

535-CD-500-001

EOSDIS Core System Project

Science Data Processing Segment (SDPS) Acceptance Data Package for the ECS Project (Release 5A)

August 1999

Raytheon Systems Company
Upper Marlboro, Maryland

Science Data Processing Segment (SDPS) Acceptance Data Package for the ECS Project (Release 5A)

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Preface

This document is a formal contract deliverable with an approval code 1. It requires Government review and approval prior to acceptance and use. This document is under ECS contractor configuration control. Once this document is approved, Contractor approved changes are handled in accordance with Class I and Class II change control requirements described in the Earth Observing System (EOS) Configuration Management Plan, and changes to this document shall be made by document change notice (DCN) or by complete revision.

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Abstract

This report is a documented account of the Science Data Processing Segment (SDPS) Acceptance Data Package for the Release 5A CSR held on July 21, 1999.

This report includes references to Release 5A data:

- a. Acceptance Test Report.
- b. Action Items from the SDPS Release 5A CSR.
- c. Version Description Document.
- d. Design data.
- e. SDPS Non-Conformance Reports (NCRs), which are included in the Distributed Defect Tracking System (DDTS).
- f. Operations Tools Manual, updated for Release 5A.
- g. Mission Operations Procedures, updated for Release 5A.
- h. ECS Project Training Material, updated for Release 5A.

Keywords: Configuration Audits, PCA, FCA, VDD, CSR, SRA Acceptance Test Report, action items, operating manuals, deviation, and training material.

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Abbreviations and Acronyms

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1. Introduction

1.1 Identification

This document is the Science Data Processing Segment (SDPS) Release 5A Acceptance Data Package for the ECS Project, which is Item 108 on the Contract Data Requirements List (CDRL) and defined by Data Item Description (DID) 535/PA1 under contract NAS5-60000.

1.2 Scope

This document identifies the SDPS Acceptance Data Package for Release 5A of the ECS Project.

1.3 Purpose

This document includes by reference the information that makes up the SDPS Release 5A Acceptance Data Package. Its purpose is to provide high level information regarding the content and status of the SDPS at the time of the Consent to Ship Review (CSR) for Release 5A, including acceptance testing results, configuration status, any open action items from CSR, the current status of known problems, and to identify release related documentation.

1.4 Status and Schedule

The submittal of DID 535/PA1 meets the milestone specified in the CDRL of the National Aeronautics and Space Administration (NASA) contract NAS5-60000. Current project plans specify that this deliverable is due 30 days after CSR for release 5A of the ECS.

There is a Deviation Request pending for this Draft delivery. The request is for a temporary deviation from DID 535 Requirements to include “records of the final system configuration audit, including the As-Built Configuration List of hardware and software”. The impact of the deviation to this document is that no references will be made to *Configuration Audits for SDPS Release 5A of the ECS Project, DID 506*, in the Draft version. The deviation will continue until 30 days post the last site Site Readiness Assessment for Release 5A. At that time the DID 506 will be delivered, and the DID 535 re-delivered as a Final version to include the reference to DID 506.

1.5 Organization

Section 1 provides the identification, scope, purpose, status and schedule, and document organization.

Section 2 provides a list of documents that were used directly or indirectly in the preparation of this document.

Section 3 defines the SDPS Release 5A Acceptance Test data package. It includes identification of system Acceptance Test data, identification and status of action items from CSR, identification of operating manuals, identification of operating procedures, and identification of training materials.

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

2. Referenced Documentation

2.1 Parent Documents

The parent documents are the documents from which this SDPS Release 5A Acceptance Data Package's scope and content are derived.

420-05-03	Goddard Space Flight Center, EOS Performance Assurance Requirements for the EOSDIS Core System (ECS)
423-41-01	Goddard Space Flight Center, ECS Statement of Work
423-41-03	Goddard Space Flight Center, EOSDIS Core System Contract Data Requirements Document

2.2 Applicable Documents

The following documents are referenced herein in their entirety, and form a part of this document as being delivered specifically for Release 5A of the ECS Project.

412-CD-500	ECS Overall System Acceptance Test Report for Release 5A
714-CD-500	ECS SDPS 5A Consent to Ship Review Update
814-RD-502	Version 2 Release 5A.00 Patch Version Description Document (VDD) for the ECS Project
305-CD-500	Release 5A Segment/Design Specification for the ECS Project
311-CD-500	Release 5A Data Management Subsystem Database Design and Schema Specification
311-CD-501	Release 5A INGEST Subsystem Database Design and Schema Specification
311-CD-502	Release 5A Interoperability Subsystem Database Design and Schema Specification
311-CD-503	Release 5A Planning and Data Processing Subsystem Database Design and Schema Specification
311-CD-504	Release 5A Science Data Server Subsystem Database Design and Schema Specification
311-CD-505	Release 5A Storage Management and Data Distribution Subsystem Database Design and Schema Specification

311-CD-506	Release 5A Subscription Server Subsystem Database Design and Schema Specification
311-CD-507	Release 5A Systems Management Subsystem Database Design and Schema Specification
313-CD-500	Release 5A ECS Internal Interface Control Document for the ECS Project
609-CD-500	Release 5A Operations Tools Manual
625-CD-501	Release 5A, ECS Project Training Material Volume 1: Course Outline
625-CD-503	Release 5A, ECS Project Training Material Volume 3: Problem Management
625-CD-504	Release 5A, ECS Project Training Material Volume 4: System Administration
625-CD-505	Release 5A, ECS Project Training Material Volume 5: Network Administration
625-CD-506	Release 5A, ECS Project Training Material Volume 6: Production Planning and Processing
625-CD-507	Release 5A, ECS Project Training Material Volume 7: Resource Planning
625-CD-508	Release 5A, ECS Project Training Material Volume 8: Ingest
625-CD-509	Release 5A, ECS Project Training Material Volume 9: Data Distribution
625-CD-510	Release 5A, ECS Project Training Material Volume 10: Archive Processing
625-CD-511	Release 5A, ECS Project Training Material Volume 11: Database Administration
625-CD-512	Release 5A, ECS Project Training Material Volume 12: Configuration Management
625-CD-513	Release 5A, ECS Project Training Material Volume 13: User Services
625-CD-516	Release 5A, ECS Project Training Material Volume 16: Science Software Integration and Test
625-CD-517	Release 5A ECS Project Training Material Volume 17: System Troubleshooting
625-CD-518	Release 5A ECS Project Training Material Volume 18: Advanced Production Planning and Processing

625-CD-520

Release 5A ECS Project Training Material Volume 2A: Introduction and Detailed System Overview: Science Data Processing Internal Training

2.3 Information Documents

The following documents are referenced herein in their entirety. The current version of these documents are applicable to Release 5A of the ECS Project, but are not related solely to Release 5A.

611-CD-500

Release 5A Mission Operations Procedures for the ECS Project

211-TP-005

Transition Plan 4PX to 4PY, 4PY to 5A, and 5A to 5B for the ECS Project

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3. Acceptance Data

3.1 System Acceptance Test Data

The results of all ECS System acceptance testing is documented in the ECS System Acceptance Test Report for Release 5A, 412-CD-500-001. This report contains listings of all tests conducted, analysis of test results, status of test findings. It identifies the existence and location of all test records.

3.2 Release Version Identification

A complete description of the released version of the Release 5A software is documented in Version 2 Release 5A.00 Patch Version Description Document (VDD) for the ECS Project, 814-RD-502-001.

Detailed technical information documenting the current Release 5A baseline is maintained by ECSCM, and can be accessed through the Internet at URL <http://cmdm.east.hitc.com/baseline/index.html> under “Technical Documents”. These documents include information on: current operating system versions and patch levels; software port mappings; COTS patch levels; disk partitioning; COTS and ECS Custom Software Release Notes; common start-up and shutdown procedures; complete listings of site-specific hardware and software documents, diagrams, and drawings; vendor information; and network infrastructure information.

3.3 Release 5A Design Data

The overall detailed design for Release 5A of the ECS Project is documented in the Release 5A Segment/Design Specification for the ECS Project, 305-CD-500-001.

Subsystem specific database design data is contained in the 311-CD-series documents listed as referenced in their entirety in Section 2.2 of this document.

Subsystem to subsystem interface design is contained in the Release 5A Internal Interface Control Document for the ECS Project, 313-CD-506-001.

3.4 Open Action Items

The results of CSR, together with a list of all action items from CSR, is contained in the ECS SDPS 5A Consent to Ship Review Update, 714-CD-500-002.

The current status of all known non-conformances are maintained by the ECS Project in the Distributed Defect Tracking System (DDTS), and are reported weekly to ESDIS.

3.5 Operating Manuals

The human-machine interface characteristics of the tools used by the ECS operations staff are documented in the Release 5A Operations Tools Manual, 609-CD-500-001.

Release 5A-updated procedures for operators, engineers, operations support, administration and management staff to configure, maintain and operate the ECS system are contained in the Mission Operations Procedures, 611-CD-500-001. This document contains DAAC standard procedures which may be modified at the DAACs during subsequent training.

3.5 Training Materials

Training materials for Release 5A of the ECS Project are contained in the 625-CD-series documents listed as referenced in their entirety in Section 2.2 of this document.

Abbreviations and Acronyms

CCB	Configuration Control Board
CCR	Configuration Change Request
CSR	Consent-to-Ship Review
CDRL	Contract Data Requirements List
COTS	Commercial Off the Shelf
DCN	Document Change Notice
DDTS	Distributed Defect Tracking System
DID	Data item description
DM	Data Management
ECS	EOSDIS Core System
ECSCM	ECS Project Configuration Management
EOSDIS	EOS Data and Information System
ESDIS	Earth Science Data and Information System (GSFC Code 423)
FCA	Functional Configuration Audit
GSFC	Goddard Space Flight Center
NCR	Non-Conformance Report
PCA	Physical Configuration Audit
QA	Quality Assurance
SRA	Site Readiness Assessment
TRR	Test Readiness Review
URL	Universal Reference Locator
VDD	Version Description Document

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