Task 52 – ECS Requirements Volume 6 Specification

EED2-TP-103, Revision 01

Technical Paper
October 2019
Prepared Under Contract NNG15HZ39C

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GSFC ESDIS CMO
10/28/2019
Released

423-RQMT-xxx
Earth Science Data and Information Systems (ESDIS), Code 423

ECS Requirements Volume 6 Specification

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Space Administration

ECS Requirements Volume 6 Specification
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Preface

This document is under ESDIS Project configuration control. Once this document is approved, ESDIS approved changes are handled in accordance with Class I and Class II change control requirements described in the ESDIS Configuration Management Procedures, and changes to this document shall be made by change bars or by complete revision.

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Abstract

This document provides the completed Level 4 Science Data Processing Segment (SDPS) Requirements for the Ingest (INS) and Data Pool Ingest (DPL-Ingest) subsystems.

***Keywords**: SDPS, INS, DPL-Ingest*

Change History Log

Revision	Effective Date	Description of Changes (Reference the CCR & CCB Approval Date)
		CCR 423-ESDIS-XXX; CCB Approved mm/dd/yyyy Pages:

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1 INTRODUCTION

The EOSDIS Core System (ECS) performs information management and data archiving and distribution for Earthdata mission datasets at NASA Distributed Active Archive Center (DAAC) locations. Each DAAC performs these functions using a combination of standard capabilities provided by ESDIS, and hardware and software specific to the DAAC. The ECS was developed using special hardware and software to support the high ingest rates of EOS instruments. ECS currently resides and operates at three DAACs: Atmospheric Science Data Center (ASDC), Land Processing (LP) DAAC and National Snow and Ice Data Center (NSIDC) DAAC.

Data products are created by NASA's Science Investigator-led Processing Systems (SIPS) or, in a few cases, by systems interfacing with the ECS at the DAACs. The ECS at the DAACs ingests the data from the processing systems and archives them. ECS has interfaces with the Common Metadata Repository (CMR) to provide metadata to support search and access through CMR clients, for example, Earthdata Search. ECS also provides software toolkits to assist instrument teams in their development of product generation software at their Science Computing Facilities (SCFs) to facilitate ingest of the resulting products into ECS or into other DAAC-specific archiving and distribution systems.

ECS is structured as two segments: the Communications and Systems Management Segment (CSMS) and the Science Data Processing Segment (SDPS).

- The Communications and Systems Management Segment (CSMS) provides the communications infrastructure for the ECS and systems management for all of the ECS hardware and software components. The CSMS provides the interconnection between users and service providers within the ECS, transfer of information between subsystems, Computer Software Configuraiton Items (CSCIs), Computer Software Components (CSCs), and processes of the ECS.
- The Science Data Processing System (SDPS) provides science data ingest and production, search and access functions, data archive, and system management capabilities.

The ECS includes the following subsystems:

Subsystem	Segment	Subsystem Description
AIM	SDPS	Archive Inventory Management Subsystem
BMGT	SDPS	Bulk Metadata Generation Tool
CSS	CSMS	Communications Subsystem
Data Access	SDPS	Data Access Subsystem
DMS	SDPS	Data Management Subsystem
DPL	SDPS	Data Pool Subsystem
DPL-Ingest	SDPS	Data Pool Ingest Subsystem
DSS	SDPS	Data Server Subsystem
DTS	SDPS	Defect Tracking Subsystem

Subsystem	Segment	Subsystem Description
EMS	SDPS	EOSDIS Metrics Subsystem
HEG	SDPS	HDF-EOS to Geotiff Converter Subsystem
INS	SDPS	Ingest Subsystem
ISS	CSMS	Internetworking Subsystem
MGS	SDPS	Map Generation Service
MSS	SDPS	System Management Subsystem
OMS	SDPS	Order Manager Subsystem
SSS	SDPS	Spatial Subscription Server Subsystem
TKD	SDPS	Toolkit Subsystem for DAACs
TKS	SDPS	Toolkit Subsystem for Science Teams

1.1 Purpose

The purpose of the ECS Requirements Document Set is to present the system requirements that have been implemented for ECS. This document is one volume of the set.

1.2 Scope

Because the number of requirements is large, this Requirements documentation set has been divided in to a series of Volumes, partitioned by subsystem. This is one volume in the set.

Volume	Subsystems	Requirements
1	AIM, BMGT	462
2	CSS, DMS, Data Access	249
3	DPL	1,670
4	DTS, HEG	125
5	DSS	1,245
6	INS, DPL Ingest	180
7	ISS, MGS, MSS, EMS	374
8	OMS	817
9	SSS	160
10	TKD, TKS	335
	total	5,617

1.3 Related Documentation

The latest versions of all documents below should be used. The latest Earth Science Data and Information System (ESDIS) Project documents can be obtained from Uniform Resource Locator (URL): https://ops1-cm.ems.eosdis.nasa.gov. ESDIS documents have a document number starting with either 423 or 505. Other documents are available for reference in the

ESDIS project library website at: http://esdisfmp01.gsfc.nasa.gov/esdis_lib/default.php unless indicated otherwise.

1.3.1 Applicable Documents

The following document contains policies or other directive matters that are binding upon the content of this document.

423-46-01	Functional and Performance Requirements Specification for the ECS Science Data Processing System

1.3.2 Reference Documents

The following documents are not binding on the content but referenced herein and amplify or clarify the information presented in this document.

NPR 2810.1A	Security of Information Technology document
170-TP-013-001	HDF-EOS Data Format Converter User's Guide', (170-TP-013-001), January 2002
170-TP-600	HDF-EOS Library Users Guide Volume 1 (170-TP-600)
n/a	BMGTCollectionMetadata.dtd https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard
n/a	BMGTGranuleMetadata.dtd https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard
n/a	BMGTBrowseMetadata.dtd https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard
n/a	ECHO PackageManifest.xsd https://earthdata.nasa.gov/esdis/eso/standards-and-references/echo-metadata-standard
170-WP-023	Bulk Metadata and Browse Export Capability for the ECS Project' (170-WP-023-011, 9/27/00)
209-CD-036	Interface Control Document for ECS Interfaces That Support External Subsetters Located at DAACs', ECS Project document number 209-CD-036-001
304-CD-002	Science and Data Processing Segment (SDPS) Requirements Specification for the ECS Project (March 1995)
311-EMD-xxx	Archive Management Inventory (AIM) Database Design Schema Specifications for the EMD Project
423-41-57	Interface Control Document between the EOSDIS Core System (ECS) and the Science Investigator-led Processing Systems (SIPS), Volume 0
423-41-58	ICD between ECS and the LP DAAC
423-41-63	ICD between EMOS and the SDPS

423-45-02	Interface Control Document between EOSDIS Core System (ECS) and EOS Clearinghouse (ECHO) for Metadata Inventory and Ordering
423-45-03	Interface Control Document for ECS ECHO WSDL Order Component (EWOC) and External Processing Systems Co-located at the DAACs
423-ICD-EDOS/EGS	Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Elements, renumbered as 428-ICD-EDOS/EGS
505-41-17	Interface Requirements Document between EOSDIS Core System (ECS) and the NASA Science Internet (NSI), 505-41-17
505-41-30	Interface Control Document Between EOSDIS Core Systems (ECS) and the Version 0 System for Interoperability', ESDIS document number 505-41-30
910-TDA-042	EMD Browsers Baseline
CK_70_01	ECS Ticket: End-To-End Checksum Capability
DP_72_02	ECS Ticket: Ingest of Level 0 Data from EDOS into the Data Pool
DP_72_03	ECS Ticket: Ingest of ASTER L1A and Browse into Data Pool
DP_72_04	ECS Ticket: Data Pool Ingest of Data at the ASDC DAAC
DP_72_05	ECS Ticket: Support for MISR Browse Linkages in Release 7.20
DP_S3_01	ECS Ticket: Populate Data Pool from ECS Archive
DP_S3_02	ECS Ticket: Accommodate Non ECS Data in Data Pool
DP_S4_07	ECS Ticket: Support Compression on Data Pool Insert
DP_S6_01	ECS Ticket: SIPS Ingest Into Data Pool
DP_SY_01	ECS Ticket: Data Pool FTP Service
DP_SY_03	ECS Ticket: Data Pool Cleanup
DP_SY_04	ECS Ticket: Data Pool Insert
DP_SY_06	ECS Ticket: Update Granule Expiration in Data Pool
DP_SY_08	ECS Ticket: Compile & Examine Data Pool Access Statistics
DS_7E_01	ECS Ticket: Removal of Science Data Server
DS_xx_01	ECS Ticket:
ES_SY_01	ECS Ticket: External Subsetter Support
OD_S3_01	ECS Ticket: Order Manager
OD_S4_01	ECS Ticket: Improve Distribution to End Users through Data Pool
OD_S5_02	ECS Ticket: Managing HEG Orders
OD_S5_06	ECS Ticket: Hiding Order-Only Granules In The Data Pool
OG_S5_01	ECS Ticket: HEG Extensions for OWS
OM_80_01	ECS Ticket: Operational Updates to OMS
OP_S4_06	ECS Ticket: Support Multiple Data Pool File Systems
WD_S3_01	ECS Ticket: HDF-EOS Format Converter Integration with Data Pool

WD_S4_02	ECS Ticket: HEG Integration Enhancements
WL_S4_01	ECS Ticket: Synergy IV 24-Hour Workload Performance

2 REQUIREMENTS

2.1 INS

These are the completed ECS requirements for the Ingest Subsystem (INS). INS ingests data into Science Data Processing Segment (SDPS) repositories in accordance with approved Interface Control Documents (ICDs). Data is accepted from a variety of external data providers in a variety of formats predefined within SDPS regarding the expected metadata and metadata characteristics.

ID	Title	Status
ECS-L4-15977	S-INS-00235 The INGST CI shall accept ingest Status Requests from science users to determine the status of: a. A specified ongoing Ingest Request, previously submitted by the science user who is requesting status and identified by the ingest Request Identifier b. All of the user's ongoing Ingest Requests	Completed
ECS-L4-15978	S-INS-00010 The INGST CI shall accept Network Ingest Requests to request automated electronic network ingest of a collection of Data. The collection of Data shall describe one or more Data Granules.	Completed
ECS-L4-15979	S-INS-00020 The INGST CI shall check the Network Ingest Request to verify that the date/time prior to which the data will remain available is a valid date/time.	Completed
ECS-L4-15980	S-INS-00030 The INGST CI shall authenticate the provider of a Network Ingest Request as an authorized provider of data to be ingested.	Completed
ECS-L4-15981	S-INS-00040 The INGST CI shall report status to the provider of a Network Ingest Request and to the Error Log indicating successful or unsuccessful authentication of the provider as authorized to submit the request.	Completed
ECS-L4-15982	S-INS-00050 The INGST CI shall report the following to the MSS event log services: a. Receipt of a network ingest request; b. Response to a network ingest request.	Completed
ECS-L4-15983	S-INS-00080 The INGST CI shall read a Delivery Record file describing data to be ingested at a location accessible to the ESN and submit a corresponding Network Ingest Request to be processed.	Completed
ECS-L4-15984	S-INS-00060 The INGST CI shall report status to the provider of a Network Ingest Request for the following: a. File transfer failure b. File size discrepancies c. Invalid Data Type Identifier d. Missing required metadata e. Metadata parameters out of range f. Data conversion failure g. Failure to archive data h. Inability to transfer data within the specified time window i. Missing required request information j. Successful archive of the data	Completed
ECS-L4-15985	S-INS-00083 The INGST CI shall determine the data type for expedited data provided by EDOS.	Completed
ECS-L4-15986	S-INS-00070 The INGST CI shall provide the capability to periodically check a location accessible to the ESN for the presence of a Delivery Record file describing data to be ingested. The Delivery Record file shall contain the same information as a Network Ingest Request.	Completed

ID	Title	Status
ECS-L4-15987	S-INS-00085 The INGST CI shall report status to the provider of a polling ingest request (delivery record file) for the following: a. File transfer failure b. File size discrepancies c. Invalid Data Type Identifier d. Missing required metadata e. Metadata parameters out of range f. Data conversion failure g. Failure to archive data h. Inability to transfer data within the specified time window i. Missing required request information j. Successful archive of the data	Completed
ECS-L4-15988	S-INS-00090 The INGST CI shall provide the capability for authorized operations staff to set the period between checking for the presence of Delivery Record files.	Completed
ECS-L4-15989	S-INS-00100 The INGST CI shall provide the capability to periodically check a location accessible to the ESN for the presence of data granule files.	Completed
ECS-L4-15991	S-INS-00110 The INGST CI shall submit an Polling Ingest Request after detecting the presence of data granule files in a location accessible to the ESN. The request shall contain the file location.	Completed
ECS-L4-15992	S-INS-00120 The INGST CI shall provide the capability for authorized operations staff to set the period between checking for the presence of external data granule files.	Completed
ECS-L4-15999	S-INS-00180 The INGST CI shall interactively accept Network Ingest Requests from authorized science users for electronic network ingest of a collection of Data from a location accessible to the SCF. The collection of Data shall describe one or more Data Granules.	Completed
ECS-L4-16000	S-INS-00187 The INGST CI shall access the Advertising service to determine the availability of a Network Ingest Request service for a given Data Type Identifier.	Completed
ECS-L4-16001	S-INS-00190 The INGST CI shall check the Network Ingest Request to verify that the date/time prior to which the data will remain available is a valid date/time in a Network Ingest Request entered interactively by a science user.	Completed
ECS-L4-16002	S-INS-00200 The INGST CI shall allow a science user to specify the list of granule files in an interactive Network Ingest Request based on a displayed list of existing files stored on magnetic disk.	Completed
ECS-L4-16003	S-INS-00205 The INGST CI shall determine the External Data Provider for a Network Ingest Request entered interactively by a science user.	Completed
ECS-L4-16004	S-INS-00208 The INGST CI shall authenticate that the interactive science user entering a Network Ingest Request is authorized to request ingest of data.	Completed
ECS-L4-16005	S-INS-00207 The INGST CI shall automatically determine the data volume for each file in the list of granule files for an interactively entered Network Ingest Request.	Completed
ECS-L4-16006	S-INS-00209 The INGST CI shall report to the Error Log an unauthorized attempt to interactively request ingest of data.	Completed
ECS-L4-16007	S-INS-00210 The INGST CI shall allow authorized science users to save the contents of an interactively entered Network Ingest Request in a Delivery Record file with a specified file name.	Completed
ECS-L4-16009	S-INS-00220 The INGST CI shall report status to the interactive submitter of a Network Ingest Request for the following: a. File transfer failure b. File size discrepancy c. Invalid Data Type Identifier d. Missing required metadata e. Metadata parameters out of range f. Data conversion failure g. Failure to archive data h. Inability to transfer data within the specified time window i. Unauthorized science user j. Missing required request information k. Successful archive of the data	Completed

ID	Title	Status
ECS-L4-16019	S-INS-00250 The INGST CI shall return status on a science user's ongoing Network Ingest Requests, based on User Identifier, to the user.	Completed
ECS-L4-16020	S-INS-00240 The INGST CI shall determine the User Identifier for a science user submitting an ingest Status Request.	Completed
ECS-L4-16021	S-INS-00408 For each data granule specified in an Ingest Request the INGST CI shall determine by means of an Advertisement the appropriate SDSRV CI in which to store the data granule.	Completed
ECS-L4-16022	S-INS-00260 The INGST CI shall provide science users the capability to display the status of the user's ongoing request processing. Displayed status shall include the External Data Provider, ingest Request Identifier, total ingest data volume, and Request State.	Completed
ECS-L4-16023	S-INS-00409 The INGST CI shall provide the capability to request storage of a data granule by means of a Data Insert Request to the SDSRV CI associated with the type of the data granule.	Completed
ECS-L4-16024	S-INS-00270 The INGST CI shall accept ingest Status Requests from authorized operations staff to determine the status of: a. A specified ongoing Ingest Request identified by ingest Request Identifier b. All ongoing Ingest Requests associated with a specified User Identifier c. All ongoing Ingest Requests	Completed
ECS-L4-16025	S-INS-00290 The INGST CI shall authenticate the User Identifier of operations staff requesting status on all ongoing Ingest Requests.	Completed
ECS-L4-16026	S-INS-00410 The INGST CI shall provide the capability to electronically transfer data to be ingested via the ESN into a specified ECS storage location.	Completed
ECS-L4-16027	S-INS-00280 The INGST CI shall determine the User Identifier for an operations staff member submitting an ingest Status Request.	Completed
ECS-L4-16028	S-INS-00295 The INGST CI shall return an error status to the requester and log information in the Error Log if status is requested on ongoing Ingest Requests from an unauthorized requester.	Completed
ECS-L4-16030	S-INS-00300 The INGST CI shall return status on ongoing Ingest Requests to an authorized operations staff member.	Completed
ECS-L4-16031	S-INS-00315 The INGST CI shall provide the capability for authorized operations staff to select status of ongoing Ingest Request processing for viewing by means of the External Data Provider.	Completed
ECS-L4-16032	S-INS-00415 The INGST CI shall provide an interim capability to electronically transfer data to be ingested via the ESN into a specified ECS storage location for early interface testing purposes.	Completed
ECS-L4-16033	S-INS-00310 The INGST CI shall provide authorized operations staff the capability to view the status of ongoing ingest processing. Displayed status shall include the External Data Provider, ingest Request Identifier, total ingest data volume, and Request State.	Completed
ECS-L4-16034	S-INS-00316 The INGST CI shall accept an Ingest Request from authorized applications via API.	Completed
ECS-L4-16035	S-INS-00420 The INGST CI shall provide the capability for an external application to transfer data to be ingested into a specified ECS storage location.	Completed
ECS-L4-16038	S-INS-00317 The INGST CI shall authenticate the User Identifier of an application submitting an Ingest Request.	Completed
ECS-L4-16039	S-INS-00430 The INGST CI shall provide the capability by means of a Working Storage Allocation Request to the Data Server to allocate storage space for data to be transferred to satisfy an ingest request.	Completed

ID	Title	Status
ECS-L4-16040	S-INS-00318 The INGST CI shall determine the Priority Information for each Ingest Request based on the External Data Provider and the requested ingest priority for the request.	Completed
ECS-L4-16041	S-INS-00440 The INGST CI shall estimate whether data may complete transfer before the date/time prior to which the data will remain available.	Completed
ECS-L4-16042	S-INS-00450 The INGST CI shall retry transfer of data from the External Data Provider N times before the ingest request is failed, where N is a number specified by operations staff.	Completed
ECS-L4-16043	S-INS-00460 The INGST CI shall determine the size of each file transferred to ECS whenever file sizes are specified in the corresponding Ingest Request.	Completed
ECS-L4-16044	S-INS-00510 The INGST CI shall provide the capability to select Ingest History Log entries for viewing by the following parameters: a. Ingest start/stop dates and times b. External Data Provider c. Data Type Identifier d. Final Service Request Status e. Test or operational mode	Completed
ECS-L4-16045	S-INS-00470 The INGST CI shall compare the size of each file after data transfer to ECS with file sizes specified in the corresponding Ingest Request.	Completed
ECS-L4-16046	S-INS-00540 The INGST CI shall be configured to ingest PM-1 data in accordance with the SIPS ICD.	Completed
ECS-L4-16047	S-INS-00480 The INGST CI shall verify that all files specified in an Ingest Request are successfully transferred to ECS.	Completed
ECS-L4-16048	S-INS-00541 The INGST CI shall be configured to ingest GLAS data in accordance with the SIPS ICD.	Completed
ECS-L4-16049	S-INS-00490 The INGST CI shall log the following information in an Ingest History Log for each received Ingest Request: a. Ingest start/stop dates and times b. Ingest Request Identifier c. External Data Provider d. Final Service Request Status e. Data Type Identifiers f. Ingest data volume g. # of data sets h. # of data files	Completed
ECS-L4-16050	S-INS-00542 The INGST CI shall be configured to ingest EMOS history file data in accordance with the SIPS ICD.	Completed
ECS-L4-16051	S-INS-00500 The INGST CI shall provide operations staff the capability to view selected entries from the Ingest History Log.	Completed
ECS-L4-16052	S-INS-00543 The INGST CI shall be configured to ingest PM-1 MODAPS data in accordance with the SIPS ICD.	Completed
ECS-L4-16054	S-INS-00547 The INGST CI shall ingest PM-1 Level 0 data provided by EDOS data, into the LaRC DAAC.	Completed
ECS-L4-16056	S-INS-00549 The INGST CI shall be configured to ingest AMSR ADEOS data in accordance with the SIPS ICD.	Completed
ECS-L4-16057	S-INS-00550 The Ingest CI shall insert to the SDSRV NCEP AVN data in the GRIB format.	Completed
ECS-L4-16058	S-INS-00551 The Ingest CI shall convert NCEP AVN data from the GRIB format in which it is received into the HDF-EOS grid format.	Completed
ECS-L4-16059	S-INS-00552 The Ingest CI shall insert to the SDSRV the NCEP AVN data after conversion to the HDF-EOS format.	Completed
ECS-L4-16060	S-INS-00320 The INGST CI shall select an Ingest Request for processing based on the priorities of current requests so long as the number of requests concurrently processed is less than a threshold specified by operations staff. Requests of equal priority will be processed first-in, first-out.	Completed
ECS-L4-16061	S-INS-00325 The INGST CI shall determine the ingest start/stop dates and times for all ingested data.	Completed

ID	Title	Status
ECS-L4-16062	S-INS-00321 The INGST CI shall advertise available Interactive Network Ingest services.	Completed
ECS-L4-16063	S-INS-00340 The INGST CI shall report status on processing of an Ingest Request to the Error Log for the following: a. File transfer failure b. File size discrepancy c. Invalid Data Type Identifier d. Missing required metadata e. Metadata parameters out of range f. Metadata extraction failure g. Data conversion failure h. Data reformatting failure i. Failure to archive data j. Inability to transfer data within the specified time window k. Missing required request information l. Unauthorized Ingest Request submitter m. Successful archive of the data	Completed
ECS-L4-16065	S-INS-00319 The INGST CI shall add a submitted Ingest Request to a list of Ingest Requests sorted by Priority Information.	Completed
ECS-L4-16066	S-INS-00345 The INGST CI shall report status on the performance of ingest requests to the MSS with the following information: a. file transfer duration b. file processing duration c. data insert duration	Completed
ECS-L4-16068	S-INS-00350 The INGST CI shall accept an ingest Cancellation Request from authorized operations staff to cancel an ongoing ingest request, specifying the ingest Request Identifier.	Completed
ECS-L4-16070	S-INS-00355 The INGST CI shall accept an ingest Suspension Request from authorized operations staff to suspend ongoing ingest request processing for a specified ingest Request Identifier, to suspend all ongoing ingest request processing from a specified External Data Provider, or to suspend all ongoing ingest request processing.	Completed
ECS-L4-16071	S-INS-00580 The INGST CI shall ingest Data, provided by the EDOS, into the GSFC DAAC using a file transfer protocol.	Completed
ECS-L4-16072	S-INS-00357 The INGST CI shall accept an ingest Resumption Request from authorized operations staff to resume ongoing ingest request processing for a specified ingest Request Identifier, to resume all ongoing ingest request processing from a specified External Data Provider, or to resume all ongoing ingest request processing.	Completed
ECS-L4-16073	S-INS-00360 The INGST CI shall authenticate the User Identifier of operations staff submitting an ingest Cancellation Request.	Completed
ECS-L4-16074	S-INS-00363 The INGST CI shall authenticate the User Identifier of operations staff submitting an ingest Suspension Request or ingest Resumption Request.	Completed
ECS-L4-16075	S-INS-00365 The INGST CI shall accept an ingest Suspension Request from authorized applications to suspend ongoing ingest request processing for a specified Request Identifier, to suspend all ongoing ingest request processing from a specified External Data Provider, or to suspend all ongoing ingest request processing.	Completed
ECS-L4-16076	S-INS-00364 The INGST CI shall set the state of a request to "suspended" when the number of retries for a retriable error exceeds the maximum number of retries threshold as configured.	Completed
ECS-L4-16077	S-INS-00366 The INGST CI shall accept an ingest Resumption Request from authorized operations staff to resume ongoing ingest request processing or granule processing for a specified "suspended" ingest Request Identifier or Granule Identifier.	Completed
ECS-L4-16078	S-INS-00367 The INGST CI shall accept an ingest Resumption Request from authorized applications to resume ongoing ingest request processing for a specified Request Identifier, to resume all ongoing ingest request processing from a specified External Data Provider, or to resume all ongoing ingest request processing.	Completed

ID	Title	Status
ECS-L4-16079	S-INS-00369 The INGST CI shall authenticate the User Identifier of an application submitting an ingest Cancellation Request.	Completed
ECS-L4-16080	S-INS-00370 The INGST CI shall authenticate the User Identifier of an application submitting an ingest Suspension Request or ingest Resumption Request.	Completed
ECS-L4-16081	S-INS-00380 The INGST CI shall provide authorized operations staff the capability to set thresholds for: a. Total number of Ingest Requests to process concurrently b. Number of Ingest Requests for each External Data Provider to process concurrently c. Total volume of data to ingest concurrently d Volume of data for each External Data Provider to ingest concurrently e. Number of data transfer retry attempts for each external interface to ECS	Completed
ECS-L4-16082	S-INS-00390 The INGST CI shall authenticate the User Identifier of operations staff requesting to set thresholds for concurrent ingest processing.	Completed
ECS-L4-16083	S-INS-00392 The INGST CI shall report status on ingest Cancellation Requests to the requesting operations staff and to the Error Log for the following: a. Unauthorized requester b. Invalid ingest Request Identifier c. Unable to cancel specified Ingest Request	Completed
ECS-L4-16084	S-INS-00393 The INGST CI shall report status on ingest Suspension Requests to the requesting operations staff and to the Error Log for the following: a._Unauthorized requester b._Invalid ingest Request Identifier c._Unable to suspend specified Ingest Request(s)	Completed
ECS-L4-16085	S-INS-00590 The INGST CI shall ingest Data, provided by the EDOS, into the LaRC DAAC using a file transfer protocol.	Completed
ECS-L4-16086	S-INS-00394 The INGST CI shall report status on ingest Resumption Requests to the requesting operations staff and to the Error Log for the following: a. Unauthorized requester b. Invalid ingest Request Identifier	Completed
ECS-L4-16087	S-INS-00395 The INGST CI shall report status on ingest threshold setup Requests to the requesting operations staff and to the Error Log for the following: a. Unauthorized requester b. Invalid ingest Request Identifier c. Unable to suspend specified Ingest Request(s)	Completed
ECS-L4-16088	S-INS-00397 The INGST CI shall report status on ingest Suspension Requests to the requesting application and to the Error Log for the following: a._Unauthorized requester b._Invalid ingest Request Identifier c._Unable to suspend specified Ingest Request(s)	Completed
ECS-L4-16090	S-INS-00601 The Ingest CI shall ingest and insert into the SDSRV at the LaRC DAAC the TES SIPS data as follows: TL1BL TL1BN TL2ATMTL TL2ATMTN TL2CH4L TL2CH4N TL2COL TL2CON TL2H2OL TL2H2ON TL2HNO3L TL2NO2L TL2NOL TL2O3L TL2O3N TL3ATMTL TL3ATMTN TL3CH4L TL3CH4N TL3COL TL3CON TL3H2OL TL3H2ON TL3HNO3L TL3NO2L TL3NOL TL3O3L TL3O3N	Completed
ECS-L4-16091	S-INS-00396 The INGST CI shall report status on ingest Cancellation Requests to the requesting application and to the Error Log for the following: a. Unauthorized requester b. Invalid ingest Request Identifier c. Unable to suspend specified Ingest Request(s)	Completed
ECS-L4-16092	S-INS-00398 The INGST CI shall report status on ingest Resumption Requests to the requesting application and to the Error Log for the following: a._Unauthorized requester b._Invalid ingest Request Identifier	Completed

ID	Title	Status
ECS-L4-16094	S-INS-00400 The INGST CI shall convert ingested data into an ECS standard format, for following data types: a. NCEP GRIB formatted final analysis report. b. NCEP GRIB formatted medium range forecast report. c. NESDIS Snow/Ice Product in EDR Mastermap format. d. TOMS Products in version-7 of the TOMS CDROM format.	Completed
ECS-L4-16095	S-INS-00401 The INGST CI shall convert and reformat ingested data into a form accepted by the SDSRV CI.	Completed
ECS-L4-16097	S-INS-00403 The INGST CI shall perform the following metadata conversions: a. PB5 time into ECS standard date / time format; b. Binary integer values into ASCII integer format; c. Binary floating point values into ASCII floating point format.	Completed
ECS-L4-16098	S-INS-00620 The INGST CI shall ingest data, provided by the DAO, from the ESN into the LaRC DAAC.	Completed
ECS-L4-16099	S-INS-00404 The INGST CI shall extract metadata from ingested data into a form accepted by the Science Data Server as needed, for the following categories of data: a. Metadata parameters stored by parameter byte order and parameter byte length; b. Metadata parameters stored in PVL format; c. Metadata parameters stored in HDF format; d. Dataset-specific metadata formats	Completed
ECS-L4-16100	S-INS-00621 The INGST CI shall ingest data, provided by the DAO into the LaRC DAAC using a file transfer protocol.	Completed
ECS-L4-16101	S-INS-00405 The INGST CI shall append the following ingest-specific metadata to metadata corresponding to ingested data: a. Ingest start date and time b. Ingest stop date and time c. Metadata parameter check status d. Total data volume	Completed
ECS-L4-16102	S-INS-00630 The INGST CI shall ingest data, provided by NESDIS, from the ESN into the LaRC DAAC using a file transfer protocol.	Completed
ECS-L4-16103	S-INS-00406 The INGST CI shall check selected parameters from extracted metadata to verify: a. That all required metadata parameters exist b. For numeric metadata parameters limited by a range of values, that parameter values lie within the specified range c. For metadata parameters with values limited to a set of discrete values, that parameter values are listed in the specified set d. That the metadata parameter syntax is correct e. For metadata containing parameters describing the data size, that the data size is correct (within a specified tolerance) f. That date / time values include a valid month, day of month, hour, minute, and second g. That date / time values include a year value within a range specific for that date / time value	Completed
ECS-L4-16104	S-INS-00631 The INGST CI shall ingest data, provided by NESDIS into the LaRC DAAC using a file transfer protocol.	Completed
ECS-L4-16106	S-INS-00632 The INGST CI shall ingest data, received on physical media from NESDIS, into the LaRC DAAC.	Completed
ECS-L4-16108	S-INS-00686 The INGST CI shall ingest Data, provided by an SCF into the EDC DAAC using a file transfer protocol.	Completed
ECS-L4-16110	S-INS-00688 The INGST CI shall ingest Data, provided by an SCF into the NSIDC DAAC using a file transfer protocol.	Completed
ECS-L4-16111	S-INS-00690 The INGST CI shall periodically poll a disk directory on the staging server at the SMC to determine the availability of data to be ingested for the SCFs.	Completed
ECS-L4-16113	S-INS-00650 The INGST CI shall ingest data, provided by the DAO, into the EDC DAAC using a file transfer protocol.	Completed
ECS-L4-16114	S-INS-00680 The INGST CI shall ingest Data, provided by an SCF into the LaRC DAAC using a file transfer protocol.	Completed

ID	Title	Status
ECS-L4-16118	S-INS-00780 The INGST CI shall ingest data, provided by the Landsat 7 Processing System (LPS), into the EDC DAAC using a file transfer protocol.	Completed
ECS-L4-16119	S-INS-00785 The INGST CI shall ingest Data, provided by the Landsat 7 Image Assessment System (IAS), from the LAN into the EDC DAAC via SMC using a file transfer protocol.	Completed
ECS-L4-16123	S-INS-00790 The INGST CI shall ingest data, received on physical media from the ASTER GDS, into the EDC DAAC.	Completed
ECS-L4-16126	S-INS-00842 The INGST CI shall ingest data provided by the NSIDC V0 DAAC into the NSIDC ECS DAAC.	Completed
ECS-L4-16127	S-INS-00850 The INGST CI shall ingest Data, provided by SAGE III, into the LaRC DAAC.	Completed
ECS-L4-16129	S-INS-00880 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data for EDOS/EBnet interface testing.	Completed
ECS-L4-16131	S-INS-00910 The INGST CI at the LaRC DAAC shall be capable of 200 percent expansion in throughput without architecture or design change.	Completed
ECS-L4-16132	S-INS-00925 The INGST CI at the EDC DAAC shall be capable of 200 percent expansion in throughput without architecture or design change.	Completed
ECS-L4-16133	S-INS-00927 The INGST CI at the NSIDC DAAC shall be capable of 200 percent expansion in throughput without architecture or design change.	Completed
ECS-L4-16135	S-INS-01000 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data from the SDPF at a maximum daily rate that is three times the nominal rate specified in Table E-3 of Appendix E of the current version of 304-CD-002 for Release A.	Completed
ECS-L4-16136	S-INS-01030 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data, by network data transfer from the NESDIS, at the nominal daily rate specified in Table E-3 of Appendix E of the current version of 304-CD-002 for Release A.	Completed
ECS-L4-16138	S-INS-01035 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data via SMC, by network data transfer from NESDIS, at the nominal daily rate specified in the ECS/NOAA IRD.	Completed
ECS-L4-16141	S-INS-01140 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data from the NCEP at the nominal daily rate specified in the ECS/NOAA IRD.	Completed
ECS-L4-16142	S-INS-01200 The INS CI shall accept the following as valid checksum types when checking for checksum parameters associated with a file to be ingested: a. CKSUM b. ECS c. MD5 [Note: MD5 checksum is the new capability being added by this ticket.]	Completed
ECS-L4-16143	S-INS-01205 The INS CI shall accept and represent the MD5 checksum value in the form of a 32-character lowercase hexadecimal string.	Completed
ECS-L4-16146	S-INS-01210 [Desirable] The INS CI shall accept optional parameters in the signal file (XFR file) that specify a checksum type and checksum value associated with the EDOS provided Level 0 data file. [Note: This requirement is to support checksumming for EDOS Level 0 ingest]	Completed
ECS-L4-16148	S-INS-03103 The INGST CI shall extract metadata from ingested data into a form accepted by the Science Data Server, as needed, for the following categories of data: a. Metadata parameters stored in a data-set-specific format	Completed
ECS-L4-16151	S-INS-03110 Upon ingest of ASTER L1B, the INGST CI shall populate meta-data attributes reflecting the ASTERMapProjection and Resampling used in producing the L1B product.	Completed

ID	Title	Status
ECS-L4-16152	S-INS-03115 Upon ingest of ASTER L1B, the INGST CI shall populate the InputGranulePointer with the GDS ID of the L1A data granule extracted from the SourceDataProduct object.	Completed
ECS-L4-16153	S-INS-03111 Implement Requirement S-INS-03110	Completed
ECS-L4-16154	S-INS-03116 Implement Requirement S-INS-03115	Completed
ECS-L4-16155	S-INS-03210 The INGST CI shall be capable of accessing test data sets when operating in off-line (test) mode.	Completed
ECS-L4-16156	S-INS-03200 The INGST CI shall be capable of operating in an off-line (test) mode.	Completed
ECS-L4-16157	S-INS-03300 INGST CI mode-specific applications shall access data only for the mode in which the application is configured.	Completed
ECS-L4-16158	S-INS-03310 The INGST CI shall include the mode identifier in activity log record entries for cost and accounting data.	Completed
ECS-L4-16159	S-INS-03320 INGST CI mode-specific applications shall be capable of simultaneous execution in different modes on the same machine.	Completed
ECS-L4-16160	S-INS-03330 INGST CI mode-specific applications shall be capable of simultaneous execution in different modes on different machines.	Completed
ECS-L4-16161	S-INS-03350 INGST CI client applications shall incorporate a mode identifier for CSS name service lookups.	Completed
ECS-L4-16162	S-INS-03340 INGST CI server applications shall register within their mode-associated namespace in the CSS name service.	Completed
ECS-L4-16163	S-INS-03370 The INGST CI shall ensure that the following calendar transitions are handled completely and accurately: a. New Year b. New Decade c. New Century d. Leap Year.	Completed
ECS-L4-16164	S-INS-03360 INGST CI mode-specific executables and scripts shall accept a specific mode only at startup.	Completed
ECS-L4-16165	S-INS-04000 The INGST CI shall provide a restart capability to restore previously established ingest sessions after a system failure.	Completed
ECS-L4-16166	S-INS-04010 The INGST CI shall provide a restart capability to restore the interface with the external data providers after a system failure.	Completed
ECS-L4-16167	S-INS-60330 The ICLHW CI elements and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.	Completed
ECS-L4-16168	S-INS-04020 The INGST CI shall provide a restart capability to restore previously accepted Ingest Requests after a system failure. An accepted Ingest Request is defined as a request for which an acknowledgment of receipt has been returned to the external data provider.	Completed
ECS-L4-16169	S-INS-60410 The ICLHW CI shall provide maintenance and operations interfaces to support the function of System Maintenance.	Completed
ECS-L4-16170	S-INS-60430 The ICLHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	Completed
ECS-L4-16171	S-INS-60605 The ICLHW CI shall support test activities throughout the development phase.	Completed
ECS-L4-16172	S-INS-60610 The following testing shall be performed on the ICLHW CI: a. Unit Testing b. Subsystem testing c. Integration & Testing d. End-to-End testing	Completed
ECS-L4-16173	S-INS-60620 Internal testing shall be performed on the ICLHW CI which includes tests of hardware functions, and integration testing with other SDPS subsystems.	Completed
ECS-L4-16174	S-INS-04030 The INGST CI shall provide a restart capability, after a system failure, to resume request processing for previously accepted Ingest Requests.	Completed

ID	Title	Status
ECS-L4-16175	S-INS-40020 DAAC operations shall be able to configure the list of valid checksum types that are accepted by the INS CI. [Note: It is acceptable for a server restart to be required in order to recognize changes to the list.]	Completed
ECS-L4-16176	S-INS-60630 Internal testing shall be performed on the ICLHW CI to verify the internal interfaces to the Data Management, Client, Data Server, Planning, and Data Processing subsystems.	Completed
ECS-L4-16177	S-INS-40010 The INS CI shall accept optional parameters in the PDR FILE_SPEC that specify a checksum type and checksum value associated with a science file. [Note: Checksums are only supported for science files (e.g., FILE_TYPE = SCIENCE, HDF, or HDF-EOS). They are not supported for metadata, browse, QA, or PH files. See also S-INS-40060]	Completed
ECS-L4-16178	S-INS-40022 DAAC operations shall be able to make the presence of checksum type and checksum value in a PDR mandatory for selected data providers.	Completed
ECS-L4-16179	S-INS-40024 The INS CI shall reject a granule and return a long PDRD error disposition if the checksum type and checksum value parameters are not present for each science file in a PDR from a provider for which the presence of these parameters has been made mandatory.	Completed
ECS-L4-16180	S-INS-40030 The INS CI shall reject a granule and return a long PDRD error disposition if the checksum type is not on a list of ECS supported checksum algorithms.	Completed
ECS-L4-16181	S-INS-40040 The INS CI shall reject a granule and return a long PDRD error disposition if the checksum type parameter is present and the checksum value parameter is not.	Completed
ECS-L4-16182	S-INS-40050 The INS CI shall reject a granule and return a long PDRD error disposition if the checksum value parameter is present and the checksum type parameter is not.	Completed
ECS-L4-16183	S-INS-40055 The INS CI shall reject a granule and return a long PDRD error disposition if the checksum value parameter is present and syntactically incorrect.	Completed
ECS-L4-16184	S-INS-40060 The INS CI shall ignore checksum type and checksum value parameters for all types of files other than science files.	Completed
ECS-L4-16185	S-INS-40070 The INS CI shall send optional checksum type and checksum value parameters to the SDSRV CI during granule insert.	Completed
ECS-L4-16186	S-INS-40075 If checksum type and value parameters are present, the INS CI shall use a checksum verification percentage that can be configured by the DAAC by provider to determine whether the checksum should be verified and indicate the need for verification in the checksum parameters sent to the SDSRV.	Completed
ECS-L4-16187	S-INS-40076 The INS CI shall accept indication of a checksum verification error from the SDSRV in response to a granule insert request.	Completed
ECS-L4-16188	S-INS-40077 The INS CI shall retry the granule ingest operation a DAAC-configurable number of times in the event that the SDSRV indicates a checksum verification error.	Completed
ECS-L4-16189	S-INS-40080 The INS CI shall accept the optional checksum type and value associated with a science file contained in the Data Notification email message for a cross-DAAC ingest request. [Note: The EcInEmailGWServer will parse the checksum type and value from the DN. It is assumed that DAAC operations will configure the ECS userID that is used by these orders to receive a checksum in its DN, as specified in S-DSS -45100, S-DSS -45110]	Completed

ID	Title	Status
ECS-L4-16190	S-INS-40090 The INS CI shall construct a PDR FILE_SPEC using the optional checksum type and checksum value in the Data Notification email message for a cross-DAAC ingest request. [Note: The EcInEmailGWServer constructs the PDR from the DN. Also note that in this case the checksum will be in the PDR as well as in the .met file of the granule.]	Completed
ECS-L4-16191	S-INS-60150 The ICLHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	Completed
ECS-L4-16192	S-INS-60160 Startup and initialization of the ICLHW CI shall be completed within 30 minutes.	Completed
ECS-L4-16193	S-INS-60170 Shutdown of the ICLHW CI shall be completed within 30 minutes.	Completed
ECS-L4-16194	S-INS-60190 The ICLHW CI shall have a status monitoring capability.	Completed
ECS-L4-16195	S-INS-60210 The INGST CI shall support a maximum of 300 transactions per day, as specified for each release and corresponding DAAC sites in Table E-3 of the current version of 304-CD-002 for Release A.	Completed
ECS-L4-16196	S-INS-60320 The ICLHW CI shall be configured to support the SDPS function of Receiving Science Data's Availability requirement of .999 and Mean Down Time requirement of < 2 hours during times of staffed operation.	Completed
ECS-L4-16197	S-INS-60325 The ICLHW CI shall be configured to support the SDPS function of Metadata Ingest and Update's Availability requirement of .96 and Mean Down Time requirement of 4 hours or less.	Completed
ECS-L4-16198	S-INS-60326 The maximum down time of the ICLHW CI shall not exceed twice the required MDT in 99 percent of failure occurrences.	Completed
ECS-L4-16199	S-INS-60640 Each ICLHW CI element shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.	Completed
ECS-L4-16200	S-INS-60650 The ICLHW CI shall be capable of being monitored during testing.	Completed
ECS-L4-16201	S-INS-60733 The ICLHW CI shall contain the storage and interface resources to support the ingest functions for the Landsat 7 Processing System interface at EDC.	Completed
ECS-L4-16204	S-INS-60755 The ICLHW CI at the LaRC DAAC shall be sized to temporarily store two times the daily volume of SDPF data as specified in Table E-3 of Appendix E of the current version of 304-CD-002 for Release A.	Completed
ECS-L4-16205	S-INS-60756 The ICLHW CI at the LaRC DAAC shall be sized to temporarily store the volume of EDOS data as specified in the Ingest Subsystem Capabilities and Performance Capabilities by DAAC Table.	Completed
ECS-L4-16206	S-INS-60765 The ICLHW CI shall have a switchover time from the primary science data receipt capability to a backup capability of 15 minutes or less.	Completed
ECS-L4-16207	S-INS-60770 The ICLHW CI at the EDC DAAC shall be sized to temporarily store the volume of Landsat 7 data as specified in the Daily Level 0 Data Ingest by DAAC Table.	Completed
ECS-L4-16209	S-INS-60773 The ICLHW CI at the NSIDC DAAC shall be sized to temporarily store the volume of AMSR L1B data as specified in the F&PRS, Appendix C, Table C-2.	Completed
ECS-L4-16210	S-INS-60810 The operating system for each UNIX platform in the ICLHW CI shall conform to the POSIX.2 standard.	Completed

ID	Title	Status
ECS-L4-16211	S-INS-60820 The ICLHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	Completed
ECS-L4-16212	S-INS-60830 The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 user Portability Utilities installed at a minimum: man, vi.	Completed
ECS-L4-16213	S-INS-60840 The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	Completed
ECS-L4-16214	S-INS-60850 The ICLHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installed at a minimum: lex, yacc.	Completed
ECS-L4-16215	S-INS-60860 The ICLHW CI POSIX.2 compliant platform shall have the following Unix shells installed at a minimum: C shell, Bourne shell, Korn shell.	Completed
ECS-L4-16216	S-INS-60870 The ICLHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	Completed
ECS-L4-16217	S-INS-60880 The ICLHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages: a. C b. C++	Completed
ECS-L4-16218	S-INS-60890 Each development environment associated with the POSIX.2 compliant platform in the ICLHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	Completed
ECS-L4-16219	S-INS-60895 Each development environment associated with the POSIX.2 compliant platform in the ICLHW CI shall have an interactive source level debugger for ECS supported languages.	Completed
ECS-L4-16223	S-INS-61020 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data from the EDOS at the nominal daily rate specified in the Ingest Subsystem Capabilities and Performance Capabilities by DAAC Table.	Completed
ECS-L4-16224	S-INS-61025 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data from the EDOS at a maximum daily rate that is 1.2 times the nominal rate specified in the Ingest Subsystem Capabilities and Performance Capabilities by DAAC Table.	Completed
ECS-L4-16225	S-INS-61030 The ICLHW CI at the EDC DAAC shall be capable of ingesting data from the Landsat 7 Processing System (LPS) at the nominal rate specified in the ECS/Landsat-7 System ICD.	Completed
ECS-L4-16226	S-INS-61040 The ICLHW CI at the EDC DAAC shall be capable of ingesting data from the Landsat 7 IAS at the nominal daily rate specified in the ECS/Landsat-7 System ICD.	Completed
ECS-L4-16227	S-INS-61050 The ICLHW CI at the EDC DAAC shall be capable of ingesting data from the Landsat 7 IGSs at the nominal daily rate specified in the ECS/Landsat-7 System ICD.	Completed
ECS-L4-16230	S-INS-61140 The ICLHW CI at the LaRC DAAC shall be capable of ingesting data from SAGE III at the nominal daily rate specified in the Daily Level 0 Data Ingest by DAAC Table.	Completed
ECS-L4-16231	S-INS-61180 The ICLHW CI at the NSIDC DAAC shall be capable of ingesting AMSR L1B data from the NSIDC V0 DAAC at the nominal daily rate specified in the F&PRS, Appendix C, Table C-2.	Completed
ECS-L4-16232	S-INS-70010 The Ingest CSCI shall allow ingest of ECSMETU products through the BMGT SIPS interface.	Completed

2.2 DPL-Ingest

These are the completed ECS requirements for the DPL-Ingest subsystem (Data Pool Ingest, includes the SIPS Metadata Generator, SIPSMETGEN.) There are currently no Completed requirements in the DPL-Ingest subsystem.

ID	Title	Status

Appendix A Abbreviations and Acronyms

These are the abbreviations and acronyms used in the SDPS requirements Volumes 1-10. This section is replicated in all volumes.

ACL	access control list
ACVU	AIM checksum verification utility
ADC	Affiliated Data Center
ADEOS	Advanced Earth Observing Satellite
AIM	Archive Inventory Management
AIRS	Atmospheric Infrared Sounder
AMFS	Archival Management and Storage System File System
AMSR	Advanced Microwave Scanning Radiometer
ANSI	American National Standards Institute
API	Application Program Interface
APIDs	Application Process Identifiers
APIs	Application Program Interfaces?
ARP	Address Resolution Protocol
ASDC	Atmospheric Science Data Center
ASF	Alaska Satellite Facility
AST_L1A, AST_L1B	ASTER Level 1 A and Level 1 B data types
ASTER	Advanced Spaceborne Thermal Emission and Reflecton Radiometer
AVG	average
AVN	National Center for Environmental Prediction (NCEP) Aviation model, later renamed to Global Forecast System (GFS)
BGT	Bulk Metadata Generation Tool, also known as BMGT
BIL	Band Interleaved
BMGT	Bulk Metadata Generation Tool
BPI	Bits per inch
BRF	Browse Reference File
BRWS	Browse

BUFR	Binary Universal Form for the Representation of meteorological data
CCB	Configuration Control Board
CCR	Configuration Change Request
CCSDS	Consultative Committee for Space Data Systems
CD	Compact Disc
CFG	Configuration
CI	Configuration Item
CKSUM	refers to a particular algorithm or program to calculate a file checksum
CLS	Client Subsystem
CM	Configuration Management
CMO	Configuration Management Office
CMR	Common Metadata Repository
COTS	Commercial Off-The Shelf (hardware or software)
CPU	Central Processing Unit
CRON	A linux system utility to perform time scheduled executions
CS	Client Server
CSC	Computer Software Component
CSCI	Computer Software Configuration Item
CSDT	Computer Scient Data Type
CSH	C-Shell
CSMS	Communication and Systems Management Segment
CSS	Communications Subsystem
DAAC	Distributed Active Archive Center
DADS	Data Archive and Distribution System
DAR_ID	Data Acquisition Request Identifier
DB	Database
DBID	Database Identifer
DB	Database
DCLI	DDIST (Data Distribution) Command Line Interface
DD	Data Dictionary
DDIST	Data Distribution CSCI
DDR	Detailed Design Review
DEM	Digital Elevation Model
DESKT	Desktop (Computer Software Configuration Item)
DFA	Delete From Archive
DHWM	Data High Water Mark

DIF	Directory Interchange Format
DIPHW	Distribution and Ingest Peripheral HWCI
DMS	Data Management Subsystem
DN	Delivery Notification
DORRAN	Distributed Ordering, Researching, Reporting, and Accounting Network (at EDC)
DPAD	Data Pool Action Driver
DPCV	Data Pool Checksum Verification Utility
DPIU	Data Pool Insert Utility
DPL	Data Pool
DPLINGST	Data Pool Ingest
DPLINSERT	Data Pool Insert
DPM	Data Pool Maintenance
DRPHW	Data Repository HWCI
DSS	Data Server Subsystem
DTD	Document Type Definition (XML)
DTF	Sony Digital Tape Format Tape cartridge system
DTS	Defect Tracking Subsystem
EBNET	EOSDIS Backbone Network
ECHO	EOS Clearning House
ECI, ECR	Earth Centered Inertial, Earth Centered Rotating
ECNBDB	Spatial Subscription Server database
ECS	Earth Observing System Data and Information Core System
EDC	Earth Resource Observation System Data Center
EDOS	Earth Observing System (EOS) Data and Operations System
EDR	Expedited Data Set Request
EDS	Expedited Data Set
EED	EOSDIS Evolution and Development Project
EGS	EOSDIS Ground System
EMD	EOSDIS Maintenance and Development Project
EMOS	EOS Mission Operations System
EMS	ESDIS Metrics System
EOC	Earth Observation Center (Japan), EOS Operations Center
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
EPD	External Processor Dispatcher
EPSG	European Petroleum Survey Group

ESDIS	Earth Science Data and Information System
ESDT	Earth Science Data Type
ESG	Earth Science Gateway
ESI	EOSDIS Service Interface
ETE	End to End
EWOC	ECHO WSDL Order Component
F&PRS	Functional and Performance Requirements Specification
FCAPS	Fault, Configuration, Accountability, Performance and Security
FDDI	Fiber Distributed Data Interface
FDF	Flight Dynamics Facility
FOS	Flight Operations Segment
FSMS	File and Storage Management System
FTP	File Transfer Protocol
FTPD	File Transfer Protocol Daemon
GB	Gigabyte or Gigabit
GBYTE	Gigabyte
GCMD	Global Change Master Directory
GDS	Ground Data System
GEOTIFF	Georeferenced Tagged Image File Format
GFE	Government Furnished Equipment
GIS	Geographical Information System
GLAS	Geoscience Laser Altimeter System
GPS	Global Positioning System
GRIB	Grid in Binary
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
GZIP	GNU zip
HDF	Hierarchical Data Format
HDF-EOS	an EOS proposed standard for a specialized HDF data format
HEG	HDF-EOS-To-Geotiff Conversion Tool
HIPPI	High Performance Parallel Interface
HIRDLS	High-Resolution Dynamics Limb Sounder
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPD	Hypertext Transfer Protocol Daemon
HWCI	Hardware Configuration Item

I/O	Input/Output
I&T	Integration and Test
IAS	Image Assessment System
ICD	Interface Control Document
ICLHW	Ingest Client HWCI
ICMP	Internet Control Message Protocol
IDL	Interactive Data Language
ID	Identifier
IEEE	Institute of Electrical and Electronics Engineering
IGS	International Ground Station
IIU	Inventory Insert Utility
IMS	Information Management System
INCI	Internetworking Hardware HWCI
INHCI	Ingest Hardware (Configuration Item)
INHW	Ingest Hardware (Configuration Item)
INS	Ingest Subsystem
IP	Internet Protocol
IR-1	Initial Release 1
IRD	Interface Requirements Document
IRIX	Silicon Graphics version of Unix
ISS	Internetworking Subsystem
IV&V	Independent Verification and Validation
JDT	Java DAR (Data Acquisition Request) Tool
JPEG	Joint Photographic Experts Group image file format
JPG	JPEG file extension
JPL	Jet Propulsion Laboratory
KFTP	Kerberized File Transfer Protocol
LAN	Local Area Network
LARC	Langley Research Center
LAT/LON	Latitude and Longitude
LGID	Local Granule Identifier
LLBOX	Latitude/Longitude Box
LP-DAAC	Land Processes Distributed Active Archive Center
LPS	Landsat 7 Processing System
LSM	Local System Management (network)
LUNs	Logical Unit Numbers
M&O	Maintenance and Operations

MAN	Metropolitan Area Network
MAX	Maximum
MB	Megabyte (10^6)
MB/sec	Megabytes per second
MBITS/SEC	Megabits per second
MBPS	Megabytes per second
MCF	Metadata Configuration File
MD5	Message Digest checksum algorithm number 5
MDT	Maximum Down Time
METC	refers to file containing Collection Metadata
MGS	Map Generation Subsystem
MGU	Map Generation Utility
MISBR	MISR Browse
MISR	Multi-Imaging SpectroRadiometer
MLCI	Management Logistics Configuration Item
MM	Millimeter
MM/DD/YYYY	date code representation for month, day, year
MODAPS	MODIS Adaptive Processing System
MODIS	Moderate Resolution Imaging SpectroRadiometer
MRTG	Multi Router Traffic Grapher
MSEC	Millisecond
MSM	Media Storage Manager (part of Stornext)
MSS	System Management Subsystem
MTMGW	Machine to Machine Gateway
MUTEX	Mutually Exclusive
N/A	Not Applicable/Not Available
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NBSRV	Spatial Subscription Server
NCEP	National Centers for Environmental Prediction
NCR	Non-conformance report
NESDIS	National Environmental Satellite, Data, and Information Service (NOAA)
NFS	Network File System
NIST	National Institute of Standards and Technology
NM	Name Server Subsystem
NMC	National Meteorological Center (NOAA)

NMF	Network Management Facility
NOAA	National Oceanic and Atmospheric Administration
NSBRV	Spatial Subscription Server
NSI	NASA Science Internet
NSIDC	National Snow and Ice Data Center
NTP	Network Transport Protocol
OBU	OWS Binding Utility
ODC	Other Data Center
ODL	Object Description Language
OGC	Open GIS Consortium
OLA	On-line Archive
OMS	Order Manager Subsystem
OPS	Operations
ORNL	Oak Ridge National Laboratory
OSI	Open Systems Interconnection
OSS	Operational Support Software
OWS	OGC Web Services Subsystem
PANs	Production Acceptance Notifications
PB	Petabyte (10^15)
PC	Personal Computer
PDF	Portable Document Format
PDPS	Planning and Data Processing Subsystems
PDR	Product Delivery Record
PDRD	Product Delivery Record Discrepancy
PDSIS	Product Distribution System Information Server
PF	Process Framework
PGE	Product Generation Executable
PGEEXE	PGE executable tar file ESDT
PH	Production History
PID	Process Identifier
PO.DAAC	Physical Oceanography Distributed Active Archive Center
POSIX	Portable Operating System Interface
PREPROCERR	Preprocessing Error
PSA	Product-Specific Attribute
PTHREADS	Portable Operating System Interface (POSIX) threads
PUBERR	Publication Error
PVC	Performance Verification Center

PVL	Parameter Value Language
Q/A, QA	Quality Assurance
QAMUT	Quality Assurance Metadata Update Tool
QC	Quality Control
RARP	Reverse Address Resolution Protocol
RDBMS	Relational Database Management System
RFC	Request for Comments
RHWM	Request High Water Mark
RLWM	Request Low Water Mark
ROM	Read Only Memory
RPC	Remote Procedure Call
RPCID	Remote Procedure Call Identifier
RTR	Requirements Technical Review
SBSRV	Subscription Server
SCF	Science Computing Facility
SCI	science
SCP	Secure Copy
SDP	Science Data Processing
SDPF	Science Data Processing Facility
SDPS	Science Data Processing Segment
SDRSV	misspelled SDSRV
SDS	Scientific Dataset(HDF-EOS term), Science Data System
SDSRV, SDSVR	Science Data Server
SIPS	Science Investigator-led Processing System
SMAP	Soil Moisture Active Passive
SNAC	StorNext Archive Cache
SNFS	StorNext File System
SNMP	Simple Network Management Protocol
SOM	Space Oblique Mercator
SORCE	Solar Radiation and Climate Experiment
SQL	Structured Query Language
SRF	Server Request Framework
SS	two digit seconds field in a time string
SSH	Secure Shell (protocol)
SSI&T	Science System Integration and Test
SSM/I	Special Sensor for Microwave/Imager
SSS	Spatial Subscription Server Subsystem

STGMT	Storage Management Subsystem
TB	Terabyte
TBD	To Be Determined/To Be Defined
TBR	To Be Resolved
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TES	Trophospheric Emission Spectrometer
TKD	Toolkit for DAAC
TKS	Toolkit for Scientists
TOMS	Total Ozone Mapping Spectrometer
TSDIS	TRMM Science Data and Information System
TSM	Tertiary Storage Manager, component of StorNext
TTPro	TestTrack Pro
UDF	Universal Disk Format
UDP	User Datagram Protocol
UPS	Uninterruptible Power Supply
URL	Uniform Resource Locator
UR	Universal Reference, granule UR
UTC	Universal Time Coordinated/Universal Time Code
UTM	Universal Transverse Mercator
V0	Version 0, Refers to the Archive System and Protocols used in the predecessor to the ECS
VPN	Virtual Private Network
VS	versus (abbr)
W*S	refers to any member of the family of Open Geospatial Consortium (OGC) web services: WCS, WMS, WFS, WPS
WAN	Wide Area Network
WCS	Web Coverage Service
WGS84	World Geodetic System 1984
WKBCHCI	Workbench Configuration Item
WKSHW	Working Storage Hardware Configuration Item
WMS	Web Map Service
WRS	Worldwide Reference System, used by Landsat
WSDL	Web Service Definition Language
WU-FTP	Washington University File Transfer Protocol program
WWW	World Wide Web
XFR	Transfer (abbr)

XML	Extensible Markup Language
XSD	XML Schema Definition
XVU	XML Validation Utility