window', click on the 'TlmWins' button. In the 'Tlm Wins' menu, select 'Failover-Monitoring.	The Failover Monitoring page appears and includes the following system parameter values: SYS_STRING_ID = 101 SYS_DATA_SRC = Simulation SYS_MODE = TRAINING SYS_CMD_AUTHOR_ID = <User #1> SYS_CMD_AUTHOR_WS_ID = <This user station> SYS_GRND_CNTRL_ID = <User #1> SYS_GRND_CNTRL_WS_ID = <This user station> SYS_RTS_ID = 1 SYS_BACKUP_RTS_ID = 0 SYS_INACTIVE_RTS_ID = 0	
41.	**<u>Delete String 101</u>** Attempt to delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Unable to delete String 101 when users are connected. Suggest notifying users to disconnect from String.'	

42.	Disconnect from String 101. Enter the following ECL directive: ECL> **STRING DISCONNECT STRING=101**	The following event messages appear: 'User successfully disconnected from String 101'	
43.	Update database table containing Ground Control and Command privileges for this user name, for AM1, for the *Training* mode (string). Enter the following sql commands: 1> **delete from user_roles where user_name='<this user name>' and spacecraft=1 and user_type=2 and mode=3** 2> **go** 1> **select * from user_roles** 2> **go**	The 'user_roles' database table is updated and displayed. It does *not* include the combination of Ground Control and Command privileges for for this user name for AM1 for the Training mode (string).	
44.	Attempt to delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'User is not the Ground Controller for string 101. User must have Ground Control Authority before requesting this service.'	

45.	Update database table containing Ground Control and Command privileges for this user name, for AM1, for the *Training* mode (string). Enter the following sql commands: 1> **insert into user_roles values ('<this user name>', 1, 2, 2, 3, '<this user station>')** 2> **go** 1> **select * from user_roles** 2> **go**	The 'user_roles' database table is updated and displayed. It includes the combination of Ground Control and Command privileges for this user name for AM1 for the Training mode (string) and for this user_station	
46.	Delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Active processing for String 101 was deleted.'	
47.	Attempt to connect mirrored to String 101. Enter the following ECL directive: ECL> **STRING CONNECT STRING=101 CONFIG=MIRROR**	The following event message appears: 'Unable to locate string 101. User should make sure directive contains correct string ID.'	
48.	**<u>Create a Simulation/Test String (101)</u>** Attempt to create a Simulation/Test string. Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TEST SERVER=1**	The following event messages appear: 'User does not have ground control authority'; '<User #1> is not authorized for GroundControl Privilege'.	

49.	Update database table containing Ground Control and Command privileges for this user name, for the *Test* mode (string). Enter the following sql commands: 1> **insert into user_roles values (‘<this user name>‘, 1, 2, 2, 2, ‘<this user station>‘)** 2> **go** 1> **select * from user_roles** 2> **go**	The ‘user_roles’ database table is updated and displayed. It includes the combination of Ground Control and Command privileges for this user name for the Test mode (string) for this user station.	
50.	Create a Simulation/Test string Enter the following ECL directive: ECL> **STRING CREATE SIMULATION SPACECRAFTID=AM1 MODE=TEST SERVER=1**	The following event message appears: ‘Active Processing for string 101 was Created.’	
51.	Execute the ‘Command Preparation for String 101’ subprocedure	Ground control and command authority are authorized. The Failover Monitoring page includes the following system parameter values: SYS_STRING_ID = 101 SYS_DATA_SRC = Simulation SYS_MODE = TEST	

52.	Execute the ‘Delete String 101’ subprocedure with the following exceptions: Enter the following sql commands in the applicable steps for the test mode (string): 1> **delete from user_roles where user_name=‘<user name>‘ and user_type=2 and mode=2** 1> **insert into user_roles values (‘<user name>‘, 1, 2, 2, 2, ‘<user station>‘)**	The ‘user_roles’ database table is updated and displayed. Event messages as indicated in the ‘Delete String 101’ subprocedure.	
53.	Exit from the ‘user_roles’ database table. Enter the following sql command: 1> **quit**	A UNIX prompt is received	
54.	**<u>Create a Real-Time/Test String (101)</u>** Enter the following ECL directive: ECL> **STRING CREATE REALTIME SPACECRAFTID=AM1 MODE=TEST SERVER=1**	The following event message appears: ‘Active processing for string 101 was Created.’	
55.	Execute the ‘Command Preparation for String 101’ subprocedure	Ground control and command authority are authorized. The Failover Monitoring page includes the following system parameter values: SYS_STRING_ID = 101 SYS_DATA_SRC = Realtime SYS_MODE = TEST	

56.	Disconnect from String 101. Enter the following ECL directive: ECL> **STRING DISCONNECT STRING=101**	The following event messages appear: 'User successfully disconnected from String 101'	
57.	Delete String 101. Enter the following ECL directive: ECL> **STRING DELETE STRING=101**	The following event message appears: 'Active processing for String 101 was deleted.'	
58.	**<u>Backup String Creation</u>**	(No expected result/output; information only)	
59.	Search the configuration file identifying the Real-Time Server(s) and user stations to see if a backup Real-Time Server has been specified. Enter the following in a cmdtool window. %: **cd /fosb/test/am1/config** %: **more FrCfRmsAuthorityInfo.cnfg** Look for an entry that contains a backup Real-Time Server, i.e., a server with ROLE=2 and ID=2.	The user determines if a backup Real-Time Server needs to be specified.	

60.	If the backup Real-Time Server is already included in the 'FrCfRmsAuthorityInfo.cnfg' file, go to the next step. Otherwise, edit this file to specify a backup Real-Time Server by entering the following in a cmdtool window: **[<backup Real-Time Server name>, 1296]** **ROLE 2** **ID 2** **[<backup Real-Time Server name>]** Display the 'FrCfRmsAuthorityInfo.cnfg' file: %: **more FrCfRmsAuthorityInfo.cnfg**	The 'FrCfRmsAuthorityInfo.cnfg' file is updated and displayed	
61.	Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) procedure to bring up the **non-active** Real-Time Server *(Wait for completion of Real-Time Server startup before going to the next step.)*	Non-active Real-Time Server Startup is complete when the following message appears in the Event Display: 'Successfully performed nameserver register on RMS PtToPt Endpoint'	
62.	Bring up the Failover-Monitoring display page for String 100. In the 'Control Window', click on the 'TlmWins' button. In the 'Tlm Wins' menu, select 'Failover-Monitoring.	The Failover Monitoring page and includes the following Real-Time Server values: SYS_RTS_ID = 1 SYS_BACKUP_RTS_ID = 0 SYS_INACTIVE_RTS_ID = 0	

63.	Try to create a backup logical string on the **active** Real-Time Server by entering the following in the ECL directive line of the Control Window: ECL> **STRING CREATE BACKUP SERVER=1 STRING=100**	The backup string is **not** created (since the active server cannot simultaneously be the backup server), and the following message appears on the Event Display: 'Unable to create Backup String on RTS <Real-Time Server name> because active string processing exists on this RTS.'	
64.	Create a backup logical string on the **non-active** Real-Time Server by entering the following in the ECL directive line of the Control Window: ECL> **STRING CREATE BACKUP SERVER=2 STRING=100** *(Wait for completion of backup directive before going to the next step.)*	The backup string is created, and the following message appears on the Event Display: 'Successfully created backup processing for string 100.' The Failover-Monitoring display page includes the following Real-Time Server values: SYS_RTS_ID = 1 SYS_BACKUP_RTS_ID = 2 SYS_INACTIVE_RTS_ID = 0	
65.	Display the number of endpoints for the **backup Real-Time Server** by entering the following in a cmdtool window. %: **show.sh** Note the number of endpoints.	There are 33 endpoints on the backup Real-Time Server: '(33 rows affected)'	

66.	Simulate a software failure by gracefully terminating the Ground Script Controller process on the active Real Time Server for String 100. Enter the following in a cmdtool window: %: **ps -ea** %: **kill -9 <Ground Script Controller process id>**	Within 60 seconds, an event message indicates that the Ground Script Controller process has been terminated: 'Active strand for string 100 failed due to failure of <Ground Script Controller process name> process. Suggest failover.'	
67.	Initiate the failover from the active Real-Time Server to the backup Real-Time Server for String 100 by entering the following in the ECL directive line of the Control Window: ECL> **STRING FAILOVER STRING=100** *(Wait 60 seconds before executing the next step.)*	Within 60 seconds, the following occur: The Real-Time Server 1 is **temporarily** the **inactive** server until failover is complete. Event messages appear indicating that Real-Time Server 2 is coming up as the **active server** and the failover was successful. Note: If failover is unsuccessful (i.e., backup and inactive servers are not both 0), an event message will appear notifying the user to delete string 100.	
68.	Close the existing Failover Monitoring display page, and bring up a new Failover-Monitoring display page. In the 'Control Window', click on the 'TlmWins' button. In the 'Tlm Wins' menu, select 'Failover-Monitoring.	The existing Failover Monitoring page closes, and the new Failover Monitoring display page appears. The Failover-Monitoring display page includes the following Real-Time Server values: SYS_RTS_ID = 2 SYS_BACKUP_RTS_ID = 0 SYS_INACTIVE_RTS_ID = 0	
69.	End of test.		

Tivoli Test Procedure

Test Case No: SYS-3060FPB

Test Configuration: See Appendix G

Test Support: Powered-up FOS servers; two user stations; EOC LAN; and FOS Server and User Station startup scripts.

Test Case Description:

This test is designed to verify that the EOC monitors periodically monitors system resource levels and provides user notification, via Tivoli event messages, when there is a change in status of certain system components and when pre-defined system resources exceed or are less than configurable thresholds. Thresholds and associated monitoring frequency of certain system resource parameters are re-configured in Tivoli, which generates system monitoring event messages. A printer, user station, and the Data Server are unplugged, brought down, re-plugged, and re-initialized to trigger applicable event messages.

Note: The Tivoli event messages reflect the predefined parameter settings, although the event messages are triggered based on the current settings, which are established during this test.

Success Criteria:

This test is successful when monitoring thresholds and associated frequencies of certain EOC system resource parameters can be reconfigured; Tivoli compares values for these parameters with the reconfigured thresholds at the reconfigured frequencies; and Tivoli generates event messages when the values of these parameters exceed or are less than the reconfigured thresholds and upon change in status of certain system components.

Step Id	Action	Expected Result/Output	Pass/ Fail
1.	**<u>FOS Server and User Station Startup</u>**	(No expected result/output; information only)	

2.	Log in to an EOC user station, using UNIX login procedure, by entering User Name and Password Username: **<user name>** Password: ************	The login is accepted and two UNIX cmdtool windows appear	
3.	Note: This step is necessary only if the Data Server is not up. Execute applicable portions of the 'FOS Server and User Station Startup and Shutdown' test procedure (SYS-2000B) to bring up FOS Data Server. *(Wait for initialization of the Data Server to complete before going to the next step)*	The FOS Data Server is properly initialized	
4.	Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) test procedure to bring up the EOC user station. *(Wait for completion of user station startup)*	User station startup is complete when the Control Window comes up	
5.	Invoke the Global Event Display. In the 'Control Window', click on the 'Tools' button. In the 'Tools' menu, select 'Event_Display-Global'	The 'Tools' menu comes up, then closes. The 'Event Display' comes up.	

6.	Note: This step is necessary only if the Data Server is not up. Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) procedure to bring up the Real-Time Server *(Wait for completion of Real-Time Server startup before going to the next step.)*	Real-Time Server Startup is complete when the following message appears in the Event Display: 'Active processing for String 100 was created.'	
7.	**<u>Tivoli Management Environment (TME) Setup</u>**	(No expected result/output; information only)	
8.	Enter the following in a new cmdtool window: %: **cd /fosb/test/am1/scripts/setup** (**test** is alias) %: **xhost +** %: **source /etc/Tivoli/setup_env.csh** %: **tivoli**	The TME Desktop window comes up with several icons	
9.	In the TME window, double-click on 'Administrators' icon In 'Administrators' window, select 'Root EOC Support'. In 'Root EOC Support' window, select 'EOC-Support'.	A 'Policy Region: EOC-Support' window comes up with many icons, including one icon for each host on the network and several Profile Manager icons	
10.	In the 'Policy Region: EOC-Support' window, double-click on the icon associated with this user station	A window associated with this user station comes up with several icons	

11.	**<u>Configure Tivoli Space Threshold and Frequency (F-FOS-00735)</u>**	(No expected result/output; information only)	
12.	In the window associated with this user station, double-click 'FOSGeneralProfile' icon	A 'Sentry Profile Properties' window comes up with one or more entries (rows) of information	
13.	In the 'Sentry Profile Properties' window, double-click on the row containing 'Tivoli DB free space'	An 'Edit Sentry Monitor' window comes up with editable fields	
14.	In the 'Edit Sentry Monitor' window: *Note the current triggering mechanism and threshold so they can be reset at the end of this test procedure.* After 'trigger when', select 'Less than' Before '(Mbytes)', enter: **1000000** Click 'Set Monitoring Schedule' button	A 'Set Monitoring Schedule' window comes up with editable fields	
15.	In the 'Set Monitoring Schedule' window: *Note the current schedule frequency so it can be reset at the end of this test procedure.* After 'Check monitor every', enter: **2** Select 'minutes' Click 'Change & Close' button	The 'Set Monitoring Schedule' window closes	

16.	In the ‘Edit Sentry Monitor’ window: Click ‘Change & Close’ button	The ‘Edit Sentry Monitor’ window closes. The ‘Sentry Profile Properties’ window shows a schedule of every 2 minutes for the reconfigured row. An ‘exclamation point’ symbol appears next to the affected entry.	
17.	In the ‘Sentry Profile Properties’ window, under the ‘Profile’ pull-down menu, select ‘Save’. When the ‘Save’ is complete, select ‘Distribute’ under the ‘Profile’ pull-down menu.	The ‘exclamation point’ symbol disappears after the Save is complete. A ‘Distribute Profile’ window comes up.	
18.	In the ‘Distribute Profile’ window, click on ‘Merge profile with configuration file(s) button. Click ‘Distribute & Close’ button. In the ‘Sentry Profile Properties’ window, under ‘Profile’ pull-down menu, select ‘Close’.	The ‘Distribute Profile’ window closes. The ‘Sentry Profile Properties’ window closes.	
19.	**Configure NFS Bad Calls Threshold and Frequency (F-FOS-00705 c)**	(No expected result/output; information only)	

20.	Repeat the ‘Configure Tivoli Space Threshold and Frequency’ steps with the following exceptions: In the window associated with this user station, in the ‘Profiles’ section of the ‘Profile Manager’ window, double-click on ‘Network Profile’ icon. In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘NFS bad calls’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Greater than’ Before ‘(calls)’, enter: **0**	The following windows come up and then close: ‘Edit Sentry Monitor’ window; ‘Set Monitoring Schedule’ window; ‘Distribute Profile’ window. The reconfigured row shows a schedule of every 2 minutes in ‘Sentry Profile Properties’ window.	
21.	**<u>Configure Available Swap Space Threshold and Frequency (F-FOS-00715 a)</u>**	(No expected result/output; information only)	

22.	Repeat the ‘Configure Tivoli Space Threshold and Frequency’ steps with the following exceptions: In the window associated with this user station, double-click on ‘System Profile’ icon. In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘Available swap space’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Greater than’ Before ‘Mbytes’, enter: **2**	The following windows come up and then close: ‘Sentry Profile Properties’ window; ‘Edit Sentry Monitor’ window; ‘Set Monitoring Schedule’ window; ‘Distribute Profile’ window. The reconfigured row shows a schedule of every 2 minutes in ‘Sentry Profile Properties’ window.	
23.	**Configure Number of Zombie Processes Threshold and Frequency (F-FOS-00715 c)**	(No expected result/output; information only)	

24.	Repeat the ‘Configure Tivoli Space Threshold and Frequency’ steps with the following exceptions: In the window associated with this user station, double-click on ‘System Profile’ icon. In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘Lingering terminated processes’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Not equal to’ Then enter: **10**	The following windows come up and then close: ‘Edit Sentry Monitor’ window; ‘Set Monitoring Schedule’ window; ‘Distribute Profile’ window. The reconfigured row shows a schedule of every 2 minutes in ‘Sentry Profile Properties’ window.	
25.	**<u>Configure Number of Pageouts Threshold and Frequency (F-FOS-00715 b)</u>**	(No expected result/output; information only)	
26.	Repeat the ‘Configure Tivoli Space Threshold and Frequency’ steps with the following exceptions: In the window associated with this user station, double-click on ‘System Profile’ icon. In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘Page-outs’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Not equal to’ Before ‘Kbytes/sec’, enter: **99**	The following windows come up and then close: ‘Edit Sentry Monitor’ window; ‘Set Monitoring Schedule’ window; ‘Distribute Profile’ window. The reconfigured row shows a schedule of every 2 minutes in ‘Sentry Profile Properties’ window.	

27.	**<u>Configure Number of Inodes Threshold and Frequency (F-FOS-00705 a)</u>**	(No expected result/output; information only)	
28.	Repeat the 'Configure Tivoli Space Threshold and Frequency' steps with the following exceptions: In the window associated with this user station, double-click on 'FOS Client Profile' icon. In the 'Sentry Profile Properties' window, double-click on the row containing 'Inodes free (/data)'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Greater than' Before 'inodes', enter: **1** In the 'Sentry Profile Properties' window, double-click on the row containing 'Inodes free (/usr)'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Greater than' Before 'inodes', enter: **1**	The following windows come up and then close: 'Sentry Profile Properties' window; 'Edit Sentry Monitor' window; 'Set Monitoring Schedule' window; 'Distribute Profile' window. The reconfigured rows show a schedule of every 2 minutes in 'Sentry Profile Properties' window.	
29.	**<u>Configure Free Space Threshold and Frequency (F-FOS-00705 b)</u>**	(No expected result/output; information only)	

30.	Repeat the ‘Configure Tivoli Space Threshold and Frequency’ steps with the following exceptions: In the window associated with this user station, double-click on ‘FOS Client Profile’ icon. In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘Space free (/data)’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Greater than’ Before ‘Mbytes’, enter: **3** In the ‘Sentry Profile Properties’ window, double-click on the row containing ‘Space free (/usr)’. In the ‘Edit Sentry Monitor’ window: After ‘trigger when’, select ‘Greater than’ Before ‘Mbytes’, enter: **3**	The following windows come up and then close: ‘Edit Sentry Monitor’ window; ‘Set Monitoring Schedule’ window; ‘Distribute Profile’ window. The reconfigured rows show a schedule of every 2 minutes in ‘Sentry Profile Properties’ window.	
31.	**<u>Configure CPU Utilization Threshold and Frequency (F-FOS-00700)</u>**	(No expected result/output; information only)	

32.	Repeat the 'Configure Tivoli Space Threshold and Frequency' steps with the following exceptions: In the window associated with this user station, double-click on 'FOS Client Profile' icon. In the 'Sentry Profile Properties' window, double-click on the row containing 'Numeric script (...)'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Greater than' Then enter: **1**	The following windows come up and then close: 'Edit Sentry Monitor' window; 'Set Monitoring Schedule' window; 'Distribute Profile' window. The reconfigured row shows a schedule of every 2 minutes in 'Sentry Profile Properties' window.	
33.	**<u>Configure Print Queue Status Threshold and Frequency (F-FOS-00725)</u>**	(No expected result/output; information only)	
34.	In the 'Policy Region: EOC-Support' window, double-click on 'FOSServerProfileMgrint'	A 'Profile Manager' window comes up with several icons contained in two sections.	

35.	Repeat the 'Configure Tivoli Space Threshold and Frequency' steps with the following exceptions: In the window associated with this user station, in the 'Profiles' section of the 'Profile Manager' window, double-click on 'FOS Server Profile' icon. In the 'Sentry Profile Properties' window, double-click on the row containing 'Status of print queue'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Becomes unavailable'	The following windows come up and then close: 'Sentry Profile Properties' window; 'Edit Sentry Monitor' window; 'Set Monitoring Schedule' window; 'Distribute Profile' window. The reconfigured row shows a schedule of every 1 minute in 'Sentry Profile Properties' window.	
36.	**<u>Configure Host Status Threshold and Frequency (F-FOS-00730)</u>**	(No expected result/output; information only)	
37.	Repeat the 'Configure Tivoli Space Threshold and Frequency' steps with the following exceptions: In the window associated with this user station, double-click on 'FOS Server Profile' icon. In the 'Sentry Profile Properties' window, double-click on the row containing 'Host status (<host name>)'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Becomes unavailable'	The following windows come up and then close: 'Sentry Profile Properties' window; 'Edit Sentry Monitor' window; 'Set Monitoring Schedule' window; 'Distribute Profile' window. The reconfigured row shows a schedule of every 1 minute in 'Sentry Profile Properties' window.	
38.	**<u>Configure Daemon Status Threshold and Frequency (F-FOS-00720)</u>**	(No expected result/output; information only)	

39.	Repeat the 'Configure Tivoli Space Threshold and Frequency' steps with the following exceptions: In the window associated with this user station, double-click on 'Data Server Profile' icon. In the 'Sentry Profile Properties' window, double-click on the row containing 'Daemon status'. In the 'Edit Sentry Monitor' window: After 'trigger when', select 'Becomes unavailable'	The following windows come up and then close: 'Sentry Profile Properties' window; 'Edit Sentry Monitor' window; 'Set Monitoring Schedule' window; 'Distribute Profile' window. The reconfigured row shows a schedule of every 1 minute in 'Sentry Profile Properties' window.	
40.	**<u>Monitor Tivoli Event Messages</u>**	(No expected result/output; information only)	
41.	Filter out all event irrelevant event messages. In the Event Display, under the 'Filter' pull-down menu, select 'Event Type'. In the pop-up menu, click on (de-select) all Event Types, except 'SYS' and 'RMS' (which remain selected). Click on 'Apply'. Click on 'Close'.	The Event Display contains only SYS and RMS events. Tivoli event messages are displayed for each reconfigured system resource parameter whose value meets the re-defined criteria. Thus, there is an event message for the following: Tivoli database free space; NFS bad calls; Available swap space; Lingering terminated processes; Page-outs; Inodes; Free space; CPU utilization.	

42.	Print event messages. In a new cmdtool window, enter the following: %: **snap**	The Event Display is printed.	
43.	**<u>Monitor hardware status changes:</u>**	(No expected result/output; information only)	
44.	Emulate print queue unavailability by pulling the plug connected to the printer.	Within 2 minutes, an event message appears indicating print queue unavailability.	
45.	Emulate print queue availability by reinserting the plug connected to the printer.	Within 2 minutes, an event message appears indicating print queue availability.	
46.	Execute applicable steps of the 'FOS Server and User Station Startup and Shutdown' (SYS-2000B) test procedure to bring up another EOC user station. *(Wait for completion of user station startup)*	User station startup is complete when the Control Window comes up	
47.	Emulate a hardware failure by pulling the plug connected to the LAN on this 'other' user station.	Within 2 minutes, an event message appears indicating user station failure. The following message appears in the cmdtool (console) window: 'le0: No carrier - cable disconnected or hub link test disabled?' (Operational LAN), or 'le1: NFS server opsraid OK' (Support LAN).	

48.	Re-insert the plug and terminate all FOS processes on this 'other' user station by entering the following in a cmdtool window: %: **MyKill** *(Wait until all processes terminate.)* Enter the following in a cmdtool window: %: **rm.sh**	The following message appears in the cmdtool (console) window: 'le0: NFS server opsraid OK' (Operational LAN), or 'le1: NFS server opsraid OK' (Support LAN). All processes and endpoints are terminated.	
49.	Execute applicable steps of the 'FOS Server and User Station Startup' (SYS-2000B) test procedure to bring up this 'other' user station. *(Wait for completion of user station startup)*	User station startup is complete when the Control Window appears on this 'other' user station. Within 2 minutes of user station startup completion, an event message appears indicating this 'other' user station has come back up.	
50.	**Reconfigure Tivoli Parameters:**	(No expected result/output; information only)	
51.	Reconfigure Tivoli parameters to their previous values by repeating the 'Configure Tivoli Space Threshold and Frequency' steps for all modified parameters.	After several minutes, there are fewer Tivoli event messages, reflecting the pre-test Tivoli configuration.	
52.	End of test.		

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Appendix A. FOS Test Dataset Definitions

Data Set	Release	Data Set Description
Spacecraft database provided by Martin Marietta Corporation (MMC).	A - Prelim. B constraint definitions	Spacecraft database contains both spacecraft and instrument information. Should contain s/c health & safety, housekeeping telemetry parameter descriptions including EU, limit definitions. Spacecraft/instrument command descriptions should contain constraint records, command syntax rules, command validation parameters. Activity Constraint definitions should also be included.
Housekeeping; health & safety; standby telemetry	A	Housekeeping/health & safety; diagnostic packets must contain valid spacecraft and MODIS, MOPITT, MISR, CERES parameter values (i.e. most of raw values in bounds); all APIDs supported. Raw data for 95% of parameters should not result in conversion errors.
SSR dump data	B	Raw data for 95% of parameters should not result in conversion errors.
SCC/instrument microprocessor dump data	B	Scriptable, addresses variable and scriptable to allow for verification of ground image.
EDOS CODA and CODA Report files	B	Provided by EDOS
Operational Data Messages	B	Provided by NCC
Return Channel Time Delay Messages	B	Provided by NCC
Time Transfer Messages	B	Provided by NCC

Data Set	Release	Data Set Description
FDF planning aids	B	FDF Planning Aid files should include one or more of the following: a. Real-time Coarse Attitude Determination b. EOS Mission Star Catalog c. Star Density Profile d. Star Interference e. ESA Sun-Moon Interference f. TDRS State Vectors and Availability Times g. EOS Brouwer-Lyddane Elements h. TDRS Brouwer-Lyddane Elements i. EOS Repaired Ephemeris j. Simulated Spacecraft Ephemeris k. Filter Tuning Parameters for TONS filter l. Omni to TDRS Viewing Times m. HGA to TDRSS Viewing Times n. Omni to Ground Station Viewing Times: o. HGA Gimbal Angles p. Predicted Ephemeris q. Orbit Adjust Maneuver Request r. Orbit Adjust Burn Times and Duration s. TDRS Navigation Contact Guidelines
MODIS, MOPITT, MISR, CERES Activity definitions. Preliminary Resource schedule.	B	BAP files should contain activity definitions with time identifiers and/or offsets. PRS should contain events pertaining to the same contact as those in the instrument BAPs being updated/displayed.
NCC message data; TDRSS availability schedule files.	A - GCM Status and disposition Messages. B1 - Complete	NCC message files may include one or more of the following: a. Communication test message b. User Performance Data Request c. User Schedule - Normal support d. User Schedule - Premium support e. User schedule - simulation support f. GCM status g. GCM Disposition h. Schedule Deletion Notification Message i. Schedule Result Message j. Schedule Add Request k. Schedule Delete Request Message l. Acknowledgment
Preliminary resource schedule; TDRSS availability schedules	A	Resource schedules contain activities causing TDRSS scheduling conflict.

Data Set	Release	Data Set Description
TDRSS availability schedule.	A	Must be available despite unavailability of NCC for transmitting the schedule until Release B.
Spacecraft/ instrument commands	A - limited B	Command data should support the following command capabilities: a. Initiate Load dump b. Reset load dump c. Set/Inhibit Stored command ID d. Activate/Abort RTC Sequences e. Insert NOOP, JUMP, and HALT commands f. Mode Transition
Discrete Commands	A - limited B	a. Accept power up/down SCC b. Change mode of SCC c. Change mode of GN&C Subsystem d. Change mode of CT&C Subsystem e. Change mode of the EPS f. Change mode of the instruments g. Enable/disable the SSR h. Begin playback of the SSR
EDOS Simulation	A; GSFC testing only	Simulation of EDOS for receipt of EDU/CCSDS command packets transmitted by EOC
Spacecraft Flight Software Loads	B	Includes accepting flight software and data table loads from the SDVF
Spacecraft/ instrument microprocessor loads.	A	Spacecraft and instrument table and microprocessor loads and commands called for in the DAS must be supported by the FOS operational database
MISR, MODIS, MOPITT, CERES microprocessor table loads.	B	Loads specified by either address locations or table name; Also the capabilities to abort or reject a load anytime before completion
Discrete/non discrete spacecraft and instrument commands.	A	Several examples for each; commands called for in the DAS must be supported by the FOS operational database
Spacecraft/ instrument command groups	A	All command groups transmitted to the EOC for inclusion into the schedule must be supported by the FOS operational data base.
LTIP and LTSP	B	LTIP and LTSP files must be resident at the EOC despite availability of the SMC to transmit the files during the Release A timeframe
Telemetry and Ground Telemetry Archive Files	A - limited B - full	Used for the verification of analysis products. Raw data for 95% of parameters should not result in conversion errors.
Relative Time Command (RTC) Sequence load data sets	A	RTS load contents available in the EOC for Command Management Subsystem (CMS) testing

Data Set	Release	Data Set Description
Table Load data set	A	Table load contents available in the EOC for Command Management Subsystem (CMS) testing
Flight Software Load data set	B	Flight Software load contents available in the EOC for Command Management Subsystem (CMS) testing
SDVF transfer of flight software load	B	Software Development & Verification Facility (SDVF) simulation for verification of flight software transfer to the EOC.
Science Computing Facility (SCF) transfer of instrument microprocessor load	B	SCF simulation for verification of instrument microprocesor load transfer to the EOC.
ASTER ICC/IST Simulation; ASTER instrument activity transfer to the EOC	B	ASTER ICC/IST simulation for verification of connectivity and transfer of ASTER instrument activities to the EOC.

Appendix B. Level 4 Requirements to Test Case Mapping

The following matrix maps each applicable level 4 requirement to the associated functional test case or set of test cases in which they are verified.

Level 4 ID	Test Case
F-ANA-01010	ANA-2000B
F-ANA-01015	NCC-2040B
F-ANA-01020	ANA-2110B
F-ANA-01025	ANA-2100B
F-ANA-01025	IST-2010B
F-ANA-01030	ANA-2120B
F-ANA-01030	IST-2010B
F-ANA-01040	FDF-2000B
F-ANA-01050	NCC-2040B
F-ANA-01060	CONT-2030B
F-ANA-01070	POST-B
F-ANA-01080	POST-B
F-ANA-02010	ANA-2090B
F-ANA-02030	ANA-2090B
F-ANA-02030	IST-2010B
F-ANA-02040	ANA-2090B
F-ANA-02050	ANA-2090B
F-ANA-02050	IST-2010B
F-ANA-03010	ANA-2000B
F-ANA-03012	EDOS-2001B
F-ANA-03012	NCC-2040B
F-ANA-03015	ANA-2110B
F-ANA-03020	ANA-2090B
F-ANA-03030	ANA-2110B
F-ANA-03040	ANA-2090B
F-ANA-03050	ANA-2090B
F-ANA-03060	ANA-2090B
F-ANA-03070	ANA-2110B
F-ANA-03080	ANA-2110B
F-ANA-03100	ANA-2100B
F-ANA-03100	IST-2010B
F-ANA-03110	ANA-2100B
F-ANA-03110	IST-2010B

Level 4 ID	Test Case
F-ANA-03120	ANA-2100B
F-ANA-03120	IST-2010B
F-ANA-03125	ANA-2100B
F-ANA-03125	IST-2010B
F-ANA-03130	ANA-2100B
F-ANA-03130	IST-2010B
F-ANA-03135	ANA-2000B
F-ANA-03140	ANA-2090B
F-ANA-03150	ANA-2090B
F-ANA-03160	ANA-2090B
F-ANA-03170	ANA-2090B
F-ANA-03180	ANA-2100B
F-ANA-03180	IST-2010B
F-ANA-03190	ANA-2100B
F-ANA-03190	IST-2010B
F-ANA-03200	ANA-2070B
F-ANA-03200	IST-2010B
F-ANA-03210	ANA-2070B
F-ANA-03210	IST-2010B
F-ANA-04010	ANA-2000B
F-ANA-04020	ANA-2000B
F-ANA-04020	IST-2010B
F-ANA-04025	ANA-2100B
F-ANA-04030	FDF-2000B
F-ANA-04035	EDOS-2001B
F-ANA-04035	NCC-2040B
F-ANA-04040	ANA-2120B
F-ANA-04040	IST-2010B
F-ANA-04050	ANA-2040B
F-ANA-04050	IST-2010B
F-ANA-04060	OPR-2000B
F-ANA-04070	ANA-2000B
F-ANA-04080	ANA-2000B
F-ANA-04090	ANA-2000B
F-ANA-04100	ANA-2000B
F-ANA-04110	ANA-2000B
F-ANA-04120	ANA-2000B
F-ANA-04120	IST-2010B
F-ANA-04130	ANA-2000B
F-ANA-04140	POST-B
F-ANA-04150	POST-B
F-ANA-04200	CONT-2010B

Level 4 ID	Test Case
F-ANA-04210	CONT-2010B
F-ANA-04220	CONT-2010B
F-ANA-04310	ANA-2100B
F-ANA-04310	IST-2010B
F-ANA-04315	ANA-2120B
F-ANA-04320	ANA-2120B
F-ANA-04330	ANA-2120B
F-ANA-04340	ANA-2120B
F-ANA-04350	ANA-2060B
F-ANA-04360	ANA-2060B
F-ANA-04360	IST-2010B
F-ANA-04370	ANA-2060B
F-ANA-04375	ANA-2060B
F-ANA-04380	ANA-2060B
F-ANA-04390	ANA-2060B
F-ANA-04400	ANA-2060B
F-ANA-04410	ANA-2070B
F-ANA-04415	ANA-2070B
F-ANA-04420	ANA-2070B
F-ANA-04430	ANA-2070B
F-ANA-04510	EDOS-2010B
F-ANA-04520	EDOS-2010B
F-ANA-04530	EDOS-2010B
F-ANA-05010	ANA-2100B
F-ANA-05020	ANA-2100B
F-ANA-05030	ANA-2100B
F-ANA-05031	ANA-2100B
F-ANA-05032	ANA-2100B
F-ANA-05033	ANA-2100B
F-ANA-05034	ANA-2100B
F-ANA-05040	ANA-2100B
F-ANA-05050	ANA-2100B
F-ANA-05060	ANA-2100B
F-ANA-05070	ANA-2100B
F-ANA-05080	ANA-2100B
F-ANA-05090	ANA-2100B
F-ANA-05100	ANA-2100B
F-ANA-05110	ANA-2100B
F-ANA-05120	ANA-2100B
F-ANA-05130	ANA-2100B
F-ANA-05140	ANA-2100B
F-ANA-05150	ANA-2100B

Level 4 ID	Test Case
F-ANA-05160	FDF-2000B
F-ANA-05170	FDF-2000B
F-ANA-05180	FDF-2000B
F-ANA-05190	FDF-2000B
F-ANA-05210	ANA-2100B
F-ANA-05220	ANA-2110B
F-ANA-05250	ANA-2100B
F-ANA-06020	ANA-2040B
F-ANA-06020	IST-2010B
F-ANA-06021	ANA-2040B
F-ANA-06021	IST-2010B
F-ANA-06022	ANA-2040B
F-ANA-06022	IST-2010B
F-ANA-06023	ANA-2040B
F-ANA-06023	IST-2010B
F-ANA-06030	ANA-2040B
F-ANA-06030	ANA-2100B
F-ANA-06030	CONT-2010B
F-ANA-06030	CONT-2030B
F-ANA-06030	CONT-2040B
F-ANA-06040	ANA-2040B
F-ANA-06040	IST-2010B
F-ANA-06045	ANA-2040B
F-ANA-06050	ANA-2040B
F-ANA-06050	IST-2010B
F-ANA-07010	EDOS-2001B
F-ANA-07010	NCC-2040B
F-ANA-07020	EDOS-2001B
F-ANA-07020	NCC-2040B
F-ANA-07030	EDOS-2001B
F-ANA-07030	NCC-2040B
F-ANA-07110	ANA-2020B
F-ANA-07120	ANA-2020B
F-ANA-07130	ANA-2020B
F-ANA-07160	ANA-2020B
F-ANA-07180	ANA-2020B
F-ANA-07210	ANA-2030B
F-ANA-07215	ANA-2030B
F-ANA-07220	ANA-2030B
F-ANA-07230	ANA-2030B
F-ANA-07240	ANA-2030B
F-ANA-07250	ANA-2030B

Level 4 ID	Test Case
F-ANA-07260	ANA-2030B
F-ANA-07280	ANA-2030B
F-ANA-07300	ANA-2020B
F-ANA-07310	ANA-2020B
F-ANA-07310	ANA-2030B
F-ANA-07320	ANA-2020B
F-ANA-07320	ANA-2030B
F-ANA-07330	ANA-2030B
F-ANA-07400	CONT-2020B
F-ANA-07420	CONT-2020B
F-ANA-07430	CONT-2020B
F-ANA-07440	CONT-2020B
F-ANA-07500	POST-B
F-ANA-07510	POST-B
F-ANA-07520	POST-B
F-ANA-07530	POST-B
F-ANA-07540	POST-B
F-ANA-07550	POST-B
F-ANA-08010	ANA-2120B
F-ANA-08020	ANA-2120B
F-ANA-08030	ANA-2120B
F-ANA-08040	ANA-2120B
F-ANA-08050	ANA-2120B
F-ANA-08060	ANA-2120B
F-ANA-08060	IST-2010B
F-ANA-08070	ANA-2000B
F-ANA-09010	POST-B
F-ANA-09020	POST-B
F-ANA-09030	POST-B
F-ANA-09040	POST-B
F-ANA-09050	POST-B
F-ANA-09060	POST-B
F-ANA-09070	CONT-2010B
F-ANA-09080	CONT-2010B
F-ANA-09090	CONT-2010B
F-ANA-09100	CONT-2010B
F-ANA-09110	CONT-2010B
F-ANA-09120	CONT-2010B
F-ANA-09130	CONT-2010B
F-ANA-09140	CONT-2010B
F-ANA-09150	CONT-2010B
F-ANA-09160	CONT-2010B

Level 4 ID	Test Case
F-ANA-09300	CONT-2010B
F-ANA-09305	CONT-2010B
F-ANA-09310	CONT-2010B
F-ANA-09315	CONT-2010B
F-ANA-17010	CONT-2030B
F-ANA-17020	CONT-2030B
F-ANA-17030	CONT-2030B
F-ANA-17040	CONT-2030B
F-ANA-17050	CONT-2030B
F-ANA-17060	CONT-2030B
F-CMD-01120	ETE-2010B
F-CMD-01125	ETE-2010B
F-CMD-01140	POST-B
F-CMD-01150	CMS-2000B
F-CMD-01160	ETE-2010B
F-CMD-01165	CMD-2070B
F-CMD-01180	CMD-2030B
F-CMD-01185	EDOS-2002B
F-CMD-01230	CMD-2070B
F-CMD-01250	ETE-2010B
F-CMD-01310	CMD-2070B
F-CMD-01315	FUI-2060B
F-CMD-01317	CMD-2015B
F-CMD-01320	CMD-2070B
F-CMD-01325	CMD-2050B
F-CMD-01330	CMD-2050B
F-CMD-01335	CMD-2050B
F-CMD-01340	CMD-2050B
F-CMD-01345	CMD-2050B
F-CMD-02110	CMD-2001B
F-CMD-02120	CMD-2001B
F-CMD-02125	CMD-2001B
F-CMD-02130	CMD-2001B
F-CMD-02135	CMD-2001B
F-CMD-02140	CMD-2001B
F-CMD-02210	CMD-2030B
F-CMD-02215	CMD-2030B
F-CMD-02215	IST-2010B
F-CMD-02220	CMD-2030B
F-CMD-02225	CMD-2030B
F-CMD-02230	CMD-2030B
F-CMD-02235	CMD-2030B

Level 4 ID	Test Case
F-CMD-02240	CMD-2030B
F-CMD-02245	CMD-2030B
F-CMD-02250	CMD-2030B
F-CMD-02255	CMD-2030B
F-CMD-02260	CMD-2030B
F-CMD-02265	CMD-2030B
F-CMD-03110	CMD-2030B
F-CMD-03115	CMD-2030B
F-CMD-03125	CMD-2030B
F-CMD-03127	CMD-2030B
F-CMD-03130	CMD-2030B
F-CMD-03133	CMD-2030B
F-CMD-03135	CMD-2030B
F-CMD-03210	CMD-2030B
F-CMD-03215	CMD-2030B
F-CMD-03215	FUI-2060B
F-CMD-03220	CMD-2050B
F-CMD-03225	CMD-2030B
F-CMD-03230	CMD-2030B
F-CMD-03310	CMD-2050B
F-CMD-03315	CMD-2050B
F-CMD-03320	CMS-2040B
F-CMD-03320	CMS-2060B
F-CMD-03320	CMS-2170B
F-CMD-03410	CMD-2030B
F-CMD-04110	ETE-2000B
F-CMD-04115	CMD-2030B
F-CMD-04120	CMD-2030B
F-CMD-04120	CMD-2070B
F-CMD-04130	CMD-2050B
F-CMD-04210	CMD-2070B
F-CMD-04215	CMD-2070B
F-CMD-04220	CMD-2070B
F-CMD-04225	CMD-2070B
F-CMD-04230	CMD-2070B
F-CMD-05110	CMD-2080B
F-CMD-05115	CMD-2030B
F-CMD-05115	CMD-2080B
F-CMD-05120	CMD-2070B
F-CMD-05120	CMD-2080B
F-CMD-05220	CMD-2080B
F-CMD-05225	CMD-2080B

Level 4 ID	Test Case
F-CMD-05230	CMD-2080B
F-CMD-05235	CMD-2080B
F-CMD-05245	CMD-2080B
F-CMD-05247	CMD-2080B
F-CMD-05250	CMD-2050B
F-CMD-05255	CMD-2050B
F-CMD-05310	IST-2010B
F-CMD-05410	IST-2010B
F-CMD-05510	CMD-2050B
F-CMD-06100	EDOS-2002B
F-CMD-06110	EDOS-2002B
F-CMD-06120	EDOS-2002B
F-CMD-11210	CMD-2070B
F-CMD-11211	CMD-2070B
F-CMD-11212	CMD-2070B
F-CMD-11215	CMD-2070B
F-CMD-11226	CMD-2001B
F-CMD-12130	CMD-2070B
F-CMD-12240	CMD-2001B
F-CMD-12245	CMD-2001B
F-CMD-13230	CMD-2001B
F-CMD-14310	CMD-2070B
F-CMD-14313	CMD-2001B
F-CMD-14315	CMD-2070B
F-CMD-15245	CMD-2080B
F-CMD-15515	CMD-2050B
F-CMD-15520	CMD-2050B
F-CMS-00105	PAS-2200B
F-CMS-00110	CMS-2090B
F-CMS-00115	CMS-2090B
F-CMS-00118	CMS-2090B
F-CMS-00120	CMS-2090B
F-CMS-00125	CMS-2090B
F-CMS-00130	CMS-2090B
F-CMS-00140	CMS-2100B
F-CMS-00205	CMS-2090B
F-CMS-00210	CMS-2090B
F-CMS-00215	CMS-2090B
F-CMS-00220	CMS-2090B
F-CMS-00230	CMS-2090B
F-CMS-00235	PAS-2180B
F-CMS-00240	CMS-2090B

Level 4 ID	Test Case
F-CMS-00243	CMS-2090B
F-CMS-00245	CMS-2090B
F-CMS-00250	CMS-2100B
F-CMS-00305	PAS-2110B
F-CMS-00405	PAS-2110B
F-CMS-00425	CMS-2100B
F-CMS-00510	CMS-2100B
F-CMS-00530	CMS-2100B
F-CMS-00550	CMS-2100B
F-CMS-00610	PAS-2200B
F-CMS-00615	PAS-2200B
F-CMS-00620	PAS-2200B
F-CMS-00625	PAS-2200B
F-CMS-00630	PAS-2200B
F-CMS-00635	PAS-2200B
F-CMS-00640	CMS-2090B
F-CMS-00660	PAS-2110B
F-CMS-00670	PAS-2200B
F-CMS-00675	PAS-2200B
F-CMS-00710	CMS-2170B
F-CMS-00720	CMS-2170B
F-CMS-00720	IST-2010B
F-CMS-00725	IST-2010B
F-CMS-00728	IST-2010B
F-CMS-00729	IST-2010B
F-CMS-00730	CMS-2170B
F-CMS-00730	IST-2010B
F-CMS-00735	CMS-2170B
F-CMS-00740	CMS-2170B
F-CMS-00745	CMS-2170B
F-CMS-00750	CMS-2170B
F-CMS-00755	CMS-2170B
F-CMS-00810	CMS-2170B
F-CMS-00820	CMS-2170B
F-CMS-00830	CMS-2170B
F-CMS-00840	CMS-2170B
F-CMS-00850	CMS-2170B
F-CMS-00850	IST-2010B
F-CMS-00860	CMS-2170B
F-CMS-00910	CMS-2180B
F-CMS-00915	CMS-2180B
F-CMS-00915	IST-2010B

Level 4 ID	Test Case
F-CMS-00920	CMS-2180B
F-CMS-00925	CMS-2180B
F-CMS-00930	CMS-2180B
F-CMS-00930	IST-2010B
F-CMS-00935	CMS-2180B
F-CMS-00940	CMS-2180B
F-CMS-00950	CMS-2180B
F-CMS-00950	IST-2010B
F-CMS-01010	CMS-2040B
F-CMS-01020	CMS-2040B
F-CMS-01025	IST-2010B
F-CMS-01028	FDF-2000B
F-CMS-01029	FDF-2000B
F-CMS-01030	CMS-2040B
F-CMS-01110	CMS-2040B
F-CMS-01120	CMS-2040B
F-CMS-01130	CMS-2040B
F-CMS-01140	FDF-2000B
F-CMS-01150	CMS-2040B
F-CMS-01150	IST-2010B
F-CMS-01160	CMS-2040B
F-CMS-01210	CMS-2190B
F-CMS-01215	CMS-2190B
F-CMS-01215	IST-2010B
F-CMS-01220	CMS-2190B
F-CMS-01225	CMS-2190B
F-CMS-01225	IST-2010B
F-CMS-01305	IST-2010B
F-CMS-01310	CMS-2060B
F-CMS-01320	CMS-2060B
F-CMS-01325	CMS-2060B
F-CMS-01330	CMS-2060B
F-CMS-01330	IST-2010B
F-CMS-01340	CMS-2060B
F-CMS-01350	CMS-2060B
F-CMS-01360	CMS-2060B
F-CMS-01360	IST-2010B
F-CMS-01405	IST-2010B
F-CMS-01410	IST-2010B
F-CMS-01420	CMS-2060B
F-CMS-01425	CMS-2060B
F-CMS-01430	CMS-2060B

Level 4 ID	Test Case
F-CMS-01430	IST-2010B
F-CMS-01440	CMS-2060B
F-CMS-01450	CMS-2060B
F-CMS-01460	CMS-2060B
F-CMS-01460	IST-2010B
F-CMS-01505	IST-2010B
F-CMS-01505	PAS-2200B
F-CMS-01512	CONT-2040B
F-CMS-01610	PAS-2200B
F-CMS-01630	PAS-2180B
F-CMS-01710	CMS-2000B
F-CMS-01715	CMS-2000B
F-CMS-01720	CMS-2000B
F-CMS-01725	IST-2010B
F-CMS-01730	IST-2010B
F-CMS-01735	CMS-2000B
F-CMS-01740	CMS-2000B
F-CMS-01743	CMS-2000B
F-CMS-01745	CMS-2000B
F-CMS-01750	CMS-2000B
F-CMS-01760	CMS-2000B
F-CMS-01765	CMS-2000B
F-CMS-01770	CMS-2000B
F-CMS-01775	CMS-2000B
F-CMS-01820	FUI-2050B
F-CMS-01820	IST-2010B
F-CMS-01825	FUI-2050B
F-CMS-01825	IST-2010B
F-CMS-01830	FUI-2050B
F-CMS-01835	FUI-2050B
F-CMS-01840	FUI-2050B
F-CMS-10110	CMS-2090B
F-CMS-10120	CMS-2090B
F-CMS-10125	CMS-2090B
F-CMS-10130	CMS-2100B
F-CMS-10210	CMS-2100B
F-CMS-10220	CMS-2100B
F-CMS-10240	PAS-2180B
F-CMS-10250	CMS-2090B
F-CMS-10255	CMS-2090B
F-CMS-10410	CMS-2100B
F-CMS-10420	CMS-2100B

Level 4 ID	Test Case
F-CMS-10510	IST-2010B
F-CMS-10600	CMS-2090B
F-CMS-10710	CMS-2170B
F-CMS-10720	CMS-2170B
F-CMS-10725	CMS-2180B
F-CMS-10730	CMS-2170B
F-CMS-10740	CMS-2170B
F-CMS-10750	IST-2010B
F-CMS-11170	CMS-2040B
F-CMS-11170	CMS-2060B
F-CMS-11170	CMS-2090B
F-CMS-11170	CMS-2170B
F-CMS-11180	CMS-2190B
F-CMS-11185	CMS-2040B
F-CMS-11190	CMS-2040B
F-CMS-11310	CMS-2060B
F-CMS-11320	CMS-2060B
F-CMS-11330	CMS-2060B
F-CMS-11340	CMS-2060B
F-CMS-11410	CMD-2070B
F-CMS-11420	CMS-2060B
F-CMS-11510	IST-2010B
F-CMS-11720	CMS-2000B
F-DMS-00110	DBS-2000B
F-DMS-00120	DBS-2000B
F-DMS-00130	DBS-2000B
F-DMS-00140	DBS-2000B
F-DMS-00150	PAS-2000B
F-DMS-00160	PAS-2000B
F-DMS-00170	DBS-2000B
F-DMS-00180	DBS-2000B
F-DMS-00205	DBS-2030B
F-DMS-00205	IST-2010B
F-DMS-00210	DBS-2030B
F-DMS-00210	IST-2010B
F-DMS-00215	DBS-2030B
F-DMS-00215	IST-2010B
F-DMS-00220	DBS-2030B
F-DMS-00220	IST-2010B
F-DMS-00225	DBS-2030B
F-DMS-00225	IST-2010B
F-DMS-00230	DBS-2030B

Level 4 ID	Test Case
F-DMS-00230	IST-2010B
F-DMS-00231	DBS-2030B
F-DMS-00232	DBS-2030B
F-DMS-00233	DBS-2030B
F-DMS-00235	IST-2010B
F-DMS-00235	PAS-2000B
F-DMS-00240	IST-2010B
F-DMS-00240	PAS-2000B
F-DMS-00245	IST-2010B
F-DMS-00245	PAS-2000B
F-DMS-00250	DBS-2030B
F-DMS-00250	IST-2010B
F-DMS-00255	DBS-2030B
F-DMS-00255	IST-2010B
F-DMS-00260	DBS-2030B
F-DMS-00260	IST-2010B
F-DMS-00265	DBS-2030B
F-DMS-00270	DBS-2000B
F-DMS-00310	DBS-2000B
F-DMS-00320	DBS-2000B
F-DMS-00330	PAS-2000B
F-DMS-00340	DBS-2000B
F-DMS-00350	DBS-2000B
F-DMS-00360	DBS-2000B
F-DMS-00370	DBS-3100FPB
F-DMS-00375	DBS-3100FPB
F-DMS-00410	DBS-2020B
F-DMS-00420	DBS-2020B
F-DMS-00510	DBS-2010B
F-DMS-00520	DBS-2010B
F-DMS-00530	DBS-2010B
F-DMS-00540	DBS-2010B
F-DMS-00550	DBS-2010B
F-DMS-00610	DBS-2000B
F-DMS-00610	TLM-2170B
F-DMS-00620	DBS-2000B
F-DMS-00630	DBS-2000B
F-DMS-00640	DBS-2000B
F-DMS-00650	DBS-2000B
F-DMS-00710	TLM-2160B
F-DMS-00720	TLM-2160B
F-DMS-00730	TLM-2160B

Level 4 ID	Test Case
F-DMS-00740	ANA-2100B
F-DMS-00750	ANA-2100B
F-DMS-00760	ANA-2100B
F-DMS-00770	ANA-2110B
F-DMS-00780	TLM-2190B
F-DMS-00790	ANA-2110B
F-DMS-00810	TLM-2160B
F-DMS-00820	TLM-2160B
F-DMS-00830	TLM-2160B
F-DMS-00840	ANA-2100B
F-DMS-00910	EVT-2020B
F-DMS-00920	EVT-2020B
F-DMS-00930	EVT-2020B
F-DMS-00940	EVT-2020B
F-DMS-00950	POST-B
F-DMS-00960	POST-B
F-DMS-01010	ANA-2110B
F-DMS-01020	ANA-2100B
F-DMS-01020	ANA-2110B
F-DMS-01021	EDOS-2010B
F-DMS-01021	PAS-2035B
F-DMS-01022	POST-B
F-DMS-01110	POST-B
F-DMS-01120	POST-B
F-DMS-01130	POST-B
F-DMS-01140	POST-B
F-DMS-01150	OPR-2000B
F-DMS-01210	EVT-2000B
F-DMS-01220	EVT-2010B
F-DMS-01230	EVT-2000B
F-DMS-01230	EVT-2010B
F-DMS-01240	EVT-2020B
F-DMS-01250	EVT-2030B
F-DMS-01260	EVT-2030B
F-DMS-01270	EVT-2000B
F-DMS-01270	SYS-2030B
F-DMS-01280	EVT-2000B
F-DMS-01280	SYS-2030B
F-DMS-01285	POST-B
F-DMS-01290	EVT-2000B
F-DMS-01290	IST-2010B
F-DMS-01295	POST-B

Level 4 ID	Test Case
F-DMS-01310	DBS-2000B
F-DMS-01320	DBS-2000B
F-DMS-01330	DBS-2000B
F-DMS-01400	IST-2010B
F-DMS-01405	CMS-2040B
F-DMS-01405	CMS-2060B
F-DMS-01405	CMS-2090B
F-DMS-01405	CMS-2170B
F-DMS-01410	POST-B
F-DMS-01420	EDOS-2010B
F-DMS-01430	POST-B
F-DMS-01435	POST-B
F-DMS-01450	FDF-2000B
F-DMS-01451	FDF-2000B
F-DMS-01452	FDF-2000B
F-DMS-01455	FDF-2000B
F-DMS-01460	POST-B
F-DMS-01465	FDF-3100FPB
F-DMS-01475	FUI-2120B
F-DMS-01480	FUI-2120B
F-DMS-01485	FDF-2000B
F-DMS-01490	FDF-2000B
F-DMS-10110	TLM-2020B
F-DMS-10710	EDOS-2030B
F-DMS-10720	EDOS-2030B
F-DMS-11010	EDOS-2030B
F-DMS-11030	CONT-2020B
F-FOS-00010	ETE-2010B
F-FOS-00015	ETE-2010B
F-FOS-00017	POST-B
F-FOS-00020	EDOS-2000B
F-FOS-00020	ETE-2010B
F-FOS-00020	TLM-2000B
F-FOS-00020	TLM-2010B
F-FOS-00025	ETE-2010B
F-FOS-00035	SYS-2020B
F-FOS-00040	OPR-2000B
F-FOS-00045	OPR-2000B
F-FOS-00070	SYS-2000B
F-FOS-00075	OPR-2000B
F-FOS-00080	OPR-2000B
F-FOS-00085	OPR-2000B

Level 4 ID	Test Case
F-FOS-00090	OPR-2000B
F-FOS-00095	OPR-2000B
F-FOS-00098	SYS-2030B
F-FOS-00110	OPR-2000B
F-FOS-00115	OPR-2000B
F-FOS-00120	OPR-2000B
F-FOS-00125	OPR-2000B
F-FOS-00130	OPR-2000B
F-FOS-00140	OPR-2000B
F-FOS-00145	OPR-2000B
F-FOS-00155	OPR-2000B
F-FOS-00160	OPR-2000B
F-FOS-00165	OPR-2000B
F-FOS-00175	IST-2000B
F-FOS-00180	IST-2000B
F-FOS-00200	ETE-2000B
F-FOS-00220	OPR-2000B
F-FOS-00225	OPR-2000B
F-FOS-00230	ETE-2000B
F-FOS-00240	EVT-2010B
F-FOS-00245	EVT-2010B
F-FOS-00250	EVT-2000B
F-FOS-00250	EVT-2010B
F-FOS-00255	EVT-2000B
F-FOS-00260	ETE-2000B
F-FOS-00300	OPR-2000B
F-FOS-00305	ETE-2000B
F-FOS-00308	SAS-2000B
F-FOS-00310	TLM-2170B
F-FOS-00315	CMD-2001B
F-FOS-00317	IST-2010B
F-FOS-00318	IST-2010B
F-FOS-00320	CMD-2070B
F-FOS-00320	ETE-2010B
F-FOS-00320	FDF-2000B
F-FOS-00320	NCC-2020B
F-FOS-00320	NCC-2030B
F-FOS-00320	PAS-2040B
F-FOS-00320	TLM-2000B
F-FOS-00320	TLM-2010B
F-FOS-00321	POST-B
F-FOS-00322	SAS-2000B

Level 4 ID	Test Case
F-FOS-00325	FDF-2000B
F-FOS-00327	POST-B
F-FOS-00330	FDF-2000B
F-FOS-00335	NCC-2030B
F-FOS-00340	NCC-2020B
F-FOS-00340	NCC-2030B
F-FOS-00340	PAS-2040B
F-FOS-00345	POST-B
F-FOS-00347	CMD-2070B
F-FOS-00350	TLM-2010B
F-FOS-00350	TLM-2170B
F-FOS-00420	FUI-2090B
F-FOS-00430	FUI-2090B
F-FOS-00430	IST-2010B
F-FOS-00450	HRD-2000B
F-FOS-00455	HRD-2000B
F-FOS-00460	HRD-2000B
F-FOS-00465	IST-2010B
F-FOS-00470	IST-2010B
F-FOS-00475	IST-2010B
F-FOS-00480	IST-2010B
F-FOS-00490	SYS-2000B
F-FOS-00490	SYS-2030B
F-FOS-00500	OPR-2000B
F-FOS-00505	OPR-2000B
F-FOS-00510	OPR-2000B
F-FOS-00510	SYS-2030B
F-FOS-00515	OPR-2000B
F-FOS-00520	OPR-2000B
F-FOS-00550	POST-B
F-FOS-00560	POST-B
F-FOS-00570	SYS-2000B
F-FOS-00605	IST-2000B
F-FOS-00700	SYS-3060FPB
F-FOS-00705	SYS-3060FPB
F-FOS-00715	SYS-3060FPB
F-FOS-00720	SYS-3060FPB
F-FOS-00725	SYS-3060FPB
F-FOS-00730	SYS-3060FPB
F-FOS-00735	SYS-3060FPB
F-FOS-10150	PAS-2040B
F-FOS-10200	ETE-2000B

Level 4 ID	Test Case
F-FOS-10205	ETE-2000B
F-FOS-10210	IST-2000B
F-FOS-10215	IST-2000B
F-FOS-10220	IST-2000B
F-FOS-10225	IST-2000B
F-FOS-10230	IST-2000B
F-FOS-10240	POST-B
F-FOS-10245	POST-B
F-FOS-10270	FUI-3000FPB
F-FOS-10305	SAS-2000B
F-FUI-01100	FUI-2100B
F-FUI-01105	FUI-2100B
F-FUI-01110	FUI-2100B
F-FUI-01115	FUI-2100B
F-FUI-01120	FUI-2100B
F-FUI-01120	IST-2010B
F-FUI-01125	FUI-2100B
F-FUI-01125	IST-2010B
F-FUI-01130	FUI-2100B
F-FUI-01135	FUI-2100B
F-FUI-01140	FUI-2100B
F-FUI-01145	FUI-2100B
F-FUI-01150	FUI-2100B
F-FUI-01150	IST-2010B
F-FUI-01155	FUI-2100B
F-FUI-01160	FUI-2100B
F-FUI-01165	FUI-2100B
F-FUI-01170	FUI-2100B
F-FUI-01170	IST-2010B
F-FUI-01175	FUI-2100B
F-FUI-01175	IST-2010B
F-FUI-01180	FUI-2100B
F-FUI-01180	IST-2010B
F-FUI-01185	ETE-2010B
F-FUI-01200	FUI-2020B
F-FUI-01200	IST-2010B
F-FUI-01205	FUI-2020B
F-FUI-01205	IST-2010B
F-FUI-01215	FUI-2020B
F-FUI-01215	IST-2010B
F-FUI-01220	FUI-2020B
F-FUI-01220	IST-2010B

Level 4 ID	Test Case
F-FUI-01225	FUI-2020B
F-FUI-01225	IST-2010B
F-FUI-01230	FUI-2020B
F-FUI-01230	IST-2010B
F-FUI-01235	FUI-2020B
F-FUI-01305	FUI-2000B
F-FUI-01310	FUI-2000B
F-FUI-01315	FUI-2000B
F-FUI-01320	EVT-2000B
F-FUI-01325	EVT-2010B
F-FUI-01330	FUI-2000B
F-FUI-01335	FUI-2000B
F-FUI-01340	FUI-2000B
F-FUI-01340	IST-2010B
F-FUI-01400	FUI-2090B
F-FUI-01400	IST-2010B
F-FUI-01405	FUI-2090B
F-FUI-01405	IST-2010B
F-FUI-01410	FUI-2090B
F-FUI-01415	FUI-2090B
F-FUI-01415	IST-2010B
F-FUI-01420	IST-2010B
F-FUI-01425	FUI-2090B
F-FUI-01430	IST-2010B
F-FUI-01435	FUI-2090B
F-FUI-01440	IST-2010B
F-FUI-01445	FUI-2090B
F-FUI-01500	FUI-2040B
F-FUI-01505	FUI-2040B
F-FUI-01510	FUI-2050B
F-FUI-01515	FUI-2050B
F-FUI-01520	FUI-2050B
F-FUI-01525	FUI-2050B
F-FUI-01530	FUI-2050B
F-FUI-01535	FUI-2050B
F-FUI-01538	FUI-2050B
F-FUI-01540	FUI-2050B
F-FUI-01545	FUI-2050B
F-FUI-01550	FUI-2050B
F-FUI-01555	FUI-2050B
F-FUI-01560	FUI-2050B
F-FUI-01565	FUI-2060B

Level 4 ID	Test Case
F-FUI-01565	IST-2010B
F-FUI-01570	FUI-2050B
F-FUI-01580	FUI-2040B
F-FUI-01580	IST-2010B
F-FUI-01585	FUI-2050B
F-FUI-01590	FUI-2050B
F-FUI-01591	FUI-2050B
F-FUI-01595	FUI-2040B
F-FUI-01600	FUI-2020B
F-FUI-01600	IST-2010B
F-FUI-01605	FUI-2020B
F-FUI-01605	IST-2010B
F-FUI-01610	FUI-2020B
F-FUI-01610	IST-2010B
F-FUI-01615	FUI-2020B
F-FUI-01615	IST-2010B
F-FUI-01620	FUI-2020B
F-FUI-01620	IST-2010B
F-FUI-02100	FUI-2140B
F-FUI-02100	IST-2010B
F-FUI-02110	FUI-2140B
F-FUI-02115	EVT-2020B
F-FUI-02200	FUI-2025B
F-FUI-02202	FUI-2025B
F-FUI-02202	IST-2010B
F-FUI-02205	IST-2010B
F-FUI-02210	FUI-2025B
F-FUI-02210	IST-2010B
F-FUI-02215	FUI-2025B
F-FUI-02215	IST-2010B
F-FUI-02220	IST-2010B
F-FUI-02225	FUI-2025B
F-FUI-02230	IST-2010B
F-FUI-02235	FUI-2025B
F-FUI-02235	IST-2010B
F-FUI-02240	FUI-2025B
F-FUI-02240	IST-2010B
F-FUI-02300	EDOS-2001B
F-FUI-02300	TLM-2190B
F-FUI-02305	EDOS-2001B
F-FUI-02305	TLM-2190B
F-FUI-02310	EDOS-2001B

Level 4 ID	Test Case
F-FUI-02310	TLM-2190B
F-FUI-02315	EDOS-2001B
F-FUI-02315	IST-2010B
F-FUI-02315	TLM-2190B
F-FUI-02320	EDOS-2001B
F-FUI-02320	IST-2010B
F-FUI-02320	TLM-2190B
F-FUI-02325	EDOS-2001B
F-FUI-02325	IST-2010B
F-FUI-02325	TLM-2190B
F-FUI-02330	EDOS-2001B
F-FUI-02330	IST-2010B
F-FUI-02330	TLM-2190B
F-FUI-02335	EDOS-2001B
F-FUI-02335	IST-2010B
F-FUI-02335	TLM-2190B
F-FUI-02400	FUI-2120B
F-FUI-02410	FUI-2120B
F-FUI-02415	FUI-2120B
F-FUI-02420	FUI-2120B
F-FUI-02425	FUI-2120B
F-FUI-02430	FUI-2120B
F-FUI-02435	FUI-2120B
F-FUI-02440	FUI-2120B
F-FUI-02445	FUI-2120B
F-FUI-02450	FUI-2120B
F-FUI-02500	FUI-2130B
F-FUI-02505	FUI-2130B
F-FUI-02510	FUI-2130B
F-FUI-02515	FUI-2130B
F-FUI-02520	FUI-2130B
F-FUI-02525	FUI-2130B
F-FUI-02530	FUI-2130B
F-FUI-02535	FUI-2130B
F-FUI-02540	FUI-2130B
F-FUI-02545	FUI-2130B
F-FUI-02550	FUI-2130B
F-FUI-02600	FUI-2030B
F-FUI-02600	FUI-2110B
F-FUI-02600	IST-2010B
F-FUI-02605	FUI-2030B
F-FUI-02605	FUI-2110B

Level 4 ID	Test Case
F-FUI-02610	FUI-2110B
F-FUI-02610	FUI-2115B
F-FUI-02625	FUI-2030B
F-FUI-02630	FUI-2030B
F-FUI-02630	FUI-2110B
F-FUI-02635	FUI-2030B
F-FUI-02635	FUI-2110B
F-FUI-02640	FUI-2030B
F-FUI-02640	FUI-2110B
F-FUI-02700	FUI-2150B
F-FUI-02705	FUI-2150B
F-FUI-02710	FUI-2150B
F-FUI-02715	FUI-2150B
F-FUI-02720	FUI-2150B
F-FUI-02725	FUI-2150B
F-FUI-02800	FUI-2050B
F-FUI-02805	FUI-2050B
F-FUI-02810	FUI-2050B
F-FUI-02815	FUI-2050B
F-FUI-02820	FUI-2050B
F-FUI-02825	FUI-2050B
F-FUI-02830	FUI-2050B
F-FUI-02835	FUI-2050B
F-FUI-02840	FUI-2050B
F-FUI-02840	IST-2010B
F-FUI-02845	FUI-2050B
F-FUI-02850	FUI-2050B
F-FUI-02855	FUI-2050B
F-FUI-02860	FUI-2050B
F-FUI-02860	IST-2010B
F-FUI-02865	FUI-2050B
F-FUI-02870	FUI-2050B
F-FUI-02875	FUI-2050B
F-FUI-02880	FUI-2050B
F-FUI-02885	FUI-2050B
F-FUI-02890	FUI-2050B
F-FUI-02895	FUI-2050B
F-FUI-02920	ANA-2060B
F-FUI-02920	IST-2010B
F-FUI-02926	POST-B
F-FUI-02950	ANA-2060B
F-FUI-02950	IST-2010B

Level 4 ID	Test Case
F-FUI-02955	ANA-2060B
F-FUI-02955	IST-2010B
F-FUI-02960	ANA-2060B
F-FUI-02960	IST-2010B
F-FUI-02961	ANA-2060B
F-FUI-02962	ANA-2060B
F-FUI-02963	ANA-2060B
F-FUI-02964	ANA-2060B
F-FUI-02965	ANA-2060B
F-FUI-02967	ANA-2060B
F-FUI-02970	ANA-2060B
F-FUI-02975	ANA-2060B
F-FUI-02980	ANA-2060B
F-FUI-02980	IST-2010B
F-FUI-02985	ANA-2060B
F-FUI-02990	ANA-2060B
F-FUI-02990	IST-2010B
F-FUI-02991	ANA-2060B
F-FUI-02991	IST-2010B
F-FUI-02995	ANA-2060B
F-FUI-02995	IST-2010B
F-FUI-03000	ANA-2060B
F-FUI-03000	IST-2010B
F-FUI-03005	ANA-2060B
F-FUI-03005	IST-2010B
F-FUI-03010	ANA-2060B
F-FUI-03025	ANA-2060B
F-FUI-03025	IST-2010B
F-FUI-03030	ANA-2060B
F-FUI-03030	IST-2010B
F-FUI-03035	ANA-2060B
F-FUI-03035	IST-2010B
F-FUI-03040	ANA-2060B
F-FUI-03040	IST-2010B
F-FUI-03045	ANA-2060B
F-FUI-03045	IST-2010B
F-FUI-03050	ANA-2060B
F-FUI-03050	IST-2010B
F-FUI-03055	ANA-2060B
F-FUI-03055	IST-2010B
F-FUI-03060	ANA-2060B
F-FUI-03060	IST-2010B

Level 4 ID	Test Case
F-FUI-03061	ANA-2060B
F-FUI-03061	IST-2010B
F-FUI-03100	ANA-2000B
F-FUI-03105	FUI-2110B
F-FUI-03110	ANA-2010B
F-FUI-03200	ANA-2120B
F-FUI-03200	EVT-2010B
F-FUI-03205	ANA-2120B
F-FUI-03205	EVT-2010B
F-FUI-03210	EVT-2010B
F-FUI-03215	ANA-2120B
F-FUI-03215	EVT-2010B
F-FUI-03220	ANA-2120B
F-FUI-03220	EVT-2010B
F-FUI-03225	ANA-2120B
F-FUI-03225	EVT-2010B
F-FUI-03230	ANA-2120B
F-FUI-04000	PAS-2030B
F-FUI-04010	PAS-2030B
F-FUI-04020	PAS-2030B
F-FUI-04030	PAS-2030B
F-FUI-04040	PAS-2030B
F-FUI-04050	IST-2010B
F-FUI-04050	PAS-2035B
F-FUI-04060	PAS-2030B
F-FUI-04070	PAS-2030B
F-FUI-04080	PAS-2030B
F-FUI-04090	IST-2010B
F-FUI-04090	PAS-2200B
F-FUI-04100	IST-2010B
F-FUI-04100	PAS-2050B
F-FUI-04110	PAS-2190B
F-FUI-04120	PAS-2030B
F-FUI-04130	IST-2010B
F-FUI-04130	PAS-2110B
F-FUI-04140	IST-2010B
F-FUI-04140	PAS-2030B
F-FUI-04280	IST-2010B
F-FUI-04280	PAS-2030B
F-FUI-04290	PAS-2030B
F-FUI-04300	PAS-2030B
F-FUI-05100	CMS-2040B

Level 4 ID	Test Case
F-FUI-05105	CMS-2040B
F-FUI-05105	IST-2010B
F-FUI-05110	CMS-2040B
F-FUI-05115	CMS-2040B
F-FUI-05120	CMS-2040B
F-FUI-05125	CMS-2040B
F-FUI-05130	CMS-2040B
F-FUI-05200	CMS-2170B
F-FUI-05200	IST-2010B
F-FUI-05205	CMS-2170B
F-FUI-05205	IST-2010B
F-FUI-05210	CMS-2170B
F-FUI-05215	CMS-2170B
F-FUI-05220	CMS-2170B
F-FUI-05300	CMD-2010B
F-FUI-05315	CMD-2010B
F-FUI-05315	IST-2010B
F-FUI-05335	CMD-2010B
F-FUI-05340	CMD-2010B
F-FUI-05340	IST-2010B
F-FUI-05400	CMS-2100B
F-FUI-05400	IST-2010B
F-FUI-05405	CMS-2100B
F-FUI-05500	CMS-2180B
F-FUI-05500	IST-2010B
F-FUI-05505	CMS-2180B
F-FUI-05510	CMS-2180B
F-FUI-05515	CMS-2180B
F-FUI-05600	CMS-2060B
F-FUI-05600	CMS-2180B
F-FUI-05600	CMS-2190B
F-FUI-05605	CMS-2100B
F-FUI-05605	CMS-2180B
F-FUI-05605	CMS-2190B
F-FUI-05605	IST-2010B
F-FUI-05700	CMS-2040B
F-FUI-05700	CMS-2060B
F-FUI-05700	CMS-2090B
F-FUI-05700	CMS-2170B
F-FUI-05700	PAS-2110B
F-FUI-05705	CMS-2040B
F-FUI-05705	CMS-2060B

Level 4 ID	Test Case
F-FUI-05705	CMS-2090B
F-FUI-05705	CMS-2170B
F-FUI-05705	IST-2010B
F-FUI-05710	CMS-2040B
F-FUI-05710	CMS-2060B
F-FUI-05710	CMS-2090B
F-FUI-05710	CMS-2170B
F-FUI-05720	CMS-2040B
F-FUI-05720	CMS-2060B
F-FUI-05720	CMS-2090B
F-FUI-05720	CMS-2170B
F-FUI-05725	CMS-2060B
F-FUI-05725	IST-2010B
F-FUI-05730	IST-2010B
F-FUI-06100	FUI-2060B
F-FUI-06105	FUI-2060B
F-FUI-06110	FUI-2060B
F-FUI-06115	FUI-2060B
F-FUI-06115	IST-2010B
F-FUI-06120	FUI-2060B
F-FUI-06120	IST-2010B
F-FUI-06125	FUI-2060B
F-FUI-06130	FUI-2060B
F-FUI-06130	IST-2010B
F-FUI-06135	FUI-2060B
F-FUI-06135	IST-2010B
F-FUI-06200	IST-2010B
F-FUI-06205	IST-2010B
F-FUI-06210	IST-2010B
F-FUI-06215	IST-2010B
F-FUI-06220	IST-2010B
F-FUI-06225	IST-2010B
F-FUI-06230	IST-2010B
F-FUI-06235	IST-2010B
F-FUI-06300	CMD-2010B
F-FUI-06305	CMD-2010B
F-FUI-06310	CMD-2015B
F-FUI-06315	CMD-2010B
F-FUI-06320	CMD-2010B
F-FUI-06330	CMD-2010B
F-FUI-06330	IST-2010B
F-FUI-06335	CMD-2015B

Level 4 ID	Test Case
F-FUI-06337	CMD-2015B
F-FUI-06340	CMD-2015B
F-FUI-06345	CMD-2015B
F-FUI-06350	CMD-2015B
F-FUI-06355	CMD-2015B
F-FUI-06360	CMD-2010B
F-FUI-06365	CMD-2010B
F-FUI-06370	CMD-2010B
F-FUI-06375	CMD-2010B
F-FUI-06380	CMD-2015B
F-FUI-06385	CMD-2015B
F-FUI-06390	CMD-2015B
F-FUI-06395	CMD-2010B
F-FUI-06400	CMD-2010B
F-FUI-06405	CMD-2010B
F-FUI-06410	CMD-2010B
F-FUI-06415	CMD-2010B
F-FUI-06420	CMD-2010B
F-FUI-06425	CMD-2010B
F-FUI-06430	CMD-2010B
F-FUI-06435	CMD-2010B
F-FUI-06440	CMD-2010B
F-FUI-06445	CMD-2010B
F-FUI-06450	CMD-2010B
F-FUI-06455	CMD-2010B
F-FUI-06460	CMD-2010B
F-FUI-06465	CMD-2010B
F-FUI-06470	CMD-2010B
F-FUI-06470	CMD-2030B
F-FUI-07100	FUI-2030B
F-FUI-07100	IST-2010B
F-FUI-07120	FUI-2030B
F-FUI-07120	IST-2010B
F-FUI-07125	FUI-2030B
F-FUI-07125	IST-2010B
F-FUI-07130	FUI-2030B
F-FUI-07130	IST-2010B
F-FUI-07135	FUI-2030B
F-FUI-07140	FUI-2030B
F-FUI-07200	FUI-2030B
F-FUI-07200	IST-2010B
F-FUI-07200	TLM-2070B

Level 4 ID	Test Case
F-FUI-07200	TLM-2080B
F-FUI-07200	TLM-2090B
F-FUI-07200	TLM-2100B
F-FUI-07205	FUI-2030B
F-FUI-07210	FUI-2030B
F-FUI-07215	FUI-2030B
F-FUI-07215	IST-2010B
F-FUI-07220	FUI-2030B
F-FUI-07220	IST-2010B
F-FUI-07225	FUI-2030B
F-FUI-07230	FUI-2030B
F-FUI-07235	FUI-2030B
F-FUI-07240	FUI-2030B
F-FUI-07245	FUI-2030B
F-FUI-07245	IST-2010B
F-FUI-07250	FUI-2030B
F-FUI-07250	IST-2010B
F-FUI-07255	FUI-2030B
F-FUI-07255	IST-2010B
F-FUI-07300	ANA-2060B
F-FUI-07300	FUI-2110B
F-FUI-07300	IST-2010B
F-FUI-07305	ANA-2060B
F-FUI-07305	FUI-2110B
F-FUI-07305	IST-2010B
F-FUI-07310	ANA-2060B
F-FUI-07310	FUI-2110B
F-FUI-07310	IST-2010B
F-FUI-07311	IST-2010B
F-FUI-07311	POST-B
F-FUI-07315	ANA-2060B
F-FUI-07315	FUI-2110B
F-FUI-07315	IST-2010B
F-FUI-07320	ANA-2060B
F-FUI-07320	FUI-2110B
F-FUI-07320	IST-2010B
F-FUI-07325	ANA-2060B
F-FUI-07325	FUI-2110B
F-FUI-07325	IST-2010B
F-FUI-07330	FUI-2110B
F-FUI-07330	IST-2010B
F-FUI-07330	TLM-2000B

Level 4 ID	Test Case
F-FUI-07330	TLM-2010B
F-FUI-07330	TLM-2070B
F-FUI-07330	TLM-2190B
F-FUI-07335	ANA-2060B
F-FUI-07335	FUI-2110B
F-FUI-07340	ANA-2060B
F-FUI-07340	FUI-2110B
F-FUI-07345	ANA-2060B
F-FUI-07345	FUI-2110B
F-FUI-07345	IST-2010B
F-FUI-07350	ANA-2060B
F-FUI-07350	FUI-2110B
F-FUI-07355	ANA-2060B
F-FUI-07355	FUI-2110B
F-FUI-07360	ANA-2060B
F-FUI-07360	FUI-2110B
F-FUI-07360	IST-2010B
F-FUI-07365	ANA-2060B
F-FUI-07365	FUI-2110B
F-FUI-07365	IST-2010B
F-FUI-07370	FUI-2110B
F-FUI-07370	FUI-2115B
F-FUI-07370	IST-2010B
F-FUI-07375	ANA-2060B
F-FUI-07375	FUI-2110B
F-FUI-07375	IST-2010B
F-FUI-07380	ANA-2060B
F-FUI-07380	FUI-2110B
F-FUI-07385	ANA-2060B
F-FUI-07385	FUI-2110B
F-FUI-07388	ANA-2060B
F-FUI-07388	FUI-2110B
F-FUI-07388	IST-2010B
F-FUI-07390	ANA-2060B
F-FUI-07390	FUI-2110B
F-FUI-07391	ANA-2060B
F-FUI-07391	FUI-2110B
F-FUI-07392	ANA-2060B
F-FUI-07392	FUI-2110B
F-FUI-07394	ANA-2060B
F-FUI-07394	FUI-2110B
F-FUI-07394	IST-2010B

Level 4 ID	Test Case
F-FUI-07396	ANA-2060B
F-FUI-07396	FUI-2110B
F-FUI-07396	IST-2010B
F-FUI-07398	ANA-2060B
F-FUI-07398	FUI-2110B
F-FUI-07400	ANA-2060B
F-FUI-07400	FUI-2110B
F-FUI-07400	IST-2010B
F-FUI-07410	FUI-2110B
F-FUI-07415	ANA-2060B
F-FUI-07415	FUI-2110B
F-FUI-07415	IST-2010B
F-FUI-07425	FUI-2110B
F-FUI-07425	IST-2010B
F-FUI-07425	TLM-2000B
F-FUI-07425	TLM-2010B
F-FUI-07425	TLM-2070B
F-FUI-07425	TLM-2190B
F-FUI-07500	FUI-2115B
F-FUI-07505	FUI-2115B
F-FUI-07510	FUI-2115B
F-FUI-07515	FUI-2115B
F-FUI-07520	FUI-2115B
F-FUI-07525	FUI-2115B
F-FUI-07600	IST-2010B
F-FUI-07600	TLM-2100B
F-FUI-07605	IST-2010B
F-FUI-07605	TLM-2100B
F-FUI-07700	TLM-2100B
F-FUI-07710	TLM-2100B
F-FUI-07720	IST-2010B
F-FUI-07720	SYS-2020B
F-FUI-08100	SYS-2020B
F-FUI-08100	TLM-2190B
F-FUI-08105	SYS-2030B
F-FUI-08110	SYS-2030B
F-FUI-08115	SYS-2030B
F-FUI-09100	ANA-2000B
F-FUI-09105	ANA-2000B
F-FUI-09110	ANA-2100B
F-FUI-09110	ANA-2110B
F-FUI-09112	ANA-2040B

Level 4 ID	Test Case
F-FUI-09112	IST-2010B
F-FUI-09115	ANA-2010B
F-FUI-09115	IST-2010B
F-FUI-09120	ANA-2000B
F-FUI-09125	ANA-2000B
F-FUI-09130	ANA-2000B
F-FUI-09140	ANA-2120B
F-FUI-09140	IST-2010B
F-FUI-09145	ANA-2120B
F-FUI-09145	IST-2010B
F-FUI-09150	ANA-2120B
F-FUI-09150	IST-2010B
F-FUI-09160	ANA-2120B
F-FUI-09160	IST-2010B
F-FUI-09170	ANA-2000B
F-FUI-09200	ANA-2060B
F-FUI-09200	IST-2010B
F-FUI-09205	ANA-2090B
F-FUI-09210	ANA-2090B
F-FUI-09210	IST-2010B
F-FUI-09215	ANA-2090B
F-FUI-09215	IST-2010B
F-FUI-09220	ANA-2090B
F-FUI-09220	IST-2010B
F-FUI-09225	ANA-2120B
F-FUI-09225	IST-2010B
F-FUI-09300	ANA-2010B
F-FUI-09300	IST-2010B
F-FUI-09305	ANA-2010B
F-FUI-09305	IST-2010B
F-FUI-09310	ANA-2010B
F-FUI-09310	IST-2010B
F-FUI-09315	ANA-2010B
F-FUI-09315	IST-2010B
F-FUI-09350	ANA-2010B
F-FUI-09350	IST-2010B
F-FUI-09355	ANA-2010B
F-FUI-09355	IST-2010B
F-FUI-09360	ANA-2010B
F-FUI-09360	IST-2010B
F-FUI-09363	ANA-2010B
F-FUI-09363	IST-2010B

Level 4 ID	Test Case
F-FUI-09365	ANA-2010B
F-FUI-09365	IST-2010B
F-FUI-09370	ANA-2010B
F-FUI-09370	IST-2010B
F-FUI-09375	ANA-2010B
F-FUI-09375	IST-2010B
F-FUI-09410	ANA-2120B
F-FUI-09410	IST-2010B
F-FUI-09415	ANA-2120B
F-FUI-09415	IST-2010B
F-FUI-09500	ANA-2040B
F-FUI-09500	IST-2010B
F-FUI-09510	ANA-2040B
F-FUI-09510	IST-2010B
F-FUI-09515	ANA-2040B
F-FUI-09515	IST-2010B
F-FUI-09530	CONT-2010B
F-FUI-09530	IST-2010B
F-FUI-09600	IST-2010B
F-FUI-09605	EVT-2020B
F-FUI-09610	EVT-2000B
F-FUI-09615	EVT-2000B
F-FUI-09620	EVT-2000B
F-FUI-09625	EVT-2000B
F-FUI-09630	EVT-2000B
F-FUI-09635	EVT-2000B
F-FUI-09640	EVT-2020B
F-FUI-09640	IST-2010B
F-FUI-09645	EVT-2000B
F-FUI-09645	IST-2010B
F-FUI-09650	EVT-2030B
F-FUI-09650	IST-2010B
F-FUI-09655	EVT-2030B
F-FUI-09655	IST-2010B
F-FUI-09660	EVT-2030B
F-FUI-09660	IST-2010B
F-FUI-09663	EVT-2000B
F-FUI-09663	IST-2010B
F-FUI-09665	EVT-2000B
F-FUI-09665	IST-2010B
F-FUI-09700	EVT-2020B
F-FUI-09700	IST-2010B

Level 4 ID	Test Case
F-FUI-09705	EVT-2020B
F-FUI-09705	IST-2010B
F-FUI-09710	EVT-2020B
F-FUI-11200	EDOS-2030B
F-FUI-12310	IST-2010B
F-FUI-12310	TLM-2190B
F-FUI-12610	FUI-2030B
F-FUI-12800	FUI-2080B
F-FUI-14005	CONT-2030B
F-FUI-14005	IST-2010B
F-FUI-14010	CONT-2030B
F-FUI-17200	TLM-2000B
F-FUI-17265	CMS-2180B
F-FUI-17265	IST-2010B
F-FUI-17270	CONT-2020B
F-FUI-17600	TLM-2100B
F-FUI-17700	TLM-2000B
F-FUI-17800	CONT-2030B
F-FUI-17810	CONT-2030B
F-FUI-17820	CONT-2030B
F-FUI-19550	CONT-2020B
F-HRD-00005	HRD-2000B
F-HRD-00010	HRD-2000B
F-HRD-00015	HRD-2000B
F-HRD-00020	HRD-2000B
F-HRD-00025	HRD-2000B
F-HRD-00030	HRD-2000B
F-HRD-00035	HRD-2000B
F-HRD-00040	HRD-2000B
F-HRD-00045	HRD-2000B
F-HRD-00050	HRD-2000B
F-HRD-00055	HRD-2000B
F-HRD-00060	HRD-2000B
F-HRD-00065	HRD-2000B
F-HRD-00070	HRD-2000B
F-HRD-00075	HRD-2000B
F-HRD-00090	HRD-2000B
F-HRD-00095	HRD-2000B
F-HRD-00100	HRD-2000B
F-HRD-01005	HRD-2000B
F-HRD-01010	HRD-2000B
F-HRD-01015	HRD-2000B

Level 4 ID	Test Case
F-HRD-01020	HRD-2000B
F-HRD-01025	HRD-2000B
F-HRD-01030	HRD-2000B
F-HRD-01035	HRD-2000B
F-HRD-01040	HRD-2000B
F-HRD-01045	HRD-2000B
F-HRD-02005	HRD-2000B
F-HRD-02010	HRD-2000B
F-HRD-02015	HRD-2000B
F-HRD-02020	HRD-2000B
F-HRD-02025	HRD-2000B
F-HRD-02030	HRD-2000B
F-HRD-02035	HRD-2000B
F-HRD-02040	HRD-2000B
F-HRD-02045	HRD-2000B
F-HRD-02050	HRD-2000B
F-HRD-02055	HRD-2000B
F-HRD-02060	HRD-2000B
F-HRD-02065	HRD-2000B
F-HRD-02070	HRD-2000B
F-HRD-02075	HRD-2000B
F-HRD-02080	HRD-2000B
F-HRD-02095	HRD-2000B
F-HRD-02100	HRD-2000B
F-HRD-02105	HRD-2000B
F-HRD-03005	HRD-2000B
F-HRD-03010	HRD-2000B
F-HRD-03015	HRD-2000B
F-HRD-03020	HRD-2000B
F-HRD-03025	HRD-2000B
F-HRD-03030	HRD-2000B
F-HRD-03035	HRD-2000B
F-HRD-03040	HRD-2000B
F-HRD-03045	HRD-2000B
F-HRD-04005	HRD-2000B
F-HRD-04010	HRD-2000B
F-HRD-04015	HRD-2000B
F-HRD-04020	HRD-2000B
F-HRD-04025	HRD-2000B
F-HRD-04030	HRD-2000B
F-HRD-05005	HRD-2000B
F-HRD-05010	HRD-2000B

Level 4 ID	Test Case
F-HRD-05015	HRD-2000B
F-HRD-05020	HRD-2000B
F-HRD-05025	HRD-2000B
F-HRD-06005	HRD-2000B
F-HRD-06010	HRD-2000B
F-HRD-06015	HRD-2000B
F-HRD-07005	HRD-2000B
F-HRD-07010	HRD-2000B
F-HRD-07015	HRD-2000B
F-HRD-07017	HRD-2000B
F-HRD-07020	HRD-2000B
F-HRD-07025	HRD-2000B
F-PAS-00020	PAS-2030B
F-PAS-00025	PAS-2030B
F-PAS-00030	PAS-2030B
F-PAS-00035	PAS-2030B
F-PAS-00100	IST-2010B
F-PAS-00100	PAS-2030B
F-PAS-00103	IST-2010B
F-PAS-00103	PAS-2035B
F-PAS-00105	IST-2010B
F-PAS-00105	PAS-2020B
F-PAS-00115	PAS-2020B
F-PAS-00120	PAS-2035B
F-PAS-00135	PAS-2020B
F-PAS-00137	FDF-2000B
F-PAS-00138	FDF-2000B
F-PAS-00138	IST-2010B
F-PAS-00140	IST-2010B
F-PAS-00140	PAS-2020B
F-PAS-00145	FDF-2000B
F-PAS-00150	PAS-2020B
F-PAS-00153	PAS-2020B
F-PAS-00155	POST-B
F-PAS-00160	IST-2010B
F-PAS-00160	PAS-2190B
F-PAS-00165	IST-2010B
F-PAS-00165	PAS-2190B
F-PAS-00170	IST-2010B
F-PAS-00170	PAS-2190B
F-PAS-00175	IST-2010B
F-PAS-00175	PAS-2190B

Level 4 ID	Test Case
F-PAS-00180	IST-2010B
F-PAS-00180	PAS-2190B
F-PAS-00185	IST-2010B
F-PAS-00185	PAS-2190B
F-PAS-00195	IST-2010B
F-PAS-00195	PAS-2190B
F-PAS-00200	PAS-2000B
F-PAS-00205	PAS-2000B
F-PAS-00210	PAS-2000B
F-PAS-00215	PAS-2000B
F-PAS-00220	PAS-2000B
F-PAS-00300	PAS-2020B
F-PAS-00310	PAS-2020B
F-PAS-00315	PAS-2020B
F-PAS-00330	PAS-2000B
F-PAS-00335	IST-2010B
F-PAS-00335	PAS-2020B
F-PAS-00340	IST-2010B
F-PAS-00340	PAS-2020B
F-PAS-00350	PAS-2020B
F-PAS-00355	IST-2010B
F-PAS-00355	PAS-2020B
F-PAS-00360	PAS-2020B
F-PAS-00365	IST-2010B
F-PAS-00365	PAS-2020B
F-PAS-00400	PAS-2000B
F-PAS-00405	PAS-2020B
F-PAS-00410	PAS-2020B
F-PAS-00415	PAS-2000B
F-PAS-00420	IST-2010B
F-PAS-00420	PAS-2020B
F-PAS-00425	IST-2010B
F-PAS-00425	PAS-2020B
F-PAS-00500	PAS-2010B
F-PAS-00503	PAS-2010B
F-PAS-00505	PAS-2010B
F-PAS-00510	IST-2010B
F-PAS-00510	PAS-2020B
F-PAS-00600	CONT-2030B
F-PAS-00605	PAS-2030B
F-PAS-00610	PAS-2030B
F-PAS-00700	PAS-2040B

Level 4 ID	Test Case
F-PAS-00705	PAS-2040B
F-PAS-00800	PAS-2200B
F-PAS-00805	PAS-2200B
F-PAS-00810	PAS-2200B
F-PAS-00815	PAS-2200B
F-PAS-00820	PAS-2030B
F-PAS-00835	PAS-2200B
F-PAS-00840	PAS-2200B
F-PAS-00860	POST-B
F-PAS-00900	IST-2010B
F-PAS-00900	PAS-2050B
F-PAS-00905	IST-2010B
F-PAS-00905	PAS-2050B
F-PAS-00910	IST-2010B
F-PAS-00910	PAS-2050B
F-PAS-00915	PAS-2030B
F-PAS-00920	CONT-2030B
F-PAS-00920	PAS-2030B
F-PAS-00925	IST-2010B
F-PAS-00925	PAS-2030B
F-PAS-00930	POST-B
F-PAS-00935	POST-B
F-PAS-00940	IST-2010B
F-PAS-00940	PAS-2035B
F-PAS-00945	IST-2010B
F-PAS-00945	PAS-2050B
F-PAS-00950	IST-2010B
F-PAS-00950	PAS-2050B
F-PAS-01000	PAS-2020B
F-PAS-01035	PAS-2200B
F-PAS-01040	PAS-2040B
F-PAS-01120	PAS-2040B
F-PAS-01125	PAS-2040B
F-PAS-01200	IST-2010B
F-PAS-01200	PAS-2110B
F-PAS-01205	IST-2010B
F-PAS-01205	PAS-2110B
F-PAS-01210	IST-2010B
F-PAS-01210	PAS-2110B
F-PAS-01215	IST-2010B
F-PAS-01215	PAS-2110B
F-PAS-01220	IST-2010B

Level 4 ID	Test Case
F-PAS-01220	PAS-2110B
F-PAS-01300	IST-2010B
F-PAS-01300	PAS-2030B
F-PAS-01305	IST-2010B
F-PAS-01305	PAS-2030B
F-PAS-01310	IST-2010B
F-PAS-01310	PAS-2030B
F-PAS-10009	IST-2010B
F-PAS-10010	ASTR-2000B
F-PAS-10100	ASTR-2000B
F-PAS-10105	ASTR-2000B
F-PAS-10110	ASTR-2000B
F-PAS-10300	ASTR-2000B
F-PAS-10305	ASTR-2000B
F-PAS-10305	IST-2010B
F-PAS-10310	CONT-2030B
F-PAS-10312	ASTR-2000B
F-PAS-10400	PAS-2040B
F-PAS-10405	PAS-2040B
F-PAS-10410	OPR-2000B
F-PAS-10415	OPR-2000B
F-PAS-10436	PAS-2040B
F-PAS-10437	PAS-2040B
F-PAS-10440	POST-B
F-PAS-10441	POST-B
F-PAS-10442	POST-B
F-PAS-10445	PAS-2040B
F-PAS-10446	CONT-2030B
F-PAS-10447	PAS-2040B
F-PAS-10448	PAS-2040B
F-PAS-10449	FDF-2000B
F-PAS-10450	ASTR-2000B
F-PAS-10455	PAS-2180B
F-PAS-10500	PAS-2040B
F-PAS-10505	PAS-2040B
F-PAS-10510	PAS-2040B
F-PAS-10515	PAS-2040B
F-PAS-10530	CONT-2030B
F-PAS-10535	PAS-2035B
F-PAS-10560	IST-2010B
F-PAS-10565	IST-2010B
F-PAS-10570	ASTR-2000B

Level 4 ID	Test Case
F-PAS-10575	ASTR-2000B
F-PAS-10605	IST-2010B
F-PAS-10605	PAS-2035B
F-PAS-10610	POST-B
F-PAS-10620	POST-B
F-PAS-10623	IST-2010B
F-PAS-10623	PAS-2035B
F-PAS-10625	IST-2010B
F-PAS-10625	PAS-2035B
F-PAS-10630	POST-B
F-PAS-10700	IST-2010B
F-PAS-10700	PAS-2110B
F-PAS-10705	IST-2010B
F-PAS-10705	PAS-2110B
F-RMS-00010	POST-B
F-RMS-00020	SYS-2020B
F-RMS-00030	SYS-2020B
F-RMS-00035	ANA-2090B
F-RMS-00035	TLM-2190B
F-RMS-00040	SYS-2020B
F-RMS-00050	SYS-2020B
F-RMS-00060	SYS-2020B
F-RMS-00070	TLM-2000B
F-RMS-00070	TLM-2020B
F-RMS-00080	TLM-2190B
F-RMS-00090	TLM-2000B
F-RMS-00100	TLM-2040B
F-RMS-00110	TLM-2070B
F-RMS-00130	IST-2010B
F-RMS-00130	TLM-2020B
F-RMS-00140	IST-2010B
F-RMS-00150	IST-2010B
F-RMS-00160	IST-2010B
F-RMS-00170	IST-2010B
F-RMS-01010	CMD-2000B
F-RMS-01020	CMD-2000B
F-RMS-01030	CMD-2000B
F-RMS-01060	SYS-2020B
F-RMS-01070	SYS-2020B
F-RMS-02010	SYS-2030B
F-RMS-02020	SYS-2030B
F-RMS-03010	SYS-2030B

Level 4 ID	Test Case
F-RMS-03030	SYS-2030B
F-RMS-03040	SYS-2030B
F-RMS-03050	SYS-2030B
F-RMS-03060	IST-2010B
F-RMS-03070	SYS-2030B
F-RMS-03080	SYS-2030B
F-RMS-03090	SYS-2030B
F-RMS-03240	SYS-2030B
F-RMS-04010	NCC-2030B
F-RMS-04020	NCC-2020B
F-RMS-04085	ANA-2030B
F-RMS-04085	NCC-2030B
F-RMS-04090	NCC-2020B
F-RMS-04100	NCC-2020B
F-RMS-04110	NCC-2020B
F-RMS-04120	NCC-2020B
F-RMS-05010	NCC-2040B
F-RMS-05020	NCC-2040B
F-RMS-05030	NCC-2040B
F-RMS-05040	NCC-2040B
F-RMS-05050	EDOS-2001B
F-RMS-05060	EDOS-2001B
F-RMS-05070	EDOS-2001B
F-RMS-05080	EDOS-2001B
F-TLM-00110	TLM-2010B
F-TLM-00115	TLM-2000B
F-TLM-00115	TLM-2010B
F-TLM-00115	TLM-2160B
F-TLM-00120	TLM-2160B
F-TLM-00135	TLM-2000B
F-TLM-00135	TLM-2010B
F-TLM-00210	TLM-2000B
F-TLM-00210	TLM-2010B
F-TLM-00215	TLM-2000B
F-TLM-00215	TLM-2010B
F-TLM-00220	TLM-2000B
F-TLM-00220	TLM-2010B
F-TLM-00310	TLM-2070B
F-TLM-00315	TLM-2060B
F-TLM-00315	TLM-2070B
F-TLM-00410	TLM-2000B
F-TLM-00410	TLM-2010B

Level 4 ID	Test Case
F-TLM-00440	TLM-2000B
F-TLM-00440	TLM-2010B
F-TLM-00445	TLM-2150B
F-TLM-00450	TLM-2000B
F-TLM-00450	TLM-2010B
F-TLM-00490	TLM-2000B
F-TLM-00490	TLM-2010B
F-TLM-00510	TLM-2010B
F-TLM-00515	TLM-2010B
F-TLM-00525	TLM-2010B
F-TLM-00525	TLM-2030B
F-TLM-00530	TLM-2010B
F-TLM-00530	TLM-2030B
F-TLM-00535	ETE-2000B
F-TLM-00535	IST-2010B
F-TLM-00540	ETE-2000B
F-TLM-00540	IST-2010B
F-TLM-00610	TLM-2000B
F-TLM-00610	TLM-2020B
F-TLM-00620	TLM-2150B
F-TLM-00625	TLM-2150B
F-TLM-00635	TLM-2000B
F-TLM-00635	TLM-2020B
F-TLM-00635	TLM-2050B
F-TLM-00710	TLM-2050B
F-TLM-00715	TLM-2050B
F-TLM-00720	TLM-2050B
F-TLM-00725	TLM-2050B
F-TLM-00730	TLM-2050B
F-TLM-00735	TLM-2050B
F-TLM-00810	TLM-2020B
F-TLM-00815	TLM-2020B
F-TLM-00820	TLM-2020B
F-TLM-00910	TLM-2030B
F-TLM-00915	TLM-2040B
F-TLM-00920	IST-2010B
F-TLM-00920	TLM-2020B
F-TLM-00925	IST-2010B
F-TLM-00925	TLM-2040B
F-TLM-00935	TLM-2030B
F-TLM-00945	TLM-2030B
F-TLM-00960	TLM-2030B

Level 4 ID	Test Case
F-TLM-00970	IST-2010B
F-TLM-00970	TLM-2040B
F-TLM-00985	IST-2010B
F-TLM-00985	TLM-2030B
F-TLM-00990	IST-2010B
F-TLM-00990	TLM-2030B
F-TLM-01010	TLM-2080B
F-TLM-01015	TLM-2080B
F-TLM-01020	IST-2010B
F-TLM-01020	TLM-2080B
F-TLM-01025	IST-2010B
F-TLM-01025	TLM-2080B
F-TLM-01030	IST-2010B
F-TLM-01030	TLM-2080B
F-TLM-01035	IST-2010B
F-TLM-01035	TLM-2060B
F-TLM-01035	TLM-2080B
F-TLM-01040	TLM-2080B
F-TLM-01045	TLM-2090B
F-TLM-01050	TLM-2060B
F-TLM-01050	TLM-2080B
F-TLM-01050	TLM-2090B
F-TLM-01055	TLM-2080B
F-TLM-01055	TLM-2090B
F-TLM-01110	TLM-2080B
F-TLM-01115	TLM-2080B
F-TLM-01120	IST-2010B
F-TLM-01120	TLM-2090B
F-TLM-01125	TLM-2080B
F-TLM-01130	IST-2010B
F-TLM-01130	TLM-2080B
F-TLM-01130	TLM-2090B
F-TLM-01135	TLM-2080B
F-TLM-01140	TLM-2080B
F-TLM-01145	IST-2010B
F-TLM-01145	TLM-2080B
F-TLM-01145	TLM-2090B
F-TLM-01150	IST-2010B
F-TLM-01150	TLM-2080B
F-TLM-01150	TLM-2090B
F-TLM-01155	IST-2010B
F-TLM-01155	TLM-2080B

Level 4 ID	Test Case
F-TLM-01160	TLM-2080B
F-TLM-01165	TLM-2080B
F-TLM-01165	TLM-2090B
F-TLM-01210	IST-2010B
F-TLM-01210	TLM-2080B
F-TLM-01215	IST-2010B
F-TLM-01215	TLM-2100B
F-TLM-01220	IST-2010B
F-TLM-01220	TLM-2080B
F-TLM-01225	TLM-2080B
F-TLM-01225	TLM-2090B
F-TLM-01230	TLM-2080B
F-TLM-01235	TLM-2060B
F-TLM-01310	IST-2010B
F-TLM-01310	TLM-2060B
F-TLM-01315	IST-2010B
F-TLM-01315	TLM-2060B
F-TLM-01320	IST-2010B
F-TLM-01320	TLM-2060B
F-TLM-01325	TLM-2060B
F-TLM-01330	TLM-2060B
F-TLM-01335	TLM-2060B
F-TLM-01345	TLM-2060B
F-TLM-01350	TLM-2060B
F-TLM-01355	IST-2010B
F-TLM-01355	TLM-2060B
F-TLM-01360	TLM-2060B
F-TLM-01365	TLM-2060B
F-TLM-01410	TLM-2000B
F-TLM-01410	TLM-2020B
F-TLM-01415	IST-2010B
F-TLM-01415	TLM-2060B
F-TLM-01420	TLM-2030B
F-TLM-01425	IST-2010B
F-TLM-01425	TLM-2060B
F-TLM-01430	TLM-2000B
F-TLM-01430	TLM-2010B
F-TLM-01510	TLM-2160B
F-TLM-01515	ETE-2000B
F-TLM-01520	ANA-2100B
F-TLM-01540	ANA-2100B
F-TLM-01545	TLM-2160B

Level 4 ID	Test Case
F-TLM-01610	TLM-2190B
F-TLM-01625	TLM-2190B
F-TLM-01630	TLM-2190B
F-TLM-01635	IST-2010B
F-TLM-01635	TLM-2190B
F-TLM-01640	IST-2010B
F-TLM-01640	TLM-2190B
F-TLM-01710	CMS-2000B
F-TLM-01715	CMS-2000B
F-TLM-01720	CMS-2000B
F-TLM-01725	CMS-2000B
F-TLM-01730	CMS-2000B
F-TLM-01825	FDF-2000B
F-TLM-01830	CONT-2040B
F-TLM-01830	FDF-2000B
F-TLM-02110	CONT-2040B
F-TLM-02115	CONT-2040B
F-TLM-02120	CONT-2040B
F-TLM-02125	CONT-2040B
F-TLM-02130	CONT-2040B
F-TLM-02135	CONT-2040B
F-TLM-02140	CONT-2040B
F-TLM-02210	EDOS-2010B
F-TLM-02215	EDOS-2000B
F-TLM-02217	POST-B
F-TLM-02218	POST-B
F-TLM-02250	EDOS-2000B
F-TLM-02280	POST-B
F-TLM-02281	POST-B
F-TLM-02285	POST-B
F-TLM-02286	POST-B
F-TLM-02290	POST-B
F-TLM-02291	POST-B
F-TLM-02295	POST-B
F-TLM-02296	POST-B
F-TLM-02298	POST-B
F-TLM-02299	POST-B
F-TLM-10125	IST-2010B
F-TLM-10125	TLM-2170B
F-TLM-10130	TLM-2170B
F-TLM-10410	TLM-2000B
F-TLM-10415	TLM-2010B

Level 4 ID	Test Case
F-TLM-10420	TLM-2000B
F-TLM-10425	TLM-2000B
F-TLM-10430	TLM-2000B
F-TLM-10435	TLM-2000B
F-TLM-10440	TLM-2000B
F-TLM-10440	TLM-2010B
F-TLM-10445	TLM-2150B
F-TLM-10455	TLM-2010B
F-TLM-10460	TLM-2010B
F-TLM-10465	TLM-2000B
F-TLM-10470	TLM-2000B
F-TLM-10475	TLM-2000B
F-TLM-10490	TLM-2000B
F-TLM-10490	TLM-2010B
F-TLM-10525	TLM-2000B
F-TLM-10525	TLM-2010B
F-TLM-10535	IST-2010B
F-TLM-10535	TLM-2010B
F-TLM-10540	IST-2010B
F-TLM-10540	TLM-2010B
F-TLM-10550	TLM-2000B
F-TLM-10555	TLM-2000B
F-TLM-10560	IST-2010B
F-TLM-10560	TLM-2000B
F-TLM-10570	IST-2010B
F-TLM-10570	TLM-2000B
F-TLM-10575	TLM-2000B
F-TLM-10580	IST-2010B
F-TLM-10580	TLM-2000B
F-TLM-10810	TLM-2020B
F-TLM-10955	TLM-2030B
F-TLM-11320	IST-2010B
F-TLM-11320	TLM-2060B
F-TLM-11515	TLM-2160B
F-TLM-11520	ANA-2100B
F-TLM-13000	CONT-2020B

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Appendix C. Test Case to Level 4 Requirement Matrix

The following matrix delineates each of the FOS Release B Thread Test Case to the associated level 4 requirements which are verified by the test.

Test Case	Level 4 ID
ANA-2000B	F-ANA-04130
ANA-2000B	F-FUI-09170
ANA-2000B	F-FUI-09130
ANA-2000B	F-FUI-09125
ANA-2000B	F-FUI-09120
ANA-2000B	F-FUI-09105
ANA-2000B	F-FUI-09100
ANA-2000B	F-FUI-03100
ANA-2000B	F-ANA-04120
ANA-2000B	F-ANA-04110
ANA-2000B	F-ANA-04090
ANA-2000B	F-ANA-03010
ANA-2000B	F-ANA-04080
ANA-2000B	F-ANA-03135
ANA-2000B	F-ANA-04070
ANA-2000B	F-ANA-04010
ANA-2000B	F-ANA-04100
ANA-2000B	F-ANA-04020
ANA-2000B	F-ANA-01010
ANA-2000B	F-ANA-08070
ANA-2010B	F-FUI-09355
ANA-2010B	F-FUI-09310
ANA-2010B	F-FUI-09350
ANA-2010B	F-FUI-09360
ANA-2010B	F-FUI-09305
ANA-2010B	F-FUI-09370
ANA-2010B	F-FUI-09315
ANA-2010B	F-FUI-09300
ANA-2010B	F-FUI-09115
ANA-2010B	F-FUI-09365
ANA-2010B	F-FUI-09375
ANA-2010B	F-FUI-03110
ANA-2010B	F-FUI-09363
ANA-2020B	F-ANA-07300

Test Case	Level 4 ID
ANA-2020B	F-ANA-07310
ANA-2020B	F-ANA-07320
ANA-2020B	F-ANA-07180
ANA-2020B	F-ANA-07110
ANA-2020B	F-ANA-07120
ANA-2020B	F-ANA-07130
ANA-2020B	F-ANA-07160
ANA-2030B	F-ANA-07310
ANA-2030B	F-RMS-04085
ANA-2030B	F-ANA-07230
ANA-2030B	F-ANA-07330
ANA-2030B	F-ANA-07320
ANA-2030B	F-ANA-07215
ANA-2030B	F-ANA-07220
ANA-2030B	F-ANA-07280
ANA-2030B	F-ANA-07260
ANA-2030B	F-ANA-07250
ANA-2030B	F-ANA-07240
ANA-2030B	F-ANA-07210
ANA-2040B	F-ANA-06021
ANA-2040B	F-FUI-09515
ANA-2040B	F-ANA-04050
ANA-2040B	F-FUI-09510
ANA-2040B	F-FUI-09500
ANA-2040B	F-FUI-09112
ANA-2040B	F-ANA-06050
ANA-2040B	F-ANA-06023
ANA-2040B	F-ANA-06030
ANA-2040B	F-ANA-06040
ANA-2040B	F-ANA-06020
ANA-2040B	F-ANA-06045
ANA-2040B	F-ANA-06022
ANA-2060B	F-FUI-07340
ANA-2060B	F-FUI-02991
ANA-2060B	F-FUI-07375
ANA-2060B	F-FUI-07365
ANA-2060B	F-FUI-07380
ANA-2060B	F-FUI-07355
ANA-2060B	F-FUI-07392
ANA-2060B	F-FUI-07350
ANA-2060B	F-FUI-07345
ANA-2060B	F-FUI-07360

Test Case	Level 4 ID
ANA-2060B	F-FUI-07385
ANA-2060B	F-FUI-07388
ANA-2060B	F-FUI-07391
ANA-2060B	F-FUI-07394
ANA-2060B	F-FUI-07396
ANA-2060B	F-FUI-07398
ANA-2060B	F-FUI-07400
ANA-2060B	F-FUI-07415
ANA-2060B	F-FUI-09200
ANA-2060B	F-FUI-07390
ANA-2060B	F-FUI-02950
ANA-2060B	F-FUI-03000
ANA-2060B	F-FUI-02970
ANA-2060B	F-FUI-02967
ANA-2060B	F-FUI-02965
ANA-2060B	F-FUI-02964
ANA-2060B	F-FUI-02963
ANA-2060B	F-FUI-02962
ANA-2060B	F-FUI-02961
ANA-2060B	F-FUI-02980
ANA-2060B	F-FUI-02955
ANA-2060B	F-FUI-02985
ANA-2060B	F-FUI-02920
ANA-2060B	F-ANA-04400
ANA-2060B	F-ANA-04390
ANA-2060B	F-ANA-04380
ANA-2060B	F-ANA-04375
ANA-2060B	F-ANA-04370
ANA-2060B	F-ANA-04360
ANA-2060B	F-ANA-04350
ANA-2060B	F-FUI-02960
ANA-2060B	F-FUI-03045
ANA-2060B	F-FUI-07325
ANA-2060B	F-FUI-07320
ANA-2060B	F-FUI-07315
ANA-2060B	F-FUI-07310
ANA-2060B	F-FUI-07305
ANA-2060B	F-FUI-07300
ANA-2060B	F-FUI-03061
ANA-2060B	F-FUI-03060
ANA-2060B	F-FUI-02975
ANA-2060B	F-FUI-03050

Test Case	Level 4 ID
ANA-2060B	F-FUI-07335
ANA-2060B	F-FUI-03040
ANA-2060B	F-FUI-03035
ANA-2060B	F-FUI-03025
ANA-2060B	F-FUI-03010
ANA-2060B	F-FUI-03005
ANA-2060B	F-FUI-02995
ANA-2060B	F-FUI-03030
ANA-2060B	F-FUI-02990
ANA-2060B	F-FUI-03055
ANA-2070B	F-ANA-04430
ANA-2070B	F-ANA-04420
ANA-2070B	F-ANA-04415
ANA-2070B	F-ANA-04410
ANA-2070B	F-ANA-03210
ANA-2070B	F-ANA-03200
ANA-2090B	F-ANA-03140
ANA-2090B	F-FUI-09205
ANA-2090B	F-FUI-09210
ANA-2090B	F-FUI-09215
ANA-2090B	F-FUI-09220
ANA-2090B	F-ANA-03170
ANA-2090B	F-ANA-03150
ANA-2090B	F-ANA-03060
ANA-2090B	F-ANA-03050
ANA-2090B	F-ANA-03020
ANA-2090B	F-RMS-00035
ANA-2090B	F-ANA-03040
ANA-2090B	F-ANA-02040
ANA-2090B	F-ANA-02030
ANA-2090B	F-ANA-02010
ANA-2090B	F-ANA-02050
ANA-2090B	F-ANA-03160
ANA-2100B	F-ANA-05032
ANA-2100B	F-ANA-05070
ANA-2100B	F-ANA-05060
ANA-2100B	F-ANA-05040
ANA-2100B	F-ANA-05033
ANA-2100B	F-ANA-05031
ANA-2100B	F-DMS-00840
ANA-2100B	F-DMS-00760
ANA-2100B	F-DMS-00750

Test Case	Level 4 ID
ANA-2100B	F-DMS-00740
ANA-2100B	F-ANA-05030
ANA-2100B	F-ANA-05034
ANA-2100B	F-ANA-05050
ANA-2100B	F-FUI-09110
ANA-2100B	F-ANA-06030
ANA-2100B	F-ANA-05250
ANA-2100B	F-ANA-05210
ANA-2100B	F-ANA-05150
ANA-2100B	F-ANA-05140
ANA-2100B	F-ANA-05080
ANA-2100B	F-ANA-05120
ANA-2100B	F-ANA-05090
ANA-2100B	F-DMS-01020
ANA-2100B	F-ANA-05020
ANA-2100B	F-TLM-01520
ANA-2100B	F-ANA-05110
ANA-2100B	F-ANA-05100
ANA-2100B	F-TLM-01540
ANA-2100B	F-ANA-05130
ANA-2100B	F-ANA-01025
ANA-2100B	F-ANA-03110
ANA-2100B	F-ANA-03120
ANA-2100B	F-ANA-05010
ANA-2100B	F-ANA-03125
ANA-2100B	F-ANA-04310
ANA-2100B	F-ANA-03130
ANA-2100B	F-ANA-03180
ANA-2100B	F-TLM-11520
ANA-2100B	F-ANA-03190
ANA-2100B	F-ANA-03100
ANA-2100B	F-ANA-04025
ANA-2110B	F-ANA-03030
ANA-2110B	F-ANA-05220
ANA-2110B	F-ANA-03080
ANA-2110B	F-FUI-09110
ANA-2110B	F-DMS-01020
ANA-2110B	F-ANA-03015
ANA-2110B	F-DMS-01010
ANA-2110B	F-DMS-00790
ANA-2110B	F-DMS-00770
ANA-2110B	F-ANA-01020

Test Case	Level 4 ID
ANA-2110B	F-ANA-03070
ANA-2120B	F-ANA-08040
ANA-2120B	F-FUI-03200
ANA-2120B	F-FUI-09225
ANA-2120B	F-ANA-08050
ANA-2120B	F-FUI-09140
ANA-2120B	F-FUI-03230
ANA-2120B	F-FUI-09160
ANA-2120B	F-ANA-01030
ANA-2120B	F-FUI-03225
ANA-2120B	F-ANA-08030
ANA-2120B	F-ANA-08020
ANA-2120B	F-ANA-08010
ANA-2120B	F-ANA-04340
ANA-2120B	F-FUI-09150
ANA-2120B	F-FUI-03205
ANA-2120B	F-ANA-04330
ANA-2120B	F-FUI-09145
ANA-2120B	F-ANA-08060
ANA-2120B	F-FUI-03215
ANA-2120B	F-ANA-04040
ANA-2120B	F-FUI-09410
ANA-2120B	F-ANA-04315
ANA-2120B	F-FUI-03220
ANA-2120B	F-ANA-04320
ANA-2120B	F-FUI-09415
ASTR-2000B	F-PAS-10575
ASTR-2000B	F-PAS-10570
ASTR-2000B	F-PAS-10100
ASTR-2000B	F-PAS-10450
ASTR-2000B	F-PAS-10312
ASTR-2000B	F-PAS-10305
ASTR-2000B	F-PAS-10300
ASTR-2000B	F-PAS-10010
ASTR-2000B	F-PAS-10105
ASTR-2000B	F-PAS-10110
CMD-2000B	F-RMS-01020
CMD-2000B	F-RMS-01010
CMD-2000B	F-RMS-01030
CMD-2001B	F-CMD-02140
CMD-2001B	F-FOS-00315
CMD-2001B	F-CMD-02110

Test Case	Level 4 ID
CMD-2001B	F-CMD-02120
CMD-2001B	F-CMD-02125
CMD-2001B	F-CMD-02135
CMD-2001B	F-CMD-12240
CMD-2001B	F-CMD-14313
CMD-2001B	F-CMD-12245
CMD-2001B	F-CMD-11226
CMD-2001B	F-CMD-02130
CMD-2001B	F-CMD-13230
CMD-2010B	F-FUI-06410
CMD-2010B	F-FUI-06460
CMD-2010B	F-FUI-06455
CMD-2010B	F-FUI-06450
CMD-2010B	F-FUI-06445
CMD-2010B	F-FUI-06440
CMD-2010B	F-FUI-06435
CMD-2010B	F-FUI-06430
CMD-2010B	F-FUI-06425
CMD-2010B	F-FUI-06465
CMD-2010B	F-FUI-06415
CMD-2010B	F-FUI-06470
CMD-2010B	F-FUI-06405
CMD-2010B	F-FUI-06400
CMD-2010B	F-FUI-06360
CMD-2010B	F-FUI-06365
CMD-2010B	F-FUI-06370
CMD-2010B	F-FUI-06375
CMD-2010B	F-FUI-05300
CMD-2010B	F-FUI-06395
CMD-2010B	F-FUI-06420
CMD-2010B	F-FUI-05315
CMD-2010B	F-FUI-06330
CMD-2010B	F-FUI-05335
CMD-2010B	F-FUI-05340
CMD-2010B	F-FUI-06320
CMD-2010B	F-FUI-06315
CMD-2010B	F-FUI-06305
CMD-2010B	F-FUI-06300
CMD-2015B	F-CMD-01317
CMD-2015B	F-FUI-06340
CMD-2015B	F-FUI-06310
CMD-2015B	F-FUI-06345

Test Case	Level 4 ID
CMD-2015B	F-FUI-06385
CMD-2015B	F-FUI-06335
CMD-2015B	F-FUI-06337
CMD-2015B	F-FUI-06390
CMD-2015B	F-FUI-06380
CMD-2015B	F-FUI-06350
CMD-2015B	F-FUI-06355
CMD-2030B	F-CMD-02225
CMD-2030B	F-CMD-03135
CMD-2030B	F-CMD-03133
CMD-2030B	F-CMD-05115
CMD-2030B	F-CMD-02235
CMD-2030B	F-CMD-01180
CMD-2030B	F-CMD-02245
CMD-2030B	F-CMD-03410
CMD-2030B	F-CMD-03230
CMD-2030B	F-CMD-02220
CMD-2030B	F-CMD-02215
CMD-2030B	F-CMD-02210
CMD-2030B	F-CMD-04115
CMD-2030B	F-CMD-02230
CMD-2030B	F-CMD-02260
CMD-2030B	F-CMD-03225
CMD-2030B	F-CMD-02250
CMD-2030B	F-CMD-02255
CMD-2030B	F-CMD-03215
CMD-2030B	F-FUI-06470
CMD-2030B	F-CMD-03210
CMD-2030B	F-CMD-04120
CMD-2030B	F-CMD-03110
CMD-2030B	F-CMD-03115
CMD-2030B	F-CMD-02240
CMD-2030B	F-CMD-02265
CMD-2030B	F-CMD-03130
CMD-2030B	F-CMD-03127
CMD-2030B	F-CMD-03125
CMD-2050B	F-CMD-05510
CMD-2050B	F-CMD-05250
CMD-2050B	F-CMD-04130
CMD-2050B	F-CMD-03310
CMD-2050B	F-CMD-01325
CMD-2050B	F-CMD-15520

Test Case	Level 4 ID
CMD-2050B	F-CMD-01330
CMD-2050B	F-CMD-01335
CMD-2050B	F-CMD-15515
CMD-2050B	F-CMD-01340
CMD-2050B	F-CMD-01345
CMD-2050B	F-CMD-05255
CMD-2050B	F-CMD-03220
CMD-2050B	F-CMD-03315
CMD-2070B	F-CMD-04220
CMD-2070B	F-CMD-11210
CMD-2070B	F-CMD-11211
CMD-2070B	F-CMD-11215
CMD-2070B	F-CMD-14315
CMD-2070B	F-CMD-12130
CMD-2070B	F-CMS-11410
CMD-2070B	F-CMD-14310
CMD-2070B	F-CMD-11212
CMD-2070B	F-FOS-00347
CMD-2070B	F-CMD-04230
CMD-2070B	F-CMD-01310
CMD-2070B	F-CMD-01320
CMD-2070B	F-FOS-00320
CMD-2070B	F-CMD-01165
CMD-2070B	F-CMD-05120
CMD-2070B	F-CMD-01230
CMD-2070B	F-CMD-04120
CMD-2070B	F-CMD-04225
CMD-2070B	F-CMD-04210
CMD-2070B	F-CMD-04215
CMD-2080B	F-CMD-05247
CMD-2080B	F-CMD-15245
CMD-2080B	F-CMD-05245
CMD-2080B	F-CMD-05110
CMD-2080B	F-CMD-05115
CMD-2080B	F-CMD-05120
CMD-2080B	F-CMD-05220
CMD-2080B	F-CMD-05235
CMD-2080B	F-CMD-05230
CMD-2080B	F-CMD-05225
CMS-2000B	F-CMS-01745
CMS-2000B	F-TLM-01730
CMS-2000B	F-CMS-01775

Test Case	Level 4 ID
CMS-2000B	F-CMS-01770
CMS-2000B	F-CMS-01765
CMS-2000B	F-CMS-01720
CMS-2000B	F-CMS-01750
CMS-2000B	F-CMS-01710
CMS-2000B	F-CMS-01743
CMS-2000B	F-CMS-01740
CMS-2000B	F-CMS-01735
CMS-2000B	F-CMS-01715
CMS-2000B	F-CMD-01150
CMS-2000B	F-CMS-01760
CMS-2000B	F-TLM-01715
CMS-2000B	F-TLM-01720
CMS-2000B	F-TLM-01725
CMS-2000B	F-CMS-11720
CMS-2000B	F-TLM-01710
CMS-2040B	F-FUI-05120
CMS-2040B	F-CMS-01020
CMS-2040B	F-CMS-01030
CMS-2040B	F-CMS-01110
CMS-2040B	F-CMS-01120
CMS-2040B	F-CMS-01130
CMS-2040B	F-DMS-01405
CMS-2040B	F-CMS-01160
CMS-2040B	F-CMS-01010
CMS-2040B	F-CMS-01150
CMS-2040B	F-FUI-05720
CMS-2040B	F-FUI-05125
CMS-2040B	F-FUI-05115
CMS-2040B	F-FUI-05110
CMS-2040B	F-FUI-05105
CMS-2040B	F-FUI-05100
CMS-2040B	F-FUI-05710
CMS-2040B	F-FUI-05700
CMS-2040B	F-CMS-11170
CMS-2040B	F-CMS-11185
CMS-2040B	F-CMS-11190
CMS-2040B	F-FUI-05705
CMS-2040B	F-FUI-05130
CMS-2040B	F-CMD-03320
CMS-2060B	F-FUI-05705
CMS-2060B	F-CMS-01340

Test Case	Level 4 ID
CMS-2060B	F-CMS-01350
CMS-2060B	F-FUI-05720
CMS-2060B	F-CMS-01420
CMS-2060B	F-CMS-01430
CMS-2060B	F-CMS-01440
CMS-2060B	F-CMS-01450
CMS-2060B	F-FUI-05725
CMS-2060B	F-FUI-05710
CMS-2060B	F-CMS-01360
CMS-2060B	F-CMS-11420
CMS-2060B	F-CMS-11340
CMS-2060B	F-CMS-11330
CMS-2060B	F-CMS-11320
CMS-2060B	F-CMS-11310
CMS-2060B	F-CMS-11170
CMS-2060B	F-FUI-05700
CMS-2060B	F-CMS-01460
CMS-2060B	F-FUI-05600
CMS-2060B	F-CMS-01330
CMS-2060B	F-CMS-01325
CMS-2060B	F-CMS-01320
CMS-2060B	F-CMS-01310
CMS-2060B	F-CMD-03320
CMS-2060B	F-CMS-01425
CMS-2060B	F-DMS-01405
CMS-2090B	F-CMS-00118
CMS-2090B	F-CMS-00115
CMS-2090B	F-CMS-00110
CMS-2090B	F-CMS-11170
CMS-2090B	F-DMS-01405
CMS-2090B	F-CMS-00243
CMS-2090B	F-CMS-10255
CMS-2090B	F-CMS-10250
CMS-2090B	F-CMS-10600
CMS-2090B	F-CMS-00245
CMS-2090B	F-FUI-05705
CMS-2090B	F-CMS-00230
CMS-2090B	F-CMS-00125
CMS-2090B	F-FUI-05710
CMS-2090B	F-CMS-00240
CMS-2090B	F-CMS-00130
CMS-2090B	F-CMS-00205

Test Case	Level 4 ID
CMS-2090B	F-CMS-00210
CMS-2090B	F-CMS-00215
CMS-2090B	F-CMS-10125
CMS-2090B	F-CMS-00220
CMS-2090B	F-CMS-00120
CMS-2090B	F-CMS-00640
CMS-2090B	F-CMS-10110
CMS-2090B	F-FUI-05720
CMS-2090B	F-CMS-10120
CMS-2090B	F-FUI-05700
CMS-2100B	F-CMS-00425
CMS-2100B	F-CMS-00250
CMS-2100B	F-FUI-05605
CMS-2100B	F-CMS-00530
CMS-2100B	F-CMS-00510
CMS-2100B	F-CMS-00550
CMS-2100B	F-FUI-05405
CMS-2100B	F-CMS-10420
CMS-2100B	F-CMS-00140
CMS-2100B	F-CMS-10410
CMS-2100B	F-CMS-10220
CMS-2100B	F-CMS-10210
CMS-2100B	F-CMS-10130
CMS-2100B	F-FUI-05400
CMS-2170B	F-FUI-05710
CMS-2170B	F-FUI-05200
CMS-2170B	F-CMS-00840
CMS-2170B	F-CMS-00830
CMS-2170B	F-CMS-00850
CMS-2170B	F-FUI-05720
CMS-2170B	F-FUI-05205
CMS-2170B	F-FUI-05210
CMS-2170B	F-FUI-05215
CMS-2170B	F-CMS-00820
CMS-2170B	F-FUI-05220
CMS-2170B	F-CMS-00860
CMS-2170B	F-DMS-01405
CMS-2170B	F-CMD-03320
CMS-2170B	F-CMS-00720
CMS-2170B	F-FUI-05700
CMS-2170B	F-CMS-10710
CMS-2170B	F-CMS-10720

Test Case	Level 4 ID
CMS-2170B	F-CMS-10730
CMS-2170B	F-CMS-10740
CMS-2170B	F-CMS-00710
CMS-2170B	F-FUI-05705
CMS-2170B	F-CMS-11170
CMS-2170B	F-CMS-00750
CMS-2170B	F-CMS-00735
CMS-2170B	F-CMS-00810
CMS-2170B	F-CMS-00740
CMS-2170B	F-CMS-00745
CMS-2170B	F-CMS-00730
CMS-2170B	F-CMS-00755
CMS-2180B	F-CMS-00920
CMS-2180B	F-CMS-00925
CMS-2180B	F-FUI-17265
CMS-2180B	F-CMS-00915
CMS-2180B	F-CMS-00910
CMS-2180B	F-CMS-10725
CMS-2180B	F-FUI-05515
CMS-2180B	F-FUI-05605
CMS-2180B	F-FUI-05505
CMS-2180B	F-CMS-00950
CMS-2180B	F-FUI-05600
CMS-2180B	F-CMS-00930
CMS-2180B	F-CMS-00935
CMS-2180B	F-FUI-05500
CMS-2180B	F-CMS-00940
CMS-2180B	F-FUI-05510
CMS-2190B	F-CMS-11180
CMS-2190B	F-CMS-01210
CMS-2190B	F-FUI-05600
CMS-2190B	F-FUI-05605
CMS-2190B	F-CMS-01225
CMS-2190B	F-CMS-01220
CMS-2190B	F-CMS-01215
CONT-2010B	F-ANA-09130
CONT-2010B	F-ANA-09140
CONT-2010B	F-ANA-09160
CONT-2010B	F-ANA-04200
CONT-2010B	F-ANA-09120
CONT-2010B	F-ANA-04210
CONT-2010B	F-ANA-09150

Test Case	Level 4 ID
CONT-2010B	F-ANA-09305
CONT-2010B	F-ANA-09310
CONT-2010B	F-FUI-09530
CONT-2010B	F-ANA-04220
CONT-2010B	F-ANA-06030
CONT-2010B	F-ANA-09315
CONT-2010B	F-ANA-09300
CONT-2010B	F-ANA-09080
CONT-2010B	F-ANA-09110
CONT-2010B	F-ANA-09070
CONT-2010B	F-ANA-09100
CONT-2010B	F-ANA-09090
CONT-2020B	F-FUI-17270
CONT-2020B	F-FUI-19550
CONT-2020B	F-ANA-07400
CONT-2020B	F-ANA-07430
CONT-2020B	F-ANA-07440
CONT-2020B	F-DMS-11030
CONT-2020B	F-TLM-13000
CONT-2020B	F-ANA-07420
CONT-2030B	F-ANA-17050
CONT-2030B	F-ANA-17040
CONT-2030B	F-ANA-17030
CONT-2030B	F-ANA-17020
CONT-2030B	F-ANA-17010
CONT-2030B	F-FUI-17810
CONT-2030B	F-FUI-17820
CONT-2030B	F-ANA-06030
CONT-2030B	F-PAS-00920
CONT-2030B	F-PAS-10446
CONT-2030B	F-FUI-14005
CONT-2030B	F-PAS-10310
CONT-2030B	F-ANA-17060
CONT-2030B	F-PAS-10530
CONT-2030B	F-PAS-00600
CONT-2030B	F-FUI-17800
CONT-2030B	F-ANA-01060
CONT-2030B	F-FUI-14010
CONT-2040B	F-TLM-01830
CONT-2040B	F-CMS-01512
CONT-2040B	F-ANA-06030
CONT-2040B	F-TLM-02110

Test Case	Level 4 ID
CONT-2040B	F-TLM-02115
CONT-2040B	F-TLM-02125
CONT-2040B	F-TLM-02130
CONT-2040B	F-TLM-02135
CONT-2040B	F-TLM-02140
CONT-2040B	F-TLM-02120
DBS-2000B	F-DMS-00270
DBS-2000B	F-DMS-01310
DBS-2000B	F-DMS-00180
DBS-2000B	F-DMS-00170
DBS-2000B	F-DMS-00140
DBS-2000B	F-DMS-00310
DBS-2000B	F-DMS-00320
DBS-2000B	F-DMS-00130
DBS-2000B	F-DMS-00120
DBS-2000B	F-DMS-00340
DBS-2000B	F-DMS-00350
DBS-2000B	F-DMS-00360
DBS-2000B	F-DMS-00110
DBS-2000B	F-DMS-00610
DBS-2000B	F-DMS-00650
DBS-2000B	F-DMS-00640
DBS-2000B	F-DMS-00630
DBS-2000B	F-DMS-00620
DBS-2000B	F-DMS-01330
DBS-2000B	F-DMS-01320
DBS-2010B	F-DMS-00540
DBS-2010B	F-DMS-00530
DBS-2010B	F-DMS-00520
DBS-2010B	F-DMS-00510
DBS-2010B	F-DMS-00550
DBS-2020B	F-DMS-00410
DBS-2020B	F-DMS-00420
DBS-2030B	F-DMS-00220
DBS-2030B	F-DMS-00231
DBS-2030B	F-DMS-00205
DBS-2030B	F-DMS-00210
DBS-2030B	F-DMS-00215
DBS-2030B	F-DMS-00225
DBS-2030B	F-DMS-00232
DBS-2030B	F-DMS-00233
DBS-2030B	F-DMS-00250

Test Case	Level 4 ID
DBS-2030B	F-DMS-00255
DBS-2030B	F-DMS-00260
DBS-2030B	F-DMS-00265
DBS-2030B	F-DMS-00230
DBS-3100FPB	F-DMS-00370
DBS-3100FPB	F-DMS-00375
EDOS-2000B	F-TLM-02250
EDOS-2000B	F-TLM-02215
EDOS-2000B	F-FOS-00020
EDOS-2001B	F-RMS-05080
EDOS-2001B	F-ANA-04035
EDOS-2001B	F-RMS-05050
EDOS-2001B	F-RMS-05070
EDOS-2001B	F-ANA-07030
EDOS-2001B	F-ANA-07020
EDOS-2001B	F-RMS-05060
EDOS-2001B	F-ANA-03012
EDOS-2001B	F-FUI-02305
EDOS-2001B	F-FUI-02310
EDOS-2001B	F-FUI-02315
EDOS-2001B	F-FUI-02320
EDOS-2001B	F-FUI-02325
EDOS-2001B	F-FUI-02330
EDOS-2001B	F-FUI-02335
EDOS-2001B	F-ANA-07010
EDOS-2001B	F-FUI-02300
EDOS-2002B	F-CMD-06110
EDOS-2002B	F-CMD-01185
EDOS-2002B	F-CMD-06100
EDOS-2002B	F-CMD-06120
EDOS-2010B	F-ANA-04510
EDOS-2010B	F-ANA-04520
EDOS-2010B	F-ANA-04530
EDOS-2010B	F-DMS-01021
EDOS-2010B	F-TLM-02210
EDOS-2010B	F-DMS-01420
EDOS-2030B	F-DMS-11010
EDOS-2030B	F-FUI-11200
EDOS-2030B	F-DMS-10720
EDOS-2030B	F-DMS-10710
ETE-2000B	F-FOS-00230
ETE-2000B	F-TLM-00540

Test Case	Level 4 ID
ETE-2000B	F-TLM-00535
ETE-2000B	F-CMD-04110
ETE-2000B	F-FOS-10205
ETE-2000B	F-FOS-00305
ETE-2000B	F-FOS-00260
ETE-2000B	F-FOS-00200
ETE-2000B	F-TLM-01515
ETE-2000B	F-FOS-10200
ETE-2010B	F-CMD-01125
ETE-2010B	F-FOS-00010
ETE-2010B	F-FOS-00015
ETE-2010B	F-FOS-00020
ETE-2010B	F-FOS-00025
ETE-2010B	F-CMD-01250
ETE-2010B	F-CMD-01120
ETE-2010B	F-FOS-00320
ETE-2010B	F-FUI-01185
ETE-2010B	F-CMD-01160
EVT-2000B	F-FUI-01320
EVT-2000B	F-DMS-01280
EVT-2000B	F-FOS-00250
EVT-2000B	F-DMS-01290
EVT-2000B	F-FUI-09610
EVT-2000B	F-FOS-00255
EVT-2000B	F-FUI-09645
EVT-2000B	F-FUI-09635
EVT-2000B	F-FUI-09615
EVT-2000B	F-DMS-01210
EVT-2000B	F-FUI-09630
EVT-2000B	F-DMS-01230
EVT-2000B	F-FUI-09625
EVT-2000B	F-FUI-09663
EVT-2000B	F-FUI-09620
EVT-2000B	F-FUI-09665
EVT-2000B	F-DMS-01270
EVT-2010B	F-FUI-03225
EVT-2010B	F-FOS-00245
EVT-2010B	F-DMS-01230
EVT-2010B	F-FOS-00250
EVT-2010B	F-DMS-01220
EVT-2010B	F-FOS-00240
EVT-2010B	F-FUI-03200

Test Case	Level 4 ID
EVT-2010B	F-FUI-03220
EVT-2010B	F-FUI-03215
EVT-2010B	F-FUI-03210
EVT-2010B	F-FUI-01325
EVT-2010B	F-FUI-03205
EVT-2020B	F-DMS-01240
EVT-2020B	F-DMS-00910
EVT-2020B	F-DMS-00920
EVT-2020B	F-DMS-00930
EVT-2020B	F-DMS-00940
EVT-2020B	F-FUI-09640
EVT-2020B	F-FUI-09700
EVT-2020B	F-FUI-09705
EVT-2020B	F-FUI-02115
EVT-2020B	F-FUI-09710
EVT-2020B	F-FUI-09605
EVT-2030B	F-DMS-01260
EVT-2030B	F-FUI-09650
EVT-2030B	F-FUI-09655
EVT-2030B	F-FUI-09660
EVT-2030B	F-DMS-01250
FDF-2000B	F-DMS-01490
FDF-2000B	F-DMS-01450
FDF-2000B	F-DMS-01451
FDF-2000B	F-DMS-01452
FDF-2000B	F-DMS-01455
FDF-2000B	F-DMS-01485
FDF-2000B	F-PAS-00145
FDF-2000B	F-ANA-05190
FDF-2000B	F-ANA-05170
FDF-2000B	F-ANA-05160
FDF-2000B	F-PAS-10449
FDF-2000B	F-CMS-01028
FDF-2000B	F-FOS-00325
FDF-2000B	F-CMS-01140
FDF-2000B	F-TLM-01830
FDF-2000B	F-PAS-00138
FDF-2000B	F-PAS-00137
FDF-2000B	F-TLM-01825
FDF-2000B	F-ANA-04030
FDF-2000B	F-ANA-05180
FDF-2000B	F-FOS-00320

Test Case	Level 4 ID
FDF-2000B	F-CMS-01029
FDF-2000B	F-FOS-00330
FDF-2000B	F-ANA-01040
FDF-3100FPB	F-DMS-01465
FUI-2000B	F-FUI-01340
FUI-2000B	F-FUI-01305
FUI-2000B	F-FUI-01310
FUI-2000B	F-FUI-01315
FUI-2000B	F-FUI-01335
FUI-2000B	F-FUI-01330
FUI-2020B	F-FUI-01615
FUI-2020B	F-FUI-01200
FUI-2020B	F-FUI-01600
FUI-2020B	F-FUI-01205
FUI-2020B	F-FUI-01620
FUI-2020B	F-FUI-01605
FUI-2020B	F-FUI-01610
FUI-2020B	F-FUI-01215
FUI-2020B	F-FUI-01220
FUI-2020B	F-FUI-01225
FUI-2020B	F-FUI-01230
FUI-2020B	F-FUI-01235
FUI-2025B	F-FUI-02215
FUI-2025B	F-FUI-02202
FUI-2025B	F-FUI-02210
FUI-2025B	F-FUI-02235
FUI-2025B	F-FUI-02225
FUI-2025B	F-FUI-02200
FUI-2025B	F-FUI-02240
FUI-2030B	F-FUI-07245
FUI-2030B	F-FUI-12610
FUI-2030B	F-FUI-02635
FUI-2030B	F-FUI-07100
FUI-2030B	F-FUI-07230
FUI-2030B	F-FUI-07240
FUI-2030B	F-FUI-07220
FUI-2030B	F-FUI-07250
FUI-2030B	F-FUI-07215
FUI-2030B	F-FUI-07210
FUI-2030B	F-FUI-07205
FUI-2030B	F-FUI-07255
FUI-2030B	F-FUI-02640

Test Case	Level 4 ID
FUI-2030B	F-FUI-02630
FUI-2030B	F-FUI-07225
FUI-2030B	F-FUI-02605
FUI-2030B	F-FUI-02600
FUI-2030B	F-FUI-07200
FUI-2030B	F-FUI-07140
FUI-2030B	F-FUI-07135
FUI-2030B	F-FUI-07235
FUI-2030B	F-FUI-07130
FUI-2030B	F-FUI-07125
FUI-2030B	F-FUI-07120
FUI-2030B	F-FUI-02625
FUI-2040B	F-FUI-01595
FUI-2040B	F-FUI-01580
FUI-2040B	F-FUI-01505
FUI-2040B	F-FUI-01500
FUI-2050B	F-FUI-01591
FUI-2050B	F-FUI-02860
FUI-2050B	F-FUI-01590
FUI-2050B	F-FUI-01585
FUI-2050B	F-FUI-02865
FUI-2050B	F-CMS-01840
FUI-2050B	F-CMS-01835
FUI-2050B	F-CMS-01830
FUI-2050B	F-CMS-01825
FUI-2050B	F-CMS-01820
FUI-2050B	F-FUI-01570
FUI-2050B	F-FUI-02855
FUI-2050B	F-FUI-01555
FUI-2050B	F-FUI-01560
FUI-2050B	F-FUI-01545
FUI-2050B	F-FUI-01540
FUI-2050B	F-FUI-01538
FUI-2050B	F-FUI-01535
FUI-2050B	F-FUI-01530
FUI-2050B	F-FUI-01525
FUI-2050B	F-FUI-01520
FUI-2050B	F-FUI-01515
FUI-2050B	F-FUI-01510
FUI-2050B	F-FUI-02870
FUI-2050B	F-FUI-02875
FUI-2050B	F-FUI-02825

Test Case	Level 4 ID
FUI-2050B	F-FUI-02885
FUI-2050B	F-FUI-01550
FUI-2050B	F-FUI-02890
FUI-2050B	F-FUI-02850
FUI-2050B	F-FUI-02820
FUI-2050B	F-FUI-02830
FUI-2050B	F-FUI-02815
FUI-2050B	F-FUI-02835
FUI-2050B	F-FUI-02810
FUI-2050B	F-FUI-02805
FUI-2050B	F-FUI-02840
FUI-2050B	F-FUI-02895
FUI-2050B	F-FUI-02845
FUI-2050B	F-FUI-02800
FUI-2050B	F-FUI-02880
FUI-2060B	F-CMD-01315
FUI-2060B	F-FUI-06135
FUI-2060B	F-CMD-03215
FUI-2060B	F-FUI-06125
FUI-2060B	F-FUI-06120
FUI-2060B	F-FUI-06115
FUI-2060B	F-FUI-06110
FUI-2060B	F-FUI-01565
FUI-2060B	F-FUI-06105
FUI-2060B	F-FUI-06100
FUI-2060B	F-FUI-06130
FUI-2080B	F-FUI-12800
FUI-2090B	F-FOS-00430
FUI-2090B	F-FUI-01425
FUI-2090B	F-FUI-01400
FUI-2090B	F-FUI-01405
FUI-2090B	F-FOS-00420
FUI-2090B	F-FUI-01415
FUI-2090B	F-FUI-01445
FUI-2090B	F-FUI-01410
FUI-2090B	F-FUI-01435
FUI-2100B	F-FUI-01150
FUI-2100B	F-FUI-01100
FUI-2100B	F-FUI-01105
FUI-2100B	F-FUI-01110
FUI-2100B	F-FUI-01115
FUI-2100B	F-FUI-01120

Test Case	Level 4 ID
FUI-2100B	F-FUI-01125
FUI-2100B	F-FUI-01130
FUI-2100B	F-FUI-01135
FUI-2100B	F-FUI-01145
FUI-2100B	F-FUI-01155
FUI-2100B	F-FUI-01160
FUI-2100B	F-FUI-01165
FUI-2100B	F-FUI-01170
FUI-2100B	F-FUI-01175
FUI-2100B	F-FUI-01180
FUI-2100B	F-FUI-01140
FUI-2110B	F-FUI-03105
FUI-2110B	F-FUI-02610
FUI-2110B	F-FUI-02605
FUI-2110B	F-FUI-02600
FUI-2110B	F-FUI-02635
FUI-2110B	F-FUI-02640
FUI-2110B	F-FUI-07300
FUI-2110B	F-FUI-07350
FUI-2110B	F-FUI-07355
FUI-2110B	F-FUI-07315
FUI-2110B	F-FUI-07360
FUI-2110B	F-FUI-07365
FUI-2110B	F-FUI-07370
FUI-2110B	F-FUI-07310
FUI-2110B	F-FUI-07325
FUI-2110B	F-FUI-07380
FUI-2110B	F-FUI-07385
FUI-2110B	F-FUI-07345
FUI-2110B	F-FUI-07388
FUI-2110B	F-FUI-07375
FUI-2110B	F-FUI-07390
FUI-2110B	F-FUI-07391
FUI-2110B	F-FUI-02630
FUI-2110B	F-FUI-07392
FUI-2110B	F-FUI-07394
FUI-2110B	F-FUI-07396
FUI-2110B	F-FUI-07398
FUI-2110B	F-FUI-07400
FUI-2110B	F-FUI-07410
FUI-2110B	F-FUI-07415
FUI-2110B	F-FUI-07425

Test Case	Level 4 ID
FUI-2110B	F-FUI-07305
FUI-2110B	F-FUI-07330
FUI-2110B	F-FUI-07320
FUI-2110B	F-FUI-07340
FUI-2110B	F-FUI-07335
FUI-2115B	F-FUI-07515
FUI-2115B	F-FUI-07510
FUI-2115B	F-FUI-07505
FUI-2115B	F-FUI-02610
FUI-2115B	F-FUI-07525
FUI-2115B	F-FUI-07520
FUI-2115B	F-FUI-07370
FUI-2115B	F-FUI-07500
FUI-2120B	F-FUI-02435
FUI-2120B	F-FUI-02425
FUI-2120B	F-FUI-02415
FUI-2120B	F-FUI-02410
FUI-2120B	F-FUI-02400
FUI-2120B	F-DMS-01480
FUI-2120B	F-FUI-02430
FUI-2120B	F-DMS-01475
FUI-2120B	F-FUI-02440
FUI-2120B	F-FUI-02445
FUI-2120B	F-FUI-02420
FUI-2120B	F-FUI-02450
FUI-2130B	F-FUI-02505
FUI-2130B	F-FUI-02550
FUI-2130B	F-FUI-02540
FUI-2130B	F-FUI-02535
FUI-2130B	F-FUI-02530
FUI-2130B	F-FUI-02525
FUI-2130B	F-FUI-02520
FUI-2130B	F-FUI-02515
FUI-2130B	F-FUI-02510
FUI-2130B	F-FUI-02500
FUI-2130B	F-FUI-02545
FUI-2140B	F-FUI-02110
FUI-2140B	F-FUI-02100
FUI-2150B	F-FUI-02720
FUI-2150B	F-FUI-02700
FUI-2150B	F-FUI-02705
FUI-2150B	F-FUI-02710

Test Case	Level 4 ID
FUI-2150B	F-FUI-02715
FUI-2150B	F-FUI-02725
FUI-3000FPB	F-FOS-10270
HRD-2000B	F-FOS-00460
HRD-2000B	F-FOS-00455
HRD-2000B	F-FOS-00450
HRD-2000B	F-HRD-00005
HRD-2000B	F-HRD-00020
HRD-2000B	F-HRD-03015
HRD-2000B	F-HRD-00010
HRD-2000B	F-HRD-04005
HRD-2000B	F-HRD-03045
HRD-2000B	F-HRD-03040
HRD-2000B	F-HRD-03035
HRD-2000B	F-HRD-03030
HRD-2000B	F-HRD-04015
HRD-2000B	F-HRD-03020
HRD-2000B	F-HRD-04020
HRD-2000B	F-HRD-03010
HRD-2000B	F-HRD-03005
HRD-2000B	F-HRD-02105
HRD-2000B	F-HRD-02100
HRD-2000B	F-HRD-02095
HRD-2000B	F-HRD-02080
HRD-2000B	F-HRD-02075
HRD-2000B	F-HRD-03025
HRD-2000B	F-HRD-06005
HRD-2000B	F-HRD-07025
HRD-2000B	F-HRD-07020
HRD-2000B	F-HRD-07017
HRD-2000B	F-HRD-07015
HRD-2000B	F-HRD-07010
HRD-2000B	F-HRD-07005
HRD-2000B	F-HRD-04010
HRD-2000B	F-HRD-06010
HRD-2000B	F-HRD-02060
HRD-2000B	F-HRD-05025
HRD-2000B	F-HRD-05020
HRD-2000B	F-HRD-05015
HRD-2000B	F-HRD-05010
HRD-2000B	F-HRD-05005
HRD-2000B	F-HRD-04030

Test Case	Level 4 ID
HRD-2000B	F-HRD-04025
HRD-2000B	F-HRD-06015
HRD-2000B	F-HRD-00055
HRD-2000B	F-HRD-01005
HRD-2000B	F-HRD-00100
HRD-2000B	F-HRD-00095
HRD-2000B	F-HRD-00090
HRD-2000B	F-HRD-00075
HRD-2000B	F-HRD-00070
HRD-2000B	F-HRD-02070
HRD-2000B	F-HRD-00060
HRD-2000B	F-HRD-01020
HRD-2000B	F-HRD-00050
HRD-2000B	F-HRD-00045
HRD-2000B	F-HRD-00040
HRD-2000B	F-HRD-00035
HRD-2000B	F-HRD-00030
HRD-2000B	F-HRD-00025
HRD-2000B	F-HRD-01025
HRD-2000B	F-HRD-00065
HRD-2000B	F-HRD-02015
HRD-2000B	F-HRD-00015
HRD-2000B	F-HRD-02055
HRD-2000B	F-HRD-02050
HRD-2000B	F-HRD-02045
HRD-2000B	F-HRD-02040
HRD-2000B	F-HRD-02035
HRD-2000B	F-HRD-02030
HRD-2000B	F-HRD-01010
HRD-2000B	F-HRD-02020
HRD-2000B	F-HRD-01015
HRD-2000B	F-HRD-02010
HRD-2000B	F-HRD-02005
HRD-2000B	F-HRD-01045
HRD-2000B	F-HRD-01040
HRD-2000B	F-HRD-01035
HRD-2000B	F-HRD-01030
HRD-2000B	F-HRD-02065
HRD-2000B	F-HRD-02025
IST-2000B	F-FOS-10220
IST-2000B	F-FOS-00175
IST-2000B	F-FOS-00605

Test Case	Level 4 ID
IST-2000B	F-FOS-00180
IST-2000B	F-FOS-10215
IST-2000B	F-FOS-10225
IST-2000B	F-FOS-10230
IST-2000B	F-FOS-10210
IST-2010B	F-FUI-05500
IST-2010B	F-FUI-03050
IST-2010B	F-FUI-03045
IST-2010B	F-TLM-01640
IST-2010B	F-FUI-03040
IST-2010B	F-FUI-03035
IST-2010B	F-FUI-05205
IST-2010B	F-FUI-03030
IST-2010B	F-FUI-05315
IST-2010B	F-CMS-11510
IST-2010B	F-FUI-02990
IST-2010B	F-FUI-05400
IST-2010B	F-FUI-02991
IST-2010B	F-DMS-00220
IST-2010B	F-FUI-05725
IST-2010B	F-FUI-03060
IST-2010B	F-DMS-00215
IST-2010B	F-FUI-04100
IST-2010B	F-FUI-03005
IST-2010B	F-FUI-05605
IST-2010B	F-FUI-03000
IST-2010B	F-FUI-02995
IST-2010B	F-DMS-00205
IST-2010B	F-FUI-05705
IST-2010B	F-FUI-05340
IST-2010B	F-CMS-01825
IST-2010B	F-PAS-00105
IST-2010B	F-CMS-01430
IST-2010B	F-DMS-00210
IST-2010B	F-PAS-00103
IST-2010B	F-FUI-02325
IST-2010B	F-CMS-01460
IST-2010B	F-CMS-01505
IST-2010B	F-CMS-01725
IST-2010B	F-CMS-01730
IST-2010B	F-FUI-04090
IST-2010B	F-FUI-03055

Test Case	Level 4 ID
IST-2010B	F-CMS-01820
IST-2010B	F-TLM-01635
IST-2010B	F-FUI-04130
IST-2010B	F-FUI-04140
IST-2010B	F-FUI-04280
IST-2010B	F-FUI-05105
IST-2010B	F-CMS-10510
IST-2010B	F-FUI-05200
IST-2010B	F-FUI-03061
IST-2010B	F-FUI-06115
IST-2010B	F-CMS-10750
IST-2010B	F-DMS-00225
IST-2010B	F-FUI-04050
IST-2010B	F-FUI-09375
IST-2010B	F-FUI-05730
IST-2010B	F-FUI-09655
IST-2010B	F-FUI-09650
IST-2010B	F-FUI-09645
IST-2010B	F-FUI-09640
IST-2010B	F-FUI-09600
IST-2010B	F-FUI-09530
IST-2010B	F-FUI-09515
IST-2010B	F-FUI-09510
IST-2010B	F-FUI-09500
IST-2010B	F-TLM-01150
IST-2010B	F-FUI-09663
IST-2010B	F-FUI-09410
IST-2010B	F-FUI-09665
IST-2010B	F-FUI-09370
IST-2010B	F-DMS-01290
IST-2010B	F-FUI-09365
IST-2010B	F-TLM-01155
IST-2010B	F-FUI-09363
IST-2010B	F-DMS-01400
IST-2010B	F-FUI-09360
IST-2010B	F-FUI-09355
IST-2010B	F-FUI-09350
IST-2010B	F-FUI-09315
IST-2010B	F-TLM-01210
IST-2010B	F-FUI-06225
IST-2010B	F-FUI-09415
IST-2010B	F-FUI-06205

Test Case	Level 4 ID
IST-2010B	F-DMS-00230
IST-2010B	F-CMS-01360
IST-2010B	F-FUI-02980
IST-2010B	F-FUI-06120
IST-2010B	F-DMS-00235
IST-2010B	F-DMS-00240
IST-2010B	F-DMS-00245
IST-2010B	F-FUI-06130
IST-2010B	F-DMS-00250
IST-2010B	F-FUI-06135
IST-2010B	F-DMS-00255
IST-2010B	F-FUI-09660
IST-2010B	F-DMS-00260
IST-2010B	F-FUI-09310
IST-2010B	F-FUI-06210
IST-2010B	F-FUI-06215
IST-2010B	F-FUI-02960
IST-2010B	F-FUI-06220
IST-2010B	F-FUI-02955
IST-2010B	F-FUI-02950
IST-2010B	F-FUI-02920
IST-2010B	F-FUI-17265
IST-2010B	F-FUI-14005
IST-2010B	F-FUI-12310
IST-2010B	F-FUI-09705
IST-2010B	F-FUI-09700
IST-2010B	F-FUI-06200
IST-2010B	F-ANA-06040
IST-2010B	F-TLM-00925
IST-2010B	F-TLM-00920
IST-2010B	F-ANA-04310
IST-2010B	F-TLM-10560
IST-2010B	F-ANA-04360
IST-2010B	F-TLM-10540
IST-2010B	F-TLM-10535
IST-2010B	F-TLM-00540
IST-2010B	F-TLM-00535
IST-2010B	F-ANA-06020
IST-2010B	F-ANA-06021
IST-2010B	F-CMD-02215
IST-2010B	F-ANA-06023
IST-2010B	F-TLM-10580

Test Case	Level 4 ID
IST-2010B	F-ANA-06050
IST-2010B	F-TLM-10125
IST-2010B	F-ANA-08060
IST-2010B	F-TLM-01145
IST-2010B	F-RMS-03060
IST-2010B	F-RMS-00170
IST-2010B	F-RMS-00160
IST-2010B	F-RMS-00150
IST-2010B	F-RMS-00140
IST-2010B	F-RMS-00130
IST-2010B	F-PAS-10705
IST-2010B	F-CMS-01410
IST-2010B	F-ANA-06022
IST-2010B	F-TLM-01020
IST-2010B	F-ANA-01025
IST-2010B	F-ANA-01030
IST-2010B	F-TLM-01130
IST-2010B	F-TLM-01120
IST-2010B	F-ANA-02030
IST-2010B	F-ANA-02050
IST-2010B	F-TLM-01035
IST-2010B	F-ANA-03100
IST-2010B	F-TLM-01030
IST-2010B	F-ANA-03110
IST-2010B	F-ANA-03120
IST-2010B	F-TLM-01025
IST-2010B	F-ANA-04120
IST-2010B	F-ANA-03130
IST-2010B	F-TLM-10570
IST-2010B	F-TLM-00990
IST-2010B	F-ANA-03180
IST-2010B	F-ANA-03190
IST-2010B	F-TLM-00985
IST-2010B	F-ANA-03200
IST-2010B	F-ANA-03210
IST-2010B	F-TLM-11320
IST-2010B	F-ANA-04020
IST-2010B	F-TLM-00970
IST-2010B	F-ANA-04040
IST-2010B	F-ANA-04050
IST-2010B	F-PAS-10625
IST-2010B	F-ANA-03125

Test Case	Level 4 ID
IST-2010B	F-PAS-00180
IST-2010B	F-CMS-00729
IST-2010B	F-CMS-00730
IST-2010B	F-PAS-00365
IST-2010B	F-PAS-00355
IST-2010B	F-PAS-00340
IST-2010B	F-PAS-00335
IST-2010B	F-CMS-00850
IST-2010B	F-CMS-00915
IST-2010B	F-CMS-00930
IST-2010B	F-CMS-00950
IST-2010B	F-PAS-00195
IST-2010B	F-PAS-10700
IST-2010B	F-PAS-00185
IST-2010B	F-CMS-00720
IST-2010B	F-PAS-00175
IST-2010B	F-PAS-00170
IST-2010B	F-CMS-01150
IST-2010B	F-PAS-00165
IST-2010B	F-PAS-00160
IST-2010B	F-CMS-01215
IST-2010B	F-CMS-01225
IST-2010B	F-CMS-01305
IST-2010B	F-PAS-00140
IST-2010B	F-PAS-00138
IST-2010B	F-CMS-01330
IST-2010B	F-PAS-00100
IST-2010B	F-CMS-01025
IST-2010B	F-CMD-05310
IST-2010B	F-PAS-10623
IST-2010B	F-PAS-10605
IST-2010B	F-PAS-10565
IST-2010B	F-PAS-10560
IST-2010B	F-PAS-10305
IST-2010B	F-PAS-10009
IST-2010B	F-PAS-01310
IST-2010B	F-PAS-01305
IST-2010B	F-PAS-01300
IST-2010B	F-PAS-01220
IST-2010B	F-PAS-01215
IST-2010B	F-PAS-01210
IST-2010B	F-CMS-00728

Test Case	Level 4 ID
IST-2010B	F-PAS-01200
IST-2010B	F-CMS-00725
IST-2010B	F-CMD-05410
IST-2010B	F-PAS-00950
IST-2010B	F-PAS-00945
IST-2010B	F-PAS-00940
IST-2010B	F-PAS-00925
IST-2010B	F-PAS-00910
IST-2010B	F-PAS-00905
IST-2010B	F-PAS-00900
IST-2010B	F-PAS-00510
IST-2010B	F-PAS-00425
IST-2010B	F-PAS-00420
IST-2010B	F-CMS-01405
IST-2010B	F-PAS-01205
IST-2010B	F-TLM-01310
IST-2010B	F-FUI-09115
IST-2010B	F-FOS-00317
IST-2010B	F-FOS-00318
IST-2010B	F-FUI-01180
IST-2010B	F-FUI-07220
IST-2010B	F-TLM-01355
IST-2010B	F-FUI-07605
IST-2010B	F-FUI-01175
IST-2010B	F-FUI-02860
IST-2010B	F-FUI-01150
IST-2010B	F-FUI-01120
IST-2010B	F-FUI-01340
IST-2010B	F-FUI-07394
IST-2010B	F-FUI-07360
IST-2010B	F-FUI-01125
IST-2010B	F-FUI-09160
IST-2010B	F-FUI-01440
IST-2010B	F-FUI-01430
IST-2010B	F-FUI-07250
IST-2010B	F-FUI-01420
IST-2010B	F-FUI-01415
IST-2010B	F-FUI-07100
IST-2010B	F-FUI-09305
IST-2010B	F-FUI-01405
IST-2010B	F-FUI-01580
IST-2010B	F-FUI-01400

Test Case	Level 4 ID
IST-2010B	F-FUI-09150
IST-2010B	F-FUI-09112
IST-2010B	F-FUI-09140
IST-2010B	F-FUI-01225
IST-2010B	F-TLM-01315
IST-2010B	F-FUI-07245
IST-2010B	F-TLM-01320
IST-2010B	F-FUI-07310
IST-2010B	F-FUI-07370
IST-2010B	F-FUI-07415
IST-2010B	F-FUI-07396
IST-2010B	F-FUI-07720
IST-2010B	F-FUI-07125
IST-2010B	F-FUI-01215
IST-2010B	F-FUI-01565
IST-2010B	F-FUI-07400
IST-2010B	F-FUI-01230
IST-2010B	F-FUI-02840
IST-2010B	F-FUI-01220
IST-2010B	F-FUI-07375
IST-2010B	F-FUI-07388
IST-2010B	F-FUI-03025
IST-2010B	F-FOS-00465
IST-2010B	F-FUI-01170
IST-2010B	F-FUI-07305
IST-2010B	F-FUI-07425
IST-2010B	F-FUI-01200
IST-2010B	F-FOS-00430
IST-2010B	F-FUI-06230
IST-2010B	F-FUI-07311
IST-2010B	F-FUI-06330
IST-2010B	F-FUI-07365
IST-2010B	F-FOS-00470
IST-2010B	F-FOS-00475
IST-2010B	F-FOS-00480
IST-2010B	F-FUI-07215
IST-2010B	F-FUI-01205
IST-2010B	F-FUI-09145
IST-2010B	F-FUI-06235
IST-2010B	F-FUI-09215
IST-2010B	F-FUI-07330
IST-2010B	F-FUI-01610

Test Case	Level 4 ID
IST-2010B	F-FUI-07120
IST-2010B	F-FUI-07345
IST-2010B	F-FUI-01615
IST-2010B	F-FUI-02100
IST-2010B	F-FUI-09210
IST-2010B	F-FUI-07255
IST-2010B	F-FUI-02240
IST-2010B	F-FUI-07130
IST-2010B	F-FUI-01605
IST-2010B	F-FUI-02335
IST-2010B	F-FUI-01620
IST-2010B	F-FUI-07600
IST-2010B	F-TLM-01425
IST-2010B	F-FUI-02230
IST-2010B	F-FUI-02202
IST-2010B	F-FUI-02205
IST-2010B	F-FUI-02330
IST-2010B	F-FUI-02210
IST-2010B	F-FUI-09200
IST-2010B	F-FUI-02215
IST-2010B	F-FUI-02220
IST-2010B	F-FUI-02235
IST-2010B	F-FUI-07325
IST-2010B	F-FUI-02600
IST-2010B	F-TLM-01415
IST-2010B	F-FUI-07200
IST-2010B	F-FUI-09225
IST-2010B	F-FUI-02315
IST-2010B	F-FUI-07300
IST-2010B	F-FUI-09220
IST-2010B	F-FUI-01600
IST-2010B	F-FUI-09300
IST-2010B	F-TLM-01215
IST-2010B	F-FUI-02320
IST-2010B	F-FUI-07320
IST-2010B	F-TLM-01220
IST-2010B	F-FUI-07315
NCC-2020B	F-RMS-04120
NCC-2020B	F-RMS-04020
NCC-2020B	F-FOS-00340
NCC-2020B	F-RMS-04090
NCC-2020B	F-RMS-04100

Test Case	Level 4 ID
NCC-2020B	F-RMS-04110
NCC-2020B	F-FOS-00320
NCC-2030B	F-RMS-04010
NCC-2030B	F-RMS-04085
NCC-2030B	F-FOS-00335
NCC-2030B	F-FOS-00320
NCC-2030B	F-FOS-00340
NCC-2040B	F-ANA-03012
NCC-2040B	F-RMS-05020
NCC-2040B	F-ANA-01015
NCC-2040B	F-RMS-05030
NCC-2040B	F-RMS-05040
NCC-2040B	F-ANA-01050
NCC-2040B	F-ANA-07020
NCC-2040B	F-ANA-07030
NCC-2040B	F-RMS-05010
NCC-2040B	F-ANA-07010
NCC-2040B	F-ANA-04035
OPR-2000B	F-FOS-00510
OPR-2000B	F-FOS-00520
OPR-2000B	F-FOS-00505
OPR-2000B	F-FOS-00500
OPR-2000B	F-FOS-00515
OPR-2000B	F-FOS-00165
OPR-2000B	F-FOS-00145
OPR-2000B	F-PAS-10410
OPR-2000B	F-FOS-00140
OPR-2000B	F-FOS-00225
OPR-2000B	F-FOS-00130
OPR-2000B	F-FOS-00125
OPR-2000B	F-ANA-04060
OPR-2000B	F-FOS-00160
OPR-2000B	F-FOS-00040
OPR-2000B	F-FOS-00155
OPR-2000B	F-FOS-00220
OPR-2000B	F-FOS-00120
OPR-2000B	F-PAS-10415
OPR-2000B	F-FOS-00300
OPR-2000B	F-FOS-00110
OPR-2000B	F-FOS-00095
OPR-2000B	F-DMS-01150
OPR-2000B	F-FOS-00090

Test Case	Level 4 ID
OPR-2000B	F-FOS-00085
OPR-2000B	F-FOS-00080
OPR-2000B	F-FOS-00075
OPR-2000B	F-FOS-00045
OPR-2000B	F-FOS-00115
PAS-2000B	F-PAS-00330
PAS-2000B	F-PAS-00220
PAS-2000B	F-PAS-00210
PAS-2000B	F-PAS-00205
PAS-2000B	F-PAS-00200
PAS-2000B	F-PAS-00215
PAS-2000B	F-DMS-00330
PAS-2000B	F-DMS-00245
PAS-2000B	F-DMS-00240
PAS-2000B	F-DMS-00160
PAS-2000B	F-DMS-00150
PAS-2000B	F-DMS-00235
PAS-2000B	F-PAS-00415
PAS-2000B	F-PAS-00400
PAS-2010B	F-PAS-00500
PAS-2010B	F-PAS-00503
PAS-2010B	F-PAS-00505
PAS-2020B	F-PAS-00510
PAS-2020B	F-PAS-00150
PAS-2020B	F-PAS-01000
PAS-2020B	F-PAS-00140
PAS-2020B	F-PAS-00105
PAS-2020B	F-PAS-00340
PAS-2020B	F-PAS-00335
PAS-2020B	F-PAS-00355
PAS-2020B	F-PAS-00115
PAS-2020B	F-PAS-00135
PAS-2020B	F-PAS-00405
PAS-2020B	F-PAS-00360
PAS-2020B	F-PAS-00365
PAS-2020B	F-PAS-00315
PAS-2020B	F-PAS-00310
PAS-2020B	F-PAS-00350
PAS-2020B	F-PAS-00425
PAS-2020B	F-PAS-00420
PAS-2020B	F-PAS-00300
PAS-2020B	F-PAS-00410

Test Case	Level 4 ID
PAS-2020B	F-PAS-00153
PAS-2030B	F-PAS-00605
PAS-2030B	F-PAS-00610
PAS-2030B	F-PAS-00820
PAS-2030B	F-PAS-00920
PAS-2030B	F-FUI-04030
PAS-2030B	F-PAS-00100
PAS-2030B	F-PAS-01300
PAS-2030B	F-PAS-01305
PAS-2030B	F-PAS-01310
PAS-2030B	F-PAS-00915
PAS-2030B	F-FUI-04020
PAS-2030B	F-PAS-00025
PAS-2030B	F-PAS-00020
PAS-2030B	F-PAS-00035
PAS-2030B	F-FUI-04080
PAS-2030B	F-FUI-04070
PAS-2030B	F-FUI-04290
PAS-2030B	F-PAS-00030
PAS-2030B	F-PAS-00925
PAS-2030B	F-FUI-04060
PAS-2030B	F-FUI-04010
PAS-2030B	F-FUI-04000
PAS-2030B	F-FUI-04120
PAS-2030B	F-FUI-04140
PAS-2030B	F-FUI-04300
PAS-2030B	F-FUI-04280
PAS-2030B	F-FUI-04040
PAS-2035B	F-PAS-10625
PAS-2035B	F-FUI-04050
PAS-2035B	F-PAS-00940
PAS-2035B	F-PAS-10623
PAS-2035B	F-PAS-10605
PAS-2035B	F-PAS-00103
PAS-2035B	F-PAS-00120
PAS-2035B	F-DMS-01021
PAS-2035B	F-PAS-10535
PAS-2040B	F-PAS-10447
PAS-2040B	F-PAS-10436
PAS-2040B	F-FOS-10150
PAS-2040B	F-PAS-10505
PAS-2040B	F-FOS-00320

Test Case	Level 4 ID
PAS-2040B	F-PAS-00705
PAS-2040B	F-PAS-00700
PAS-2040B	F-FOS-00340
PAS-2040B	F-PAS-10515
PAS-2040B	F-PAS-10510
PAS-2040B	F-PAS-10437
PAS-2040B	F-PAS-10445
PAS-2040B	F-PAS-10448
PAS-2040B	F-PAS-01125
PAS-2040B	F-PAS-10500
PAS-2040B	F-PAS-10405
PAS-2040B	F-PAS-01120
PAS-2040B	F-PAS-10400
PAS-2040B	F-PAS-01040
PAS-2050B	F-PAS-00910
PAS-2050B	F-PAS-00905
PAS-2050B	F-PAS-00945
PAS-2050B	F-FUI-04100
PAS-2050B	F-PAS-00950
PAS-2050B	F-PAS-00900
PAS-2110B	F-PAS-01205
PAS-2110B	F-CMS-00305
PAS-2110B	F-PAS-10705
PAS-2110B	F-FUI-05700
PAS-2110B	F-CMS-00405
PAS-2110B	F-PAS-01210
PAS-2110B	F-PAS-01215
PAS-2110B	F-PAS-01220
PAS-2110B	F-PAS-01200
PAS-2110B	F-FUI-04130
PAS-2110B	F-PAS-10700
PAS-2110B	F-CMS-00660
PAS-2180B	F-CMS-10240
PAS-2180B	F-CMS-01630
PAS-2180B	F-CMS-00235
PAS-2180B	F-PAS-10455
PAS-2190B	F-PAS-00160
PAS-2190B	F-PAS-00165
PAS-2190B	F-PAS-00170
PAS-2190B	F-PAS-00175
PAS-2190B	F-PAS-00180
PAS-2190B	F-PAS-00185

Test Case	Level 4 ID
PAS-2190B	F-PAS-00195
PAS-2190B	F-FUI-04110
PAS-2200B	F-PAS-00840
PAS-2200B	F-CMS-00105
PAS-2200B	F-CMS-01505
PAS-2200B	F-FUI-04090
PAS-2200B	F-CMS-01610
PAS-2200B	F-PAS-01035
PAS-2200B	F-CMS-00635
PAS-2200B	F-PAS-00835
PAS-2200B	F-PAS-00815
PAS-2200B	F-CMS-00610
PAS-2200B	F-PAS-00810
PAS-2200B	F-PAS-00805
PAS-2200B	F-PAS-00800
PAS-2200B	F-CMS-00670
PAS-2200B	F-CMS-00615
PAS-2200B	F-CMS-00620
PAS-2200B	F-CMS-00625
PAS-2200B	F-CMS-00630
PAS-2200B	F-CMS-00675
POST-B	F-TLM-02291
POST-B	F-ANA-01070
POST-B	F-TLM-02295
POST-B	F-ANA-01080
POST-B	F-TLM-02296
POST-B	F-ANA-09010
POST-B	F-ANA-04150
POST-B	F-TLM-02298
POST-B	F-TLM-02299
POST-B	F-ANA-04140
POST-B	F-ANA-09020
POST-B	F-RMS-00010
POST-B	F-CMD-01140
POST-B	F-FUI-07311
POST-B	F-ANA-09060
POST-B	F-ANA-09050
POST-B	F-PAS-10441
POST-B	F-ANA-09040
POST-B	F-PAS-10442
POST-B	F-ANA-07550
POST-B	F-PAS-10630

Test Case	Level 4 ID
POST-B	F-TLM-02290
POST-B	F-PAS-10440
POST-B	F-TLM-02286
POST-B	F-ANA-07540
POST-B	F-ANA-07530
POST-B	F-PAS-10620
POST-B	F-ANA-07520
POST-B	F-ANA-07510
POST-B	F-ANA-07500
POST-B	F-PAS-10610
POST-B	F-ANA-09030
POST-B	F-DMS-01140
POST-B	F-DMS-01285
POST-B	F-TLM-02218
POST-B	F-TLM-02217
POST-B	F-FOS-00321
POST-B	F-FOS-10245
POST-B	F-PAS-00155
POST-B	F-FOS-00560
POST-B	F-FOS-10240
POST-B	F-FOS-00550
POST-B	F-DMS-01130
POST-B	F-DMS-01120
POST-B	F-FOS-00345
POST-B	F-DMS-01110
POST-B	F-DMS-01022
POST-B	F-FOS-00327
POST-B	F-FOS-00017
POST-B	F-DMS-01295
POST-B	F-TLM-02280
POST-B	F-TLM-02281
POST-B	F-FUI-02926
POST-B	F-DMS-01410
POST-B	F-DMS-00960
POST-B	F-DMS-01460
POST-B	F-DMS-00950
POST-B	F-PAS-00860
POST-B	F-DMS-01430
POST-B	F-PAS-00930
POST-B	F-TLM-02285
POST-B	F-PAS-00935
POST-B	F-DMS-01435

Test Case	Level 4 ID
SAS-2000B	F-FOS-10305
SAS-2000B	F-FOS-00308
SAS-2000B	F-FOS-00322
SYS-2000B	F-FOS-00570
SYS-2000B	F-FOS-00490
SYS-2000B	F-FOS-00070
SYS-2020B	F-RMS-00060
SYS-2020B	F-RMS-01070
SYS-2020B	F-RMS-01060
SYS-2020B	F-FOS-00035
SYS-2020B	F-RMS-00040
SYS-2020B	F-FUI-08100
SYS-2020B	F-FUI-07720
SYS-2020B	F-RMS-00020
SYS-2020B	F-RMS-00050
SYS-2020B	F-RMS-00030
SYS-2030B	F-RMS-03030
SYS-2030B	F-RMS-03040
SYS-2030B	F-RMS-03010
SYS-2030B	F-RMS-03070
SYS-2030B	F-RMS-03080
SYS-2030B	F-RMS-03240
SYS-2030B	F-FOS-00098
SYS-2030B	F-FUI-08105
SYS-2030B	F-FUI-08110
SYS-2030B	F-FUI-08115
SYS-2030B	F-RMS-03090
SYS-2030B	F-FOS-00510
SYS-2030B	F-RMS-02010
SYS-2030B	F-RMS-02020
SYS-2030B	F-RMS-03050
SYS-2030B	F-FOS-00490
SYS-2030B	F-DMS-01280
SYS-2030B	F-DMS-01270
SYS-3060FPB	F-FOS-00700
SYS-3060FPB	F-FOS-00705
SYS-3060FPB	F-FOS-00715
SYS-3060FPB	F-FOS-00720
SYS-3060FPB	F-FOS-00725
SYS-3060FPB	F-FOS-00730
SYS-3060FPB	F-FOS-00735
TLM-2000B	F-FUI-17700

Test Case	Level 4 ID
TLM-2000B	F-TLM-10525
TLM-2000B	F-TLM-00135
TLM-2000B	F-TLM-00410
TLM-2000B	F-FUI-07330
TLM-2000B	F-FUI-07425
TLM-2000B	F-TLM-00220
TLM-2000B	F-TLM-00115
TLM-2000B	F-FOS-00020
TLM-2000B	F-FUI-17200
TLM-2000B	F-TLM-00440
TLM-2000B	F-TLM-01430
TLM-2000B	F-TLM-10410
TLM-2000B	F-TLM-10470
TLM-2000B	F-TLM-10420
TLM-2000B	F-TLM-10425
TLM-2000B	F-TLM-10430
TLM-2000B	F-TLM-10435
TLM-2000B	F-TLM-10440
TLM-2000B	F-TLM-10465
TLM-2000B	F-TLM-00215
TLM-2000B	F-TLM-10490
TLM-2000B	F-TLM-00210
TLM-2000B	F-TLM-01410
TLM-2000B	F-RMS-00090
TLM-2000B	F-TLM-10550
TLM-2000B	F-RMS-00070
TLM-2000B	F-TLM-10560
TLM-2000B	F-TLM-10555
TLM-2000B	F-TLM-00635
TLM-2000B	F-TLM-10575
TLM-2000B	F-TLM-00610
TLM-2000B	F-FOS-00320
TLM-2000B	F-TLM-10475
TLM-2000B	F-TLM-00490
TLM-2000B	F-TLM-10580
TLM-2000B	F-TLM-00450
TLM-2000B	F-TLM-10570
TLM-2010B	F-TLM-10490
TLM-2010B	F-TLM-10460
TLM-2010B	F-TLM-10535
TLM-2010B	F-TLM-10540
TLM-2010B	F-TLM-00210

Test Case	Level 4 ID
TLM-2010B	F-TLM-00215
TLM-2010B	F-TLM-00220
TLM-2010B	F-TLM-00530
TLM-2010B	F-TLM-00410
TLM-2010B	F-TLM-01430
TLM-2010B	F-TLM-00440
TLM-2010B	F-TLM-00515
TLM-2010B	F-FUI-07330
TLM-2010B	F-TLM-10525
TLM-2010B	F-TLM-00510
TLM-2010B	F-FOS-00020
TLM-2010B	F-TLM-00490
TLM-2010B	F-TLM-00450
TLM-2010B	F-TLM-00525
TLM-2010B	F-TLM-10415
TLM-2010B	F-TLM-00115
TLM-2010B	F-TLM-00110
TLM-2010B	F-TLM-00135
TLM-2010B	F-TLM-10440
TLM-2010B	F-FUI-07425
TLM-2010B	F-FOS-00320
TLM-2010B	F-TLM-10455
TLM-2010B	F-FOS-00350
TLM-2020B	F-TLM-00920
TLM-2020B	F-TLM-00635
TLM-2020B	F-RMS-00130
TLM-2020B	F-RMS-00070
TLM-2020B	F-TLM-00610
TLM-2020B	F-TLM-00820
TLM-2020B	F-TLM-00810
TLM-2020B	F-DMS-10110
TLM-2020B	F-TLM-00815
TLM-2020B	F-TLM-10810
TLM-2020B	F-TLM-01410
TLM-2030B	F-TLM-10955
TLM-2030B	F-TLM-00960
TLM-2030B	F-TLM-00525
TLM-2030B	F-TLM-00985
TLM-2030B	F-TLM-00935
TLM-2030B	F-TLM-00990
TLM-2030B	F-TLM-01420
TLM-2030B	F-TLM-00530

Test Case	Level 4 ID
TLM-2030B	F-TLM-00910
TLM-2030B	F-TLM-00945
TLM-2040B	F-RMS-00100
TLM-2040B	F-TLM-00925
TLM-2040B	F-TLM-00970
TLM-2040B	F-TLM-00915
TLM-2050B	F-TLM-00710
TLM-2050B	F-TLM-00720
TLM-2050B	F-TLM-00725
TLM-2050B	F-TLM-00735
TLM-2050B	F-TLM-00635
TLM-2050B	F-TLM-00730
TLM-2050B	F-TLM-00715
TLM-2060B	F-TLM-01320
TLM-2060B	F-TLM-11320
TLM-2060B	F-TLM-00315
TLM-2060B	F-TLM-01330
TLM-2060B	F-TLM-01415
TLM-2060B	F-TLM-01325
TLM-2060B	F-TLM-01335
TLM-2060B	F-TLM-01315
TLM-2060B	F-TLM-01350
TLM-2060B	F-TLM-01355
TLM-2060B	F-TLM-01425
TLM-2060B	F-TLM-01235
TLM-2060B	F-TLM-01310
TLM-2060B	F-TLM-01365
TLM-2060B	F-TLM-01035
TLM-2060B	F-TLM-01360
TLM-2060B	F-TLM-01050
TLM-2060B	F-TLM-01345
TLM-2070B	F-FUI-07425
TLM-2070B	F-TLM-00310
TLM-2070B	F-RMS-00110
TLM-2070B	F-TLM-00315
TLM-2070B	F-FUI-07200
TLM-2070B	F-FUI-07330
TLM-2080B	F-TLM-01140
TLM-2080B	F-TLM-01015
TLM-2080B	F-TLM-01010
TLM-2080B	F-TLM-01150
TLM-2080B	F-TLM-01210

Test Case	Level 4 ID
TLM-2080B	F-TLM-01155
TLM-2080B	F-TLM-01130
TLM-2080B	F-TLM-01125
TLM-2080B	F-TLM-01220
TLM-2080B	F-TLM-01040
TLM-2080B	F-TLM-01035
TLM-2080B	F-TLM-01050
TLM-2080B	F-TLM-01230
TLM-2080B	F-TLM-01055
TLM-2080B	F-TLM-01225
TLM-2080B	F-TLM-01115
TLM-2080B	F-TLM-01030
TLM-2080B	F-TLM-01160
TLM-2080B	F-TLM-01165
TLM-2080B	F-TLM-01025
TLM-2080B	F-TLM-01110
TLM-2080B	F-TLM-01135
TLM-2080B	F-TLM-01020
TLM-2080B	F-FUI-07200
TLM-2080B	F-TLM-01145
TLM-2090B	F-TLM-01130
TLM-2090B	F-TLM-01120
TLM-2090B	F-FUI-07200
TLM-2090B	F-TLM-01055
TLM-2090B	F-TLM-01050
TLM-2090B	F-TLM-01045
TLM-2090B	F-TLM-01165
TLM-2090B	F-TLM-01145
TLM-2090B	F-TLM-01150
TLM-2090B	F-TLM-01225
TLM-2100B	F-FUI-17600
TLM-2100B	F-FUI-07600
TLM-2100B	F-FUI-07605
TLM-2100B	F-FUI-07700
TLM-2100B	F-TLM-01215
TLM-2100B	F-FUI-07710
TLM-2100B	F-FUI-07200
TLM-2150B	F-TLM-00625
TLM-2150B	F-TLM-00620
TLM-2150B	F-TLM-10445
TLM-2150B	F-TLM-00445
TLM-2160B	F-DMS-00830

Test Case	Level 4 ID
TLM-2160B	F-DMS-00710
TLM-2160B	F-TLM-00120
TLM-2160B	F-DMS-00820
TLM-2160B	F-TLM-00115
TLM-2160B	F-DMS-00720
TLM-2160B	F-TLM-01545
TLM-2160B	F-TLM-01510
TLM-2160B	F-TLM-11515
TLM-2160B	F-DMS-00810
TLM-2160B	F-DMS-00730
TLM-2170B	F-DMS-00610
TLM-2170B	F-FOS-00350
TLM-2170B	F-TLM-10125
TLM-2170B	F-TLM-10130
TLM-2170B	F-FOS-00310
TLM-2190B	F-FUI-12310
TLM-2190B	F-FUI-02315
TLM-2190B	F-FUI-02320
TLM-2190B	F-FUI-02325
TLM-2190B	F-FUI-02305
TLM-2190B	F-FUI-07330
TLM-2190B	F-FUI-02330
TLM-2190B	F-DMS-00780
TLM-2190B	F-FUI-02335
TLM-2190B	F-RMS-00035
TLM-2190B	F-TLM-01640
TLM-2190B	F-RMS-00080
TLM-2190B	F-FUI-08100
TLM-2190B	F-TLM-01610
TLM-2190B	F-TLM-01625
TLM-2190B	F-FUI-02310
TLM-2190B	F-TLM-01630
TLM-2190B	F-FUI-07425
TLM-2190B	F-TLM-01635
TLM-2190B	F-FUI-02300

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Appendix D. Release B RBRs to Test Case Matrix

The following matrix delineates each Release B RBR to the associated Thread and End-to-End test case that verifies the RBR.

RBR ID	Test Case
AM1-0020#B	CMD-2001B
AM1-0020#B	ETE-2010B
AM1-0030#B	ETE-2010B
AM1-0050#B	CMD-2001B
AM1-0050#B	TLM-2010B
AM1-0070#B	ANA-2100B
AM1-0070#B	TLM-2160B
AM1-0090#B	CMD-2001B
AM1-0090#B	CMS-2000B
AM1-0090#B	IST-2010B
AM1-0090#B	TLM-2000B
AM1-0090#B	TLM-2010B
AM1-0120#B	CMD-2001B
AM1-0120#B	ETE-2010B
AM1-0120#B	OPR-2000B
AM1-0120#B	SYS-2020B
AM1-0125#B	CMD-2001B
AM1-0125#B	OPR-2000B
AM1-0125#B	SYS-2020B
AM1-0125#B	TLM-2010B
AM1-0130#B	ANA-2100B
AM1-0130#B	OPR-2000B
AM1-0130#B	SYS-2020B
AM1-0130#B	TLM-2160B
AM1-0135#B	OPR-2000B
AM1-0135#B	SYS-2020B
AM1-0135#B	TLM-2000B
AM1-0135#B	TLM-2010B
AM1-0140#B	IST-2010B
AM1-0140#B	TLM-2000B
AM1-0140#B	TLM-2010B
AM1-0150#B	CMD-2001B
AM1-0160#B	CMD-2001B
AM1-0160#B	TLM-2000B
AM1-0160#B	TLM-2010B

RBR ID	Test Case
AM1-0160#B	TLM-2160B
AM1-0200#B	CMS-2000B
AM1-0200#B	IST-2010B
AM1-0200#B	OPR-2000B
AM1-0200#B	TLM-2000B
AM1-0200#B	TLM-2010B
AM1-0200#B	TLM-2160B
AM1-0215#B	DBS-2000B
AM1-0220#B	IST-2000B
AM1-0225#B	ANA-2000B
AM1-0225#B	FUI-2025B
AM1-0225#B	IST-2010B
AM1-0230#B	DBS-2000B
AM1-0230#B	PAS-2000B
AM1-0240#B	ANA-2000B
AM1-0240#B	ANA-2090B
AM1-0240#B	FUI-2025B
AM1-0240#B	IST-2010B
AM1-0270#B	FDF-2000B
AM1-0270#B	IST-2010B
AM1-0280#B	IST-2010B
AM1-0340#B	ANA-2110B
AM1-1000#B	OPR-2000B
AM1-1010#B	OPR-2000B
AM1-1020#B	OPR-2000B
AM1-1050#B	CMD-2070B
AM1-1060#B	ANA-2100B
AM1-1060#B	IST-2010B
AM1-1060#B	TLM-2170B
AM1-1080#B	ANA-2100B
AM1-1090#B	CMD-2001B
AM1-1090#B	CMD-2070B
AM1-1100#B	IST-2010B
AM1-1100#B	TLM-2000B
AM1-1100#B	TLM-2170B
AM1-1110#B	IST-2010B
AM1-1110#B	TLM-2000B
AM1-1110#B	TLM-2010B
AM1-1110#B	TLM-2160B
AM1-1120#B	TLM-2000B
AM1-1120#B	TLM-2010B
AM1-1120#B	TLM-2160B

RBR ID	Test Case
AM1-1150#B	ANA-2110B
AM1-1150#B	ETE-2000B
ASTER-0050#B	DBS-2000B
ASTER-0050#B	DBS-2020B
ASTER-0050#B	DBS-2030B
ASTER-0050#B	FUI-2025B
ASTER-0050#B	IST-2010B
ASTER-0050#B	OPR-2000B
ASTER-0050#B	PAS-2000B
ASTER-0060#B	DBS-2020B
ASTER-0200#B	FDF-2000B
ASTER-0210#B	ASTR-2000B
ASTER-0220#B	IST-2010B
ASTER-0230#B	ASTR-2000B
ASTER-0230#B	IST-2010B
ASTER-0240#B	ASTR-2000B
ASTER-0240#B	PAS-2180B
ASTER-0250#B	ASTR-2000B
ASTER-0250#B	IST-2010B
ASTER-0260#B	ASTR-2000B
ASTER-0260#B	IST-2010B
ASTER-0300#B	FUI-2025B
ASTER-0300#B	FUI-2130B
ASTER-0300#B	IST-2010B
ASTER-0310#B	FUI-2025B
ASTER-0310#B	FUI-2130B
ASTER-0310#B	IST-2010B
ASTER-0340#B	ASTR-2000B
ASTER-0340#B	IST-2010B
ASTER-0340#B	PAS-2190B
ASTER-0350#B	ASTR-2000B
ASTER-0350#B	IST-2010B
ASTER-0350#B	PAS-2190B
ASTER-0410#B	IST-2010B
ASTER-0410#B	IST-2010B
ASTER-0520#B	IST-2010B
ASTER-0530#B	IST-2010B
ASTER-0540#B	IST-2010B
ASTER-0550#B	IST-2010B
ASTER-0570#B	FUI-2025B
ASTER-0570#B	FUI-2130B
ASTER-0570#B	IST-2010B

RBR ID	Test Case
ASTER-0580#B	FUI-2025B
ASTER-0580#B	FUI-2130B
ASTER-0580#B	IST-2010B
ASTER-0590#B	FUI-2025B
ASTER-0590#B	FUI-2130B
ASTER-0590#B	IST-2010B
ASTER-1080#B	FUI-2090B
ASTER-1080#B	HRD-2000B
ASTER-1080#B	IST-2010B
ASTER-2000#B	OPR-2000B
ASTER-2030#B	OPR-2000B
ASTER-2040#B	OPR-2000B
EDOS-4.1.1.1#B	EDOS-2000B
EDOS-4.1.1.1#B	EDOS-2010B
EDOS-4.1.1.1#B	POST-B
EDOS-4.1.1.15#B	POST-B
EDOS-4.1.1.16#B	POST-B
EDOS-4.1.1.17#B	EDOS-2002B
EDOS-4.1.1.17#B	IST-2010B
EDOS-4.1.1.18#B	EDOS-2030B
EDOS-4.1.1.18#B	TLM-2010B
EDOS-4.1.1.18#B	TLM-2170B
EDOS-4.1.1.2#B	CMD-2030B
EDOS-4.1.1.2#B	CMD-2070B
EDOS-4.1.1.2#B	ETE-2010B
EDOS-4.1.1.3#B	TLM-2000B
EDOS-4.1.1.3#B	TLM-2010B
EDOS-4.1.1.4#B	CMD-2001B
EDOS-4.1.1.6#B	EDOS-2000B
EDOS-4.1.1.7#B	EDOS-2010B
EDOS-4.1.1.8#B	TLM-2010B
EDOS-4.1.1.8#B	TLM-2170B
EDOS-4.2.1.3#B	EDOS-2010B
EDOS-4.2.1.4#B	IST-2010B
EDOS-4.2.1.4#B	TLM-2170B
EDOS-4.2.1.5#B	CMD-2070B
EDOS-4.2.1.6#B	ANA-2100B
EDOS-4.2.1.7#B	EDOS-2000B
EDOS-4.3.1.4#B	POST-B
EDOS-4.6.1.1#B	ANA-2100B
EDOS-4.6.1.1#B	EDOS-2000B
EDOS-4.6.1.1#B	EDOS-2010B

RBR ID	Test Case
EDOS-4.6.1.1#B	ETE-2010B
EDOS-4.6.1.2#B	TLM-2000B
EDOS-4.6.1.2#B	TLM-2010B
EDOS-4.6.1.3#B	ETE-2010B
EDOS-4.6.1.4#B	EDOS-2002B
EDOS-4.6.1.5#B	TLM-2000B
EDOS-4.6.1.5#B	TLM-2010B
EDOS-4.6.1.6#B	TLM-2000B
EDOS-4.6.1.6#B	TLM-2010B
EDOS-4.6.1.7#B	POST-B
EDOS-4.6.1.8#B	ANA-2100B
EOC-0030#B	FUI-2120B
EOC-0040#B	CMD-2070B
EOC-0040#B	POST-B
EOC-0040#B	TLM-2000B
EOC-0040#B	TLM-2010B
EOC-0040#B	TLM-2170B
EOC-1005#B	CMS-2000B
EOC-2010#B	FDF-2000B
EOC-2010#B	IST-2010B
EOC-2010#B	PAS-2030B
EOC-2010#B	POST-B
EOC-2020#B	FUI-2120B
EOC-2020#B	IST-2010B
EOC-2020#B	PAS-2020B
EOC-2020#B	PAS-2030B
EOC-2020#B	PAS-2035B
EOC-2030#B	EDOS-2010B
EOC-2030#B	FUI-2120B
EOC-2030#B	IST-2010B
EOC-2030#B	PAS-2000B
EOC-2030#B	PAS-2010B
EOC-2030#B	PAS-2020B
EOC-2030#B	PAS-2030B
EOC-2030#B	PAS-2035B
EOC-2030#B	PAS-2040B
EOC-2030#B	POST-B
EOC-2030#B	SYS-2030B
EOC-2040#B	ASTR-2000B
EOC-2040#B	ETE-2010B
EOC-2040#B	FDF-2000B
EOC-2040#B	IST-2010B

RBR ID	Test Case
EOC-2040#B	PAS-2020B
EOC-2040#B	PAS-2030B
EOC-2040#B	PAS-2035B
EOC-2040#B	PAS-2050B
EOC-2040#B	PAS-2110B
EOC-2040#B	PAS-2190B
EOC-2040#B	PAS-2200B
EOC-2045#B	ASTR-2000B
EOC-2045#B	FDF-2000B
EOC-2045#B	IST-2010B
EOC-2045#B	PAS-2020B
EOC-2045#B	PAS-2030B
EOC-2045#B	PAS-2035B
EOC-2045#B	PAS-2040B
EOC-2045#B	PAS-2050B
EOC-2045#B	PAS-2050B
EOC-2045#B	PAS-2110B
EOC-2045#B	PAS-2190B
EOC-2045#B	PAS-2200B
EOC-2070#B	IST-2010B
EOC-2070#B	PAS-2000B
EOC-2070#B	PAS-2020B
EOC-2070#B	PAS-2030B
EOC-2070#B	PAS-2040B
EOC-2070#B	PAS-2110B
EOC-2160#B	CMD-2001B
EOC-2160#B	POST-B
EOC-2160#B	SYS-2000B
EOC-2170#B	CONT-2030B
EOC-2170#B	IST-2010B
EOC-2170#B	PAS-2000B
EOC-2170#B	PAS-2020B
EOC-2170#B	PAS-2035B
EOC-2170#B	PAS-2040B
EOC-2170#B	PAS-2200B
EOC-2180#B	IST-2010B
EOC-2180#B	PAS-2000B
EOC-2180#B	PAS-2020B
EOC-2180#B	PAS-2035B
EOC-2180#B	PAS-2040B
EOC-2190#B	CONT-2010B
EOC-2190#B	IST-2010B

RBR ID	Test Case
EOC-2190#B	NCC-2020B
EOC-2190#B	PAS-2020B
EOC-2200#B	CONT-2030B
EOC-2200#B	IST-2010B
EOC-2200#B	OPR-2000B
EOC-2200#B	PAS-2000B
EOC-2200#B	PAS-2020B
EOC-2200#B	PAS-2030B
EOC-2200#B	PAS-2035B
EOC-2200#B	PAS-2040B
EOC-2210#B	ASTR-2000B
EOC-2210#B	IST-2010B
EOC-2210#B	PAS-2030B
EOC-2210#B	PAS-2110B
EOC-2210#B	PAS-2190B
EOC-2210#B	PAS-2200B
EOC-2220#B	CONT-2030B
EOC-2220#B	IST-2010B
EOC-2220#B	PAS-2000B
EOC-2220#B	PAS-2020B
EOC-2220#B	PAS-2030B
EOC-2220#B	PAS-2035B
EOC-2220#B	PAS-2050B
EOC-2220#B	PAS-2110B
EOC-2220#B	PAS-2190B
EOC-2220#B	PAS-2200B
EOC-2230#B	CONT-2030B
EOC-2230#B	OPR-2000B
EOC-2230#B	PAS-2200B
EOC-2240#B	ETE-2000B
EOC-2240#B	IST-2010B
EOC-2240#B	PAS-2020B
EOC-2250#B	ASTR-2000B
EOC-2250#B	IST-2010B
EOC-2250#B	PAS-2020B
EOC-2250#B	PAS-2035B
EOC-2260#B	ASTR-2000B
EOC-2260#B	IST-2010B
EOC-2260#B	PAS-2020B
EOC-2260#B	PAS-2050B
EOC-2260#B	PAS-2190B
EOC-2260#B	PAS-2200B

RBR ID	Test Case
EOC-2270#B	ASTR-2000B
EOC-2270#B	IST-2010B
EOC-2270#B	PAS-2000B
EOC-2270#B	PAS-2020B
EOC-2272#B	IST-2010B
EOC-2272#B	OPR-2000B
EOC-2272#B	PAS-2000B
EOC-2272#B	PAS-2020B
EOC-2280#B	ASTR-2000B
EOC-2280#B	IST-2010B
EOC-2280#B	PAS-2020B
EOC-2280#B	PAS-2035B
EOC-2290#B	ASTR-2000B
EOC-2290#B	DBS-2000B
EOC-2290#B	IST-2010B
EOC-2290#B	PAS-2000B
EOC-2290#B	PAS-2020B
EOC-2290#B	PAS-2030B
EOC-2290#B	PAS-2035B
EOC-2290#B	PAS-2050B
EOC-2300#B	CONT-2030B
EOC-2300#B	IST-2010B
EOC-2300#B	PAS-2020B
EOC-2300#B	PAS-2030B
EOC-2300#B	PAS-2035B
EOC-2300#B	PAS-2050B
EOC-2310#B	CONT-2030B
EOC-2310#B	IST-2010B
EOC-2310#B	PAS-2020B
EOC-2310#B	PAS-2030B
EOC-2310#B	PAS-2035B
EOC-2310#B	PAS-2050B
EOC-2320#B	ASTR-2000B
EOC-2320#B	CMS-2170B
EOC-2320#B	CONT-2030B
EOC-2320#B	IST-2010B
EOC-2320#B	PAS-2020B
EOC-2320#B	PAS-2030B
EOC-2320#B	PAS-2035B
EOC-2320#B	PAS-2040B
EOC-2320#B	PAS-2050B
EOC-2320#B	PAS-2190B

RBR ID	Test Case
EOC-2350#B	ASTR-2000B
EOC-2350#B	IST-2010B
EOC-2350#B	PAS-2030B
EOC-2370#B	IST-2010B
EOC-2370#B	OPR-2000B
EOC-2370#B	PAS-2040B
EOC-2370#B	SYS-2020B
EOC-2400#B	PAS-2040B
EOC-2405#B	PAS-2040B
EOC-2410#B	PAS-2040B
EOC-2420#B	PAS-2020B
EOC-2430#B	ASTR-2000B
EOC-2430#B	FUI-2130B
EOC-2430#B	PAS-2020B
EOC-2430#B	PAS-2200B
EOC-2460#B	IST-2010B
EOC-2460#B	PAS-2020B
EOC-2460#B	PAS-2030B
EOC-2460#B	PAS-2040B
EOC-2480#B	ASTR-2000B
EOC-2480#B	PAS-2020B
EOC-2480#B	PAS-2180B
EOC-2482#B	IST-2010B
EOC-2482#B	PAS-2020B
EOC-2490#B	ETE-2010B
EOC-2490#B	IST-2010B
EOC-2490#B	PAS-2020B
EOC-2490#B	PAS-2035B
EOC-2510#B	CONT-2030B
EOC-2510#B	IST-2010B
EOC-2510#B	PAS-2020B
EOC-2510#B	PAS-2030B
EOC-2510#B	PAS-2035B
EOC-2520#B	PAS-2040B
EOC-2530#B	CONT-2030B
EOC-2530#B	FUI-2050B
EOC-2530#B	PAS-2020B
EOC-2530#B	PAS-2040B
EOC-2535#B	IST-2010B
EOC-2535#B	OPR-2000B
EOC-2535#B	PAS-2020B
EOC-2535#B	PAS-2035B

RBR ID	Test Case
EOC-2535#B	PAS-2040B
EOC-2540#B	ASTR-2000B
EOC-2540#B	IST-2010B
EOC-2540#B	PAS-2000B
EOC-2540#B	PAS-2020B
EOC-2540#B	PAS-2035B
EOC-2540#B	PAS-2050B
EOC-2540#B	PAS-2180B
EOC-2540#B	PAS-2200B
EOC-2550#B	ASTR-2000B
EOC-2550#B	CONT-2030B
EOC-2550#B	IST-2010B
EOC-2550#B	PAS-2020B
EOC-2550#B	PAS-2030B
EOC-2550#B	PAS-2035B
EOC-2550#B	PAS-2040B
EOC-2555#B	CONT-2030B
EOC-2555#B	IST-2010B
EOC-2555#B	PAS-2030B
EOC-2555#B	PAS-2050B
EOC-2555#B	PAS-2200B
EOC-2570#B	ASTR-2000B
EOC-2570#B	IST-2010B
EOC-2570#B	PAS-2020B
EOC-2590#B	ASTR-2000B
EOC-2590#B	IST-2010B
EOC-2590#B	PAS-2020B
EOC-2620#B	ASTR-2000B
EOC-2620#B	IST-2010B
EOC-2620#B	PAS-2030B
EOC-2620#B	PAS-2180B
EOC-2630#B	ASTR-2000B
EOC-2630#B	PAS-2020B
EOC-2630#B	PAS-2200B
EOC-3015#B	CMS-2060B
EOC-3015#B	FDF-2000B
EOC-3015#B	IST-2010B
EOC-3017#B	FDF-2000B
EOC-3020#B	CMS-2040B
EOC-3020#B	CMS-2060B
EOC-3020#B	CMS-2090B
EOC-3020#B	CMS-2170B

RBR ID	Test Case
EOC-3020#B	IST-2010B
EOC-3020#B	PAS-2020B
EOC-3020#B	PAS-2110B
EOC-3024#B	CMS-2040B
EOC-3024#B	CMS-2090B
EOC-3024#B	CMS-2100B
EOC-3024#B	CMS-2170B
EOC-3024#B	CONT-2030B
EOC-3024#B	FUI-2050B
EOC-3024#B	IST-2010B
EOC-3024#B	PAS-2200B
EOC-3030#B	CMS-2180B
EOC-3030#B	FDF-2000B
EOC-3030#B	IST-2010B
OC-3030#B	OPR-2000B
EOC-3030#B	PAS-2180B
EOC-3050#B	CMS-2040B
EOC-3050#B	CMS-2060B
EOC-3050#B	CMS-2090B
EOC-3050#B	CMS-2170B
EOC-3050#B	CMS-2180B
EOC-3050#B	FDF-2000B
EOC-3050#B	IST-2010B
EOC-3050#B	PAS-2110B
EOC-3050#B	PAS-2180B
EOC-3050#B	PAS-2200B
EOC-3080#B	FUI-2050B
EOC-3080#B	IST-2010B
EOC-3086#B	CMS-2100B
EOC-3086#B	CMS-2180B
EOC-3086#B	IST-2010B
EOC-3090#B	CMS-2090B
EOC-3090#B	CMS-2100B
EOC-3090#B	CMS-2170B
EOC-3090#B	DBS-2000B
EOC-3090#B	FDF-2000B
EOC-3090#B	IST-2010B
EOC-3090#B	PAS-2110B
EOC-3090#B	PAS-2180B
EOC-3090#B	PAS-2200B
EOC-3160#B	ANA-2100B
EOC-3160#B	CMS-2000B

RBR ID	Test Case
EOC-3160#B	CMS-2040B
EOC-3160#B	CMS-2060B
EOC-3160#B	CMS-2090B
EOC-3160#B	CMS-2100B
EOC-3160#B	CMS-2170B
EOC-3160#B	CMS-2180B
EOC-3160#B	DBS-2000B
EOC-3160#B	IST-2010B
EOC-3160#B	PAS-2110B
EOC-3160#B	PAS-2180B
EOC-3160#B	PAS-2200B
EOC-3200#B	IST-2010B
EOC-3200#B	OPR-2000B
EOC-3210#B	FUI-2050B
EOC-3210#B	IST-2010B
EOC-3225#B	PAS-2180B
EOC-3238#B	CMD-2010B
EOC-3240#B	PAS-2200B
EOC-4005#B	CMD-2001B
EOC-4005#B	CMD-2070B
EOC-4005#B	ETE-2010B
EOC-4008#B	ETE-2010B
EOC-4010#B	CMD-2001B
EOC-4010#B	CMD-2030B
EOC-4010#B	CMD-2070B
EOC-4010#B	CONT-2010B
EOC-4010#B	CONT-2020B
EOC-4010#B	IST-2010B
EOC-4010#B	POST-B
EOC-4015#B	CMD-2001B
EOC-4015#B	CMD-2030B
EOC-4015#B	CMD-2050B
EOC-4015#B	CMD-2070B
EOC-4015#B	CMD-2080B
EOC-4015#B	CMS-2040B
EOC-4015#B	CMS-2060B
EOC-4015#B	CMS-2170B
EOC-4015#B	CONT-2010B
EOC-4015#B	FUI-2050B
EOC-4015#B	IST-2010B
EOC-4015#B	POST-B
EOC-4018#B	CMD-2015B

RBR ID	Test Case
EOC-4018#B	CMD-2030B
EOC-4018#B	FUI-2050B
EOC-4018#B	IST-2010B
EOC-4020#B	CMD-2010B
EOC-4020#B	CMD-2030B
EOC-4020#B	CMD-2070B
EOC-4020#B	CONT-2010B
EOC-4020#B	CONT-2020B
EOC-4020#B	FUI-2050B
EOC-4020#B	HRD-2000B
EOC-4020#B	IST-2000B
EOC-4020#B	OPR-2000B
EOC-4020#B	POST-B
EOC-4020#B	SYS-2000B
EOC-4020#B	SYS-2020B
EOC-4020#B	SYS-2030B
EOC-4060#B	ANA-2030B
EOC-4060#B	ETE-2010B
EOC-4060#B	NCC-2020B
EOC-4060#B	NCC-2030B
EOC-4100#B	CMD-2001B
EOC-4100#B	CMD-2030B
EOC-4100#B	FUI-2050B
EOC-4100#B	FUI-2060B
EOC-4100#B	IST-2010B
EOC-4120#B	CMD-2010B
EOC-4120#B	CMD-2015B
EOC-4120#B	CMD-2030B
EOC-4120#B	CMD-2070B
EOC-4120#B	CMD-2080B
EOC-4120#B	IST-2010B
EOC-4125#B	CMD-2010B
EOC-4125#B	CMD-2015B
EOC-4125#B	CMD-2030B
EOC-4125#B	CMD-2050B
EOC-4125#B	CMD-2080B
EOC-4125#B	CMS-2170B
EOC-4125#B	CONT-2040B
EOC-4125#B	IST-2010B
EOC-4130#B	CMD-2001B
EOC-4140#B	CMD-2010B
EOC-4140#B	CMD-2030B

RBR ID	Test Case
EOC-4140#B	CMD-2050B
EOC-4140#B	CMD-2070B
EOC-4140#B	IST-2010B
EOC-4160#B	CMD-2010B
EOC-4160#B	CMD-2050B
EOC-4160#B	CMD-2080B
EOC-4160#B	IST-2010B
EOC-4200#B	CMD-2070B
EOC-4200#B	CONT-2010B
EOC-4210#B	ETE-2000B
EOC-5010#B	IST-2010B
EOC-5010#B	TLM-2000B
EOC-5010#B	TLM-2010B
EOC-5010#B	TLM-2020B
EOC-5010#B	TLM-2050B
EOC-5012#B	ANA-2090B
EOC-5012#B	ANA-2100B
EOC-5012#B	TLM-2190B
EOC-5015#B	IST-2010B
EOC-5015#B	TLM-2070B
EOC-5015#B	TLM-2170B
EOC-5020#B	IST-2010B
EOC-5020#B	TLM-2000B
EOC-5020#B	TLM-2010B
EOC-5020#B	TLM-2170B
EOC-5030#B	ANA-2030B
EOC-5030#B	EDOS-2000B
EOC-5030#B	EDOS-2001B
EOC-5030#B	EDOS-2010B
EOC-5030#B	NCC-2020B
EOC-5030#B	NCC-2030B
EOC-5030#B	NCC-2040B
EOC-5030#B	POST-B
EOC-5030#B	SYS-2030B
EOC-5045#B	IST-2010B
EOC-5045#B	TLM-2000B
EOC-5045#B	TLM-2010B
EOC-5050#B	TLM-2060B
EOC-5050#B	TLM-2070B
EOC-5070#B	TLM-2000B
EOC-5070#B	TLM-2020B
EOC-5070#B	TLM-2050B

RBR ID	Test Case
EOC-5070#B	TLM-2150B
EOC-5080#B	IST-2010B
EOC-5080#B	TLM-2000B
EOC-5080#B	TLM-2010B
EOC-5080#B	TLM-2020B
EOC-5080#B	TLM-2030B
EOC-5080#B	TLM-2050B
EOC-5090#B	CMD-2030B
EOC-5090#B	CONT-2040B
EOC-5090#B	IST-2010B
EOC-5090#B	POST-B
EOC-5090#B	TLM-2000B
EOC-5090#B	TLM-2010B
EOC-5090#B	TLM-2020B
EOC-5090#B	TLM-2030B
EOC-5090#B	TLM-2040B
EOC-5090#B	TLM-2050B
EOC-5090#B	TLM-2060B
EOC-5090#B	TLM-2080B
EOC-5090#B	TLM-2090B
EOC-5090#B	TLM-2150B
EOC-5100#B	IST-2010B
EOC-5100#B	TLM-2000B
EOC-5100#B	TLM-2020B
EOC-5100#B	TLM-2030B
EOC-5100#B	TLM-2060B
EOC-5100#B	TLM-2080B
EOC-5100#B	TLM-2090B
EOC-5105#B	IST-2010B
EOC-5105#B	TLM-2080B
EOC-5110#B	IST-2010B
EOC-5110#B	TLM-2080B
EOC-5110#B	TLM-2090B
EOC-5120#B	IST-2010B
EOC-5120#B	TLM-2060B
EOC-5120#B	TLM-2080B
EOC-5120#B	TLM-2090B
EOC-5120#B	TLM-2100B
EOC-5130#B	CMS-2000B
EOC-5180#B	ANA-2000B
EOC-5180#B	CONT-2040B
EOC-5180#B	FDF-2000B

RBR ID	Test Case
EOC-5180#B	IST-2010B
EOC-5185#B	CONT-2040B
EOC-5185#B	FDF-2000B
EOC-5187#B	ANA-2020B
EOC-5187#B	ANA-2030B
EOC-5187#B	ANA-2030B
EOC-5187#B	ANA-2060B
EOC-5187#B	ANA-2120B
EOC-5187#B	CONT-2010B
EOC-5187#B	CONT-2020B
EOC-5187#B	POST-B
EOC-5190#B	TLM-2160B
EOC-5200#B	CMS-2180B
EOC-5200#B	EDOS-2001B
EOC-5200#B	FDF-2000B
EOC-5200#B	IST-2010B
EOC-5200#B	TLM-2190B
EOC-5220#B	IST-2010B
EOC-5220#B	TLM-2000B
EOC-5220#B	TLM-2010B
EOC-5220#B	TLM-2020B
EOC-5230#B	ANA-2100B
EOC-5230#B	TLM-2150B
EOC-5240#B	CONT-2020B
EOC-5240#B	EDOS-2001B
EOC-5240#B	IST-2010B
EOC-5240#B	TLM-2020B
EOC-5240#B	TLM-2190B
EOC-6010#B	ANA-2000B
EOC-6010#B	ANA-2060B
EOC-6010#B	ANA-2070B
EOC-6010#B	ANA-2090B
EOC-6010#B	ANA-2100B
EOC-6010#B	ANA-2110B
EOC-6010#B	ANA-2120B
EOC-6010#B	CONT-2010B
EOC-6010#B	CONT-2020B
EOC-6010#B	CONT-2030B
EOC-6010#B	EDOS-2001B
EOC-6010#B	FDF-2000B
EOC-6010#B	IST-2000B
EOC-6010#B	IST-2010B

RBR ID	Test Case
EOC-6010#B	NCC-2040B
EOC-6010#B	OPR-2000B
EOC-6010#B	POST-B
EOC-6010#B	TLM-2190B
EOC-6020#B	FUI-2130B
EOC-6050#B	ANA-2000B
EOC-6050#B	ANA-2060B
EOC-6050#B	ANA-2070B
EOC-6050#B	ANA-2100B
EOC-6050#B	CONT-2010B
EOC-6050#B	FDF-2000B
EOC-6050#B	IST-2010B
EOC-6050#B	OPR-2000B
EOC-6050#B	POST-B
EOC-6060#B	ANA-2060B
EOC-6060#B	FUI-2110B
EOC-6060#B	IST-2010B
EOC-6060#B	TLM-2000B
EOC-6060#B	TLM-2010B
EOC-6060#B	TLM-2070B
EOC-6060#B	TLM-2190B
EOC-6070#B	ANA-2000B
EOC-6070#B	ANA-2060B
EOC-6070#B	ANA-2100B
EOC-6070#B	CONT-2010B
EOC-6070#B	FUI-2110B
EOC-6070#B	IST-2010B
EOC-6070#B	TLM-2000B
EOC-6070#B	TLM-2010B
EOC-6070#B	TLM-2070B
EOC-6070#B	TLM-2190B
EOC-6080#B	FUI-2050B
EOC-6080#B	IST-2010B
EOC-6100#B	ANA-2000B
EOC-6100#B	ANA-2040B
EOC-6100#B	ANA-2060B
EOC-6100#B	ANA-2070B
EOC-6100#B	ANA-2090B
EOC-6100#B	ANA-2100B
EOC-6100#B	ANA-2120B
EOC-6100#B	IST-2010B
EOC-6100#B	POST-B

RBR ID	Test Case
EOC-6110#B	ANA-2040B
EOC-6110#B	ANA-2060B
EOC-6110#B	ANA-2070B
EOC-6110#B	ANA-2120B
EOC-6110#B	CONT-2010B
EOC-6110#B	CONT-2020B
EOC-6110#B	CONT-2030B
EOC-6110#B	IST-2010B
EOC-6110#B	PAS-2200B
EOC-6110#B	POST-B
EOC-6130#B	CONT-2010B
EOC-6135#B	CONT-2030B
EOC-6140#B	CONT-2010B
EOC-6140#B	PAS-2200B
EOC-6150#B	ANA-2110B
EOC-6150#B	CMS-2000B
EOC-6150#B	CMS-2100B
EOC-6150#B	CMS-2170B
EOC-6150#B	CMS-2180B
EOC-6150#B	IST-2010B
EOC-6160#B	CMS-2000B
EOC-6160#B	CMS-2170B
EOC-6160#B	IST-2010B
EOC-6195#B	ANA-2070B
EOC-6195#B	CONT-2010B
EOC-6195#B	CONT-2020B
EOC-6195#B	EVT-2000B
EOC-6195#B	EVT-2020B
EOC-6195#B	EVT-2030B
EOC-6195#B	FUI-2115B
EOC-6195#B	IST-2010B
EOC-6195#B	POST-B
EOC-6200#B	ANA-2070B
EOC-6200#B	ANA-2120B
EOC-6200#B	CMD-2030B
EOC-6200#B	CONT-2010B
EOC-6200#B	CONT-2020B
EOC-6200#B	EDOS-2001B
EOC-6200#B	IST-2010B
EOC-6200#B	NCC-2030B
EOC-6200#B	NCC-2040B
EOC-6200#B	OPR-2000B

RBR ID	Test Case
EOC-6200#B	POST-B
EOC-6200#B	TLM-2000B
EOC-6200#B	TLM-2010B
EOC-6210#B	CONT-2010B
EOC-6210#B	CONT-2030B
EOC-7010#B	ANA-2060B
EOC-7010#B	CMD-2030B
EOC-7010#B	CMS-2090B
EOC-7010#B	CMS-2170B
EOC-7010#B	CMS-2180B
EOC-7010#B	CONT-2020B
EOC-7010#B	CONT-2030B
EOC-7010#B	DBS-2000B
EOC-7010#B	FUI-2030B
EOC-7010#B	FUI-2110B
EOC-7010#B	FUI-2115B
EOC-7010#B	IST-2010B
EOC-7010#B	PAS-2000B
EOC-7010#B	PAS-2010B
EOC-7010#B	PAS-2035B
EOC-7010#B	PAS-2050B
EOC-7010#B	PAS-2180B
EOC-7010#B	PAS-2200B
EOC-7010#B	TLM-2000B
EOC-7010#B	TLM-2010B
EOC-7010#B	TLM-2070B
EOC-7010#B	TLM-2080B
EOC-7010#B	TLM-2090B
EOC-7010#B	TLM-2100B
EOC-7010#B	TLM-2190B
EOC-7015#B	DBS-2000B
EOC-7015#B	PAS-2000B
EOC-7015#B	PAS-2010B
EOC-7020#B	CMS-2170B
EOC-7020#B	DBS-2010B
EOC-7020#B	IST-2010B
EOC-7020#B	PAS-2110B
EOC-7020#B	PAS-2180B
EOC-7025#B	CONT-2030B
EOC-7025#B	DBS-2000B
EOC-7025#B	DBS-2030B
EOC-7025#B	IST-2010B

RBR ID	Test Case
EOC-7025#B	PAS-2000B
EOC-7025#B	PAS-2010B
EOC-7030#B	DBS-2000B
EOC-7030#B	PAS-2000B
EOC-7030#B	PAS-2010B
EOC-7030#B	PAS-2110B
EOC-7040#B	DBS-2000B
EOC-7045#B	DBS-2020B
EOC-7045#B	DBS-2030B
EOC-7060#B	ANA-2100B
EOC-7060#B	EVT-2000B
EOC-7060#B	SYS-2030B
EOC-7060#B	TLM-2160B
EOC-7110#B	PAS-2200B
EOC-7110#B	POST-B
EOC-7115#B	POST-B
EOC-7116#B	POST-B
EOC-7120#B	ANA-2100B
EOC-7120#B	EVT-2000B
EOC-7120#B	EVT-2010B
EOC-7120#B	EVT-2020B
EOC-7120#B	OPR-2000B
EOC-7120#B	POST-B
EOC-7130#B	EVT-2000B
EOC-7130#B	EVT-2020B
EOC-7130#B	EVT-2030B
EOC-7130#B	IST-2010B
EOC-7140#B	FUI-2120B
EOC-7140#B	FUI-2150B
EOC-7140#B	TLM-2100B
EOC-7150#B	FUI-2120B
EOC-7150#B	FUI-2150B
EOC-7160#B	FUI-2120B
EOC-7160#B	IST-2010B
EOC-7160#B	OPR-2000B
EOC-7160#B	TLM-2160B
EOC-8010#B	OPR-2000B
EOC-8010#B	POST-B
EOC-8010#B	SYS-2020B
EOC-8020#B	OPR-2000B
EOC-8090#B	ANA-2090B
EOC-8090#B	IST-2000B

RBR ID	Test Case
EOC-8090#B	POST-B
EOC-8090#B	SYS-2020B
EOC-8090#B	TLM-2190B
EOC-8100#B	NCC-2020B
EOC-8110#B	SYS-2030B
EOC-8130#B	CMD-2030B
EOC-8130#B	SYS-2020B
EOC-8130#B	SYS-2030B
EOC-8140#B	EVT-2010B
EOC-8140#B	POST-B
EOC-8140#B	SYS-2000B
EOC-8140#B	SYS-2020B
EOC-8140#B	SYS-2030B
EOC-8150#B	EVT-2010B
EOC-8150#B	SYS-2030B
EOC-8160#B	FUI-2115B
EOC-8160#B	IST-2010B
EOC-8160#B	SYS-2030B
EOC-8220#B	EVT-2000B
EOC-8220#B	SYS-2030B
EOC-8230#B	SYS-2030B
EOC-8240#B	SYS-2020B
EOC-8240#B	SYS-2030B
EOC-8250#B	OPR-2000B
EOC-8250#B	SYS-2030B
EOC-8260#B	OPR-2000B
EOC-8260#B	SYS-2020B
EOC-8270#B	OPR-2000B
EOC-8285#B	DBS-2000B
EOC-8285#B	ETE-2010B
EOC-8285#B	IST-2010B
EOC-8285#B	OPR-2000B
EOC-8285#B	TLM-2000B
EOC-8285#B	TLM-2010B
EOC-8285#B	TLM-2020B
EOC-8290#B	IST-2010B
EOC-8290#B	OPR-2000B
EOC-8290#B	TLM-2000B
EOC-8290#B	TLM-2030B
EOC-8320#B	OPR-2000B
EOC-8330#B	SYS-2030B
EOC-8370#B	OPR-2000B

RBR ID	Test Case
EOC-8372#B	ANA-2060B
EOC-8372#B	IST-2010B
EOC-8375#B	OPR-2000B
EOC-8380#B	EVT-2010B
EOC-8380#B	OPR-2000B
EOC-9010#B	CMD-2000B
EOC-9010#B	EVT-2000B
EOC-9010#B	EVT-2010B
EOC-9010#B	FUI-2000B
EOC-9010#B	FUI-2150B
EOC-9010#B	IST-2010B
EOC-9010#B	OPR-2000B
EOC-9010#B	SYS-2000B
EOC-9010#B	SYS-2020B
EOC-9010#B	TLM-2000B
EOC-9010#B	TLM-2020B
EOC-9010#B	TLM-2040B
EOC-9020#B	ANA-2000B
EOC-9020#B	ANA-2060B
EOC-9020#B	ANA-2090B
EOC-9020#B	CMS-2040B
EOC-9020#B	CMS-2060B
EOC-9020#B	CMS-2090B
EOC-9020#B	CMS-2170B
EOC-9020#B	CMS-2180B
EOC-9020#B	CONT-2020B
EOC-9020#B	EVT-2030B
EOC-9020#B	FUI-2000B
EOC-9020#B	FUI-2020B
EOC-9020#B	FUI-2025B
EOC-9020#B	FUI-2030B
EOC-9020#B	FUI-2050B
EOC-9020#B	FUI-2110B
EOC-9020#B	IST-2010B
EOC-9020#B	PAS-2030B
EOC-9020#B	PAS-2035B
EOC-9020#B	PAS-2050B
EOC-9020#B	PAS-2110B
EOC-9020#B	PAS-2190B
EOC-9020#B	PAS-2200B
EOC-9020#B	SYS-2030B
EOC-9020#B	TLM-2000B

RBR ID	Test Case
EOC-9020#B	TLM-2010B
EOC-9020#B	TLM-2070B
EOC-9020#B	TLM-2080B
EOC-9020#B	TLM-2090B
EOC-9020#B	TLM-2100B
EOC-9020#B	TLM-2190B
EOC-9025#B	CMD-2030B
EOC-9025#B	CMS-2170B
EOC-9025#B	CONT-2020B
EOC-9025#B	EVT-2000B
EOC-9025#B	EVT-2010B
EOC-9025#B	EVT-2020B
EOC-9025#B	EVT-2030B
EOC-9025#B	IST-2010B
EOC-9025#B	PAS-2030B
EOC-9025#B	SYS-2030B
EOC-9040#B	ANA-2000B
EOC-9040#B	ANA-2110B
EOC-9040#B	CMD-2070B
EOC-9040#B	CMS-2100B
EOC-9040#B	CMS-2170B
EOC-9040#B	DBS-2000B
EOC-9040#B	FUI-2040B
EOC-9040#B	FUI-2050B
EOC-9040#B	FUI-2060B
EOC-9040#B	IST-2010B
EOC-9040#B	OPR-2000B
EOC-9040#B	PAS-2200B
EOC-9080#B	CMS-2170B
EOC-9080#B	FUI-2050B
EOC-9080#B	IST-2010B
EOC-9080#B	OPR-2000B
EOC-9090#B	ANA-2060B
EOC-9090#B	ANA-2090B
EOC-9090#B	CMS-2180B
EOC-9090#B	CONT-2020B
EOC-9090#B	ETE-2000B
EOC-9090#B	EVT-2000B
EOC-9090#B	FUI-2020B
EOC-9090#B	FUI-2030B
EOC-9090#B	FUI-2110B
EOC-9090#B	IST-2010B

RBR ID	Test Case
EOC-9090#B	OPR-2000B
EOC-9090#B	PAS-2030B
EOC-9090#B	PAS-2050B
EOC-9090#B	PAS-2110B
EOC-9090#B	PAS-2190B
EOC-9090#B	PAS-2200B
EOC-9090#B	SYS-2000B
EOC-9090#B	TLM-2000B
EOC-9090#B	TLM-2010B
EOC-9090#B	TLM-2070B
EOC-9090#B	TLM-2080B
EOC-9090#B	TLM-2090B
EOC-9090#B	TLM-2100B
EOC-9090#B	TLM-2190B
EOC-9110#B	EVT-2010B
EOC-9110#B	FUI-2040B
EOC-9130#B	EVT-2000B
EOC-9130#B	EVT-2010B
EOC-9130#B	FUI-2030B
EOC-9130#B	IST-2010B
EOC-9510#B	OPR-2000B
EOC-9570#B	ETE-2000B
EOC-9570#B	OPR-2000B
EOC-9570#B	SYS-2020B
EOC-9580#B	IST-2000B
EOSD0010#B	CMD-2070B
EOSD0010#B	ETE-2010B
EOSD0010#B	FUI-2090B
EOSD0010#B	IST-2000B
EOSD0010#B	IST-2010B
EOSD0010#B	OPR-2000B
EOSD0010#B	PAS-2040B
EOSD0010#B	SYS-2000B
EOSD0010#B	SYS-2020B
EOSD0010#B	SYS-2030B
EOSD0010#B	TLM-2000B
EOSD0010#B	TLM-2010B
EOSD0015#B	ETE-2010B
EOSD0015#B	OPR-2000B
EOSD0020#B	ETE-2010B
EOSD0020#B	FUI-2050B
EOSD0025#B	CMD-2070B

RBR ID	Test Case
EOSD0025#B	ETE-2010B
EOSD0025#B	FDF-2000B
EOSD0025#B	NCC-2020B
EOSD0025#B	NCC-2030B
EOSD0025#B	PAS-2040B
EOSD0025#B	TLM-2000B
EOSD0025#B	TLM-2010B
EOSD0500#B	CMD-2070B
EOSD0500#B	ETE-2000B
EOSD0500#B	ETE-2010B
EOSD0500#B	OPR-2000B
EOSD0500#B	PAS-2020B
EOSD0500#B	SYS-2030B
EOSD0500#B	TLM-2010B
EOSD0502#B	IST-2000B
EOSD0510#B	OPR-2000B
EOSD0510#B	SYS-2020B
EOSD0545#B	CMS-2090B
EOSD0545#B	CMS-2090B
EOSD0545#B	HRD-2000B
EOSD0545#B	POST-B
EOSD0560#B	OPR-2000B
EOSD0630#B	CMS-2090B
EOSD0630#B	HRD-2000B
EOSD0630#B	OPR-2000B
EOSD0630#B	PAS-2180B
EOSD0630#B	SYS-2020B
EOSD0700#B	OPR-2000B
EOSD0720#B	ETE-2000B
EOSD0720#B	OPR-2000B
EOSD0740#B	SYS-2020B
EOSD0750#B	OPR-2000B
EOSD0750#B	SYS-2020B
EOSD0760#B	OPR-2000B
EOSD0760#B	SYS-2020B
EOSD0780#B	SYS-2030B
EOSD0800#B	OPR-2000B
EOSD0800#B	SYS-2020B
EOSD1000#B	ETE-2000B
EOSD1010#B	OPR-2000B
EOSD1010#B	POST-B
EOSD1480#B	FUI-2120B

RBR ID	Test Case
EOSD1490#B	OPR-2000B
EOSD1500#B	ETE-2000B
EOSD1502#B	CMD-2070B
EOSD1502#B	ETE-2010B
EOSD1502#B	FDF-2000B
EOSD1502#B	NCC-2020B
EOSD1502#B	NCC-2030B
EOSD1502#B	PAS-2040B
EOSD1502#B	TLM-2000B
EOSD1502#B	TLM-2010B
EOSD1505#B	FDF-2000B
EOSD1505#B	OPR-2000B
EOSD1510#B	FDF-2000B
EOSD1520#B	NCC-2030B
EOSD1520#B	PAS-2040B
EOSD1530#B	NCC-2020B
EOSD1530#B	NCC-2030B
EOSD1530#B	PAS-2040B
EOSD1600#B	EDOS-2000B
EOSD1600#B	EDOS-2010B
EOSD1600#B	POST-B
EOSD1605#B	ETE-2010B
EOSD1605#B	TLM-2000B
EOSD1605#B	TLM-2010B
EOSD1605#B	TLM-2170B
EOSD1680#B	CMS-2040B
EOSD1680#B	CMS-2060B
EOSD1680#B	CMS-2090B
EOSD1680#B	CMS-2100B
EOSD1680#B	CMS-2170B
EOSD1680#B	IST-2010B
EOSD1680#B	OPR-2000B
EOSD1680#B	SYS-2020B
EOSD1680#B	TLM-2000B
EOSD1680#B	TLM-2010B
EOSD1680#B	TLM-2160B
EOSD1690#B	CMD-2001B
EOSD1690#B	CMD-2030B
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EOSD1770#B	IST-2010B
EOSD1990#B	FUI-2090B
EOSD1990#B	HRD-2000B

RBR ID	Test Case
EOSD1990#B	IST-2010B
EOSD2100#B	FUI-2090B
EOSD2100#B	HRD-2000B
EOSD2100#B	IST-2010B
EOSD2200#B	HRD-2000B
EOSD2400#B	FUI-2050B
EOSD2400#B	HRD-2000B
EOSD2400#B	IST-2010B
EOSD2430#B	FUI-2090B
EOSD2430#B	HRD-2000B
EOSD2430#B	IST-2010B
EOSD2440#B	HRD-2000B
EOSD2550#B	FUI-2090B
EOSD2550#B	IST-2010B
EOSD2990#B	SYS-2000B
EOSD2990#B	SYS-2030B
EOSD3000#B	SYS-2000B
EOSD3000#B	SYS-2030B
EOSD3200#B	HRD-2000B
EOSD3490#B	OPR-2000B
EOSD3490#B	SYS-2030B
EOSD3700#B	OPR-2000B
EOSD3710#B	NCC-2020B
EOSD3710#B	NCC-2030B
EOSD3710#B	PAS-2040B
EOSD3710#B	SYS-2030B
EOSD3710#B	TLM-2190B
EOSD3800#B	FUI-2050B
EOSD3800#B	OPR-2000B
EOSD3810#B	FUI-2050B
EOSD3810#B	HRD-2000B
EOSD3810#B	OPR-2000B
EOSD3820#B	OPR-2000B
EOSD4100#B	SYS-2020B
EOSD5410#B	IST-2000B
ESN-1367#B	IST-2010B
FOS-0020#B	SYS-2020B
FOS-0025#B	SYS-2020B
FOS-0030#B	FDF-2000B
FOS-0030#B	IST-2010B
FOS-0030#B	PAS-2020B
FOS-0030#B	PAS-2030B

RBR ID	Test Case
FOS-0030#B	PAS-2035B
FOS-0030#B	PAS-2050B
FOS-0030#B	PAS-2110B
FOS-0030#B	PAS-2190B
FOS-0030#B	PAS-2200B
FOS-0040#B	ANA-2000B
FOS-0040#B	ANA-2040B
FOS-0040#B	ANA-2060B
FOS-0040#B	ANA-2100B
FOS-0040#B	ANA-2110B
FOS-0040#B	ASTR-2000B
FOS-0040#B	CMD-2070B
FOS-0040#B	CMS-2000B
FOS-0040#B	CMS-2040B
FOS-0040#B	CMS-2090B
FOS-0040#B	CMS-2100B
FOS-0040#B	CMS-2170B
FOS-0040#B	CMS-2180B
FOS-0040#B	CONT-2030B
FOS-0040#B	ETE-2000B
FOS-0040#B	ETE-2010B
FOS-0040#B	EVT-2000B
FOS-0040#B	EVT-2020B
FOS-0040#B	EVT-2030B
FOS-0040#B	FDF-2000B
FOS-0040#B	FUI-2000B
FOS-0040#B	FUI-2030B
FOS-0040#B	FUI-2050B
FOS-0040#B	FUI-2090B
FOS-0040#B	FUI-2110B
FOS-0040#B	HRD-2000B
FOS-0040#B	IST-2000B
FOS-0040#B	IST-2010B
FOS-0040#B	NCC-2020B
FOS-0040#B	NCC-2030B
FOS-0040#B	OPR-2000B
FOS-0040#B	PAS-2020B
FOS-0040#B	PAS-2030B
FOS-0040#B	PAS-2035B
FOS-0040#B	PAS-2040B
FOS-0040#B	PAS-2110B
FOS-0040#B	PAS-2180B

RBR ID	Test Case
FOS-0040#B	PAS-2200B
FOS-0040#B	POST-B
FOS-0040#B	SYS-2000B
FOS-0040#B	SYS-2020B
FOS-0040#B	SYS-2030B
FOS-1010#B	CMS-2000B
FOS-1010#B	CMS-2170B
FOS-1010#B	DBS-2000B
FOS-1010#B	EDOS-2030B
FOS-1020#B	CONT-2020B
FOS-1020#B	ETE-2010B
FOS-1020#B	SYS-2000B
FOS-1030#B	OPR-2000B
FOS-1030#B	POST-B
FOS-1040#B	EDOS-2010B
FOS-1040#B	ETE-2000B
FOS-1040#B	ETE-2010B
FOS-1040#B	OPR-2000B
FOS-1040#B	PAS-2035B
FOS-1050#B	OPR-2000B
FOS-1050#B	POST-B
FOS-1060#B	POST-B
FOS-1070#B	ANA-2100B
FOS-1070#B	FDF-2000B
FOS-1070#B	IST-2010B
FOS-1070#B	POST-B
FOS-1070#B	TLM-2020B
FOS-1070#B	TLM-2050B
FOS-1080#B	POST-B
FOS-1080#B	SYS-2020B
FOS-1080#B	TLM-2010B
FOS-1080#B	TLM-2030B
FOS-1090#B	ANA-2060B
FOS-1090#B	ANA-2120B
FOS-1090#B	CMS-2170B
FOS-1090#B	EDOS-2010B
FOS-1090#B	PAS-2035B
FOS-1130#B	CMD-2030B
FOS-1130#B	CMS-2170B
FOS-1130#B	IST-2010B
FOS-1130#B	PAS-2200B
FOS-1130#B	SYS-2020B

RBR ID	Test Case
FOS-1140#B	ETE-2010B
FOS-1140#B	FDF-2000B
FOS-1140#B	OPR-2000B
ICC-0010#B	CONT-2030B
ICC-0010#B	IST-2010B
ICC-0010#B	PAS-2030B
ICC-0010#B	PAS-2035B
ICC-0010#B	PAS-2040B
ICC-0010#B	PAS-2110B
ICC-0020#B	IST-2000B
ICC-0020#B	IST-2010B
ICC-0020#B	OPR-2000B
ICC-0030#B	CONT-2010B
ICC-0030#B	CONT-2030B
ICC-0030#B	IST-2010B
ICC-0030#B	PAS-2020B
ICC-0030#B	PAS-2035B
ICC-0030#B	PAS-2050B
ICC-0030#B	PAS-2200B
ICC-0040#B	FUI-2120B
ICC-0050#B	FUI-2130B
ICC-0055#B	CMD-2070B
ICC-0055#B	POST-B
ICC-0055#B	TLM-2000B
ICC-0055#B	TLM-2010B
ICC-0055#B	TLM-2170B
ICC-0070#B	ANA-2000B
ICC-0070#B	IST-2010B
ICC-0070#B	PAS-2020B
ICC-1130#B	ASTR-2000B
ICC-1130#B	PAS-2020B
ICC-1130#B	PAS-2200B
ICC-2010#B	ASTR-2000B
ICC-2010#B	FDF-2000B
ICC-2010#B	IST-2010B
ICC-2010#B	PAS-2020B
ICC-2010#B	PAS-2030B
ICC-2010#B	PAS-2035B
ICC-2010#B	PAS-2040B
ICC-2010#B	PAS-2050B
ICC-2010#B	PAS-2110B
ICC-2010#B	PAS-2190B

RBR ID	Test Case
ICC-2010#B	PAS-2200B
ICC-2015#B	IST-2010B
ICC-2015#B	PAS-2020B
ICC-2015#B	PAS-2050B
ICC-2015#B	PAS-2190B
ICC-2020#B	ASTR-2000B
ICC-2020#B	FDF-2000B
ICC-2020#B	FUI-2120B
ICC-2020#B	IST-2010B
ICC-2020#B	PAS-2020B
ICC-2020#B	PAS-2030B
ICC-2020#B	PAS-2050B
ICC-2020#B	PAS-2110B
ICC-2020#B	PAS-2190B
ICC-2020#B	PAS-2200B
ICC-2050#B	CONT-2030B
ICC-2050#B	IST-2010B
ICC-2050#B	PAS-2000B
ICC-2050#B	PAS-2020B
ICC-2050#B	PAS-2035B
ICC-2050#B	PAS-2050B
ICC-2050#B	PAS-2200B
ICC-2052#B	IST-2010B
ICC-2052#B	PAS-2000B
ICC-2052#B	PAS-2010B
ICC-2052#B	PAS-2020B
ICC-2060#B	IST-2010B
ICC-2060#B	PAS-2020B
ICC-2110#B	PAS-2000B
ICC-2110#B	PAS-2020B
ICC-2115#B	IST-2010B
ICC-2115#B	PAS-2000B
ICC-2115#B	PAS-2020B
ICC-2115#B	PAS-2110B
ICC-2120#B	IST-2010B
ICC-2120#B	PAS-2020B
ICC-2140#B	IST-2010B
ICC-2140#B	PAS-2000B
ICC-2140#B	PAS-2020B
ICC-2140#B	TLM-2080B
ICC-2150#B	CONT-2030B
ICC-2150#B	IST-2010B

RBR ID	Test Case
ICC-2150#B	PAS-2000B
ICC-2150#B	PAS-2020B
ICC-2150#B	PAS-2035B
ICC-2150#B	PAS-2050B
ICC-2170#B	IST-2010B
ICC-2170#B	PAS-2020B
ICC-2170#B	PAS-2050B
ICC-2180#B	IST-2010B
ICC-2180#B	PAS-2020B
ICC-2180#B	PAS-2030B
ICC-2180#B	PAS-2050B
ICC-2180#B	PAS-2180B
ICC-2190#B	CONT-2030B
ICC-2190#B	IST-2010B
ICC-2190#B	PAS-2000B
ICC-2190#B	PAS-2020B
ICC-2190#B	PAS-2050B
ICC-2210#B	CONT-2030B
ICC-2210#B	IST-2010B
ICC-2210#B	PAS-2020B
ICC-2210#B	PAS-2030B
ICC-2210#B	PAS-2050B
ICC-2220#B	IST-2010B
ICC-2220#B	PAS-2030B
ICC-2220#B	PAS-2050B
ICC-2220#B	PAS-2200B
ICC-2230#B	IST-2010B
ICC-2230#B	PAS-2000B
ICC-2230#B	PAS-2020B
ICC-2250#B	IST-2010B
ICC-2250#B	PAS-2030B
ICC-2250#B	PAS-2200B
ICC-2250#B	TLM-2050B
ICC-2270#B	IST-2010B
ICC-2270#B	OPR-2000B
ICC-2270#B	PAS-2020B
ICC-2280#B	IST-2010B
ICC-2280#B	PAS-2020B
ICC-2280#B	PAS-2030B
ICC-2280#B	PAS-2050B
ICC-2290#B	IST-2010B
ICC-2290#B	PAS-2020B

RBR ID	Test Case
ICC-2290#B	PAS-2030B
ICC-2300#B	IST-2010B
ICC-2300#B	PAS-2000B
ICC-2300#B	PAS-2020B
ICC-2300#B	PAS-2035B
ICC-2300#B	PAS-2050B
ICC-2300#B	PAS-2200B
ICC-2350#B	IST-2010B
ICC-2350#B	PAS-2020B
ICC-2350#B	PAS-2200B
ICC-2370#B	IST-2010B
ICC-2370#B	PAS-2020B
ICC-2380#B	IST-2010B
ICC-2380#B	PAS-2020B
ICC-2400#B	IST-2010B
ICC-2400#B	PAS-2020B
ICC-2420#B	IST-2010B
ICC-2420#B	OPR-2000B
ICC-2420#B	PAS-2030B
ICC-2430#B	IST-2010B
ICC-2430#B	PAS-2000B
ICC-2430#B	PAS-2020B
ICC-2430#B	PAS-2035B
ICC-2430#B	PAS-2050B
ICC-2430#B	PAS-2200B
ICC-2450#B	IST-2010B
ICC-2450#B	OPR-2000B
ICC-2450#B	PAS-2020B
ICC-3010#B	CMS-2040B
ICC-3010#B	CMS-2090B
ICC-3010#B	CMS-2100B
ICC-3010#B	CMS-2170B
ICC-3010#B	FUI-2050B
ICC-3010#B	IST-2010B
ICC-3020#B	PAS-2030B
ICC-3020#B	PAS-2200B
ICC-3040#B	CMS-2040B
ICC-3040#B	CMS-2090B
ICC-3040#B	CMS-2170B
ICC-3040#B	IST-2010B
ICC-3040#B	PAS-2200B
ICC-3050#B	CMS-2100B

RBR ID	Test Case
ICC-3050#B	CMS-2180B
ICC-3050#B	IST-2010B
ICC-3060#B	PAS-2200B
ICC-3070#B	OPR-2000B
ICC-3070#B	PAS-2180B
ICC-3070#B	PAS-2200B
ICC-3071#B	PAS-2180B
ICC-3085#B	PAS-2180B
ICC-3090#B	FUI-2050B
ICC-3090#B	IST-2010B
ICC-3100#B	FUI-2050B
ICC-3100#B	IST-2010B
ICC-3110#B	FUI-2050B
ICC-3110#B	IST-2010B
ICC-3160#B	CMD-2010B
ICC-3160#B	IST-2010B
ICC-3160#B	PAS-2030B
ICC-3210#B	IST-2010B
ICC-3210#B	PAS-2110B
ICC-3220#B	IST-2010B
ICC-3230#B	IST-2010B
ICC-3240#B	CMD-2030B
ICC-3240#B	IST-2010B
ICC-3270#B	FUI-2050B
ICC-3270#B	IST-2010B
ICC-3270#B	OPR-2000B
ICC-3370#B	CMD-2010B
ICC-3370#B	CMD-2015B
ICC-3370#B	IST-2010B
ICC-3370#B	TLM-2050B
ICC-3380#B	ANA-2100B
ICC-3380#B	CMD-2010B
ICC-3380#B	CMD-2030B
ICC-3380#B	CMD-2080B
ICC-3380#B	CONT-2010B
ICC-3380#B	IST-2010B
ICC-3380#B	PAS-2180B
ICC-3400#B	CMD-2010B
ICC-3400#B	CMD-2080B
ICC-3400#B	IST-2010B
ICC-4010#B	TLM-2010B
ICC-4010#B	TLM-2020B

RBR ID	Test Case
ICC-4010#B	TLM-2060B
ICC-4020#B	TLM-2000B
ICC-4020#B	TLM-2010B
ICC-4040#B	IST-2010B
ICC-4040#B	TLM-2070B
ICC-4040#B	TLM-2170B
ICC-4045#B	TLM-2010B
ICC-4045#B	TLM-2050B
ICC-4070#B	TLM-2060B
ICC-4070#B	TLM-2070B
ICC-4090#B	TLM-2000B
ICC-4090#B	TLM-2020B
ICC-4090#B	TLM-2050B
ICC-4090#B	TLM-2150B
ICC-4095#B	EDOS-2000B
ICC-4095#B	EDOS-2001B
ICC-4095#B	EDOS-2010B
ICC-4095#B	POST-B
ICC-4100#B	IST-2010B
ICC-4100#B	TLM-2000B
ICC-4100#B	TLM-2010B
ICC-4100#B	TLM-2020B
ICC-4100#B	TLM-2030B
ICC-4100#B	TLM-2040B
ICC-4100#B	TLM-2050B
ICC-4100#B	TLM-2060B
ICC-4100#B	TLM-2080B
ICC-4100#B	TLM-2090B
ICC-4110#B	IST-2010B
ICC-4110#B	TLM-2080B
ICC-4120#B	IST-2010B
ICC-4120#B	TLM-2060B
ICC-4120#B	TLM-2080B
ICC-4120#B	TLM-2090B
ICC-4120#B	TLM-2100B
ICC-4150#B	IST-2010B
ICC-4150#B	TLM-2080B
ICC-4150#B	TLM-2090B
ICC-4170#B	CMS-2000B
ICC-4180#B	TLM-2190B
ICC-4190#B	ANA-2100B
ICC-4200#B	EDOS-2001B

RBR ID	Test Case
ICC-4200#B	IST-2010B
ICC-4200#B	TLM-2190B
ICC-4230#B	ANA-2100B
ICC-4410#B	ANA-2000B
ICC-4410#B	ANA-2060B
ICC-4410#B	ANA-2120B
ICC-4410#B	EDOS-2001B
ICC-4410#B	IST-2010B
ICC-4410#B	NCC-2020B
ICC-4410#B	NCC-2040B
ICC-4420#B	FUI-2130B
ICC-4420#B	TLM-2100B
ICC-4440#B	ANA-2070B
ICC-4440#B	ANA-2100B
ICC-4440#B	ANA-2120B
ICC-4440#B	IST-2010B
ICC-4450#B	ANA-2060B
ICC-4450#B	ANA-2120B
ICC-4450#B	ETE-2000B
ICC-4450#B	FUI-2110B
ICC-4450#B	IST-2010B
ICC-4450#B	POST-B
ICC-4450#B	TLM-2000B
ICC-4450#B	TLM-2010B
ICC-4450#B	TLM-2070B
ICC-4450#B	TLM-2190B
ICC-4460#B	ANA-2000B
ICC-4460#B	ANA-2060B
ICC-4460#B	ANA-2120B
ICC-4460#B	FUI-2110B
ICC-4460#B	IST-2000B
ICC-4460#B	PAS-2030B
ICC-4460#B	POST-B
ICC-4460#B	TLM-2000B
ICC-4460#B	TLM-2010B
ICC-4460#B	TLM-2070B
ICC-4460#B	TLM-2190B
ICC-4470#B	FUI-2050B
ICC-4470#B	IST-2010B
ICC-4470#B	OPR-2000B
ICC-4470#B	POST-B
ICC-4480#B	ANA-2100B

RBR ID	Test Case
ICC-4480#B	ANA-2110B
ICC-4480#B	ANA-2120B
ICC-4480#B	CONT-2010B
ICC-4480#B	IST-2010B
ICC-4490#B	ANA-2070B
ICC-4490#B	ANA-2100B
ICC-4490#B	IST-2010B
ICC-4500#B	ANA-2100B
ICC-4500#B	ANA-2120B
ICC-4500#B	CONT-2010B
ICC-4500#B	IST-2010B
ICC-4510#B	ANA-2070B
ICC-4510#B	CONT-2010B
ICC-4545#B	CONT-2030B
ICC-4550#B	ANA-2060B
ICC-4550#B	ANA-2070B
ICC-4550#B	CONT-2040B
ICC-4550#B	FUI-2110B
ICC-4550#B	IST-2010B
ICC-4550#B	POST-B
ICC-4550#B	TLM-2080B
ICC-4560#B	ANA-2110B
ICC-4560#B	CONT-2010B
ICC-4560#B	TLM-2160B
ICC-4580#B	CMS-2000B
ICC-4590#B	ANA-2070B
ICC-4600#B	FUI-2025B
ICC-4600#B	FUI-2130B
ICC-4600#B	IST-2000B
ICC-4610#B	ANA-2000B
ICC-4610#B	ANA-2100B
ICC-4610#B	IST-2010B
ICC-4710#B	ANA-2000B
ICC-4710#B	ANA-2040B
ICC-4710#B	ANA-2060B
ICC-4710#B	ANA-2090B
ICC-4710#B	DBS-2000B
ICC-4710#B	FUI-2030B
ICC-4710#B	FUI-2050B
ICC-4710#B	FUI-2110B
ICC-4710#B	FUI-2115B
ICC-4710#B	IST-2010B

RBR ID	Test Case
ICC-4710#B	PAS-2000B
ICC-4710#B	TLM-2070B
ICC-4710#B	TLM-2080B
ICC-4710#B	TLM-2090B
ICC-4710#B	TLM-2100B
ICC-4720#B	DBS-2010B
ICC-4730#B	DBS-2030B
ICC-4730#B	IST-2010B
ICC-4730#B	PAS-2000B
ICC-4730#B	PAS-2010B
ICC-4740#B	DBS-2000B
ICC-4740#B	PAS-2000B
ICC-4740#B	PAS-2010B
ICC-4750#B	DBS-2000B
ICC-4760#B	DBS-2000B
ICC-4765#B	DBS-2020B
ICC-4770#B	DBS-2000B
ICC-4770#B	PAS-2000B
ICC-4770#B	PAS-2010B
ICC-4775#B	DBS-2000B
ICC-4775#B	PAS-2010B
ICC-4780#B	ANA-2100B
ICC-4780#B	ANA-2110B
ICC-4780#B	EVT-2000B
ICC-4780#B	EVT-2010B
ICC-4780#B	EVT-2020B
ICC-4780#B	SYS-2030B
ICC-4780#B	TLM-2160B
ICC-4790#B	ANA-2100B
ICC-4790#B	ANA-2110B
ICC-4790#B	EVT-2020B
ICC-4800#B	POST-B
ICC-4810#B	POST-B
ICC-4820#B	POST-B
ICC-4830#B	ANA-2110B
ICC-6005#B	OPR-2000B
ICC-6005#B	POST-B
ICC-6005#B	SYS-2020B
ICC-6010#B	OPR-2000B
ICC-6020#B	ANA-2090B
ICC-6020#B	IST-2000B
ICC-6020#B	POST-B

RBR ID	Test Case
ICC-6020#B	SYS-2020B
ICC-6020#B	TLM-2190B
ICC-6030#B	NCC-2020B
ICC-6040#B	SYS-2030B
ICC-6060#B	CMD-2030B
ICC-6060#B	SYS-2020B
ICC-6060#B	SYS-2030B
ICC-6070#B	SYS-2000B
ICC-6070#B	SYS-2020B
ICC-6080#B	EVT-2010B
ICC-6080#B	SYS-2030B
ICC-6090#B	FUI-2115B
ICC-6090#B	FUI-2115B
ICC-6090#B	SYS-2030B
ICC-6110#B	EVT-2000B
ICC-6110#B	SYS-2020B
ICC-6110#B	SYS-2030B
ICC-6130#B	SYS-2030B
ICC-6135#B	OPR-2000B
ICC-6135#B	SYS-2030B
ICC-6140#B	OPR-2000B
ICC-6140#B	SYS-2020B
ICC-6145#B	OPR-2000B
ICC-6195#B	SYS-2030B
ICC-6200#B	OPR-2000B
ICC-6205#B	OPR-2000B
ICC-6210#B	OPR-2000B
ICC-6510#B	CMD-2000B
ICC-6510#B	EVT-2010B
ICC-6510#B	FUI-2000B
ICC-6510#B	FUI-2150B
ICC-6510#B	IST-2010B
ICC-6510#B	IST-2010B
ICC-6510#B	SYS-2020B
ICC-6510#B	TLM-2040B
ICC-6520#B	ANA-2060B
ICC-6520#B	ANA-2090B
ICC-6520#B	FUI-2020B
ICC-6520#B	FUI-2025B
ICC-6520#B	IST-2010B
ICC-6520#B	PAS-2030B
ICC-6520#B	PAS-2035B

RBR ID	Test Case
ICC-6520#B	PAS-2050B
ICC-6520#B	PAS-2110B
ICC-6520#B	PAS-2190B
ICC-6520#B	PAS-2200B
ICC-6520#B	SYS-2030B
ICC-6525#B	EVT-2000B
ICC-6525#B	EVT-2010B
ICC-6525#B	EVT-2020B
ICC-6525#B	EVT-2030B
ICC-6525#B	FUI-2030B
ICC-6525#B	IST-2010B
ICC-6525#B	PAS-2030B
ICC-6525#B	SYS-2030B
ICC-6525#B	TLM-2070B
ICC-6525#B	TLM-2080B
ICC-6525#B	TLM-2090B
ICC-6525#B	TLM-2100B
ICC-6540#B	FUI-2040B
ICC-6540#B	FUI-2050B
ICC-6540#B	FUI-2060B
ICC-6540#B	IST-2010B
ICC-6580#B	ANA-2090B
ICC-6580#B	FUI-2050B
ICC-6580#B	IST-2010B
ICC-6580#B	IST-2010B
ICC-6580#B	IST-2010B
ICC-6580#B	IST-2010B
ICC-6590#B	ANA-2060B
ICC-6590#B	CMS-2180B
ICC-6590#B	CONT-2020B
ICC-6590#B	EVT-2000B
ICC-6590#B	FUI-2020B
ICC-6590#B	FUI-2030B
ICC-6590#B	FUI-2050B
ICC-6590#B	FUI-2110B
ICC-6590#B	HRD-2000B
ICC-6590#B	IST-2010B
ICC-6590#B	OPR-2000B
ICC-6590#B	PAS-2030B
ICC-6590#B	PAS-2050B
ICC-6590#B	PAS-2110B
ICC-6590#B	PAS-2190B

RBR ID	Test Case
ICC-6590#B	PAS-2200B
ICC-6590#B	SYS-2000B
ICC-6590#B	SYS-2030B
ICC-6590#B	TLM-2000B
ICC-6590#B	TLM-2010B
ICC-6590#B	TLM-2070B
ICC-6590#B	TLM-2190B
ICC-6600#B	EVT-2010B
ICC-6600#B	FUI-2040B
ICC-6620#B	EVT-2000B
ICC-6620#B	EVT-2010B
ICC-6620#B	FUI-2030B
ICC-6620#B	IST-2010B
ICC-7005#B	CMD-2070B
ICC-7005#B	IST-2000B
ICC-7005#B	OPR-2000B
ICC-7010#B	CONT-2010B
ICC-7010#B	IST-2010B
ICC-7010#B	PAS-2000B
ICC-7010#B	PAS-2020B
ICC-7010#B	PAS-2035B
ICC-7010#B	PAS-2050B
ICC-7030#B	FUI-2025B
ICC-7030#B	IST-2010B
ICC-7030#B	OPR-2000B
ICC-7050#B	DBS-2000B
ICC-7050#B	IST-2010B
ICC-7050#B	PAS-2000B
ICC-7050#B	PAS-2010B
ICC-7060#B	DBS-2030B
ICC-7060#B	FUI-2025B
ICC-7060#B	IST-2010B
ICC-7060#B	PAS-2000B
ICC-7065#B	CMS-2000B
ICC-7065#B	FDF-2000B
ICC-7065#B	IST-2000B
ICC-7065#B	IST-2010B
ICC-7070#B	ANA-2000B
ICC-7070#B	ANA-2100B
ICC-7070#B	ANA-2120B
ICC-7070#B	FUI-2025B
ICC-7070#B	IST-2010B

RBR ID	Test Case
ICC-7075#B	ANA-2000B
ICC-7075#B	ANA-2060B
ICC-7075#B	ANA-2070B
ICC-7075#B	ANA-2120B
ICC-7075#B	IST-2010B
ICC-7210#B	PAS-2020B
ICC-7214#B	PAS-2030B
ICC-7220#B	FDF-2000B
ICC-7220#B	FUI-2120B
ICC-7220#B	IST-2010B
ICC-7220#B	PAS-2030B
ICC-7220#B	PAS-2050B
ICC-7220#B	PAS-2110B
ICC-7220#B	PAS-2190B
ICC-7220#B	PAS-2200B
ICC-7230#B	CMS-2180B
ICC-7230#B	IST-2010B
ICC-7230#B	PAS-2000B
ICC-7230#B	PAS-2020B
ICC-7230#B	PAS-2190B
ICC-7240#B	IST-2010B
ICC-7240#B	PAS-2020B
ICC-7240#B	PAS-2030B
ICC-7240#B	PAS-2050B
ICC-7250#B	IST-2010B
ICC-7250#B	PAS-2000B
ICC-7250#B	PAS-2020B
ICC-7250#B	PAS-2035B
ICC-7250#B	PAS-2050B
ICC-7270#B	IST-2010B
ICC-7270#B	PAS-2190B
ICC-7290#B	CMD-2010B
ICC-7290#B	CMD-2080B
ICC-7290#B	CMS-2040B
ICC-7290#B	CMS-2060B
ICC-7290#B	CMS-2090B
ICC-7290#B	CMS-2100B
ICC-7290#B	IST-2010B
ICC-7290#B	PAS-2030B
ICC-7330#B	CMS-2090B
ICC-7330#B	CMS-2170B
ICC-7330#B	IST-2010B

RBR ID	Test Case
ICC-7370#B	CMD-2010B
ICC-7370#B	IST-2010B
ICC-7390#B	FUI-2025B
ICC-7390#B	IST-2010B
ICC-7430#B	ANA-2100B
ICC-7430#B	ANA-2120B
ICC-7430#B	FUI-2025B
ICC-7430#B	IST-2010B
ICC-7430#B	TLM-2020B
ICC-7430#B	TLM-2060B
ICC-7460#B	ANA-2060B
ICC-7460#B	FUI-2030B
ICC-7460#B	FUI-2110B
ICC-7460#B	IST-2010B
ICC-7460#B	TLM-2000B
ICC-7460#B	TLM-2010B
ICC-7460#B	TLM-2070B
ICC-7460#B	TLM-2190B
ICC-7500#B	ANA-2000B
ICC-7500#B	ANA-2100B
ICC-7500#B	DBS-2010B
ICC-7510#B	ANA-2100B
ICC-7510#B	ANA-2110B
ICC-7510#B	EVT-2020B
ICC-7550#B	CMS-2000B
ICC-7550#B	CMS-2170B
ICC-7550#B	FUI-2130B
ICC-7550#B	IST-2010B
ICC-8010#B	OPR-2000B
ICC-8040#B	ETE-2000B
ICC-8050#B	IST-2000B
NI-0010#B	CMD-2070B
NI-0010#B	ETE-2010B
NI-0010#B	FDF-2000B
NI-0010#B	NCC-2020B
NI-0010#B	NCC-2030B
NI-0010#B	PAS-2040B
NI-0010#B	TLM-2000B
NI-0010#B	TLM-2010B
NI-0020#B	ETE-2010B
NI-0030#B	TLM-2000B
NI-0030#B	TLM-2010B

RBR ID	Test Case
NI-0110#B	CMD-2070B
NI-0110#B	ETE-2010B
NI-0110#B	FDF-2000B
NI-0110#B	NCC-2020B
NI-0110#B	NCC-2030B
NI-0110#B	PAS-2040B
NI-0110#B	TLM-2000B
NI-0110#B	TLM-2010B
NI-0120#B	PAS-2040B
NI-0130#B	PAS-2040B
NI-0150#B	NCC-2020B
NI-0150#B	NCC-2030B
NI-0160#B	ANA-2030B
NI-0160#B	NCC-2020B
NI-0160#B	NCC-2030B
NI-0170#B	OPR-2000B
NI-0210#B	ETE-2010B
NI-0210#B	TLM-2010B
NI-0220#B	ETE-2010B
NI-0230#B	ETE-2010B
NI-0230#B	TLM-2000B
NI-0230#B	TLM-2010B
NI-0240#B	ETE-2010B
NI-0310#B	CMD-2070B
NI-0310#B	ETE-2010B
NI-0310#B	FDF-2000B
NI-0310#B	NCC-2020B
NI-0310#B	NCC-2030B
NI-0310#B	PAS-2040B
NI-0310#B	TLM-2000B
NI-0310#B	TLM-2010B
NI-0330#B	ANA-2000B
NI-0330#B	FDF-2000B
NI-0330#B	FUI-2025B
NI-0330#B	IST-2010B
NI-0330#B	IST-2010B
NI-0340#B	FDF-2000B
NI-0350#B	FDF-2000B
NI-1000#B	OPR-2000B
NI-1010#B	OPR-2000B
NI-1030#B	OPR-2000B
NI-1060#B	ETE-2000B

Appendix E. Test Case to Release B RBRs Matrix

The following matrix delineates each Thread and End to End Test Case to the associated Release B RBR or set of RBRs verified by the test.

Test Case	RBR ID
ANA-2000B	AM1-0225#B
ANA-2000B	AM1-0240#B
ANA-2000B	EOC-5180#B
ANA-2000B	EOC-6010#B
ANA-2000B	EOC-6050#B
ANA-2000B	EOC-6070#B
ANA-2000B	EOC-6100#B
ANA-2000B	EOC-9020#B
ANA-2000B	EOC-9040#B
ANA-2000B	FOS-0040#B
ANA-2000B	ICC-0070#B
ANA-2000B	ICC-4410#B
ANA-2000B	ICC-4460#B
ANA-2000B	ICC-4610#B
ANA-2000B	ICC-4710#B
ANA-2000B	ICC-7070#B
ANA-2000B	ICC-7075#B
ANA-2000B	ICC-7500#B
ANA-2000B	NI-0330#B
ANA-2020B	EOC-5187#B
ANA-2030B	EOC-4060#B
ANA-2030B	EOC-5030#B
ANA-2030B	EOC-5187#B
ANA-2030B	EOC-5187#B
ANA-2030B	NI-0160#B
ANA-2040B	EOC-6100#B
ANA-2040B	EOC-6110#B
ANA-2040B	FOS-0040#B
ANA-2040B	ICC-4710#B
ANA-2060B	EOC-5187#B
ANA-2060B	EOC-6010#B
ANA-2060B	EOC-6050#B
ANA-2060B	EOC-6060#B
ANA-2060B	EOC-6070#B

Test Case	RBR ID
ANA-2060B	EOC-6100#B
ANA-2060B	EOC-6110#B
ANA-2060B	EOC-7010#B
ANA-2060B	EOC-8372#B
ANA-2060B	EOC-9020#B
ANA-2060B	EOC-9090#B
ANA-2060B	FOS-0040#B
ANA-2060B	FOS-1090#B
ANA-2060B	ICC-4410#B
ANA-2060B	ICC-4450#B
ANA-2060B	ICC-4460#B
ANA-2060B	ICC-4550#B
ANA-2060B	ICC-4710#B
ANA-2060B	ICC-6520#B
ANA-2060B	ICC-6590#B
ANA-2060B	ICC-7075#B
ANA-2060B	ICC-7460#B
ANA-2070B	EOC-6010#B
ANA-2070B	EOC-6050#B
ANA-2070B	EOC-6100#B
ANA-2070B	EOC-6110#B
ANA-2070B	EOC-6195#B
ANA-2070B	EOC-6200#B
ANA-2070B	ICC-4440#B
ANA-2070B	ICC-4490#B
ANA-2070B	ICC-4510#B
ANA-2070B	ICC-4550#B
ANA-2070B	ICC-4590#B
ANA-2070B	ICC-7075#B
ANA-2090B	AM1-0240#B
ANA-2090B	EOC-5012#B
ANA-2090B	EOC-6010#B
ANA-2090B	EOC-6100#B
ANA-2090B	EOC-8090#B
ANA-2090B	EOC-9020#B
ANA-2090B	EOC-9090#B
ANA-2090B	ICC-4710#B
ANA-2090B	ICC-6020#B
ANA-2090B	ICC-6520#B
ANA-2090B	ICC-6580#B
ANA-2100B	AM1-0070#B
ANA-2100B	AM1-0130#B

Test Case	RBR ID
ANA-2100B	AM1-1060#B
ANA-2100B	AM1-1080#B
ANA-2100B	EDOS-4.2.1.6#B
ANA-2100B	EDOS-4.6.1.1#B
ANA-2100B	EDOS-4.6.1.8#B
ANA-2100B	EOC-3160#B
ANA-2100B	EOC-5012#B
ANA-2100B	EOC-5230#B
ANA-2100B	EOC-6010#B
ANA-2100B	EOC-6050#B
ANA-2100B	EOC-6070#B
ANA-2100B	EOC-6100#B
ANA-2100B	EOC-7060#B
ANA-2100B	EOC-7120#B
ANA-2100B	FOS-0040#B
ANA-2100B	FOS-1070#B
ANA-2100B	ICC-3380#B
ANA-2100B	ICC-4190#B
ANA-2100B	ICC-4230#B
ANA-2100B	ICC-4440#B
ANA-2100B	ICC-4480#B
ANA-2100B	ICC-4490#B
ANA-2100B	ICC-4500#B
ANA-2100B	ICC-4610#B
ANA-2100B	ICC-4780#B
ANA-2100B	ICC-4790#B
ANA-2100B	ICC-7070#B
ANA-2100B	ICC-7430#B
ANA-2100B	ICC-7500#B
ANA-2100B	ICC-7510#B
ANA-2110B	AM1-0340#B
ANA-2110B	AM1-1150#B
ANA-2110B	EOC-6010#B
ANA-2110B	EOC-6150#B
ANA-2110B	EOC-9040#B
ANA-2110B	FOS-0040#B
ANA-2110B	ICC-4480#B
ANA-2110B	ICC-4560#B
ANA-2110B	ICC-4780#B
ANA-2110B	ICC-4790#B
ANA-2110B	ICC-4830#B
ANA-2110B	ICC-7510#B

Test Case	RBR ID
ANA-2120B	EOC-5187#B
ANA-2120B	EOC-6010#B
ANA-2120B	EOC-6100#B
ANA-2120B	EOC-6110#B
ANA-2120B	EOC-6200#B
ANA-2120B	FOS-1090#B
ANA-2120B	ICC-4410#B
ANA-2120B	ICC-4440#B
ANA-2120B	ICC-4450#B
ANA-2120B	ICC-4460#B
ANA-2120B	ICC-4480#B
ANA-2120B	ICC-4500#B
ANA-2120B	ICC-7070#B
ANA-2120B	ICC-7075#B
ANA-2120B	ICC-7430#B
ASTR-2000B	ASTER-0210#B
ASTR-2000B	ASTER-0230#B
ASTR-2000B	ASTER-0240#B
ASTR-2000B	ASTER-0250#B
ASTR-2000B	ASTER-0260#B
ASTR-2000B	ASTER-0340#B
ASTR-2000B	ASTER-0350#B
ASTR-2000B	EOC-2040#B
ASTR-2000B	EOC-2045#B
ASTR-2000B	EOC-2210#B
ASTR-2000B	EOC-2250#B
ASTR-2000B	EOC-2260#B
ASTR-2000B	EOC-2270#B
ASTR-2000B	EOC-2280#B
ASTR-2000B	EOC-2290#B
ASTR-2000B	EOC-2320#B
ASTR-2000B	EOC-2350#B
ASTR-2000B	EOC-2430#B
ASTR-2000B	EOC-2480#B
ASTR-2000B	EOC-2540#B
ASTR-2000B	EOC-2550#B
ASTR-2000B	EOC-2570#B
ASTR-2000B	EOC-2590#B
ASTR-2000B	EOC-2620#B
ASTR-2000B	EOC-2630#B
ASTR-2000B	EOSD1770#B
ASTR-2000B	FOS-0040#B

Test Case	RBR ID
ASTR-2000B	ICC-1130#B
ASTR-2000B	ICC-2010#B
ASTR-2000B	ICC-2020#B
CMD-2000B	EOC-9010#B
CMD-2000B	ICC-6510#B
CMD-2001B	AM1-0050#B
CMD-2001B	AM1-0090#B
CMD-2001B	AM1-0120#B
CMD-2001B	AM1-0125#B
CMD-2001B	AM1-0150#B
CMD-2001B	AM1-0160#B
CMD-2001B	AM1-1090#B
CMD-2001B	EDOS-4.1.1.4#B
CMD-2001B	EOC-2160#B
CMD-2001B	EOC-4005#B
CMD-2001B	EOC-4010#B
CMD-2001B	EOC-4015#B
CMD-2001B	EOC-4100#B
CMD-2001B	EOC-4130#B
CMD-2001B	EOSD1690#B
CMD-2001B	AM1-0020#B
CMD-2010B	EOC-3238#B
CMD-2010B	EOC-4020#B
CMD-2010B	EOC-4120#B
CMD-2010B	EOC-4125#B
CMD-2010B	EOC-4140#B
CMD-2010B	EOC-4160#B
CMD-2010B	ICC-3160#B
CMD-2010B	ICC-3370#B
CMD-2010B	ICC-3380#B
CMD-2010B	ICC-3400#B
CMD-2010B	ICC-7290#B
CMD-2010B	ICC-7370#B
CMD-2015B	EOC-4018#B
CMD-2015B	EOC-4120#B
CMD-2015B	EOC-4125#B
CMD-2015B	ICC-3370#B
CMD-2030B	EDOS-4.1.1.2#B
CMD-2030B	EOC-4010#B
CMD-2030B	EOC-4015#B
CMD-2030B	EOC-4018#B
CMD-2030B	EOC-4020#B

Test Case	RBR ID
CMD-2030B	EOC-4100#B
CMD-2030B	EOC-4120#B
CMD-2030B	EOC-4125#B
CMD-2030B	EOC-4140#B
CMD-2030B	EOC-5090#B
CMD-2030B	EOC-6200#B
CMD-2030B	EOC-7010#B
CMD-2030B	EOC-8130#B
CMD-2030B	EOC-9025#B
CMD-2030B	EOSD1690#B
CMD-2030B	FOS-1130#B
CMD-2030B	ICC-3240#B
CMD-2030B	ICC-3380#B
CMD-2030B	ICC-6060#B
CMD-2050B	EOC-4015#B
CMD-2050B	EOC-4125#B
CMD-2050B	EOC-4140#B
CMD-2050B	EOC-4160#B
CMD-2070B	AM1-1050#B
CMD-2070B	AM1-1090#B
CMD-2070B	EDOS-4.1.1.2#B
CMD-2070B	EDOS-4.2.1.5#B
CMD-2070B	EOC-0040#B
CMD-2070B	EOC-4005#B
CMD-2070B	EOC-4010#B
CMD-2070B	EOC-4015#B
CMD-2070B	EOC-4020#B
CMD-2070B	EOC-4120#B
CMD-2070B	EOC-4140#B
CMD-2070B	EOC-4200#B
CMD-2070B	EOC-9040#B
CMD-2070B	EOSD0010#B
CMD-2070B	EOSD0025#B
CMD-2070B	EOSD0500#B
CMD-2070B	EOSD1502#B
CMD-2070B	FOS-0040#B
CMD-2070B	ICC-0055#B
CMD-2070B	ICC-7005#B
CMD-2070B	NI-0010#B
CMD-2070B	NI-0110#B
CMD-2070B	NI-0310#B
CMD-2080B	EOC-4015#B

Test Case	RBR ID
CMD-2080B	EOC-4120#B
CMD-2080B	EOC-4125#B
CMD-2080B	EOC-4160#B
CMD-2080B	ICC-3380#B
CMD-2080B	ICC-3400#B
CMD-2080B	ICC-7290#B
CMS-2000B	AM1-0090#B
CMS-2000B	AM1-0200#B
CMS-2000B	EOC-1005#B
CMS-2000B	EOC-3160#B
CMS-2000B	EOC-5130#B
CMS-2000B	EOC-6150#B
CMS-2000B	EOC-6160#B
CMS-2000B	FOS-0040#B
CMS-2000B	FOS-1010#B
CMS-2000B	ICC-4170#B
CMS-2000B	ICC-4580#B
CMS-2000B	ICC-7065#B
CMS-2000B	ICC-7550#B
CMS-2040B	EOC-3020#B
CMS-2040B	EOC-3024#B
CMS-2040B	EOC-3050#B
CMS-2040B	EOC-3160#B
CMS-2040B	EOC-4015#B
CMS-2040B	EOC-9020#B
CMS-2040B	EOSD1680#B
CMS-2040B	FOS-0040#B
CMS-2040B	ICC-3010#B
CMS-2040B	ICC-3040#B
CMS-2040B	ICC-7290#B
CMS-2060B	EOC-3015#B
CMS-2060B	EOC-3020#B
CMS-2060B	EOC-3050#B
CMS-2060B	EOC-3160#B
CMS-2060B	EOC-4015#B
CMS-2060B	EOC-9020#B
CMS-2060B	EOSD1680#B
CMS-2060B	ICC-7290#B
CMS-2090B	EOC-3020#B
CMS-2090B	EOC-3024#B
CMS-2090B	EOC-3050#B
CMS-2090B	EOC-3090#B

Test Case	RBR ID
CMS-2090B	EOC-3160#B
CMS-2090B	EOC-7010#B
CMS-2090B	EOC-9020#B
CMS-2090B	EOSD0545#B
CMS-2090B	EOSD0545#B
CMS-2090B	EOSD0630#B
CMS-2090B	EOSD1680#B
CMS-2090B	FOS-0040#B
CMS-2090B	ICC-3010#B
CMS-2090B	ICC-3040#B
CMS-2090B	ICC-7290#B
CMS-2090B	ICC-7330#B
CMS-2100B	EOC-3024#B
CMS-2100B	EOC-3086#B
CMS-2100B	EOC-3090#B
CMS-2100B	EOC-3160#B
CMS-2100B	EOC-6150#B
CMS-2100B	EOC-9040#B
CMS-2100B	EOSD1680#B
CMS-2100B	FOS-0040#B
CMS-2100B	ICC-3010#B
CMS-2100B	ICC-3050#B
CMS-2100B	ICC-7290#B
CMS-2170B	EOC-2320#B
CMS-2170B	EOC-3020#B
CMS-2170B	EOC-3024#B
CMS-2170B	EOC-3050#B
CMS-2170B	EOC-3090#B
CMS-2170B	EOC-3160#B
CMS-2170B	EOC-4015#B
CMS-2170B	EOC-4125#B
CMS-2170B	EOC-6150#B
CMS-2170B	EOC-6160#B
CMS-2170B	EOC-7010#B
CMS-2170B	EOC-7020#B
CMS-2170B	EOC-9020#B
CMS-2170B	EOC-9025#B
CMS-2170B	EOC-9040#B
CMS-2170B	EOC-9080#B
CMS-2170B	EOSD1680#B
CMS-2170B	FOS-0040#B
CMS-2170B	FOS-1010#B

Test Case	RBR ID
CMS-2170B	FOS-1090#B
CMS-2170B	FOS-1130#B
CMS-2170B	ICC-3010#B
CMS-2170B	ICC-3040#B
CMS-2170B	ICC-7330#B
CMS-2170B	ICC-7550#B
CMS-2180B	EOC-3030#B
CMS-2180B	EOC-3050#B
CMS-2180B	EOC-3086#B
CMS-2180B	EOC-3160#B
CMS-2180B	EOC-5200#B
CMS-2180B	EOC-6150#B
CMS-2180B	EOC-7010#B
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CMS-2180B	ICC-6590#B
CMS-2180B	ICC-7230#B
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CONT-2010B	EOC-4020#B
CONT-2010B	EOC-4200#B
CONT-2010B	EOC-5187#B
CONT-2010B	EOC-6010#B
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CONT-2010B	EOC-6200#B
CONT-2010B	EOC-6210#B
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CONT-2010B	ICC-3380#B
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CONT-2010B	ICC-4500#B
CONT-2010B	ICC-4510#B
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CONT-2010B	ICC-7010#B
CONT-2020B	EOC-4010#B

Test Case	RBR ID
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CONT-2020B	EOC-5240#B
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CONT-2020B	EOC-6110#B
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CONT-2020B	ICC-6590#B
CONT-2030B	EOC-2170#B
CONT-2030B	EOC-2200#B
CONT-2030B	EOC-2220#B
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CONT-2030B	EOC-2310#B
CONT-2030B	EOC-2320#B
CONT-2030B	EOC-2510#B
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CONT-2030B	EOC-2555#B
CONT-2030B	EOC-3024#B
CONT-2030B	EOC-6010#B
CONT-2030B	EOC-6110#B
CONT-2030B	EOC-6135#B
CONT-2030B	EOC-6210#B
CONT-2030B	EOC-7010#B
CONT-2030B	EOC-7025#B
CONT-2030B	FOS-0040#B
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CONT-2030B	ICC-2050#B
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CONT-2030B	ICC-2190#B
CONT-2030B	ICC-2210#B
CONT-2030B	ICC-4545#B
CONT-2040B	EOC-4125#B
CONT-2040B	EOC-5090#B
CONT-2040B	EOC-5180#B

Test Case	RBR ID
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CONT-2040B	ICC-4550#B
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DBS-2000B	AM1-0230#B
DBS-2000B	ASTER-0050#B
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DBS-2000B	EOC-8285#B
DBS-2000B	EOC-9040#B
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DBS-2000B	ICC-4750#B
DBS-2000B	ICC-4760#B
DBS-2000B	ICC-4770#B
DBS-2000B	ICC-4775#B
DBS-2000B	ICC-7050#B
DBS-2010B	EOC-7020#B
DBS-2010B	ICC-4720#B
DBS-2010B	ICC-7500#B
DBS-2020B	ASTER-0050#B
DBS-2020B	ASTER-0060#B
DBS-2020B	EOC-7045#B
DBS-2020B	ICC-4765#B
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DBS-2030B	EOC-7045#B
DBS-2030B	ICC-4730#B
DBS-2030B	ICC-7060#B
EDOS-2000B	EDOS-4.1.1.1#B
EDOS-2000B	EDOS-4.1.1.6#B
EDOS-2000B	EDOS-4.2.1.7#B
EDOS-2000B	EDOS-4.6.1.1#B
EDOS-2000B	EOC-5030#B
EDOS-2000B	EOSD1600#B
EDOS-2000B	ICC-4095#B

Test Case	RBR ID
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EDOS-2001B	EOC-5200#B
EDOS-2001B	EOC-5240#B
EDOS-2001B	EOC-6010#B
EDOS-2001B	EOC-6200#B
EDOS-2001B	ICC-4095#B
EDOS-2001B	ICC-4200#B
EDOS-2001B	ICC-4410#B
EDOS-2002B	EDOS-4.6.1.4#B
EDOS-2002B	EDOS-4.1.1.17#B
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EDOS-2010B	EDOS-4.1.1.7#B
EDOS-2010B	EDOS-4.2.1.3#B
EDOS-2010B	EDOS-4.6.1.1#B
EDOS-2010B	EOC-2030#B
EDOS-2010B	EOC-5030#B
EDOS-2010B	EOSD1600#B
EDOS-2010B	FOS-1040#B
EDOS-2010B	FOS-1090#B
EDOS-2010B	ICC-4095#B
EDOS-2030B	FOS-1010#B
EDOS-2030B	EDOS-4.1.1.18#B
ETE-2000B	AM1-1150#B
ETE-2000B	EOC-2240#B
ETE-2000B	EOC-4210#B
ETE-2000B	EOC-9090#B
ETE-2000B	EOC-9570#B
ETE-2000B	EOSD0500#B
ETE-2000B	EOSD0720#B
ETE-2000B	EOSD1000#B
ETE-2000B	EOSD1500#B
ETE-2000B	FOS-0040#B
ETE-2000B	FOS-1040#B
ETE-2000B	ICC-4450#B
ETE-2000B	ICC-8040#B
ETE-2000B	NI-1060#B
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ETE-2010B	EDOS-4.6.1.1#B
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ETE-2010B	EOC-2040#B
ETE-2010B	EOC-2490#B

Test Case	RBR ID
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ETE-2010B	EOC-4008#B
ETE-2010B	EOC-4060#B
ETE-2010B	EOC-8285#B
ETE-2010B	EOSD0010#B
ETE-2010B	EOSD0015#B
ETE-2010B	EOSD0020#B
ETE-2010B	EOSD0025#B
ETE-2010B	EOSD0500#B
ETE-2010B	EOSD1502#B
ETE-2010B	EOSD1605#B
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ETE-2010B	FOS-1020#B
ETE-2010B	FOS-1040#B
ETE-2010B	FOS-1140#B
ETE-2010B	NI-0010#B
ETE-2010B	NI-0020#B
ETE-2010B	NI-0110#B
ETE-2010B	NI-0210#B
ETE-2010B	NI-0220#B
ETE-2010B	NI-0230#B
ETE-2010B	NI-0240#B
ETE-2010B	NI-0310#B
ETE-2010B	AM1-0020#B
ETE-2010B	AM1-0030#B
EVT-2000B	EOC-6195#B
EVT-2000B	EOC-7060#B
EVT-2000B	EOC-7120#B
EVT-2000B	EOC-7130#B
EVT-2000B	EOC-8220#B
EVT-2000B	EOC-9010#B
EVT-2000B	EOC-9025#B
EVT-2000B	EOC-9090#B
EVT-2000B	EOC-9130#B
EVT-2000B	FOS-0040#B
EVT-2000B	ICC-4780#B
EVT-2000B	ICC-6110#B
EVT-2000B	ICC-6525#B
EVT-2000B	ICC-6590#B
EVT-2000B	ICC-6620#B
EVT-2010B	EOC-7120#B
EVT-2010B	EOC-8140#B

Test Case	RBR ID
EVT-2010B	EOC-8150#B
EVT-2010B	EOC-8380#B
EVT-2010B	EOC-9010#B
EVT-2010B	EOC-9025#B
EVT-2010B	EOC-9110#B
EVT-2010B	EOC-9130#B
EVT-2010B	ICC-4780#B
EVT-2010B	ICC-6080#B
EVT-2010B	ICC-6510#B
EVT-2010B	ICC-6525#B
EVT-2010B	ICC-6600#B
EVT-2010B	ICC-6620#B
EVT-2020B	EOC-6195#B
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EVT-2020B	EOC-7130#B
EVT-2020B	EOC-9025#B
EVT-2020B	FOS-0040#B
EVT-2020B	ICC-4780#B
EVT-2020B	ICC-4790#B
EVT-2020B	ICC-6525#B
EVT-2020B	ICC-7510#B
EVT-2030B	EOC-6195#B
EVT-2030B	EOC-7130#B
EVT-2030B	EOC-9020#B
EVT-2030B	EOC-9025#B
EVT-2030B	FOS-0040#B
EVT-2030B	ICC-6525#B
FDF-2000B	AM1-0270#B
FDF-2000B	ASTER-0200#B
FDF-2000B	EOC-2010#B
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FDF-2000B	EOC-2045#B
FDF-2000B	EOC-3015#B
FDF-2000B	EOC-3017#B
FDF-2000B	EOC-3030#B
FDF-2000B	EOC-3050#B
FDF-2000B	EOC-3090#B
FDF-2000B	EOC-5180#B
FDF-2000B	EOC-5185#B
FDF-2000B	EOC-5200#B
FDF-2000B	EOC-6010#B
FDF-2000B	EOC-6050#B

Test Case	RBR ID
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FDF-2000B	EOSD1502#B
FDF-2000B	EOSD1505#B
FDF-2000B	EOSD1510#B
FDF-2000B	FOS-0030#B
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FDF-2000B	FOS-1140#B
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FDF-2000B	ICC-2020#B
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FDF-2000B	ICC-7220#B
FDF-2000B	NI-0010#B
FDF-2000B	NI-0110#B
FDF-2000B	NI-0310#B
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FUI-2020B	EOC-9020#B
FUI-2020B	EOC-9090#B
FUI-2020B	ICC-6520#B
FUI-2020B	ICC-6590#B
FUI-2025B	AM1-0225#B
FUI-2025B	AM1-0240#B
FUI-2025B	ASTER-0050#B
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FUI-2025B	ASTER-0310#B
FUI-2025B	ASTER-0570#B
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FUI-2025B	ASTER-0590#B
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FUI-2025B	ICC-4600#B
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FUI-2025B	ICC-7060#B
FUI-2025B	ICC-7070#B
FUI-2025B	ICC-7390#B
FUI-2025B	ICC-7430#B

Test Case	RBR ID
FUI-2025B	NI-0330#B
FUI-2030B	EOC-7010#B
FUI-2030B	EOC-9020#B
FUI-2030B	EOC-9090#B
FUI-2030B	EOC-9130#B
FUI-2030B	FOS-0040#B
FUI-2030B	ICC-4710#B
FUI-2030B	ICC-6525#B
FUI-2030B	ICC-6590#B
FUI-2030B	ICC-6620#B
FUI-2030B	ICC-7460#B
FUI-2040B	EOC-9040#B
FUI-2040B	EOC-9110#B
FUI-2040B	ICC-6540#B
FUI-2040B	ICC-6600#B
FUI-2050B	EOC-2530#B
FUI-2050B	EOC-3024#B
FUI-2050B	EOC-3080#B
FUI-2050B	EOC-3210#B
FUI-2050B	EOC-4015#B
FUI-2050B	EOC-4018#B
FUI-2050B	EOC-4020#B
FUI-2050B	EOC-4100#B
FUI-2050B	EOC-6080#B
FUI-2050B	EOC-9020#B
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FUI-2050B	EOSD0020#B
FUI-2050B	EOSD2400#B
FUI-2050B	EOSD3800#B
FUI-2050B	EOSD3810#B
FUI-2050B	FOS-0040#B
FUI-2050B	ICC-3010#B
FUI-2050B	ICC-3090#B
FUI-2050B	ICC-3100#B
FUI-2050B	ICC-3110#B
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FUI-2050B	ICC-6540#B
FUI-2050B	ICC-6580#B
FUI-2050B	ICC-6590#B

Test Case	RBR ID
FUI-2060B	EOC-4100#B
FUI-2060B	EOC-9040#B
FUI-2060B	ICC-6540#B
FUI-2090B	ASTER-1080#B
FUI-2090B	EOSD0010#B
FUI-2090B	EOSD1990#B
FUI-2090B	EOSD2100#B
FUI-2090B	EOSD2430#B
FUI-2090B	EOSD2550#B
FUI-2090B	FOS-0040#B
FUI-2110B	EOC-6060#B
FUI-2110B	EOC-6070#B
FUI-2110B	EOC-7010#B
FUI-2110B	EOC-9020#B
FUI-2110B	EOC-9090#B
FUI-2110B	FOS-0040#B
FUI-2110B	ICC-4450#B
FUI-2110B	ICC-4460#B
FUI-2110B	ICC-4550#B
FUI-2110B	ICC-4710#B
FUI-2110B	ICC-6590#B
FUI-2110B	ICC-7460#B
FUI-2115B	EOC-6195#B
FUI-2115B	EOC-7010#B
FUI-2115B	EOC-8160#B
FUI-2115B	ICC-4710#B
FUI-2115B	ICC-6090#B
FUI-2115B	ICC-6090#B
FUI-2120B	EOC-0030#B
FUI-2120B	EOC-2020#B
FUI-2120B	EOC-2030#B
FUI-2120B	EOC-7140#B
FUI-2120B	EOC-7150#B
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FUI-2120B	EOSD1480#B
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FUI-2120B	ICC-2020#B
FUI-2120B	ICC-7220#B
FUI-2130B	ASTER-0300#B
FUI-2130B	ASTER-0310#B
FUI-2130B	ASTER-0570#B
FUI-2130B	ASTER-0580#B

Test Case	RBR ID
FUI-2130B	ASTER-0590#B
FUI-2130B	EOC-2430#B
FUI-2130B	EOC-6020#B
FUI-2130B	ICC-0050#B
FUI-2130B	ICC-4420#B
FUI-2130B	ICC-4600#B
FUI-2130B	ICC-7550#B
FUI-2150B	EOC-7140#B
FUI-2150B	EOC-7150#B
FUI-2150B	EOC-9010#B
FUI-2150B	ICC-6510#B
HRD-2000B	ASTER-1080#B
HRD-2000B	EOC-4020#B
HRD-2000B	EOSD0545#B
HRD-2000B	EOSD0630#B
HRD-2000B	EOSD1990#B
HRD-2000B	EOSD2100#B
HRD-2000B	EOSD2200#B
HRD-2000B	EOSD2400#B
HRD-2000B	EOSD2430#B
HRD-2000B	EOSD2440#B
HRD-2000B	EOSD3200#B
HRD-2000B	EOSD3810#B
HRD-2000B	FOS-0040#B
HRD-2000B	ICC-6590#B
IST-2000B	AM1-0220#B
IST-2000B	EOC-4020#B
IST-2000B	EOC-6010#B
IST-2000B	EOC-8090#B
IST-2000B	EOC-9580#B
IST-2000B	EOSD0010#B
IST-2000B	EOSD0502#B
IST-2000B	EOSD5410#B
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IST-2000B	ICC-7005#B
IST-2000B	ICC-7065#B
IST-2000B	ICC-8050#B
IST-2010B	AM1-0090#B

Test Case	RBR ID
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IST-2010B	AM1-0200#B
IST-2010B	AM1-0225#B
IST-2010B	AM1-0240#B
IST-2010B	AM1-0270#B
IST-2010B	AM1-0280#B
IST-2010B	AM1-1060#B
IST-2010B	AM1-1100#B
IST-2010B	AM1-1110#B
IST-2010B	ASTER-0050#B
IST-2010B	ASTER-0220#B
IST-2010B	ASTER-0230#B
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IST-2010B	ASTER-0300#B
IST-2010B	ASTER-0310#B
IST-2010B	ASTER-0340#B
IST-2010B	ASTER-0350#B
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IST-2010B	ASTER-0520#B
IST-2010B	ASTER-0530#B
IST-2010B	ASTER-0540#B
IST-2010B	ASTER-0550#B
IST-2010B	ASTER-0570#B
IST-2010B	ASTER-0580#B
IST-2010B	ASTER-0590#B
IST-2010B	ASTER-1080#B
IST-2010B	EDOS-4.2.1.4#B
IST-2010B	EOC-2010#B
IST-2010B	EOC-2020#B
IST-2010B	EOC-2030#B
IST-2010B	EOC-2040#B
IST-2010B	EOC-2045#B
IST-2010B	EOC-2070#B
IST-2010B	EOC-2170#B
IST-2010B	EOC-2180#B
IST-2010B	EOC-2190#B
IST-2010B	EOC-2200#B
IST-2010B	EOC-2210#B
IST-2010B	EOC-2220#B
IST-2010B	EOC-2240#B

Test Case	RBR ID
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IST-2010B	EOC-2260#B
IST-2010B	EOC-2270#B
IST-2010B	EOC-2272#B
IST-2010B	EOC-2280#B
IST-2010B	EOC-2290#B
IST-2010B	EOC-2300#B
IST-2010B	EOC-2310#B
IST-2010B	EOC-2320#B
IST-2010B	EOC-2350#B
IST-2010B	EOC-2370#B
IST-2010B	EOC-2460#B
IST-2010B	EOC-2482#B
IST-2010B	EOC-2490#B
IST-2010B	EOC-2510#B
IST-2010B	EOC-2535#B
IST-2010B	EOC-2540#B
IST-2010B	EOC-2550#B
IST-2010B	EOC-2555#B
IST-2010B	EOC-2570#B
IST-2010B	EOC-2590#B
IST-2010B	EOC-2620#B
IST-2010B	EOC-3015#B
IST-2010B	EOC-3020#B
IST-2010B	EOC-3024#B
IST-2010B	EOC-3030#B
IST-2010B	EOC-3050#B
IST-2010B	EOC-3080#B
IST-2010B	EOC-3086#B
IST-2010B	EOC-3090#B
IST-2010B	EOC-3160#B
IST-2010B	EOC-3200#B
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IST-2010B	EOC-4125#B
IST-2010B	EOC-4140#B
IST-2010B	EOC-4160#B
IST-2010B	EOC-5010#B

Test Case	RBR ID
IST-2010B	EOC-5015#B
IST-2010B	EOC-5020#B
IST-2010B	EOC-5045#B
IST-2010B	EOC-5080#B
IST-2010B	EOC-5090#B
IST-2010B	EOC-5100#B
IST-2010B	EOC-5105#B
IST-2010B	EOC-5110#B
IST-2010B	EOC-5120#B
IST-2010B	EOC-5180#B
IST-2010B	EOC-5200#B
IST-2010B	EOC-5220#B
IST-2010B	EOC-5240#B
IST-2010B	EOC-6010#B
IST-2010B	EOC-6050#B
IST-2010B	EOC-6060#B
IST-2010B	EOC-6070#B
IST-2010B	EOC-6080#B
IST-2010B	EOC-6100#B
IST-2010B	EOC-6110#B
IST-2010B	EOC-6150#B
IST-2010B	EOC-6160#B
IST-2010B	EOC-6195#B
IST-2010B	EOC-6200#B
IST-2010B	EOC-7010#B
IST-2010B	EOC-7020#B
IST-2010B	EOC-7025#B
IST-2010B	EOC-7130#B
IST-2010B	EOC-7160#B
IST-2010B	EOC-8160#B
IST-2010B	EOC-8285#B
IST-2010B	EOC-8290#B
IST-2010B	EOC-8372#B
IST-2010B	EOC-9010#B
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IST-2010B	EOC-9025#B
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IST-2010B	EOC-9080#B
IST-2010B	EOC-9090#B
IST-2010B	EOC-9130#B
IST-2010B	EOSD0010#B
IST-2010B	EOSD1680#B

Test Case	RBR ID
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IST-2010B	EOSD1990#B
IST-2010B	EOSD2100#B
IST-2010B	EOSD2400#B
IST-2010B	EOSD2430#B
IST-2010B	EOSD2550#B
IST-2010B	ESN-1367#B
IST-2010B	FOS-0030#B
IST-2010B	FOS-0040#B
IST-2010B	FOS-1070#B
IST-2010B	FOS-1130#B
IST-2010B	ICC-0010#B
IST-2010B	ICC-0020#B
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PAS-2200B	EOC-6110#B
PAS-2200B	EOC-6140#B
PAS-2200B	EOC-7010#B
PAS-2200B	EOC-7110#B
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PAS-2200B	EOC-9040#B
PAS-2200B	EOC-9090#B
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PAS-2200B	FOS-0040#B
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PAS-2200B	ICC-1130#B
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PAS-2200B	ICC-2050#B
PAS-2200B	ICC-2220#B
PAS-2200B	ICC-2250#B
PAS-2200B	ICC-2300#B

Test Case	RBR ID
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PAS-2200B	ICC-3040#B
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PAS-2200B	ICC-3070#B
PAS-2200B	ICC-6520#B
PAS-2200B	ICC-6590#B
PAS-2200B	ICC-7220#B
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POST-B	EDOS-4.3.1.4#B
POST-B	EDOS-4.6.1.7#B
POST-B	EOC-0040#B
POST-B	EOC-2010#B
POST-B	EOC-2030#B
POST-B	EOC-2160#B
POST-B	EOC-4010#B
POST-B	EOC-4015#B
POST-B	EOC-4020#B
POST-B	EOC-5030#B
POST-B	EOC-5090#B
POST-B	EOC-5187#B
POST-B	EOC-6010#B
POST-B	EOC-6050#B
POST-B	EOC-6100#B
POST-B	EOC-6110#B
POST-B	EOC-6195#B
POST-B	EOC-6200#B
POST-B	EOC-7110#B
POST-B	EOC-7115#B
POST-B	EOC-7116#B
POST-B	EOC-7120#B
POST-B	EOC-8010#B
POST-B	EOC-8090#B
POST-B	EOC-8140#B
POST-B	EOSD0545#B
POST-B	EOSD1010#B
POST-B	EOSD1600#B
POST-B	FOS-0040#B
POST-B	FOS-1030#B
POST-B	FOS-1050#B
POST-B	FOS-1060#B

Test Case	RBR ID
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POST-B	FOS-1080#B
POST-B	ICC-0055#B
POST-B	ICC-4095#B
POST-B	ICC-4450#B
POST-B	ICC-4460#B
POST-B	ICC-4470#B
POST-B	ICC-4550#B
POST-B	ICC-4800#B
POST-B	ICC-4810#B
POST-B	ICC-4820#B
POST-B	ICC-6005#B
POST-B	ICC-6020#B
POST-B	EDOS-4.1.1.15#B
POST-B	EDOS-4.1.1.16#B
SYS-2000B	EOC-2160#B
SYS-2000B	EOC-4020#B
SYS-2000B	EOC-8140#B
SYS-2000B	EOC-9010#B
SYS-2000B	EOC-9090#B
SYS-2000B	EOSD0010#B
SYS-2000B	EOSD2990#B
SYS-2000B	EOSD3000#B
SYS-2000B	FOS-0040#B
SYS-2000B	FOS-1020#B
SYS-2000B	ICC-6070#B
SYS-2000B	ICC-6590#B
SYS-2020B	AM1-0120#B
SYS-2020B	AM1-0125#B
SYS-2020B	AM1-0130#B
SYS-2020B	AM1-0135#B
SYS-2020B	EOC-2370#B
SYS-2020B	EOC-4020#B
SYS-2020B	EOC-8010#B
SYS-2020B	EOC-8090#B
SYS-2020B	EOC-8130#B
SYS-2020B	EOC-8140#B
SYS-2020B	EOC-8240#B
SYS-2020B	EOC-8260#B
SYS-2020B	EOC-9010#B
SYS-2020B	EOC-9570#B
SYS-2020B	EOSD0010#B

Test Case	RBR ID
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SYS-2020B	EOSD0630#B
SYS-2020B	EOSD0740#B
SYS-2020B	EOSD0750#B
SYS-2020B	EOSD0760#B
SYS-2020B	EOSD0800#B
SYS-2020B	EOSD1680#B
SYS-2020B	EOSD4100#B
SYS-2020B	FOS-0020#B
SYS-2020B	FOS-0025#B
SYS-2020B	FOS-0040#B
SYS-2020B	FOS-1080#B
SYS-2020B	FOS-1130#B
SYS-2020B	ICC-6005#B
SYS-2020B	ICC-6020#B
SYS-2020B	ICC-6060#B
SYS-2020B	ICC-6070#B
SYS-2020B	ICC-6110#B
SYS-2020B	ICC-6140#B
SYS-2020B	ICC-6510#B
SYS-2030B	EOC-2030#B
SYS-2030B	EOC-4020#B
SYS-2030B	EOC-5030#B
SYS-2030B	EOC-7060#B
SYS-2030B	EOC-8110#B
SYS-2030B	EOC-8130#B
SYS-2030B	EOC-8140#B
SYS-2030B	EOC-8150#B
SYS-2030B	EOC-8160#B
SYS-2030B	EOC-8220#B
SYS-2030B	EOC-8230#B
SYS-2030B	EOC-8240#B
SYS-2030B	EOC-8250#B
SYS-2030B	EOC-8330#B
SYS-2030B	EOC-9020#B
SYS-2030B	EOC-9025#B
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SYS-2030B	EOSD0500#B
SYS-2030B	EOSD0780#B
SYS-2030B	EOSD2990#B
SYS-2030B	EOSD3000#B
SYS-2030B	EOSD3490#B

Test Case	RBR ID
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SYS-2030B	ICC-6040#B
SYS-2030B	ICC-6060#B
SYS-2030B	ICC-6080#B
SYS-2030B	ICC-6090#B
SYS-2030B	ICC-6110#B
SYS-2030B	ICC-6130#B
SYS-2030B	ICC-6135#B
SYS-2030B	ICC-6195#B
SYS-2030B	ICC-6520#B
SYS-2030B	ICC-6525#B
SYS-2030B	ICC-6590#B
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TLM-2000B	AM1-0140#B
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TLM-2000B	AM1-0200#B
TLM-2000B	AM1-1100#B
TLM-2000B	AM1-1110#B
TLM-2000B	AM1-1120#B
TLM-2000B	EDOS-4.1.1.3#B
TLM-2000B	EDOS-4.6.1.2#B
TLM-2000B	EDOS-4.6.1.5#B
TLM-2000B	EDOS-4.6.1.6#B
TLM-2000B	EOC-0040#B
TLM-2000B	EOC-5010#B
TLM-2000B	EOC-5020#B
TLM-2000B	EOC-5045#B
TLM-2000B	EOC-5070#B
TLM-2000B	EOC-5080#B
TLM-2000B	EOC-5090#B
TLM-2000B	EOC-5100#B
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TLM-2000B	EOC-6060#B
TLM-2000B	EOC-6070#B
TLM-2000B	EOC-6200#B
TLM-2000B	EOC-7010#B
TLM-2000B	EOC-8285#B
TLM-2000B	EOC-8290#B
TLM-2000B	EOC-9010#B

Test Case	RBR ID
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TLM-2000B	EOC-9090#B
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TLM-2000B	EOSD0025#B
TLM-2000B	EOSD1502#B
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TLM-2000B	ICC-4090#B
TLM-2000B	ICC-4100#B
TLM-2000B	ICC-4450#B
TLM-2000B	ICC-4460#B
TLM-2000B	ICC-6590#B
TLM-2000B	ICC-7460#B
TLM-2000B	NI-0010#B
TLM-2000B	NI-0030#B
TLM-2000B	NI-0110#B
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TLM-2010B	AM1-0090#B
TLM-2010B	AM1-0125#B
TLM-2010B	AM1-0135#B
TLM-2010B	AM1-0140#B
TLM-2010B	AM1-0160#B
TLM-2010B	AM1-0200#B
TLM-2010B	AM1-1110#B
TLM-2010B	AM1-1120#B
TLM-2010B	EDOS-4.1.1.3#B
TLM-2010B	EDOS-4.1.1.8#B
TLM-2010B	EDOS-4.6.1.2#B
TLM-2010B	EDOS-4.6.1.5#B
TLM-2010B	EDOS-4.6.1.6#B
TLM-2010B	EOC-0040#B
TLM-2010B	EOC-5010#B
TLM-2010B	EOC-5020#B
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TLM-2010B	EOC-5090#B
TLM-2010B	EOC-5220#B
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Test Case	RBR ID
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TLM-2010B	EOC-6200#B
TLM-2010B	EOC-7010#B
TLM-2010B	EOC-8285#B
TLM-2010B	EOC-9020#B
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TLM-2010B	EOSD0010#B
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TLM-2010B	EOSD1502#B
TLM-2010B	EOSD1605#B
TLM-2010B	EOSD1680#B
TLM-2010B	FOS-1080#B
TLM-2010B	ICC-0055#B
TLM-2010B	ICC-4010#B
TLM-2010B	ICC-4020#B
TLM-2010B	ICC-4045#B
TLM-2010B	ICC-4100#B
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TLM-2010B	ICC-6590#B
TLM-2010B	ICC-7460#B
TLM-2010B	NI-0010#B
TLM-2010B	NI-0030#B
TLM-2010B	NI-0110#B
TLM-2010B	NI-0210#B
TLM-2010B	NI-0230#B
TLM-2010B	NI-0310#B
TLM-2010B	EDOS-4.1.1.18#B
TLM-2020B	EOC-5010#B
TLM-2020B	EOC-5070#B
TLM-2020B	EOC-5080#B
TLM-2020B	EOC-5090#B
TLM-2020B	EOC-5100#B
TLM-2020B	EOC-5220#B
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TLM-2020B	EOC-9010#B
TLM-2020B	FOS-1070#B
TLM-2020B	ICC-4010#B
TLM-2020B	ICC-4090#B
TLM-2020B	ICC-4100#B

Test Case	RBR ID
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TLM-2030B	EOC-5090#B
TLM-2030B	EOC-5100#B
TLM-2030B	EOC-8290#B
TLM-2030B	FOS-1080#B
TLM-2030B	ICC-4100#B
TLM-2040B	EOC-5090#B
TLM-2040B	EOC-9010#B
TLM-2040B	ICC-4100#B
TLM-2040B	ICC-6510#B
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TLM-2060B	ICC-4120#B
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TLM-2070B	EOC-7010#B
TLM-2070B	EOC-9020#B
TLM-2070B	EOC-9090#B
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TLM-2070B	ICC-4070#B
TLM-2070B	ICC-4450#B
TLM-2070B	ICC-4460#B
TLM-2070B	ICC-4710#B

Test Case	RBR ID
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TLM-2070B	ICC-6590#B
TLM-2070B	ICC-7460#B
TLM-2080B	EOC-5090#B
TLM-2080B	EOC-5100#B
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TLM-2080B	EOC-5120#B
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TLM-2080B	ICC-2140#B
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TLM-2080B	ICC-4110#B
TLM-2080B	ICC-4120#B
TLM-2080B	ICC-4150#B
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TLM-2080B	ICC-4710#B
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TLM-2090B	EOC-5110#B
TLM-2090B	EOC-5120#B
TLM-2090B	EOC-7010#B
TLM-2090B	EOC-9020#B
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TLM-2090B	ICC-4100#B
TLM-2090B	ICC-4120#B
TLM-2090B	ICC-4150#B
TLM-2090B	ICC-4710#B
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TLM-2100B	EOC-9020#B
TLM-2100B	EOC-9090#B
TLM-2100B	ICC-4120#B
TLM-2100B	ICC-4420#B
TLM-2100B	ICC-4710#B
TLM-2100B	ICC-6525#B
TLM-2150B	EOC-5070#B
TLM-2150B	EOC-5090#B

Test Case	RBR ID
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TLM-2150B	ICC-4090#B
TLM-2160B	AM1-0070#B
TLM-2160B	AM1-0130#B
TLM-2160B	AM1-0160#B
TLM-2160B	AM1-0200#B
TLM-2160B	AM1-1110#B
TLM-2160B	AM1-1120#B
TLM-2160B	EOC-5190#B
TLM-2160B	EOC-7060#B
TLM-2160B	EOC-7160#B
TLM-2160B	EOSD1680#B
TLM-2160B	ICC-4560#B
TLM-2160B	ICC-4780#B
TLM-2170B	AM1-1060#B
TLM-2170B	AM1-1100#B
TLM-2170B	EDOS-4.1.1.8#B
TLM-2170B	EDOS-4.2.1.4#B
TLM-2170B	EOC-0040#B
TLM-2170B	EOC-5015#B
TLM-2170B	EOC-5020#B
TLM-2170B	EOSD1605#B
TLM-2170B	ICC-0055#B
TLM-2170B	ICC-4040#B
TLM-2170B	EDOS-4.1.1.18#B
TLM-2190B	EOC-5012#B
TLM-2190B	EOC-5200#B
TLM-2190B	EOC-5240#B
TLM-2190B	EOC-6010#B
TLM-2190B	EOC-6060#B
TLM-2190B	EOC-6070#B
TLM-2190B	EOC-7010#B
TLM-2190B	EOC-8090#B
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TLM-2190B	EOC-9090#B
TLM-2190B	EOSD3710#B
TLM-2190B	ICC-4180#B
TLM-2190B	ICC-4200#B
TLM-2190B	ICC-4450#B
TLM-2190B	ICC-4460#B
TLM-2190B	ICC-6020#B
TLM-2190B	ICC-6590#B

Test Case	RBR ID
TLM-2190B	ICC-7460#B

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Appendix F. Test Configuration Tables

Applicable software and associated version number for all supported hardware platforms under test in the EOC at GSFC are listed in the Flight Operations Segment (FOS) Release B Version 2.1.0 Description Document (VDD) for the ECS Project dated December 1997 (Document Number 814-RD-010-003) .

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Abbreviations and Acronyms

AGS	Aster Ground System
AM	Morning (ante meridiem) --see EOS AM
ANA	Analysis
AOS	Acquisition of Signal
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer (formerly ITIR)
ATC	Absolute Time Command
ATO	Acceptance Test Organization
BAP	Baseline Activity Profile
CAC	Command Activity Controller
CCB	Configuration Control Board
CCR	Configuration Change Request
CCSDS	Consultative Committee for Space Data Systems
CERES	Clouds and Earth's Radiant Energy System
CI	Configuration item
CLCW	Command Link Control Words
CM	Configuration Management
CMD	Command
CMS	Command Management System
COTS	Commercial Off-The-Shelf
CSCI	Computer software configuration item
CSMS	Communications and System Management Segment
CSR	Consent to Ship Review
CSS	Communications Subsystem (CSMS)
CTIU	Command and Telemetry Interface Unit
DAR	Data Acquisition Request
DAS	Detailed Activity Schedule

DB	DatabaseÄ
DBA	Database AdministratorÄ
DBMS	Database Management SystemÄ
DDTS	Distributed Defect Tracking SystemÄ
DFCD	Data Format Control DocumentÄ
DID	Data item description; data ingest/distributionÄ
DM	Data ManagementÄ
DMS	Data Management SubsystemÄ
DSN	Deep Space NetworkÄ
DSS	Decision Support SystemÄ
EASE	Expert Advisor State EquationÄ
ECL	ECS Command LanguageÄ
ECOM	EOS CommunicationsÄ
ECS	EOSDIS Core SystemÄ
EDF	ECS Development FacilityÄ
EDOS	EOS Data and Operations SystemÄ
EDU	EDOS Data UnitÄ
EOC	EOS Operations CenterÄ
EOS	Earth Observing SystemÄ
EOSDIS	EOS Data and Information SystemÄ
ETS	EOSDIS Test SystemÄ
EU	Engineering UnitÄ
EVT	EventÄ
FDF	Flight Dynamics FacilityÄ
FIFO	First In - First OutÄ
FMG	File ManagementÄ
FOS	Flight Operations Segment (ECS)Ä
FOT	Flight Operations TeamÄ
FUI	FOS User InterfaceÄ

GCMR	Ground Configuration Message RequestÄ
GSFC	Goddard Space Flight CenterÄ
HGA	High Gain AntennaÄ
I&T	Integration and TestÄ
ICC	Instrument Control CenterÄ
INCR	Internal Non-Conformance ReportÄ
IP	International PartnersÄ
IRD	Interface requirements documentÄ
IST	Instrument Support ToolkitÄ
JPL	Jet Propulsion LaboratoryÄ
LAN	Local Area NetworkÄ
LaRC	Langley Research CenterÄ
LMC	Lockheed Martin CorporationÄ
LOS	Loss of SignalÄ
LSM	Local System ManagerÄ
LTIP	Long Term Instrument PlanÄ
LTSP	Long Term Science PlanÄ
M&O	Maintenance & OperationsÄ
MISR	Multi-Angle Imaging SpectroRadiometerÄ
MO&DSD	Mission Operations and Data System Directorate (GSFC Code 500)Ä
MODIS	Moderate Resolution Imaging SpectrometerÄ
MOPITT	Measurements of Pollution in the TroposphereÄ
MSS	Management and Subsystem (part of CSMS)Ä
MTPE	Mission to Planet EarthÄ
NASA	National Aeronautics and Space AdministrationÄ
Nascom	NASA Communications NetworkÄ
NASDA	National Space Development Agency (Japan)Ä
NCC	Network Control CenterÄ
NCR	Non-Conformance ReportÄ

NOAA	National Oceanic and Atmospheric AdministrationÄ
OASIS	Operations and Science Instrument SupportÄ
ODB	Operational DatabaseÄ
ODM	Operational Data MessageÄ
PAS	Planning and SchedulingÄ
PDB	Project Data BaseÄ
PI	Principal InvestigatorÄ
PI/TL	Principal Investigator/Team LeaderÄ
PROC	ProcedureÄ
QA	Quality AssuranceÄ
RBR	Requirement by ReleaseÄ
RCM	Real-Time Contact ManagementÄ
RCTD	Return Channel Time DelayÄ
RMA	Reliability, Maintainability, AvailabilityÄ
RRR	Release Readiness ReviewÄ
RTCS	Relative Time Command SequenceÄ
RTM	Requirements and Traceability ManagementÄ
RTS	Relative Time SequenceÄ
SCDO	Science and Communications Development OrganizationÄ
SCC	Spacecraft Controls ComputerÄ
SCF	Science Computing FacilityÄ
SCT	Spacecraft TimeÄ
SDVF	SMC Service Management CenterÄ
SDPS	Science Data Processing SystemÄ
SN	Space NetworkÄ
SSIM	Spacecraft SimulatorÄ
SSR	Solid State RecorderÄ
STF	Software Turnover FormÄ
TD	Target DayÄ

TDRS	Tracking and Data Relay SatelliteÄ
TDRSS	Tracking and Data Relay Satellite SystemÄ
TL	Team LeaderÄ
TLM	TelemetryÄ
TOO	Target of OpportunityÄ
TRR	Test Readiness ReviewÄ
TTM	Time Transfer MessageÄ
TW	Target WeekÄ
USCCS	User Spacecraft Clock Calibration SystemÄ
UPS	User Planning SystemÄ
UTC	Universal Time CoordinatedÄ
UI	User InterfaceÄ
WAN	Wide Area NetworkÄ
WOTS	Wallops Orbital Tracking SystemÄ

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