

412-CD-600-002

## **EOSDIS Core System Project**

# **ECS Science Acceptance Test Report for Release 6A**

Final

January 2002

Raytheon Company  
Upper Marlboro, Maryland

# **ECS Science Acceptance Test Report for Release 6A**

**Final**

**January 2002**

Prepared Under Contract NAS5-60000  
CDRL Item #071

## **RESPONSIBLE ENGINEER**

<u>John Rubenacker</u>	<u>1/9/2002</u>
John Rubenacker, System Integration and Test EOSDIS Core System Project	Date

## **SUBMITTED BY**

<u>Robert P. Kniffin</u>	<u>1/9/2002</u>
Robert Kniffin, Director, System Integration and Test EOSDIS Core System Project	Date

**Raytheon Company**  
Upper Marlboro, Maryland

This page intentionally left blank.

# Preface

---

This document is a contract deliverable with an approval code 2. As such, it does not require formal Government acceptance. Contractor approved changes to this document are handled in accordance with change control requirements described in the ECS Project Configuration Management Plan. Changes to this document will be made by document change notice (DCN) or by complete revision.

Any questions should be addressed to:

Data Management Office  
The ECS Project Office  
Raytheon Company  
1616 McCormick Drive  
Upper Marlboro, MD 20774-5301

This page intentionally left blank.

# Abstract

---

The ECS Science Acceptance Test Report document contains information on the results of the specific tests executed to verify that Release 6A satisfies the functional components, error conditions, and performance constraints delivered with that release. In addition, Release 5BP acceptance test results are included herein as they were not addressed in the 5B ECS Science Acceptance Test Report.

**Keywords:** Acceptance, test, Release-6A, Release-5BP, NCR, functional, component, error, condition, performance, constraint, report, AT.

This page intentionally left blank.

# Change Information Page

<b>List of Effective Pages</b>			
<b>Page Number</b>		<b>Issue</b>	
Title		Submitted As Final	
iii through x		Submitted As Final	
1-1 and 1-2		Submitted As Final	
2-1 through 2-4		Submitted As Final	
3-1 through 3-10		Submitted As Final	
A-1 through A-6		Submitted As Final	
B-1 through B-22		Submitted As Final	
C-1 through C-14		Submitted As Final	
<b>Document History</b>			
<b>Document Number</b>	<b>Status/Issue</b>	<b>Publication Date</b>	<b>CCR Number</b>
412-CD-600-001	Preliminary	May 2001	01-0369
412-CD-600-002	Final	January 2002	02-0007

This page intentionally left blank.

# Contents

---

## Preface

## Abstract

### 1. Introduction

1.1	Identification .....	1-1
1.2	Scope.....	1-1
1.3	Purpose.....	1-1
1.4	Status and Schedule .....	1-2
1.5	Organization.....	1-2

### 2. Related Documentation

2.1	Parent Documents.....	2-1
2.2	Applicable Documents.....	2-1
2.3	Information Documents .....	2-3

### 3. Formal Acceptance Test Results

3.1	ECS Acceptance Test Program Context .....	3-1
3.2	Formal Test Results .....	3-3
3.3	Criteria Status Summary.....	3-4
3.4	Verification and Acceptance Test Center (VATC) Criteria Status.....	3-4
3.5	Performance Verification Center (PVC) Criteria Status .....	3-5
3.6	NCR Status.....	3-8

## List of Tables

3-1	Release 6A Acceptance Tests.....	3-2
3-2	Release 5BP Acceptance Tests.....	3-3
3-3	Release 6A VATC Criteria Verification Status Summary .....	3-6
3-4	Release 5BP VATC Criteria Verification Status Summary .....	3-6
3-5	Release 6A PVC Criteria Verification Status Summary .....	3-7
3-6	NCRs Generated during Release 6A VATC Acceptance Testing. ....	3-8
3-7	NCRs Closed during Release 6A Acceptance Testing. ....	3-8
3-8	NCRs Generated during Release 5BP VATC Acceptance Testing.....	3-9
3-9	NCRs Closed during Release 5BP Acceptance Testing. ....	3-9

### **Appendix A. Release 6A Acceptance Test Schedule**

### **Appendix B. Verification Database (VDB) Release 6A and Release 5BP Test Results**

### **Appendix C. Release 6A Performance and Load Tests**

# 1. Introduction

---

## 1.1 Identification

This Acceptance Test Report, Contract Data Requirement List (CDRL) item 071, whose requirements are specified in Data Item Description (DID) 412/VE2, is a required deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) Contract NAS5-60000.

The ECS Science Acceptance Test Report document contains the results of the tests executed to verify that Release 6A satisfies the functional components, error conditions, and performance constraints delivered with this Release.

## 1.2 Scope

Release 6A includes the functional capabilities and services to provide Terra (AM-1) enhanced post-launch capabilities and Aqua (PM-1) pre-launch capabilities.

Release 6A was acceptance tested at the Verification and Acceptance Test Center (VATC) and Performance Verification Center (PVC) subsequent to the launch of the Terra instruments, but prior to the launch of the Aqua instruments. This schedule is intended to support the EOS Ground System (EGS) Integration and Mission Integration activities defined in the Earth Science Data & Information System Master Schedule.

This document contains the results of the System Integration and Test (SI&T) organization's formal Acceptance Tests as well as the Performance and Load Tests as of the Release 6A Consent to Ship Review (CSR) held on April 17, 2001 plus post-CSR updates. For the formal Acceptance Tests, the results include the number of functional components, error conditions, and performance constraints tested, not tested, verified, and not verified for each test case executed. For the Performance and Load Tests, test results as measured against the 24-hour workload specifications for the GSFC and EDC Distributed Active Archive Centers (DAACs) are provided. The number of Nonconformance Reports (NCRs) opened and closed during testing is also included in this document.

Similar information for Release 5BP is also included in this Release 6A document, since 5BP was not addressed in the 5B version of the Acceptance Test Report.

## 1.3 Purpose

The purpose of the ECS Science Acceptance Test Report for Release 6A is to detail the results of the tests used to formally verify that Release 6A (as well as 5BP) meets all specified functional components, error conditions, and performance constraints.

## **1.4 Status and Schedule**

The submittal of DID 412/VE2 meets the milestone specified in the Contract Data Requirements List (CDRL) for ECS Science Acceptance Test Report of NASA contract NAS5-60000. The submittal schedule is 2 weeks after the Consent to Ship Review (CSR) for the preliminary version, and 2 weeks after the last Site Readiness Assessment (SRA) for the final version.

## **1.5 Organization**

This document is organized in 3 sections. The content of each section is described below.

- Section 1: Introduction – Provides information regarding the identification, scope, purpose, status and schedule, and organization of this document.
- Section 2: Related Documentation – Provides a listing of parent documents, applicable documents, and documents that are used as source information.
- Section 3: Formal Acceptance Test Results – Provides the results of acceptance testing that took place in the VATC, PVC, and at the DAACs, as applicable.
- Appendix A, Release 6A Acceptance Test Schedule – Provides a printout of the Release 6A Acceptance Test schedule. An abbreviated 5BP schedule is also included.
- Appendix B, Verification Database (VDB) Release 6A Test Results – Provides ECS verification status and related information for Release 6A and 5BP criteria.
- Appendix C, Release 6A Performance and Load Tests – Contains the results associated with the performance and load tests conducted in the PVC for the GSFC and EDC DAACs for Release 6A.

## 2. Related Documentation

---

### 2.1 Parent Documents

The parent documents are the documents from which the scope and content of this document are derived.

194-401-VE1	Verification Plan for the ECS Project, Final
409-CD-600	ECS Overall System Acceptance Test Plan for Release 6A
420-05-03	Earth Observing System (EOS) Performance Assurance Requirements for EOSDIS Core System (ECS)
423-41-01	Goddard Space Flight Center, EOSDIS Core System (ECS) Statement of Work
423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS)
423-41-03	Goddard Space Flight Center, EOSDIS Core System Contract Data Requirements Document

<http://ecsv.gsfc.nasa.gov/> ECS Verification Database (VDB) Web Site

[http://dmserver.gsfc.nasa.gov/relb\\_it/6a.html](http://dmserver.gsfc.nasa.gov/relb_it/6a.html) 6A Test Procedures

[http://dmserver.gsfc.nasa.gov/relb\\_it/5b.html](http://dmserver.gsfc.nasa.gov/relb_it/5b.html) 5B and 5BP Test Procedures

### 2.2 Applicable Documents

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

209-CD-002	External Interface Control Document Between EOSDIS Core System (ECS) and ASTER Ground Data System
209-CD-013	External Interface Control Document Between EOSDIS Core System (ECS) and Landsat 7 System
305-CD-030	Release-B GSFC DAAC Design Specification
305-CD-031	Release-B LaRC DAAC Design Specification
305-CD-033	Release-B EDC DAAC Design Specification

305-CD-035	Release-B NSIDC DAAC Design Specification
334-CD-600	6A Science System Release Plan for the ECS Project
535-PAI	Acceptance Data Package for the ECS Project
605-CD-002	Release B SDPS/CSMS Operations Scenarios for the ECS Project
607-CD-001	ECS Maintenance and Operations Position Description
714-CD-600	ECS SDPS CSR Presentation Package for Release 6A
220-TP-001	Operations Scenarios-ECS Drop 4P/4P1 & L7-NCR P1 Impacts
212-WP-002	Game Plan for the ECS Project
TT-1-001	Acceptance Test Preparation, Execution and Documentation
505-41-11	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and the Version 0 System
505-41-12	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and Science Computing Facilities
505-41-15	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS the AM project for AM-1 Flight Operations
505-41-17	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and the NASA Science Internet (NSI)
505-41-18	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS and MITI ASTER GDS Project
505-41-19	Goddard Space Flight Center, Interface Requirements Document Between the EOSDIS Core System (ECS) and the National Oceanic and Atmospheric Administration (NOAA) Affiliated Data Center (ADC)
505-41-21	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and NASA Institutional Support Systems (NISS)
505-41-32	Goddard Space Flight Center, Interface Requirements Document Between Earth Observing System Data and Information System, and the Landsat 7 System
505-41-33	Goddard Space Flight Center, Interface Requirements Document Between the EOSDIS Core System (ECS) and Science Computing Facilities (SCF)

- 505-41-36 Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the National Oceanic and Atmospheric Administration (NOAA) for the ECS Project
- 505-41-39 Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the Langley Research Center (LaRC) Distributed Active Archive Center (DAAC) for the ECS Project
- 505-41-40 Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) the Goddard Space Flight Center (GSFC) Distributed Active Archive Center (DAAC) for the ECS Project
- 505-41-47 Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the Stratospheric Aerosol and Gas Experiment (SAGE III) Mission Operations Center (MOC)
- 510-ICD-EDOS/EGS Earth Observing System (EOS) Data and Operations System (EDOS) Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Elements
- 522-FDD-96/010R0UD0 Goddard Space Flight Center, Earth Observing System (EOS AM-1 Flight Dynamics Division (FDD)/EOSDIS Core System (ECS) Interface Control Document
- 560-EDOS-0211.0001 Interface Requirements Document (IRD) Between the Earth Observing System (EOS) Data and Operations System (EDOS), and the EOS Ground System (EGS) Elements

### **2.3 Information Documents**

The following documents, although not referenced herein and/or not directly applicable, do amplify or clarify the information presented in this document, but are not binding on the content of this ECS Science Acceptance Test Report document.

- 224-CD-001 Release B Release Plan for the ECS Project
- 410-TP-004 Release B Replan Functionality by Phase for the ECS Project
- 222-WP-004 Release B Replan for the ECS Project

This page intentionally left blank.

## 3. Formal Acceptance Test Results

---

This section contains results for the ECS Release 6A formal acceptance tests conducted from October, 2000 to April, 2001 in the VATC and PVC. Results reported in this document represent status as of the CSR conducted on April 17, 2001 plus any additional verification status obtained since then. Appendix A contains VATC test schedules. Appendix B contains criteria verification information, and Appendix C contains results of performance tests conducted in the PVC.

Results for 5BP formal tests conducted from November, 2000 to June, 2001 in the VATC are also included.

### 3.1 ECS Acceptance Test Program Context

The acceptance test program for Release 6A was conducted at two centers: VATC and PVC. VATC testing focused on verifying functional components (FC) and error conditions (EC) specified in 6A Tickets. Performance constraints (PC) for Release 6A were verified in the PVC. For Release 5BP, there were no performance constraints included, and the PVC was not utilized.

Acceptance test cases were developed to verify Release 6A and 5BP FCs and ECs in the VATC. These test cases underwent internal peer and ESDIS reviews prior to ESDIS approval. All approved Release 6A acceptance test cases are posted on the Web at [http://dmserver.gsfc.nasa.gov/relb\\_it/6a.html](http://dmserver.gsfc.nasa.gov/relb_it/6a.html), 6A Test Procedures. 5BP test cases are posted on the Web at [http://dmserver.gsfc.nasa.gov/relb\\_it/5b.html](http://dmserver.gsfc.nasa.gov/relb_it/5b.html), 5B and 5BP Test Procedures "As-run" test cases, which highlight "redline" changes resulting from test execution, are posted to the same Web sites. The acceptance test cases developed and approved for Release 6A and 5BP are shown in Table 3-1 and Table 3-2, respectively.

Because of the size and complexity of Release 6A, the functionality was delivered by the Development organization to SI&T in four phases or turnovers (referred to as Turnover-1, Turnover-2, Turnover-3, Turnover-4). Turnovers 1 and 2 contained some NCR fixes as well as new functionality. Turnovers 3 and 4 contained NCR fixes, but no new 6A functionality. Following installation and checkout of each turnover in the VATC, regression tests were run and NCRs identified on existing functionality. A Test Readiness Review (TRR) was presented to the ECS Project Manager for each of the first three turnovers on October 17, 2000, November 29, 2001, and February 7, 2001. Each TRR included the status of Development integration tests, regression testing, NCRs, acceptance test procedure development, and VATC configuration. The TRRs demonstrated the readiness of the software and SI&T personnel to proceed with formal acceptance testing in the VATC for the applicable turnover. Although there was a TRR for Turnover-3, which contained just NCR fixes, there was no TRR for Turnover-4, which also contained NCR fixes, but no new 6A functionality.

Since 5BP capabilities were intended to be delivered on top of Release 5B, and since 5BP was not a major release (like 5B and 6A), there were no TRRs for 5BP. However, regression tests were run and NCRs identified on existing functionality.

Release 6A formal acceptance testing in the VATC was conducted during the period indicated in the Test Schedule presented in Appendix A. For Release 5BP, testing was conducted as indicated in the table near the beginning of Appendix A. For each test conducted, a Test Execution Form (TEF) was completed, detailing significant items associated with each test, deviations made to procedures, and NCRs existing, written, or verified. A hard copy of the step-by-step test procedure was annotated, to indicate the disposition of each step. Following the conduct of each test, the tester and witness determined the status of assigned criteria (i.e. verified (passed), verified with workarounds, not verified (failed), or not tested) and indicated the status of each criterion on the Criteria Verification Log. This log was used for updating the Verification Database (VDB) with criteria verification status. Appendix B details the verification status for Release 6A and 5BP criteria.

Unlike acceptance testing in the VATC, where the focus was on verifying functionality and error processing, 6A PVC testing emphasized performance and load testing to emulate DAAC conditions. Appendix C details the results of this performance and load testing in the PVC. A set of test procedures, which were not intended to undergo a rigorous review and approval process, was developed for the PVC. Several PCs were stated and documented on ECS Verification Reports (EVRs), which are used to update the VDB when verification is accomplished outside the normal acceptance testing program.

**Table 3-1. Release 6A Acceptance Tests**

Test Number	Test Name
6A08000	Machine-to-Machine Gateway
6A09020	Reprocessing
6A09080	Attached DPR
6A10000	V0 Gateway Enhancements
6A10020	Granule Deletion
6A10040	Archive Improvements
6A10050	FTP Pull Subscriptions
6A10080	Ingest Database Data Type Verification
6A10090	Landsat-7 Granule Deletion

**Table 3-2. Release 5BP Acceptance Tests**

Test Number	Test Name
BP08010	Seamless User Registration
BP09010	NCEP AVN Data Ingest and Archive
BP09020	Aqua Attitude Processing Using Carry-out Files
BP09030	NCEP PREPQC Data Ingest and Archive
BP09040	NCEP PREPQC Data Conversion
BP09050	GLAS and AMSR NOSE Support
BP10010	Guide/Miscellaneous URL
BP10020	L7 Pricing Algorithm Update
BP10030	AIRS Browse Summary

### **3.2 Formal Test Results**

Results reported in this document represent status as of the 6A CSR conducted on April 17, 2001 plus any additional verification status obtained since then. Since there was no CSR for 5BP, the results reflect the current status.

The approach taken for Acceptance testing ECS Release 6A and 5BP software has emphasized the verification of criteria, i.e., functional components, error conditions, and performance constraints. ECS Project Management and ESDIS have concurred that an overall "pass/fail" assessment by test case is not relevant, and thus it is not included in this document or in the VDB. Instead, for each test case, the number of criteria verified, not verified, and not tested is included.

The detailed results of each test case are maintained in a Test Execution Folder. These folders contain the test procedures with any redlines noted during the test, test artifacts collected during the test execution, TEFs, a copy of Criteria Verification Logs, Tickets, NCR's associated with the test, and any other general comments on the test. Reasons for not fulfilling certain test objectives are recorded on the TEFs, and NCRs associated with criteria are noted on the Criteria Verification Log and tracked in the VDB. ESDIS maintains the VDB on the Web (<http://ecsv.gsfc.nasa.gov/>) where it may be accessed to obtain current information regarding criteria verification status. The SI&T organization maintains Test Execution Folders.

All of the Release 6A acceptance test results are condensed in tabular form in the VDB, which was maintained through the testing phase. It details the test results status for each of the stused FC, EC, and PC criteria. A Release 6A and 5BP test report generated from the final Verification Database (as downloaded on 1/7/02) is presented in Appendix B. In the following sections, references will be made to functional, error, and performance criteria and their criteria keys. The mapping of these keys to criteria and their description can also be found in the VDB.

A summary of the test verification approach was addressed in the Presentation Package of the 6A Consent to Ship Review (CSR) held April 17, 2001 (DID 714).

### **3.3 Criteria Status Summary**

A total of 129 criteria were allocated to Release 6A. Sixty of these criteria have been moved to post-6A releases or replaced by the Product Distribution System (PDS). These 60 post-6A criteria are not included in this acceptance test report. Additionally, four PDS-related criteria are mapped to 6A, but these criteria are also excluded from this test report, since PDS was not required for, or included in, the 6A CSR. The remaining 65 criteria allocated to Release 6A are statused in this acceptance test report. In terms of criteria type, 43 (66.2%) are Functional Components, 19 (29.2%) are Error Conditions, and 3 (4.6%) are Performance Constraints.

Initially, all 65 criteria in Release 6A were to be tested in the VATC and PVC. 62 criteria were intended for VATC verification and 3 for the PVC. All criteria initially intended for VATC verification were mapped to acceptance test cases in the VDB. After this mapping was accomplished and the associated test cases were approved and executed, however, it was determined that one criterion from the Attached DPR test case could not be verified in the VATC, but should be verified by EDC after installation of Release 6A at EDC. An E-mail message and accompanying ECS Verification Report (EVR) has been sent to EDC notifying them that this criterion is intended for verification at EDC rather than in the VATC or PVC. As a result, 61 criteria are intended for verification in the VATC and 3 in the PVC.

A total of 50 criteria were allocated to Release 5BP. These 50 criteria are statused in this acceptance test report. In terms of criteria type, 39 (78.0%) are Functional Components, 11 (22.0%) are Error Conditions. There are no Performance Constraints. All 50 criteria intended for VATC verification were mapped to acceptance test cases in the VDB.

### **3.4 Verification and Acceptance Test Center (VATC) Criteria Status**

In the VATC, 61 out of the 61 6A criteria (100.0%) were statused as Verified (V); this includes three criteria with a status of Verified with Workaround (VW). The VATC Criteria results are shown in Table 3-3. Error Conditions are indicated by a single asterisk next to the applicable criteria keys, and the sole Performance Constraint has a double asterisk. Functional Components have no special character next to the criteria keys.

Out of the 42 Functional Components intended for VATC verification during the Release 6A Acceptance Testing period, all 42 (100.0%) were verified (V). Note that the verified criteria count includes three criteria that were statused as Verified with Workaround (VW).

Out of the 19 Error Conditions intended for VATC verification during the Release 6A Acceptance Testing period, all 19 (100.0%) were verified (V).

When the Preliminary version of this 6A Acceptance Test Report was prepared, one criterion (criteria key 1707) was blocked by an NCR and statused as NT. This NCR has since been resolved, and criteria key 1707 has been verified.

For Release 5BP, all 50 criteria (100.0%) were statused as Verified (V); this includes one criterion with a status of Verified with Workaround (VW). The VATC Criteria results are

shown in Table 3-4. Error Conditions are indicated by a single asterisk next to the applicable criteria keys. Functional Components have no special character next to the criteria keys.

Out of the 39 Functional Components intended for VATC verification during the Release 5BP Acceptance Testing period, all 39 (100.0%) were verified (V). Note that the verified criteria count includes one criterion that was stasured as Verified with Workaround (VW).

Out of the 11 Error Conditions intended for VATC verification during the Release 5BP Acceptance Testing period, all 11 (100.0%) were verified (V).

### **3.5 Performance Verification Center (PVC) Criteria Status**

In the PVC, three out of three 6A criteria (100.0%) were stasured as Verified (V); this includes two criteria with a status of Verified with Workaround (VW). The PVC Criteria results are shown in Table 3-5. All of the three PVC Criteria were Performance Constraints, which are indicated by a double asterisk next to the criteria keys.

**Table 3-3. Release 6A VATC Criteria Verification Status Summary**

Test Case	Ticket	Criteria Key										Total	V	NT	NV
		1843	1844	1845	1846	1847	1848	1849	1850	1851	1852				
6A08000 - Machine-to-Machine Gateway	RM_6A_05 - Machine-to-Machine Gateway	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	15	15		
		1853	1854*	1855*	1856*	1857*									
6A10020 - Granule Deletion	EN_6A_04 - Granule Deletion	1706	1836	1837	1838	1701*	1702*	1703*	1704*	1772*	1773*	13	13		
		1774*	1775*	1839*											
6A10040 - Archive Improvements	RS_6A_05 - Archive Improvements	1727	1728	1729	1730	1731	1732	1734	1735*	1736*	1737*	10	10		
6A09080 - Attached DPR	RM_6A_07 - EDC processing DPR Attached to a DAR	1801	1802	1803	1804	1840*	1841*	1842*				7	7		
6A09020 - Reprocessing	RM_6A_01 - Reprocessing	1721	1722	1723	1724	1725	1726					6	6		
6A10050 - FTP Pull Subscriptions	RM_6A_04 - FTP Pull Subscriptions	1770	1771									2	2		
6A10080 - Ingest Database Data Type Verification	RS_6A_06 - Ingest of 6A Data Types	1712										1	1		
6A10090 - Landsat-7 Granule Deletion	RM_6A_08 - Landsat-7 Granule Deletion	1898										1	1		
6A10000 - V0 Gateway Enhancements	EN_6A_02 - V0 Gateway Enhancements (non-science collections; result set attributes)	1708	1807	1808	1809	1905	1707					6	6		
<b>Criteria Total:</b>											<b>61</b>	<b>61</b>	<b>0</b>	<b>0</b>	

**Table 3-4. Release 5BP VATC Criteria Verification Status Summary**

Test Case	Ticket	Criteria Key										Total	V	NT	NV
		1869	1870	1871*	1872	1873*	1874	1875	1876	1877*	1878				
BP08010 - Seamless User Registration	EN_BP_02 - Seamless User Registration Between ECS and V0	1869	1870	1871*	1872	1873*	1874	1875	1876	1877*	1878	11	11		
		1935													
BP09010 - NCEP AVN Data Ingest and Archive	RH_BP_02 - NCEP AVN Product Ingest	1894	1895									2	2		
BP09020 - Aqua Attitude Processing Using Carry-out Files	RH_BP_04 - DPREP Processing of Carry-Out File Data for Aqua	1879	1881	1882	1883	1884	1885*	1886*				7	7		
BP09030 - NCEP PREPQC Data Ingest and Archive	RH_BP_05 - NCEP PREPQC Data Ingest	1930										1	1		
BP09040 - NCEP PREPQC Data Conversion	RH_BP_06 - NCEP PREPQC Data Conversion	1931	1932*									2	2		
BP10010 - Guide./Miscellaneous URL	EN_BP_01 - URLs for Data Set Disclaimer, User Guide, and Miscellaneous Information	1865	1866	1867	1868							4	4		
BP10020 - L7 Pricing Algorithm Update	RH_BP_01 - L7 Pricing Algorithm Update	1859	1860	1861	1862	1863	1864					6	6		
BP10030 - AIRS Browse Summary	EN_BP_03 - Support for AIRS Summary Browse Products	1937	1938	1939*								3	3		
BP09050 - GLAS and AMSR NOSE Support	RH_BP_07 - GLAS and AMSR NOSE Support	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	14	14		
		1968*	1969*	1970*	1971*										
<b>Criteria Total:</b>											<b>50</b>	<b>50</b>	<b>0</b>	<b>0</b>	

**Table 3-5. Release 6A PVC Criteria Verification Status Summary**

Ticket	Criteria Key	Total	V	NT	NV
EN_6A_04 - Granule Deletion	1705**	1	1		
SL_6A_01 - GSFC 24-Hour Workload Performance	1778**	1	1		
SL_6A_02 - EDC 24-Hour Workload Performance	1779**	1	1		
<b>Criteria Total:</b>		<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>

### 3.6 NCR Status

Discrepancies observed during Acceptance Testing are filed as NCRs and entered into the Nonconformance Reporting and Corrective Action (NRCA) system for disposition by the NCR Review Board. All ECS NCRs are entered into the Distributed Defect Tracking System (DDTS) tool for prioritization, assignment, and status tracking by the ECS NCR Review Board.

During the period of Release 6A Acceptance Testing in the VATC, a total of 143 new NCRs were generated. Table 3-6 lists the number of NCRs generated by severity. During the execution of acceptance tests, 95 previously existing NCRs were verified and closed. Table 3-7 lists the number of NCRs verified and closed in each severity category.

**Table 3-6. NCRs Generated during Release 6A VATC Acceptance Testing.**

Severity	NCR's Generated
1	9
2	75
3	57
4	2
5	0

**Table 3-7. NCRs Closed during Release 6A Acceptance Testing.**

Severity	NCR's Closed
1	10
2	65
3	20
4	0
5	0

During the period of Release 5BP Acceptance Testing in the VATC, a total of 14 new NCRs were generated. Table 3-8 lists the number of NCRs generated by severity. During the execution of acceptance tests, 9 previously existing NCRs were verified and closed. Table 3-9 lists the number of NCRs verified and closed in each severity category.

**Table 3-8. NCRs Generated during Release 5BP VATC Acceptance Testing.**

<b>Severity</b>	<b>NCR's Generated</b>
1	0
2	10
3	3
4	0
5	1

**Table 3-9. NCRs Closed during Release 5BP Acceptance Testing.**

<b>Severity</b>	<b>NCR's Closed</b>
1	0
2	7
3	2
4	0
5	0

This page intentionally left blank.

## Appendix A. Release 6A Acceptance Test Schedule

---

Appendix A contains the schedule of Release 6A acceptance test activities as maintained in Primavera and a table containing key acceptance test case activities for Release 5BP. There has been no change to the 6A schedule since the Preliminary version of the 6A Acceptance Test Report was prepared in April 2001.

The following table contains start and end dates of dry run and formal acceptance test activities for 5BP.

Activity ID	Activity Description	Start Date	End Date
SVACTBP440	BP09010-NCEP AVN Data Ingest and Archive-Dry Run	24OCT00A	03NOV00A
SVACTBP450	BP09010-NCEP AVN Data Ingest and Archive-Formal	29NOV00A	29NOV00A
SVACTBP740	BP09030-NCEP PREPQC Data Ingest and Archive-Dry Run	01NOV00A	17NOV00A
SVACTBP750	BP09030-NCEP PREPQC Data Ingest and Archive-Formal	30NOV00A	30NOV00A
SVACTBP340	BP10020-L7 Pricing Algorithm Update-Dry Run	01NOV00A	05DEC00A
SVACTBP350	BP10020-L7 Pricing Algorithm Update-Formal	12DEC00A	12DEC00A
SVACTBP640	BP09020-Aqua Attitude Processing Using Carry-out Files-Dry Run	14DEC00A	13FEB01A
SVACTBP650	BP09020-Aqua Attitude Processing Using Carry-out Files-Formal	13FEB01A	13FEB01A
SVACTBP140	BP08010-Seamless User Registration-Dry Run	03MAY01A	15MAY01A
SVACTBP150	BP08010-Seamless User Registration-Formal	21MAY01A	21MAY01A
SVACTBP540	BP10010-Guide/Miscellaneous URL-Dry Run	08MAR01A	29MAY01A
SVACTBP550	BP10010-Guide/Miscellaneous URL-Formal	31MAY01A	01JUN01A
SVACTBP840	BP09040-NCEP PREPQC Data Conversion-Dry Run	30APR01A	06JUN01A
SVACTBP850	BP09040-NCEP PREPQC Data Conversion-Formal	14JUN01A	19JUN01A
SVACTBP900	BP10030-AIRS Browse Summary-Dry Run	10MAY01A	13JUN01A
SVACTBP910	BP10030-AIRS Browse Summary-Formal	15JUN01A	15JUN01A
SVACTBP960	BP09050-GLAS and AMSR NOSE Support-Dry Run	04MAY01A	25JUN01A
SVACTBP970	BP09050-GLAS and AMSR NOSE Support-Formal	26JUN01A	27JUN01A









This page intentionally left blank.

## Appendix B. Verification Database (VDB) Release 6A and Release 5BP Test Results

---

The table below contains the results of Release 6A and 5BP Formal Testing as contained in the VDB. This table is derived from the "Criteria to Test Case Log With NCRs" Status Report, which was down-loaded on 1/7/02 from the following Verification Database (VDB) Web Site: ([http://ecsv.gsfc.nasa.gov/ecsv\\_v2/reports/status/index.cgi](http://ecsv.gsfc.nasa.gov/ecsv_v2/reports/status/index.cgi)). The "esdis\_status", "(NCR) status", "CRITERIA.comment", and "ccr\_no" columns contained in the VDB are not included here. Also, the information contained in the "(NCR) severity" column was merged with the information in the "identifier", i.e., NCR number, column.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_6A_02	1707	10	1. Using the V0 EDG client (or a test driver simulating V0 protocols), demonstrate the ability to perform a search followed by an order for data from the following ECS non-science collections: 1) AP - Algorithm Package, 'AP'; 2) DAP - Delivered Algorithm Package, 'DP'; 3) PH - Production History, 'PH'; 4) QA - Quality Assurance, 'QA'; 5) SSAPC - Science Software Algorithm Package Component, 'AC'; for each of the following component types : a) SWSsource b) PGEExecutableFiles c) MCF d) TestPlan 6) PGEEXE - PGE Executables 7) FAIL_PGE - Tar file containing error messages for a failed PGE	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		H. Williams L. Knox T. Gresko	5/8/2001: 6A.04: Verified NCR 29171(2)  12/20/2000: Drop 6A, Turnover 2.
EN_6A_02	1708	20	Using the V0 EDG client (or a test driver simulating V0 protocols), demonstrate the ability to perform searches using the following search options: i) include non-spatial granules ii) return non-spatial granules only iii) include non-temporal granules iv) return non-temporal granules only Verify the search results against ESDTs for which spatial and temporal attributes have been defined as optional, undefined for both spatial and temporal, and undefined independently.	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		L. Knox; T. Gresko	12/20/2000: Drop 6A, Turnover 2.
EN_6A_02	1807	30	Using the V0 EDG client (or a test driver simulating V0 protocols), demonstrate the ability to request the FULL set of attributes in an inventory search. Verify all available ECS core and product specific attributes for the found granules are returned.	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		L. Knox; T. Gresko	12/20/2000: Drop 6A, Turnover 2.
EN_6A_02	1808	40	Using the V0 EDG client (or a test driver simulating V0 protocols), demonstrate the ability to request the DEFAULT set of attributes in an inventory search. Include collections from two different instruments in the search. Verify that the default set of ECS core and product specific attributes for the found granules are returned and that attributes not included in the default set were omitted. Verify that V0 core metadata and EDG required metadata attributes, if available, are included in the results returned for the found granules.	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		L. Knox; T. Gresko	12/20/2000: Drop 6A, Turnover 2.
EN_6A_02	1809	50	Using the V0 EDG client (or a test driver simulating V0 protocols), demonstrate the ability to limit the results set attributes that are sent from the V0 to ECS Gateway back to the V0 Web Client as part of an INVENTORY_RESULT message. Include collections from two different instruments in the search. Verify that the selected attributes are returned and that attributes that were not selected were indeed omitted. Verify that V0 core metadata and EDG required metadata attributes, if available, are included in the results returned for the found granules.	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		L. Knox; T. Gresko	12/20/2000: Drop 6A, Turnover 2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_6A_02	1905	60	Using the V0 EDG client (or a test driver simulating V0 protocols), submit a search which includes one or more QA Attributes for a Measured Parameter, but excludes the Parameter Name as part of an INVENTORY_RESULT message. Verify that the Measured Parameter Name for the QA Attribute is added to the selected attributes that are returned, and that attributes that were not selected were indeed omitted. . Verify that V0 core metadata and EDG required metadata attributes, if available, are included in the results returned for the found granules.	FC	6A	1934	6A10000	VO Gateway Enhance	6A	VATC	V		L. Knox; T. Gresko; H. Williams	12/20/2000: Drop 6A, Turnover 2. 3/19/01: 6A.04: Verified NCR 29234 (3).
EN_6A_04	1701	30	Attempt to delete granules that are still being referenced as inputs by other granules. The test needs to select granules referenced via InputGranule pointers in UR and LGID format. Verify that referential integrity constraints are being enforced and that the deletion error is logged in accordance with S-DSS-01577. Verify that the operator can override the check via a command line parameter	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1702	40	Demonstrate the recovery from a STMGT archive server fault (e.g., platform failure) occurring during a STMGT bulk delete from archive.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1703	50	Demonstrate the recovery from a SDSRV server fault (e.g., platform failure or SDSRV crash) occurring during a bulk delete request.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1704	60	Demonstrate the recovery from a SDSRV DBMS server fault occurring during a bulk delete request.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		T. Gresko	1/11/01: 6A Turnover-2: Applies to Step #3150. 4/2/01: 6A.04: Verified NCR 28538 (2). Used 6A.04 (P2).
EN_6A_04	1705	70	Demonstrate that the SDSRV can perform a single granule delete in less than 8 seconds, and a bulk granule deletion of more than 100 granules in less than one second/granule (not considering delays from other concurrent work load). The test should be performed with an inventory of at least 100K granules, and an archive holding at least 1,000 granules for the ESDT from which granules are being deleted. The granules being deleted should have an associated BROWSE and PH granule. About half of the PH granules should be referenced only by granules being deleted (i.e., be deleted during the test); half of the granules should also be referenced by granules that are not being deleted..	PC	6A	1956	V1705	EVR for Criteria Key 1705	6A	PVC	V		S. Ferguson	4/12/2001: Criteria verified by EVR.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_6A_04	1706	10	Using a user ID authorized for granule deletions, demonstrate the operator interface for the deletion of granules, including the mechanisms for selecting the granules to be deleted and the confirmation of the deletion. Verify that: 1. Granules can be selected by ESDT short name, ESDT version, and granule time coverage 2. Granules can be selected by ESDT short name, ESDT version, and granule insert time range 3. Granules can be specified in a separate input file containing either SDRV Granule Ids or Logical Granule Ids 4. The input file can list granules belonging to collections belonging to different logical volume groups. 5. The operator can optionally list the geoID and logical granule ID of each of the granules selected for deletion. 6. The number of granules selected for deletion is displayed to the operator and the operator is asked to confirm the deletion 7. The operator can suppress the confirmation prompt via a command line argument 8. Granules are flagged for d	FC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		T Gresko	1/11/01: 6A Turnover-2: 12 out of 13 sub-items in this criterion were successful. However, criterion sub-item #5 failed in Step #560. Thus, overall status for criterion is NV. 4/2/01: 6A.04: Did part (5) only. Verified NCR 29380 (2). Rest of criterion had been verified previously. Used 6A.04 (P2).
EN_6A_04	1772	61	Using the EDG, perform a search. Delete one of the granules found in the search (the granule needs to have an attached BROWSE). Then select this granule for an integrated BROWSE. Verify that the user receives an error indicating that the granule does not exist.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1773	62	Using the EDG, perform a search. Delete one of the granules found in the search, then include this granule in an order together with other granules that have not been deleted. Verify that the user receives an error indicating that the granule does not exist.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1774	63	Delete a granule from DSS that is currently referenced as input for a future DPR in the PDPS database, then cause the DPR to be dispatched. Verify the following: 1. Processing terminates the Staging job with an error 2. an appropriate error is logged	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1775	64	Using the EDG, perform a search and order for several granules. Delete one of the granules after the order has reached DDIST but before DDIST dispatches it (e.g., by suspending it temporarily). Verify the following: 1. DDIST will suspend the request with errors. 2. The suspended request state is visible in the DDIST GUI. 3. The operator cancels the request via the GUI. 4. The request is displayed as Cancelled in the MSS GUI. 5. A Cancelled distribution notice is sent to the user.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1836	32	Run the SDSRV deletion clean-up utility after a some granules have been physically deleted, and some other granules have been deleted from archive. The granules must have different deletion time stamps so the correct working of the lag time can be tested. Verify the following: 1. The lag time is required as input. 2. A lag time of 0 can be specified. 3. The operator is prompted for confirmation after the correct granule counts are displayed. 4. The correct inventory entries are removed. 5. The correct list of files eligible for deletion from the archive is transferred into the STMGT database.	FC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		H.Williams	1/11/01: 6A Turnover-2: Applies to Step #850. 4/3/01: 6A.04: Will Regression Test lag time > 0 with final 6A.04 drop. (NCR 29123 had been verified previously.)

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_6A_04	1837	34	Run the STMGT provided interface for deleting files from the archive directory, using the list of files produced by the SDSRV deletion clean-up as input. Verify the following: 1. The operator is prompted for confirmation after the correct file counts are displayed. 2. The correct files are removed from the archive directories.	FC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1838	36	Physically delete all files on some archive tape volume. Demonstrate that the tape can be recycled.	FC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		J.Street	1/11/01: 6A Turnover-2.
EN_6A_04	1839	45	Induce a database error while running the SDSRV deletion clean-up utility. Verify the following: 1. The error is logged. 2. The error did not cause orphaned or incomplete inventory entries after recovery. 3. If the utility is rerun after recovery, it will operate correctly. 4. The final output is correct and can be processed by STMGT.	EC	6A	1935	6A10020	Granule Deletion	6A	VATC	V		T.Gresko	1/11/01: 6A Turnover-2: Applies to Step #3205. 4/2/01: 6A.04: Verified NCR 29451 (2). Used 6A.04 (P2).
RM_6A_01	1721	10	Show that reprocessing of existing data granules can occur while at the same time supporting first time processing of new data granules using the same PGE.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	V		D. Marinelli	12/13/2000: Drop 6A, Turnover 2.
RM_6A_01	1722	20	Show that the processing system can limit the number of reprocessing DPRs that are allowed to run at a time (from those reprocessing DPRs that are ready to run) to an operator configurable number of reprocessing DPRs.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	VW	29304 (3)	D. Marinelli	12/13/00: 6A Turnover-2: VATOD is used to control number of DPRs in reprocessing (vs. VATRP)
RM_6A_01	1723	30	Show that the processing system reserves an operator configurable number of reprocessing DPRs and an operator configurable number of routine processing DPRs to be executed at a time.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	V		D. Marinelli	12/13/00: Drop 6A, Turnover 2.
RM_6A_01	1724	40	Show that the processing system will allow the operator to reconfigure at runtime the numbers of reprocessing and first time processing jobs that are allowed in the system by updating the correct parameters.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	VW	29304 (3)	D. Marinelli	12/13/00: 6A Turnover-2: VATOD is used to control number of DPRs in reprocessing (vs. VATRP)
RM_6A_01	1725	50	Show that the processing system will support reprocessing for which (a) the updated PGE adds granules to the existing data collection (ESDT) used by the original processing job; OR (b) the updated PGE adds granules to a new version of the data collection.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	V		D. Marinelli	12/13/00: Drop 6A, Turnover 2.
RM_6A_01	1726	60	Run a PGE causing granules to be inserted under the data collection (ESDT) for output products associated with that PGE. Simulate a PGE update where the output product is now output to a new version of the previously referenced data collection. Run the updated PGE and insert granules to the new version of the data collection. Demonstrate that the output products stored under both the new and old versions of the data collection are accessible.	FC	6A	1945	6A09020	Reprocessing	6A	VATC	V		D. Marinelli	12/13/00: Drop 6A, Turnover 2.
RM_6A_04	1770	10	Using the subscription GUI, submit FTP Pull Subscriptions for two different users.	FC	6A	1937	6A10050	ftp Pull Subscriptions	6A	VATC	V		T. Gresko	10/24/2000 6A Turnover 1.
RM_6A_04	1771	20	Demonstrate the triggering of the FTP Pull Subscription Actions associated with the submitted subscriptions.	FC	6A	1937	6A10050	ftp Pull Subscriptions	6A	VATC	V		T. Gresko	12/5/2000: 6A Turnover-1.
RM_6A_05	1843	10	Demonstrate the authentication by the MTMGW. Verify that commands cannot be submitted except via ssh after the client has been authorized for use of the MTMGW.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RM_6A_05	1844	20	Submit a number of concurrent search requests and specify various combinations of ECS core and product specific attributes for inclusion in the result. Verify the following: 1. Requests are processed concurrently as long as fewer than the configured maximum are in progress 2. Requests are rejected with the appropriate error indication if the configured maximum is exceeded 3. The results of the searches are correct 4. The search result portion of the inventory search response is formatted in XML and validates correctly against the DTD.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1845	25	Submit search requests that include a spatial search criterion and span collections using two different spatial types (Gpolygon and bounding rectangle). Use the generic spatial coverage attribute to request that the spatial coverage of each granule be included in the search result. Verify the following: 1. The search returns the correct result 2. The search result portion of the inventory search response is formatted in XML and validates correctly against the DTD. 3. The correct spatial coverage is included for each granule, corresponding to the type of its spatial attribute 4. The various search limits (SDSRV, MTMGW, and SIPS-supplied) are enforced and search truncation is correctly reported to the client. 5. If the SIPS search limit is larger than the search limit configured for the gateway, the gateway limit applies.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1846	30	Use several user accounts that are configured differently to submit product orders for one and several granules based on: 1. ECS granule UR; 2. ESDT short name, version, and ECS granule ID; 3. ESDT short name, version, and local granule ID. Verify the following: 1. The correct order tracking information is created 2. The correct User ID is used for the acquire 3. The correct distribution priority is assigned 4. Contact and shipping information is correctly extracted from the product request and user profile 5. Distribution options are correctly extracted from the product request and used in the acquire 6. The external request ID can be displayed in the MSS GUI 7. The order ID is returned to the external client	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RM_6A_05	1847	40	Submit product orders for BROWSE, QA, and PH granules associated with one and several granules specified via: 1. ECS granule UR; 2. ESDT short name, version, and ECS granule ID; 3. ESDT short name, version, and local granule ID. Verify the following: 4. The correct BROWSE, QA, AND PH granules are being acquired 5. The BROWSE, QA, AND PH granules can be acquired together as well as each type individually, and with as well as without the science granules. 6. The correct order tracking information is created 7. The correct User ID is used for the acquire 8. The correct distribution priority is assigned 9. Contact and shipping information is correctly extracted from the product request 10. Distribution options are correctly extracted from the product request and used in the acquire 11. The external request ID can be displayed in the MSS GUI 12. The order ID is returned to the external client	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1848	50	Combine searches and orders into integrated search & product requests. Verify the following: 1. The integrated requests are processed successfully as long the search results are below the configured granule and size limits 2. The integrated requests are rejected with the correct error if the search result exceeds the configured granule or size limit or SDSRV limit	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1849	60	Combine searches, product requests, and integrated search and product requests into a concurrent workload coming from at least two different simulated clients. Verify that the gateway successfully processes the requests concurrently and returns the responses to the correct clients.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1850	70	Demonstrate the monitoring of the MTMGW server via the system console.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1851	80	Demonstrate that multiple instances of the MTMGW can co-exist in the same modes on the same and different platforms.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A Turnover-2: Could not use 'different platforms' - only have SUN platform. This limitation was known and approved in advance.
RM_6A_05	1852	90	Demonstrate that instances of the MTMGW can co-exist in multiple modes on the same and different platforms.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A Turnover-2: Could not use 'different platforms' - only have SUN platform. This limitation was known and approved in advance.
RM_6A_05	1853	100	Verify that the gateway logs message receipt and sending, errors, and start-up and shut-down in accordance with the requirements.	FC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1854	110	Demonstrate the handling of syntax errors in the submitted request.	EC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1855	120	Demonstrate the handling of a fault in the communication with the external client.	EC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RM_6A_05	1856	130	Demonstrate the Fault Handling and Recovery of the Gateway interfaces with the ECS services it uses, namely, handling of faults in: 1. User Profile Server 2. Order Tracking Server 3. SDSRV Server 4. Data Dictionary Server 5. Registry Server 6. Machine-to-Machine Gateway Server	EC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_05	1857	140	Interrupt the gateway or the gateway-to-external client communication while it is processing an integrated search and product request using an external request ID. Resubmit the request with the same external request ID and verify the following: 1. the request is redone if the product order was not yet submitted to ECS 2. the request is not redone if the product order was already submitted to ECS	EC	6A	1936	6A08000	Machine-to-Machine Gateway	6A	VATC	V		T. Gresko	1/8/2001: 6A, Turnover-2.
RM_6A_07	1800	10	Submit three DARs with attached standing on-demand processing requests for different higher level ASTER products. Ingest L1A and standard L1B in alternate sequence that match these DAR, such that two of the L1B match the same DAR, and one of the L1B matches two of the DAR; also ingest two L1A & L1B that do not match any of these DAR. Verify the following: 1. The ODFRM interface can be invoked via the JDT to enter the attached processing requests. 2. The user ID, DAR ID and DAR Expiration were correctly passed in. 3. The standing on-demand processing requests can be viewed in the MSS Accountability GUI with their DAR ID and DAR Expiration. 4. The initial states of these orders and requests are 'Awaiting DAR Results'. 5. The user, distribution and other ordering information are correct. 6. As each L1B granule is ingested, a higher-level on-demand processing order & request are initiated for each matching standing order. 7. The on-demand processing order information is correct and includes DAR I	FC	6A	1938	6A09080	Attached DPR	6A	VATC	NT		D. Marinelli; T. Gresko	12/18/00: 6A Turnover-2: Two Sev 3 NCRs to be written against this criterion (same as in Criteria Key 1801): 1) For AST08, the PIDataProcessingRequest table does not contain an accurate status. AST08 aborts in processing. 2) The first attempt to process AST08 results in an e-mail to user. Subsequent attempts had no e-mails to the user. This is an error path. We are leaving multiple DAR aspect of this FC to site testing. Once this lien is removed, the criterion should be VW since these are Sev 3 NCRs.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RM_6A_07	1801	20	Submit one DAR with attached standing on-demand processing requests for two different higher level ASTER products Ingest several L1A followed by the corresponding standard L1B that match this DAR. Also ingest one L1A and L1B that do not match any of the submitted DAR. Also ingest a non-standard L1B with a DAR id matching the submitted DAR. Verify the following: 1. The ODFRM interface can be used to enter the attached processing requests 2. The user ID, ASTER DAR ID and ASTER DAR Expiration time were correctly passed in 3. The MSS GUI can be used to filter on the standing on-demand processing requests, and they can be viewed with their DAR ID and DAR Expiration Time. 4. The initial state of each order and request are 'Awaiting DAR Results'. 5. The user, distribution and other ordering information are correct. 6. As each L1B granule is ingested, the higher-level on-demand processing order & request are initiated for the matching standing order, specifying the corresponding L1B as the input.	FC	6A	1938	6A09080	Attached DPR	6A	VATC	VW		D. Marinelli; T. Gresko	12/18/00: 6A Turnover-2: Two Sev 3 NCRs to be written against this criterion (same as in Criteria Key 1800): 1) For AST08, the PIDataProcessingRequest table does not contain an accurate status. AST08 aborts in processing. 2) The first attempt to process AST08 results in an e-mail to user. Subsequent attempts had no e-mails to the user. This is an error path.
RM_6A_07	1802	30	Allow two of the DARs to expire. Verify the following: 1. The expiration time period for attached DPR can be configured separately from other expiration times . 2. After the operator configured time interval for expiring attached DPR has passed, the state of the corresponding standing orders are changed to expired in the MSS GUI. 3. An expiration notification is sent to the correct e-mail address and has the correct contents. 4. Ingesting a matching L1B/L1A pair will not lead to the generation of a higher-level on-demand processing request. 5. After the operator configured time interval for removing expired orders has passed, the standing orders are removed from the Planning database.	FC	6A	1938	6A09080	Attached DPR	6A	VATC	V		D. Marinelli; T. Gresko	12/18/2000: 6A, Turnover 2.
RM_6A_07	1803	40	Use the MSS GUI to cancel a standing on-demand order. Verify the following: 1. No e-mail notification is sent to the user by ECS 2. The order status is updated correctly 3. Any ASTER on-demand higher-level request generated from the standing order is not affected by the cancellation 4. Ingesting an ASTER granule matching the cancelled request does not trigger a new higher-level on-demand request	FC	6A	1938	6A09080	Attached DPR	6A	VATC	V		D. Marinelli; T. Gresko	12/18/2000: 6A, Turnover 2.
RM_6A_07	1804	50	Verify that the same standing on-demand processing orders generated in previous criteria, can be generated by: Logging in as an ECS user and invoking (for each DAR) the ODFRM screens from the JDT, after selecting the corresponding DAR from a DAR query result.	FC	6A	1938	6A09080	Attached DPR	6A	VATC	V		D. Marinelli; T. Gresko	12/18/2000: 6A, Turnover 2.
RM_6A_07	1840	55	Attempt to attach a DPR to an existing DAR selected from a DAR query result while not logged in as an ECS user. Verify that the button for attaching a DAR is greyed out and the on-demand order forms cannot be invoked from the JDT.	EC	6A	1938	6A09080	Attached DPR	6A	VATC	V		D. Marinelli; T. Gresko	12/18/2000: 6A, Turnover 2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RM_6A_07	1841	65	Attempt to attach a DPR to a DAR selected from a DAR query result when the ODPRM is not up. Verify that the user receives an error status after retries failed.	EC	6A	1938	6A09080	Attached DPR	6A	VATC	V	29362 (4)	D. Marinelli; T. Gresko	12/18/00: 6A Turnover-2: The ODMgr Debug Log and PLOdMgr.Alog messages were unclear.
RM_6A_07	1842	75	Attempt to attach a DPR to a DAR selected from a DAR query result when the MSS Accountability Server is not up. Verify that the user receives an error status after retries failed.	EC	6A	1938	6A09080	Attached DPR	6A	VATC	V		D. Marinelli; T. Gresko	12/18/2000: 6A, Turnover 2.
RM_6A_08	1898	10	Select from the archive unmerged Format 1 & Format 2 Subintervals. Request the physical deletion of some of the granules and not some others. Verify that all and only the granules selected for physical deletions have been flagged as such in the SDSRV database.	FC	6A	1955	6A10090	Landsat-7 Granule Deletion	6A	VATC	V		J. Street	12/7/2000: 6A, Turnover 2.
RS_6A_05	1727	10	Demonstrate successful archiving and retrieval of data products belonging to ESDT that are allocated to different archives. [Note: Regression testing]. Verify that files for a multi-file granule are processed concurrently.	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/11/01: 6A, Turnover-2.
RS_6A_05	1728	20	Demonstrate archive back-up functions and use of back-up copies. [Note: Regression testing]. Single ESDT : Using an ESDT which has been configured for primary and back-up archival, verify that back-up to a different archive server does not block a thread in the primary archive server. Multiple ESDTs : Using an ESDT whose primary archive has been configured for the same volume group as the backup archive for a different ESDT, verify that back-up to a different archive server does not block a thread in the primary archive server. .	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/11/01: 6A, Turnover-2.
RS_6A_05	1729	30	Demonstrate changing the archive allocation of an ESDT. Demonstrate that newly inserted granules are archived in the new archive location, while existing granules can be retrieved from the old archive location. Verify this process works for both back-up data as well as primary data.	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/11/01: 6A, Turnover-2.
RS_6A_05	1730	31	Demonstrate that both primary and backup copies of data can be moved to a different archive by exporting the volume group and importing the volume group into a different archive. By using the STMGT GUI, change the history information for the effected ESDT. Verify that acquires and inserts work as before for the ESDT.	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/12/01: 6A, Turnover-2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RS_6A_05	1731	40	Use a sufficiently high number of product orders and ingest requests to cause concurrent processing of staging jobs. Include product requests for multi-file granules. Verify the following: * Requests are processed concurrently as long as there are archive server threads available to handle them * Requests are queued for the archive server if their number exceeds the number of concurrent requests that the servers can handle * Requests are processed in priority order * The STMGT GUI can be used to display the queued requests and the progress of archive copy operations * Log entries are written as specified in the L4 requirements * The log entries contain sufficient information to permit entries for the same distribution request to be correlated	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/17/01: 6A, Turnover-2.
RS_6A_05	1732	41	Demonstrate that changes to the I/O Threads parameter take effect following a server re-start. Change the number of I/O threads for the FC 40 test. Warm start the archive server re-run the test and verify that the point that queueing of concurrent requests occurs is consistent with the new I/O thread count. Perform the test again with a cold start of Archive Server and verify that the point that queueing of concurrent requests occurs is consistent with the new I/O thread count.	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/17/01: 6A, Turnover-2.
RS_6A_05	1734	60	Demonstrate the start-up, monitoring via Whazzup, and shut-down of the archive servers. Verify that the multiple instances of each archive server are correctly identified on the Whazzup monitoring display and can be shut-down independently. [Note: Regression test]	FC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/15/01: 6A, Turnover-2.
RS_6A_05	1735	70	Demonstrate the handling of recoverable and irrecoverable errors that occur during archive copy operations.	EC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/12/01: 6A, Turnover-2.
RS_6A_05	1736	80	Demonstrate warm and cold start of DDIST and SDSRV. Cold start should clean up any resources and threads used on behalf of the cold-started server; warm start should result in the server correctly reconnecting with its previously submitted STMGT requests.	EC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/12/01: 6A, Turnover-2.
RS_6A_05	1737	90	Demonstrate warm and cold start of STMGT Cache Manager and Archive Server.	EC	6A	1946	6A10040	Archive Improvements	6A	PVC	V		A. Sanyal	1/12/01: 6A, Turnover-2.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RS_6A_06	1712	40	Inspect the INS database to confirm that all the data types listed for 6A for the following interfaces have the correct entry information: a) GLAS b) SIPS MODAPS for PM1 For both interfaces, compare the SIPS ICD to the InDataTypeTemplate table and verify that DataTypes are accurate. Also for both interfaces, in the InDataTypeTemplate table, verify that the VersionID is equal to 1, and the FileTypeTemplateKey is equal to either 'SIPS' or 'NON_STD_SIPS'.	FC	6A	1940	6A10080	Ingest db Data type	6A	VATC	V		J. Street	12/5/00: 6A Turnover-2: See attached e-mail from Dan Marinelli, re: use of Science Office-provided list of data type names. 5 Dec 2000, Subj: ICD waiver for Ingest DB Data Type Verification (6A10080) - MODIS Aqua and GLAS 'Since the Appendices to the SIPS ICD containing Aqua MODAPS and GLAS data types have not been baselined, you [ECS testers] have approval to use the Science Office list of PM-1/Aqua MODAPS and GLAS data types for verification purposes. Upon receipt of ICDs, data types should be verified against test output for conformance. Any questions or concerns should be brought to the ESDIS Project immediately.'
SL_6A_01	1778	1	Validate the workload specification for GSFC DAAC as specified in <a href="http://ecsv.gsfc.nasa.gov/ecsv_v2/docs/Rel6A.PDF">http://ecsv.gsfc.nasa.gov/ecsv_v2/docs/Rel6A.PDF</a> Release 6A Workload Specification	PC	6A	1965	V1778	EVR for Criteria 1778	6A	PVC	VW		M. Moore	04/16/2001: Criteria verified by EVR.
SL_6A_02	1779	1	Validate the workload specification for EDC DAAC as specified in <a href="http://ecsv.gsfc.nasa.gov/ecsv_v2/docs/Rel6A.PDF">http://ecsv.gsfc.nasa.gov/ecsv_v2/docs/Rel6A.PDF</a> Release 6A Workload Specification	PC	6A	1966	V1779	EVR for Criteria 1779	6A	PVC	VW		M. Moore	04/16/2001: Criteria verified by EVR.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_BP_02	1869	10	Using the V0 EDG client or a test driver simulating V0 protocols, submit a user registration request using a new user ID. Specify name (first, MI, last), organization, and title information for the shipping and billing contact which are distinct from the information for the user ID (Contact). Using the MSS User Profile GUI, verify a new user profile was created. Verify the contents of the profile fields against the information entered in the registration request for shipping and billing contact information. Verify an e-mail message is sent to the user confirming their registration with basic search/order privilege. Verify the message contains a configurable preamble providing DAAC-specific information. Verify the message includes a suggestion to the user to contact their Home DAAC if they need additional data access. Verify a successful user registration result is returned.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1870	20	Using the V0 EDG client or a test driver simulating V0 protocols, perform a product search and order using the user ID and password created above. Verify the correct search results are returned in response to the search request. Verify the correct products are acquired in response to the product request.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1871	30	Using the user account just created, attempt to submit an ASTER On-demand product request. Verify the ODFRM does not allow the request based on access privileges.	EC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	VW	30943 (5)	T. Gresko	5/21/01: Sev 3 NCR (30943) written.
EN_BP_02	1872	40	Using the SMC MSS User Profile GUI, update the user profile just created, to give the user the privilege to submit ASTER On-demand product requests. Verify the user profile has been updated and an e-mail is sent to the user indicating the completion of the user profile update. Verify the e-mail contains a configurable preamble, providing DAAC-specific information. Submit an ASTER on-demand product request. Verify the user's request is allowed by the ODFRM based on access privileges.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1873	50	Using the V0 EDG client or a test driver simulating V0 protocols, submit a user registration request using a user ID already registered within the ECS. Verify an error message is returned, indicating the reason for failure (user ID already taken) and the corrective action (re-submit with another user ID).	EC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_BP_02	1874	60	Using the V0 EDG client or a test driver simulating V0 protocols, submit a user password change request using a user ID already registered within the ECS. Verify the authenticator is changed in the user profiles database. Verify a successful user password change result is returned. Log in using the new password, and verify the user can log in successfully.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1875	70	Using the V0 EDG client or a test driver simulating V0 protocols, submit a user password reset request using a user ID already registered within the ECS. Verify the authenticator is reset in the user profiles database. Verify an e-mail message is sent to the user, confirming the password has been reset. Verify the message contains a suggestion to the user to change their password as soon as possible for security reasons. Verify the message contains a configurable preamble providing DAAC-specific information. Verify that a successful user password change result is returned. Log in using the new password, and verify the user can log in successfully.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1876	80	Using the V0 EDG client or a test driver simulating V0 protocols, perform a user profile retrieve test using a valid user ID and password registered within the ECS. Verify the attempt is successful and the correct user profile is retrieved.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1877	90	Using the V0 EDG client or a test driver simulating V0 protocols, perform a user profile retrieve test using an invalid user ID not registered within the ECS. Verify the attempt to retrieve user profile fails and a failure status is returned.	EC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_02	1878	100	Using the V0 EDG client or a test driver simulating V0 protocols, perform a product request using a valid user ID and password. As part of this request, also change the user shipping address, billing address, and contact address fields, while exercising the option to update the users profile with these changes. Verify the correct products are acquired in response to the product request. Verify the user shipping address, billing address, and contact address fields in the user profile database are changed as specified in the request.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
EN_BP_02	1935	110	Using the V0 EDG client or a test driver simulating V0 protocols, perform a product request using a valid user ID and password. As part of this request, also change the user shipping address, billing address, and contact address fields, while exercising the option to have these changes apply only to the order being placed. Verify the correct products are acquired in response to the product request. Verify the user shipping address, billing address, and contact address fields in the user profile database have not been changed as a result of processing the order.	FC	5BP	1948	BP08010	Seamless User Registration	5BP	VATC	V		T. Gresko	5/21/01: Drop 5BP
EN_BP_03	1937	10	From the EDG or a test driver simulating V0 protocols, perform an inventory search against an ASBP collection. Verify that the PSA ParentGranCollectionName is in the search results and contains the ESDT longname and version ID of the parent collection.	FC	5BP	1958	BP10030	AIRS Browse Summary	5BP	VATC	V		T. Gresko	6/15/01: Drop 5BP
EN_BP_03	1938	20	From the EDG or a test driver simulating V0 protocols, perform an integrated browse request against an ASBP granule. Verify that the ASBP science granule itself is returned to the client.	FC	5BP	1958	BP10030	AIRS Browse Summary	5BP	VATC	V		T. Gresko	6/15/01: Drop 5BP
EN_BP_03	1939	30	Prepare an ASBP granule for which the archived file either does not exist or cannot be retrieved. From the EDG or a test driver simulating V0 protocols, perform an integrated browse request against the test granule. Demonstrate that an error message is properly returned back to the client.	EC	5BP	1958	BP10030	AIRS Browse Summary	5BP	VATC	V		T. Gresko	6/15/01: Drop 5BP
RH_BP_01	1859	10	Demonstrate that the same algorithm for generating price estimates (but using different unit cost parameters) is used for the floating scene cost estimations and the full subinterval cost estimations.	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/2000: Drop 5BP.
RH_BP_01	1860	30	Using the V0 EDG Client (or a test driver simulating V0 protocols), configure the Band Discount percentages such that each band has a unique value. Request a price estimate for a floating scene containing all bands and select FTP distribution. Record the price estimate. Request a price estimate for the same product in the same fashion but not requesting one of the bands. Verify that the price estimate returned for the second request is reduced by the percentage associated with that band. Repeat this step for 2 additional bands one at a time and verify accordingly	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/2000: Drop 5BP.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_01	1861	40	Using the V0 EDG Client (or a test driver simulating V0 protocols), configure the Band Discount percentages such that each band has a unique value. Request a price estimate for a floating scene containing all bands and select FTP distribution. Record the price estimate. Request a price estimate for the same product in the same fashion but not requesting two of the bands. Verify that the price estimate returned for the second request is reduced by the sum of the percentages associated with each band of the initial total price. Repeat this step 2 additional times, selecting different combinations of bands and numbers of bands excluded. Repeat this step excluding all but one band. Verify in each step that the price estimate is reduced by the appropriate percentage.	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/2000: Drop 5BP.
RH_BP_01	1862	60	Using the V0 EDG Client (or a test driver simulating V0 protocols), configure the Band Discount percentages such that each band has a unique value. Request a price estimate for a full subinterval containing all bands and select FTP distribution. Record the price estimate. Request a price estimate for the same product in the same fashion but not requesting one of the bands. Verify that the price estimate returned for the second request is reduced by the percentage associated with that band. Repeat this step for 2 other bands one at a time and verify accordingly.	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/2000: Drop 5BP.
RH_BP_01	1863	70	Using the V0 EDG Client (or a test driver simulating V0 protocols), request a price estimate for a data product of any type (WRS scene, floating scene, or full subinterval) and request FTP distribution. Record the cost estimate. Request a price estimate for the same product and request physical media distribution, selecting one of the available options for the test site. Verify that the resulting price estimate has been increased from the initial request by the amount associated with that media type. Repeat this for each of the allowable media distribution options, verifying the media cost increment for each request	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/00: Test verified 8MM and CDROM media types. D3 and DLT media types are available post-6A.
RH_BP_01	1864	90	Using the V0 EDG Client (or a test driver simulating V0 protocols), request a price estimate for a non-image data product requesting FTP distribution. Verify that the returned price estimate indicates that there is no associated cost. Request a price estimate for the same non-image data product and request one of the media distribution options. Verify that the resulting cost estimate is equal to the cost of the media distribution option only. Repeat this for each of the available media distribution options, verifying the returned price estimate in each case.	FC	5BP	1954	BP10020	L7 Pricing Algorithm Update	5BP	VATC	V		J. Street	12/12/00: Test verified 8MM and CDROM media types. D3 and DLT media types are available post-6A.

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_02	1894	20	Verify that the system can ingest and archive the data in the original GRIB format. Inspect the following granule metadata associated with the inserted granule and insure that it is consistent with the inserted GRIB granule: SizeMBECSDataGranule ProductionDateTime ShortName VersionID TimeofDay CalendarDate	FC	5BP	1949	BP09010	NCEP AVN Data Ingest and Archive	5BP	VATC	V		T. Gresko	11/29/00: Drop 5BP
RH_BP_02	1895	30	Verify that the system can convert the ingested NCEP AVN data into the HDF-EOS grid format and insert the resulting data to the SDSRV. Inspect the following granule metadata associated with the inserted granule and insure that it is consistent with either the received GRIB data or information available outside the GRIB file as indicated below: SizeMBECSDataGranule (determine file size and compare) ProductionDateTime (time of granule insert) ShortName (configured information) VersionID (configured information) TimeofDay (contained within the file) CalendarDate (contained within the file)	FC	5BP	1949	BP09010	NCEP AVN Data Ingest and Archive	5BP	VATC	V		T. Gresko	11/29/00: Drop 5BP
RH_BP_04	1879	10	Demonstrate the ability of a DPREP PGE to process the EMOS-generated carry-out files containing Aqua spacecraft GBAD data producing as a result DPREP processed attitude data suitable for use by SDP toolkit. Verify that output data is produced in HDF format and in native format. Verify the insertion of these granules to the SDSRV with appropriate metadata.	FC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: NCR 29834 is open against this test but doesn't directly affect any criteria.
RH_BP_04	1881	30	Demonstrate the ability of the DPREP PGE to produce output refined attitude data files (HDF and native format) using definitive ephemeris data as input with the carry-out files.	FC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP
RH_BP_04	1882	40	Demonstrate the ability of the DPREP PGE to identify the condition of the GNCC status word being set. Verify that the DPREP PGE correctly identifies invalid attitude data via data quality flags for the corresponding data values in the output attitude data granules.	FC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP
RH_BP_04	1883	50	Demonstrate that all attitude points in the time between a preceding 'good' GNCC status word (i.e. fine pointing) and a 'bad' GNCC status word, up to and continuing until the first time after another 'good' GNCC status word is flagged as not usable. Status word can be set to the following values: 000 – mode 0 - bad attitude 100 – attitude hold - bad attitude 010 – sun hold - bad attitude 110 – fine pointing - good attitude 001 – earth pointing - bad attitude 101 – sun pointing - bad attitude	FC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_04	1884	60	The nominal mode for running DPREP PGEs will assume the presence of the current input data set for GBAD processing and the appropriate orbit data before the target processing data period for orbit processing. Demonstrate that the DPREP PGEs (for either orbit or GBAD processing) can be run with or without the presence of this adjacent data.	FC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP
RH_BP_04	1885	70	Demonstrate that the DPREP PGE properly responds to input carry-out files containing GBAD data that is not properly formatted. The PGE should fail with an indication that the input file is not correct.	EC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP
RH_BP_04	1886	80	Demonstrate that the DPREP PGE properly responds to gaps in the input GBAD data stream as the result of one or more missing GBAD packets from either the 959 channel, the 957 channel, or both. Verify that the DPREP PGE correctly identifies gaps in the attitude data flags for the corresponding data values in the output attitude data granules.	EC	5BP	1950	BP09020	Aqua Attitude Processing Using Carry-out Files	5BP	VATC	V		T. Gresko	2/13/01: Drop 5BP
RH_BP_05	1930	10	Verify that the system can ingest and archive the PREPQC data in the original BUFR format. Inspect the following granule metadata associated with the inserted granule and insure that it is consistent with the inserted granule: SizeMBECDataGranule ProductionDateTime ShortName VersionID TimeofDay CalendarDate	FC	5BP	1951	BP09030	NCEP PREPQC Data Ingest and Archive	5BP	VATC	V		J. Street	11/30/00: Drop 5BP
RH_BP_06	1931	20	Verify that the system can archive the converted BUFR data, i.e., in the HDF-EOS format. Inspect the following granule metadata associated with the inserted granule and insure that it is consistent with the inserted granule: SizeMBECDataGranule (determine file size and compare) ProductionDateTime (time of granule insert) ShortName (configured information) VersionID (configured information) TimeofDay (contained within the file header) CalendarDate (contained within the file header)	FC	5BP	1952	BP09040	NCEP PREPQC Data Conversion	5BP	VATC	V		J. Street	6/19/01: Drop 5BP
RH_BP_06	1932	30	Introduce an error into the BUFR format file that will cause an error in the conversion processing software (e.g., expected necessary data values not present or out of time/spatial order data values). Verify that the error is correctly identified and the PGE processing is failed.	EC	5BP	1952	BP09040	NCEP PREPQC Data Conversion	5BP	VATC	V		J. Street	6/19/01: Drop 5BP
RH_BP_07	1957	10	Using a GLAS granule and .MET file that is representative of the normal GLAS granule spatial coverage, i.e., one day or 15 orbits of data, ingest the granule via the SIPS interface. Verify that the insert to the SDSRV completes correctly by examining Insert logs, SDSRV logs and inventory metadata.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_07	1958	20	Using an AMSR granule and .MET file that is representative of the normal AMSR granule spatial coverage, ingest the granule via the SIPS interface. Verify that the insert to the SDSRV completes correctly by examining Insert logs, SDSRV logs and inventory metadata.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1959	30	Using the EDG client or equivalent functionality, search for GLAS data identifying a spatial search region. Use a spatial search that encloses a small region, covering a single track. Use any two of the following projections/methods when searching - Orthographic Map, Equatorial Map, Stereographic S-pole Map, Stereographic N-pole Map, Lat/Lon Range. Search using a combination of spatial, temporal and PSA qualifiers. Verify that when a spatial search region is provided that overlaps the spatial regions of one or more granules existing in the SDSRV, those granules are correctly returned. The search region overlaps the granule if it overlaps, in part or in whole, one or more GLAS blocks that are associated with the inserted granule. Note that for a given spatial search, more or less granules may be returned depending on the temporal constraints of the search or of other metadata constraints used (e.g., other PSAs) in addition to the spatial constraints. For instance, only providing a spatial constraint will	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1960	40	Using the EDG client or equivalent functionality, search for GLAS data identifying a spatial search region. Use a spatial search that encloses a large region, covering a several tracks. Use any two of the following projections/methods when searching - Orthographic Map, Equatorial Map, Stereographic S-pole Map, Stereographic N-pole Map, Lat/Lon Range. Search using a combination of spatial, temporal and PSA qualifiers. Verify that when a spatial search region is provided that overlaps the spatial regions of one or more granules existing in the SDSRV, those granules are correctly returned. The search region overlaps the granule if it overlaps, in part or in whole, one or more GLAS blocks that are associated with the inserted granule. Note that for a given spatial search, more or less granules may be returned depending on the temporal constraints of the search or of other metadata constraints used (e.g., other PSAs) in addition to the spatial constraints. For instance, only providing a spatial constraint will	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP

Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_07	1961	50	Using the EDG client or equivalent functionality, search for AMSR data identifying a spatial search region. Use any two of the following projections/methods when searching - Orthographic Map, Equatorial Map, Stereographic S-pole Map, Stereographic N-pole Map, Lat/Lon Range. Search using a combination of spatial, temporal and PSA qualifiers. Verify that when a spatial search region is provided that overlaps the spatial regions of one or more granules existing in the SDSRV, those granules are correctly returned. The search region overlaps the granule if it overlaps, in part or in whole, one or more AMSR blocks that are associated with the inserted granule. Note that for a given spatial search, more or less granules may be returned depending on the temporal constraints of the search or of other metadata constraints used (e.g., other PSAs) in addition to the spatial constraints. For instance, only providing a spatial constraint will return all granules inserted that cover that region unless otherwise constrained.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1962	60	Using the EDG client or equivalent functionality, search for GLAS data identifying a spatial search region. Use any two of the following projections/methods when searching - Orthographic Map, Equatorial Map, Stereographic S-pole Map, Stereographic N-pole Map, Lat/Lon Range. Search using a combination of spatial, temporal and PSA qualifiers. Verify that when a spatial search region is identified that does not overlap an inserted granule, no granules are returned. The search region does not overlap the granule if the search region does not overlap in any way the GLAS blocks that are associated with the inserted granule. Note that for a given spatial search, more or less granules may be returned depending on the temporal constraints of the search or of other metadata constraints used (e.g., other PSAs) in addition to the spatial constraints. For instance, only providing a spatial constraint will return all granules inserted that cover that region unless otherwise constrained.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1963	70	Using the EDG client or equivalent functionality, search for AMSR data identifying a spatial search region. Use any two of the following projections/methods when searching - Orthographic Map, Equatorial Map, Stereographic S-pole Map, Stereographic N-pole Map, Lat/Lon Range. Search using a combination of spatial, temporal and PSA qualifiers. Verify that when a spatial search region is identified that does not overlap an inserted granule, no granules are returned. The search region does not overlap the granule if the search region does not overlap in any way the AMSR blocks that are associated with the inserted granule. Note that for a given spatial search, more or less granules may be returned depending on the temporal constraints of the search or of other metadata constraints used (e.g., other PSAs) in addition to the spatial constraints. For instance, only providing a spatial constraint will return all granules inserted that cover that region unless otherwise constrained.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP

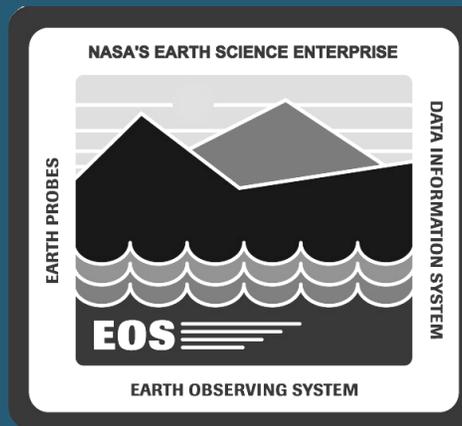
Ticket	Criteria Key	Criteria ID	Criteria Statement	Criteria Type	Criteria Drop	Test Key	Test Case ID	Test Case Title	Test Drop	Site ID	Verification Status	NCR Number (Severity)	Witness	Comment
RH_BP_07	1964	80	Using a GLAS granule and .MET file that covers only a portion (approximately 1/4) of one orbit, ingest the granule via the SIPS interface. Verify that the insert to the SDSRV completes correctly by examining Insert logs, SDSRV logs and inventory metadata.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1965	90	Using a GLAS granule and .MET file that covers one or more orbits and contains several (3-4) gaps or missing blocks along the orbital track, ingest the granule via the SIPS interface. Verify that the insert to the SDSRV completes correctly by examining Insert logs, SDSRV logs and inventory metadata.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1966	100	Using an AMSR granule and .MET file that covers only a portion of the orbital segment ordinarily covered with a nominal granule, ingest the granule via the SIPS interface. Verify that the insert to the SDSRV completes correctly by examining Insert logs, SDSRV logs and inventory metadata.	FC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1968	120	Prepare an GLAS Granule and .MET file that contains values for the track parameter that are invalid, i.e., which do not appear as defined path values in the table DsMdOrbitPolygons for the instrument code corresponding to GLAS. Also provide track values that are zero and negative numbers. Confirm that the insert for these values fails.	EC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1969	130	Prepare an GLAS Granule and .MET file that contains values for the block parameter that are invalid, i.e., which do not appear as defined sequence number values in the table DsMdOrbitPolygons for the instrument code corresponding to GLAS. Also provide track values that are zero and negative numbers. Confirm that the insert for these values fails.	EC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1970	140	Prepare an AMSR Granule and .MET file that contains values for the track parameter that are invalid, i.e., which do not appear as defined path values in the table DsMdOrbitPolygons for the instrument code corresponding to AMSR. Also provide track values that are zero and negative numbers. Confirm that the insert for these values fails.	EC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP
RH_BP_07	1971	150	Prepare an AMSR Granule and .MET file that contains values for the block parameter that are invalid, i.e., which do not appear as defined sequence number values in the table DsMdOrbitPolygons for the instrument code corresponding to AMSR. Also provide track values that are zero and negative numbers. Confirm that the insert for these values fails.	EC	5BP	1957	BP09050	GLAS and AMSR NOSE Support	5BP	VATC	V		T. Gresko	6/27/01: Drop 5BP

This page intentionally left blank.

## **Appendix C. Release 6A Performance and Load Tests**

---

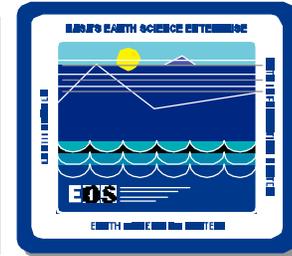
Appendix C contains the results associated with the performance and load tests conducted in the PVC for Release 6A. These tests were based on approved 24-hour workload specifications applicable to Release 6A for the EDC and GSFC DAACs.



## 6A Performance Verification

Skip Linehan

## 6A Performance Verification

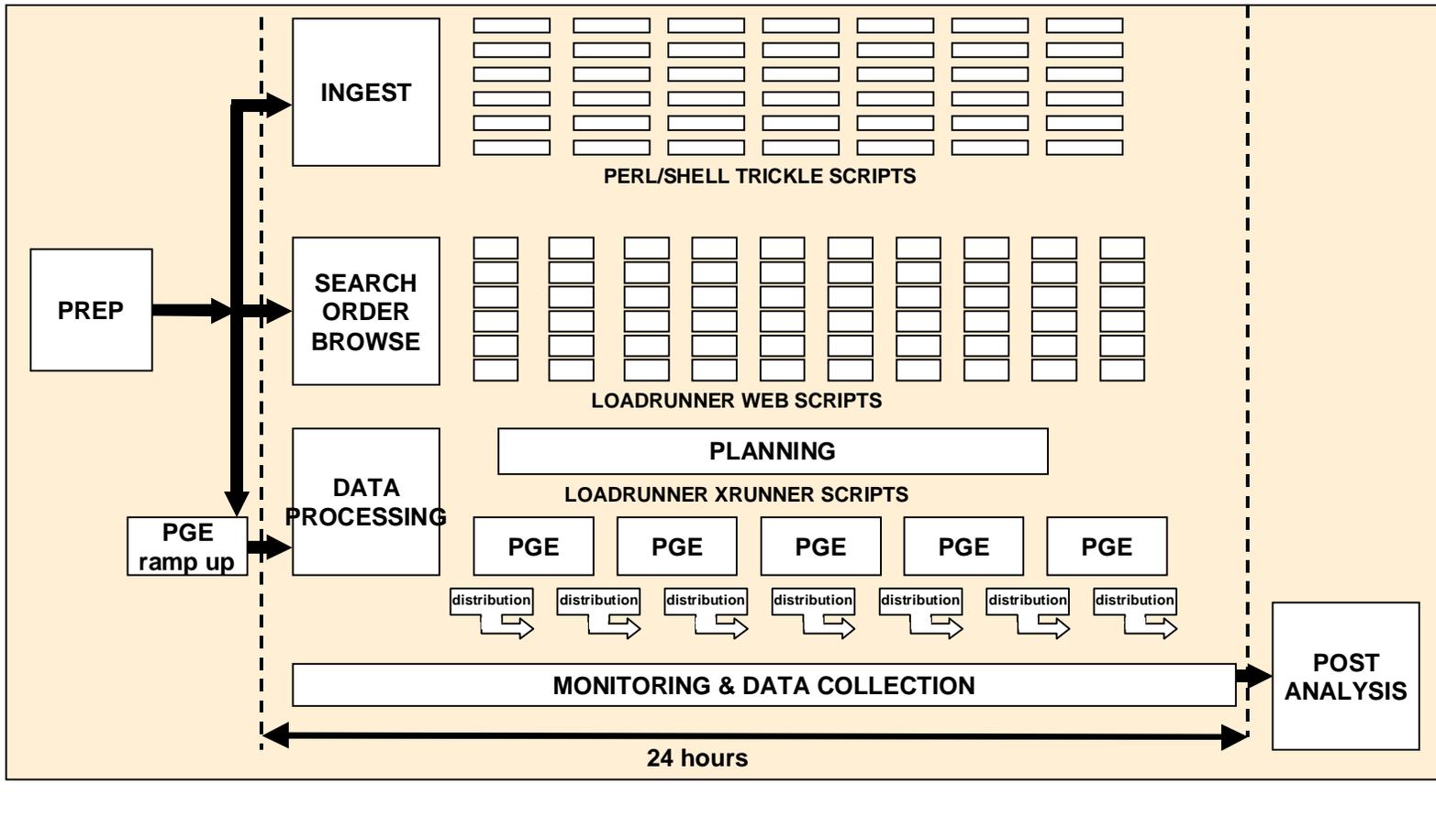
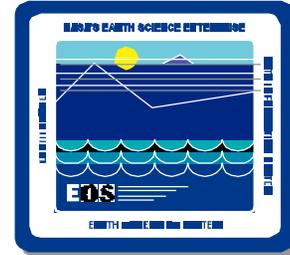


**Performance verification scope is full Terra and Aqua ingest, production, and distribution and Terra reprocessing,**

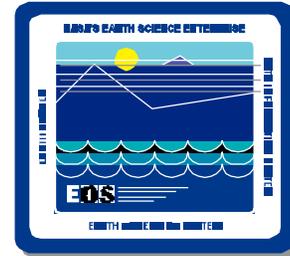
**Performance verification is based on a workload specification for EDC and GSFC**

- **EDC has highest ingest throughput**
- **GSFC has highest production and distribution throughput**
- **Release 6A verification constraints**
  - **simulated external interfaces**
    - MODAPS ingest, distrib (p0teg01 HIPPI)
    - MTM (p0tes02)
    - PDS load simulated with SCLI acquires (HIPPI to WKG)
  - **synthetic PGEs**
  - **1.5M granule inventory and 38 TB archive**

# Performance Verification TEST FLOW DIAGRAM

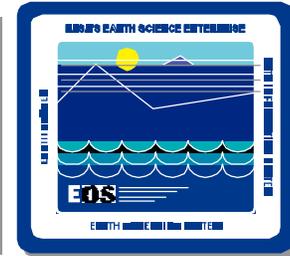


# TEST CONDUCT



- **All procedures were approved by ESDIS prior to formal testing.**
- **Tests were witnessed by ESDIS representatives and IVV.**
- **Formal Performance Testing of the EDC scenario**
  - **March 27-28, 2001**
- **Formal Performance Testing of the GSFC scenario**
  - **March 22-23, 2001**
  - **March 29-30, 2001**
  - **April 5-6, 2001**

# PVC GOALS



## ROUGH STATIC CAPACITY COMPARISONS

Percentage of Capacity Provided by the PVC vs GDAAC						
Function	CPU	IOPS	I/O Thruput	Disk Size	Memory	Tape Drive
icg - hgest	50%	100%	50%	64%	50%	N/A
spg - Science Processors	42%	24%	40%	44%	57%	N/A
pls - Planning DBMS	100%	N/A	N/A	N/A	300%	N/A
sps - PDPS Queuing Server	50%	N/A	N/A	N/A	100%	N/A
acs - SDSRV	100%	N/A	N/A	N/A	100%	N/A
acg - SDSRV DBMS, Pull Area, Browse	100%	53%	75%	53%	25%	N/A
dig - Archive Servers	90%	46%	60%	72%	50%	N/A
silos - STK Silos	N/A	N/A	N/A	N/A	N/A	131%

Percentage of Capacity Provided by the PVC vs EDAAC						
Function	CPU	IOPS	I/O Thruput	Disk Size	Memory	Tape Drive
icg - hgest	50%	100%	50%	81%	50%	N/A
spg - Science Processors	168%	69%	145%	200%	267%	N/A
pls - Planning DBMS	100%	N/A	N/A	N/A	300%	N/A
sps - PDPS Queuing Server	100%	N/A	N/A	N/A	150%	N/A
acs - SDSRV	67%	N/A	N/A	N/A	50%	N/A
acg - SDSRV DBMS, Pull Area, Browse	100%	53%	75%	50%	25%	N/A
dig - Archive Servers	88%	50%	40%	61%	50%	N/A
silos - STK Silos	N/A	N/A	N/A	N/A	N/A	121%

### GSFC SCENARIO DERATING

INGEST 100%

PRODUCTION 70%

DISTRIBUTION 79%

### EDC SCENARIO DERATING

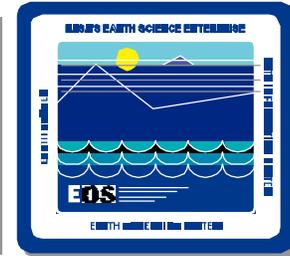
INGEST 75%

PRODUCTION 100%

DISTRIBUTION 90%

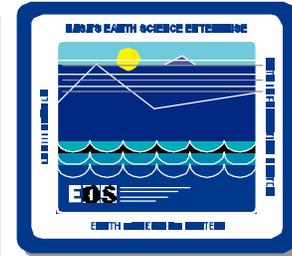
**Note:** These are rough derating estimates that do not account for dynamic system behavior that can result from overloading these capacities (such as additional archive tape accesses due to limited file residency time in AMASS cache).

# 6A Performance Verification Summary



Area	EDC SCENARIO		GSFC SCENARIO			
	PVC Goal (% of workload)	% Goal Achieved	PVC Goal (% of workload)	RUN 1 %Goal Achieved	RUN 2 %Goal Achieved	RUN 3 %Goal Achieved
Ingest	75%	150%	100%	95%	103%	105%
Production	100%	77%	70%	94%	98%	83%
Distribution	90%	178%	79%	103%	91%	84%
Search	100%	90%	100%	66%	89%	78%
Browse	100%	100%	100%	88%	100%	100%
Gran Delete	100%	38%	100%	0%	173%	170%

# 6A Performance Verification Significant Events During Tests



## **GSFC RUN #1 (3/22-23)**

- Gran Del not working, NCR fixed and delivered for next run.

## **EDC RUN (3/27-28)**

- Gran Del operator error, only one of three batches was run
- errant rsh to all xterms caused all xterms to crash, which caused ODFRM operations to fail. Unable to get this working during remainder of test, resulting in low ODFRM results.

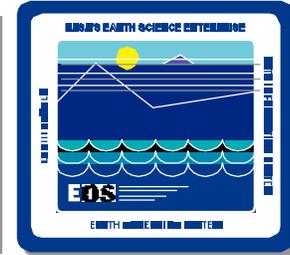
## **GSFC RUN #2 (3/29-30)**

- icg machine locked up at hour 2, was rebooted, resulted in 2 hours lost during test.
- Ran out of fnodes several times on DRP2, system stalled for ~1 hour. Required further tuning of AMASS and volume group allocations.
- PDPS notification queue performance problems required dynamically adjusting queue. NCR resolved for next run.

## **GSFC RUN #3 (4/5-6)**

- administrative problem with sybase caused sybase system files to be deleted during hour 4. Required analysis and reloading files from backup tapes. Three hours lost.
- AMASS lock manager died on drg01. Rebooted, lost 1 hour.

# PVC FINDINGS



**Running a full 6A workload on a reduced configuration provided an opportunity to significantly stress system components**

**21 new NCRs written (4 Sev 1, 11 Sev 2, 6 Sev 3)**

- CSR required NCRs have been fixed

- all sev 2 planned to be fixed by PSR except 30259 AMASS problem and 30129 Ingest ReqMgr core (mitigated by partial fix to reduce frequency)

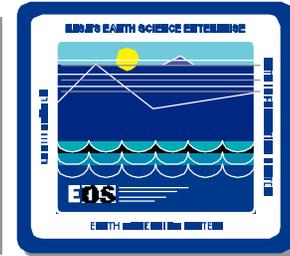
**Overall, Release 6A system stability is greatly improved relative to Release 5B**

- cores were rare

- new 6A Storage Management components proved to be quite stable

**Sustained performance demonstrated ability to achieve target workloads at the DAACs.**

# PVC FINDINGS, cont'd.



## ITEMS FOR DAAC AWARENESS

### •AMASS FNODE issue:

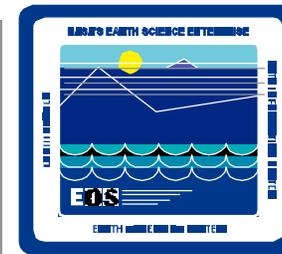
- AMASS can run out of FNODES when AMASS is flooded with write requests (especially after a warm start, or when bottlenecked with too many writes to one volume group)
- this situation will cause blocking of process which is writing to AMASS (stmgt) which holds locks in stmgt database. This will eventually cause other stmgt activities to stop until locks are released
- resolves when writes are worked off
  - anomaly seen when all writes are to one VG, FNODES don't release until writes finish
  - will issue TD for workaround, problem is logged with ADIC

### • New Tuning needed for new STMGT

- use PVC thread counts as a template

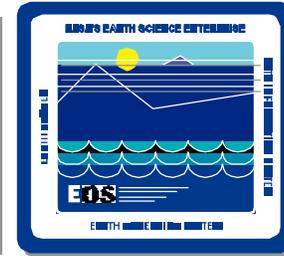
### • VOGW has significant memory leak, we bounced ~6-8 hours

# EDC SCENARIO DETAILED RESULTS



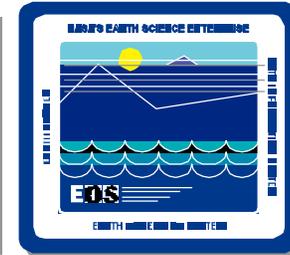
EDC FORMAL March 27-28 2001	Data Type	Requirement		Goal*		Actual		% of Goal Achieved	
		Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Volume
<b>INGEST</b>									
A.3.2(a) ASTER L1B	ASTL1B	372	47	279	35	372	47	133 %	132 %
A.3.2(b) ASTER L1A	ASTL1A	937	116	703	87	969	111	138 %	127 %
A.3.2(c) Lary ancillary Data (OZ-daily, SEA_JCE, GDAS-OZF)		11	<1	8	<1	10	<1	121 %	100 %
A.3.2(d) ASTER L0 expedited	AST0V1S	39	<3	29	<3	38	4.7	130 %	100 %
A.3.2(e) L70R (F1&F2) 336 scenes	L70R	84		63	0	91	173	144 %	
A.3.2(g) IGS scene metadata	scenes	345	<1	259	<1	501	<1	194 %	100 %
A.3.2(h) MODIS high level	MODxx	7,745	386	5809	289	5,807	283	100 %	98 %
A.3.2(i) MODAPS Browse Products	BROW SE	1,920	<1	1440	<1	1440	<1	100 %	100 %
A.3.2(j) MODAPS QA Products	QA	960	<1	720	<1	752	<1	104 %	100 %
<b>Total Ingest</b>		<b>12,413</b>	<b>549</b>	<b>9310</b>	<b>411</b>	<b>9,980</b>	<b>618</b>	<b>107 %</b>	<b>150 %</b>
<b>PRODUCTION</b>									
<b>PGE</b>									
A.3.3(a) ASTER routine DST	PGE02	372		372		372		100 %	
A.3.3(b,c) on demand for AST_07,AST_09	ACVS	150		150		88		59 %	
A.3.3(d) on demand for AST_09T	ACT	75		75		40		53 %	
A.3.3(e,f) on demand for AST_05, AST_08	ETS	150		150		84		56 %	
A.3.3(g) on demand for AST_09	BTS	75		75		51		68 %	
<b>Total Production</b>		<b>822</b>		<b>822</b>		<b>635</b>		<b>77 %</b>	
<b>DISTRIBUTION</b>									
A.3.5 Distribution	PDS	2,430	243	2,187	219	2,712	496	124 %	227 %
	push ASTL1B	372	47	335	42	826	103	247 %	244 %
	push MODIS	1,360	136	1,224	122	1,081	144	88 %	118 %
	pull AST9.7V	75	40	68	36	51	7.0	76 %	19 %
	pull AST09T	75	1.0	68	1	28	1	41 %	115 %
	pull AST05_08	75	0.9	68	1	29	1	43 %	123 %
	pull AST04	75	0.5	68	0	18	0	27 %	0 %
	pull ASTL1B	5	4.4	5	4	5	4.5	111 %	113 %
	pull L70RWR	90	45.0	81	41	90	36.5	111 %	90 %
<b>Total Distribution</b>		<b>4,462</b>	<b>468</b>	<b>4,016</b>	<b>422</b>	<b>4,745</b>	<b>752</b>	<b>118 %</b>	<b>178 %</b>
<b>DATA ACCESS/DELETION</b>									
Search via EDG (45/hr)		1080				967		90 %	
Browse via EDG (19/hr)		456				456		100 %	
Delete Science granules		5517				1472		27 %	
Delete Browse granules		960				332		35 %	
Delete PH granules		1943				1451		75 %	
Delete QA granules		480				165		34 %	
<b>Total Granules Deleted</b>		<b>8900</b>				<b>3420</b>		<b>38 %</b>	

# GSFC SCENARIO DETAILED RESULTS Run #1



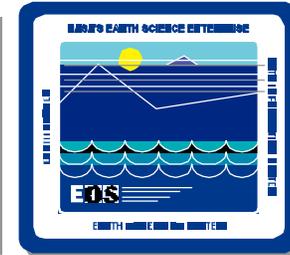
GSFC FORMAL March 22-23 2001	Data Type	Requirement		Goal*		Actual		% of Goal Achieved	
		Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Volume
<b>INGEST</b>									
A.2.2(a) MODIS Terra & Aqua Level 0 Ingest	MOD000	15	98	15	98	15	92	100%	94%
	MODPML0	15	98	15	98	15	99	100%	101%
A.2.2(b) MODIS Terra & Aqua EDOS Ancillary Data	AM1ANC	15	<1	15	<1	15	<1	100%	100%
	PMCOGBAD	45	<1	45	<1	36	<1	80%	100%
	PM1EPHD	1	<1	1	<1	3	<1	300%	100%
A.2.2(c) MODIS Terra & Aqua Altitude Data	AM1ATTF	15	<1	15	<1	18	<1	120%	100%
	PM1EPHP	1	<1	1	<1	1	<1	100%	100%
A.2.2(d) MODIS Expedited Data	MOD000X	39	2	39	2	41	3.7	105%	197%
	MODPMLDX	39	2	39	2	39	3.2	100%	169%
A.2.2(e) ASTER Expedited Data	ASTOVIS	39	2	39	2	40	2.3	103%	105%
A.2.2(f) Ancillary Data from Lary	GDA5_0ZF	6	<1	6	<1	12	<1	200%	100%
	FNMOG_ML	2	<1	2	<1	2	<1	100%	100%
	SEA_ICE	2	<1	2	<1	2	<1	100%	100%
A.2.2(g) DAO Data	MISC	24	2	24	2	24	1.5	100%	77%
A.2.2(h) MODAPS Science Products	MISC	3,768	146	3,768	146	3,562	130	95%	89%
A.2.2(i) MODAPS Browse Products	BROWSE	1,032	<1	1,032	<1	909	<1	88%	100%
A.2.2(j) MODAPS QA Products	QA	480	<1	480	<1	464	<1	95%	100%
A.2.2(k) MODAPS PH Products	PH	3,768	<1	3,768	<1	3,561	<1	95%	100%
A.2.2(l) AIRS Level 0 Data	MISC	245	15.6	245	15.6	140	15.4	57%	99%
A.2.2(m) AIRS Level 0 Expedited Data	MISC	117	2	117	2	118	0.578	101%	39%
<b>Total Ingest</b>		<b>9,668</b>	<b>366</b>	<b>9,668</b>	<b>366</b>	<b>9,007</b>	<b>347</b>	<b>93%</b>	<b>95%</b>
<b>PRODUCTION</b>									
A.2.3(a) DPREP Production for Terra & Aqua	DPREP	37		26		61		236%	
A.2.3(b) MODIS L1A Production for Terra & Aqua	PGE01	288		202		272		135%	
A.2.3(c) MODIS L1B Production for Terra & Aqua	PGE02	864		605		650		107%	
A.2.3(d) MODIS Cloud Mask Production for Terra & Aqua	PGE03	864		605		515		85%	
A.2.3(e) AIRS/AMSU/HSB Production	MISC	332		232		79		34%	
<b>Total Production</b>		<b>2,385</b>		<b>1,670</b>		<b>1,577</b>		<b>94%</b>	
<b>DISTRIBUTION</b>									
A.2.5 Distribution	MODAPS	5,040	761	3,982	601	4,927	593	124%	99%
	EDC	39	2.4	31	1.9	40	2.2	130%	115%
	GDS	39	2.4	31	1.9	0	0.0	0%	0%
	PDS	2,679	52.1	2,116	41.2	2,686	49.1	127%	119%
	MTM	98	16.9	77	13.3	88	15	114%	113%
	User Sub	720	25.5	569	20.1	515	18.2	91%	90%
	EDG (FtpPull)	1,344	25.2	1,062	19.9	1,104	18.9	104%	95%
<b>Total Distribution</b>		<b>9,959</b>	<b>1,810</b>	<b>7,868</b>	<b>1,430</b>	<b>9,360</b>	<b>1,472</b>	<b>119%</b>	<b>103%</b>
<b>DATA ACCESSION/DELETION</b>									
Search via EDG (45/h)		1080				708		66%	
Browse via EDG (19/h)		456				401		88%	
Deleted Science granules		5476						0%	
Deleted Browse granules		516						0%	
Deleted PH granules		2388						0%	
Delete QA granules		240						0%	
Total Granules Deleted		8620				0		0%	

# GSFC SCENARIO DETAILED RESULTS Run #2



GSFC FORMAL March 29-30 2001		Requirement		Goal*		Actual		% of Goal Achieved		
		Data Type	Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Volume
<b>INGEST</b>										
A.2.2.(a) MODIS Terra & Aqua Level 0 Ingest	MOD000	15	98	15	98	18	109	120%	112%	
	MODPML0	15	98	15	98	15	92.7	100%	95%	
A.2.2.(b) MODIS Terra & Aqua EDOS Ancillary Data	AM1ANC	15	<1	15	<1	15	<1	100%	100%	
	PMCOGBAD	45	<1	45	<1	46	<1	102%	100%	
	PM1EPHD	1	<1	1	<1	3	<1	300%	100%	
A.2.2.(c) MODIS Terra & Aqua Attitude Data	AM1ATTF	15	<1	15	<1	15	<1	100%	100%	
	PM1EPHP	1	<1	1	<1	1	<1	100%	100%	
A.2.2.(d) MODIS Expedited Data	MOD000X	39	2	39	2	38	3.5	97%	183%	
	MODPML0X	39	2	39	2	40	3.3	103%	173%	
A.2.2.(e) ASTER Expedited Data	ASTOV1S	39	2	39	2	40	2.3	103%	105%	
A.2.2.(f) Ancillary Data from Lary	GDAS_0ZF	6	<1	6	<1	12	<1	200%	100%	
	FNMOCLML	2	<1	2	<1	2	<1	100%	100%	
	SEA_ICE	2	<1	2	<1	2	<1	100%	100%	
A.2.2.(g) DAO Data	MISC	24	2	24	2	24	1.6	100%	81%	
A.2.2.(h) MODAPS Science Products	MISC	3,768	146	3,768	146	3,972	150.9	105%	103%	
A.2.2.(i) MODAPS Browse Products	BROWSE	1,032	<1	1,032	<1	922	<1	89%	100%	
A.2.2.(j) MODAPS QA Products	QA	480	<1	480	<1	455	<1	95%	100%	
A.2.2.(k) MODAPS PH Products	PH	3768	<1	3,768	<1	3,972	<1	105%	100%	
A.2.2.(l) AIRS Level 0 Data	MISC	245	16	245	16	139	14.8	57%	95%	
A.2.2.(m) AIRS Level 0 Expedited Data	MISC	117	2	117	2	117	0.566	100%	38%	
<b>Total Ingest</b>		<b>9,668</b>	<b>366</b>	<b>9,668</b>	<b>366</b>	<b>9,848</b>	<b>379</b>	<b>102%</b>	<b>103%</b>	
<b>PRODUCTION</b>										
A.2.3.(a) DPREP Production for Terra & Aqua	DPREP	37	26			60		232%		
A.2.3.(b) MODIS L1A Production for Terra & Aqua	PGE01	288	202			261		129%		
A.2.3.(c) MODIS L1B Production for Terra & Aqua	PGE02	864	605			770		127%		
A.2.3.(d) MODIS Cloud Mask Production for Terra & Aqua	PGE03	864	605			421		70%		
A.2.3.(e) AIRS/AMSU/HSB Production	MISC	332	232			119		51%		
<b>Total Production</b>		<b>2,385</b>	<b>1,670</b>			<b>1,631</b>		<b>98%</b>		
<b>DISTRIBUTION</b>										
A.2.5 Distribution	MODAPS	5,040	761	3,982	601	3,664	492	92%	82%	
	EDC	39	24	31	19	40	2.0	130%	105%	
	GDS	39	24	31	19			0%	0%	
	PDS	2,679	521	2,116	412	2,654	485	125%	118%	
	MTM	98	169	77	133	104	18	134%	135%	
	User Sub	720	255	569	201	288	71	51%	35%	
	EDG (FtpPull)	1,344	252	1,062	199	1,326	227	125%	114%	
<b>Total Distribution</b>		<b>9,959</b>	<b>1,810</b>	<b>7,868</b>	<b>1,430</b>	<b>8,076</b>	<b>1,295</b>	<b>103%</b>	<b>91%</b>	
<b>DATA ACCESSIONS/DELETION</b>										
Search via EDG (45/hr)		1080				958		89%		
Browse via EDG (19/hr)		456				456		100%		
Deleted Science granules		5476				6246		114%		
Deleted Browse granules		516				1591		308%		
Deleted PH granules		2388				6234		261%		
Deleted QA granules		240				833		347%		
<b>Total Granules Deleted</b>		<b>8620</b>				<b>14904</b>		<b>173%</b>		

# GSFC SCENARIO DETAILED RESULTS Run #3



GSFC FORMAL APRIL 5-6 2001	Data Type	Requirement		Goal*		Actual		% of Goal Achieved	
		Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Vol (GB)	Granules or DPRs	Volume
<b>INGEST</b>									
A.2.2(a) MODIS Terra & Aqua Level 0 Ingest	MOD000	15	98	15	98	17	104	113%	107%
	MODPML0	15	98	15	98	17	105	113%	108%
A.2.2(b) MODIS Terra & Aqua EDOS Ancillary Data	AM1ANC	15	<1	15	<1	15	<1	100%	100%
	PMCOGBAD	45	<1	45	<1	46	<1	102%	100%
	PM1EPHD	1	<1	1	<1	3	<1	300%	100%
A.2.2(c) MODIS Terra & Aqua Attitude Data	AM1ATF	15	<1	15	<1	13	<1	87%	100%
	PM1EPHP	1	<1	1	<1	1	<1	100%	100%
A.2.2(d) MODIS Expedited Data	MOD000X	39	2	39	2	40	3.6	103%	189%
	MODPML0X	39	2	39	2	39	3.2	100%	168%
A.2.2(e) ASTER Expedited Data	ASTOV1S	39	2	39	2	40	2.3	103%	105%
A.2.2(f) Ancillary Data from Larry	GDAS_02F	6	<1	6	<1	12	<1	200%	100%
	FNMO_C_ML	2	<1	2	<1	2	<1	100%	100%
	SEA_ICE	2	<1	2	<1	4	<1	200%	100%
A.2.2(g) DAO Data	MISC	24	2	24	2	25	1.7	104%	84%
A.2.2(h) MODAPS Science Products	MISC	3,768	146	3,768	146	3,802	149	101%	102%
A.2.2(i) MODAPS Browse Products	BROWSE	1,032	<1	1,032	<1	1,009	<1	98%	100%
A.2.2(j) MODAPS QA Products	QA	480	<1	480	<1	498	<1	104%	100%
A.2.2(k) MODAPS PH Products	PH	3,768	<1	3,768	<1	3,802	<1	101%	100%
A.2.2(l) AIRS Level 0 Data	MISC	245	15.6	245	15.6	140	15.9	57%	102%
A.2.2(m) AIRS Level 0 Expedited Data	MISC	117	1.5	117	1.5	120	0.6	103%	40%
<b>Total Ingest</b>		<b>9,668</b>	<b>366</b>	<b>9,668</b>	<b>366</b>	<b>9,645</b>	<b>385</b>	<b>100%</b>	<b>105%</b>
<b>PRODUCTION</b>									
A.2.3(a) DPR EP Production for Terra & Aqua	DPREP	37		26		61		236%	
A.2.3(b) MODIS L1A Production for Terra & Aqua	PG E01	288		202		256		127%	
A.2.3(c) MODIS L1B Production for Terra & Aqua	PG E02	864		605		555		92%	
A.2.3(d) MODIS Cloud Mask Production for Terra & Aqua	PG E03	864		605		412		68%	
A.2.3(e) AIRS/AMSU/HSB Production	MISC	332		232		109		47%	
<b>Total Production</b>		<b>2,385</b>		<b>1,670</b>		<b>1,393</b>		<b>83%</b>	
<b>DISTRIBUTION</b>									
A.2.5 Distribution	MODAPS	5,040	761	3,982	601	2,909	380	73%	63%
	EDC	39	2.4	31	1.9	34	1.9	110%	99%
	GDS	39	2.4	31	1.9			0%	0%
	PDS	2,679	521	2,116	412	2,470	458	117%	111%
	MTM	98	16.9	77	13.3	99	1.7	128%	128%
	User Sub	720	255	569	201	247	12.6	43%	63%
	EDG (Flp-Pull)	1,344	252	1,062	199	1,287	220	121%	111%
<b>Total Distribution</b>		<b>9,959</b>	<b>1,810</b>	<b>7,868</b>	<b>1,430</b>	<b>7,046</b>	<b>1,203</b>	<b>90%</b>	<b>84%</b>
<b>DATA ACCESS/DELETION</b>									
Search via EDG (45/hr)		1080				845		78%	
Browse via EDG (19/hr)		456				456		100%	
Deleted Science granules		5476				6191		113%	
Deleted Browse granules		516				1514		293%	
Deleted PH granules		2388				6170		258%	
Deleted QA granules		240				755		315%	
<b>Total Granules Deleted</b>		<b>8620</b>				<b>14630</b>		<b>170%</b>	