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IRD CLASS FROM RTM

paragraph_id	segment_allocation	req_title	text
TRMM1010	SDPS	LaRC ingests CERES data from SDPF	The ECS <u>systems at the</u> LaRC DAAC shall ingest CERES <u>Level 0 and quick-look</u> data <u>sets</u> from SDPF.
TRMM1020	SDPS	CERES L0 & Q/L to ECS-LaRC DAAC	The SDPF to the ECS LaRC DAAC data stream shall include Level 0 and quick-look data sets.
TRMM1030	SDPS	CERES quality and accounting	The SDPF Level 0 and quick-look data sets for CERES shall contain quality and accounting information.
TRMM1040	SDPS	CERES L0 & Q/L SFDU header	The SDPF Level 0 and quick-look data sets for CERES shall contain a detached SFDU header.
TRMM1050	SDPS	SDPF notifies CERES availability	SDPF shall send a notification to the ECS <u>systems at the</u> LaRC DAAC upon availability of CERES Level 0 production or quick-look data.
TRMM1060	SDPS CSMS	LaRC receives CERES L0 & Q/L	The ECS <u>systems at the</u> LaRC DAAC shall, after notification by SDPF, retrieve CERES Level 0 production and quick-look data by an agreed-upon file transfer protocol.
TRMM1070	SDPS	LaRC ensures receipt and validation	The ECS <u>systems at the</u> LaRC DAAC shall ensure that CERES data has been received and validated.
TRMM1080	SDPS	LaRC acknowledges data receipt	The ECS <u>systems at the</u> LaRC DAAC shall acknowledge successful receipt of a CERES data set to the SDPF.
TRMM1090	SDPS	LaRC assesses need for regeneration	Upon the ECS <u>systems at the</u> LaRC DAAC, upon discovering an unprocessable data set during validation, <u>the ECS and SDPF personnel</u> shall assess the need with the SDPF for regeneration.
TRMM1100	NONE	Regenerate/reprocess CERES L0 data	SDPF shall regenerate/reprocess CERES Level 0 data for the <u>ECS systems at the</u> LaRC DAAC, for recovery purposes, as negotiated in order to avoid impacting SDPF support for on-orbit spacecraft.
TRMM1110	SDPS	SDPF provides CERES L0 daily	SDPF shall provide a CERES Level 0 data set to the ECS <u>systems at the</u> LaRC DAAC once per day within 24 hours of the last acquisition session.

TRMM1120	SDPS <u>NONE</u>	SDPF retains CERES L0 5 days	The SDPF shall retain CERES Level 0 data sets for five (5) days.
TRMM1130	SDPS	CERES scheduled & occasional Q/L	The ECS <u>systems at the</u> LaRC DAAC shall receive CERES scheduled quick-look from SDPF 3 times per day plus occasional special quick-look <u>data sets</u> .
TRMM1140	SDPS <u>NONE</u>	CERES Q/L data set = 1 contact	A CERES quick-look data set shall contain data received during a single spacecraft contact.
TRMM1150	SDPS	CERES Q/L availability notification	SDPF shall notify the ECS <u>systems at the</u> LaRC DAAC of availability of a CERES quick-look data set within 2 hours of the end of the acquisition session.
TRMM1160	SDPS	CERES scheduled special Q/L	CERES special quick-look data collection and processing shall be scheduled <u>with SDPF by human interaction</u> .
TRMM1170	SDPS	Scheduled data for calibration	Data collected and processed for CERES solar calibration shall be scheduled <u>by human interaction</u> .
TRMM1180	SDPS	CERES L0 & Q/L formats	ECS shall be able to process SDPF Level 0 and quick-look data sets in SPDF-defined format.
TRMM1190	SDPS <u>NONE</u>	Retain CERES raw data for 2 years	SDPF shall retain CERES raw data for 2 years.
<u>TRMM1195</u>	<u>SDPS</u>	<u>orbit data availability notification</u>	<u>SDPF shall send a notification to the ECS systems at the LaRC DAAC upon availability of predictive or definitive orbit data.</u>
TRMM1200	SDPS	LaRC ingests predicted orbit data	The ECS <u>systems at the</u> LaRC DAAC shall ingest predicted orbit data from the SDPF.
TRMM1210	SDPS	LaRC ingests definitive orbit data	The ECS <u>systems at the</u> LaRC DAAC shall ingest definitive orbit data from the SDPF.
TRMM1220	SDPS	LaRC archives definitive orbit data	ECS shall archive definitive orbit for CERES reprocessing of level 1A data in case of data loss.
TRMM1230	SDPS	CERES defines ancillary, etc.	The CERES instrument team and science team shall define the ancillary, correlative, and flight dynamics data and algorithms needed for their processing.
TRMM1240	SDPS	CERES provides Q/L algorithms	The CERES instrument team and science team shall provide the quick-look data processing algorithms and quick-look operations concept needed for CERES.

TRMM1250	SDPS	CERES products & Q/A from LaRC	The ECS LaRC DAAC shall produce standard products for the CERES instrument and perform quality control for ECS-developed products.
TRMM1260	SDPS	LaRC archives CERES products	*The CERES standard products developed at the ECS LaRC DAAC shall be archived at the ECS LaRC DAAC.
TRMM1270	SDPS CSMS	LaRC testing 9 months before	The ECS LaRC DAAC and SPDF shall support TRMM end-to-end testing 9 months before TRMM launch.
TRMM1280	SDPS	ECS accepts CERES simulated data	ECS shall be able to accept CERES simulated data from SPDF.
TRMM1290	SDPS CSMS	Use standards and COTS products	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use commercial off-the-shelf (COTS) hardware and software products as appropriate.
TRMM2010	SDPS	MSFC ingests LIS data from SPDF	The ECS <u>systems at the</u> MSFC DAAC shall ingest LIS data from SPDF.
TRMM2020	SDPS	LIS L0 & Q/L to ECS MSFC DAAC	The SPDF to the ECS MSFC DAAC data stream shall include Level 0 and quick-look data sets.
TRMM2030	SDPS <u>NONE</u>	LIS quality and accounting	The SPDF Level 0 and quick-look data sets for LIS shall contain quality and accounting information.
TRMM2040	SDPS	LIS L0 and Q/L SFDU header	The SPDF Level 0 and quick-look data sets for LIS shall contain a detached SFDU header.
TRMM2050	SDPS	SPDF notifies LIS availability	SPDF shall send a notification to the ECS <u>systems at the</u> MSFC DAAC upon availability of LIS Level 0 production or quick-look data.
TRMM2060	SDPS CSMS	MSFC retrieves LIS L0 & Q/L	The ECS <u>systems at the</u> MSFC DAAC shall, after notification by SPDF, retrieve LIS Level 0 production and quick-look data by an agreed upon file transfer protocol.
TRMM2070	SDPS	MSFC ensures receipt and validation	The ECS <u>systems at the</u> MSFC DAAC shall ensure that LIS data has been received and validated.

TRMM2080	SDPS	MSFC acknowledge s data receipt	The ECS <u>systems at the</u> MSFC DAAC shall acknowledge successful receipt of a LIS data set to the SDPF.
TRMM2090	SDPS	MSFC assesses need for regeneration	<u>Upon the ECS operations at the</u> ECS MSFC DAAC, upon discovering an unprocessable data set during validation, <u>the ECS and SDPF personnel</u> shall assess the need with the SPDF for regeneration.
TRMM2100	NONE	Regenerate/re process LIS L0 data	SDPF shall regenerate/reprocess LIS Level 0 data for the <u>ECS systems at the</u> MSFC DAAC, for recovery purposes, as negotiated in order to avoid impacting SDPF support for on-orbit spacecraft.
TRMM2110	SDPS	SDPF provides LIS L0 daily	SDPF shall provide a LIS Level 0 data set to the ECS <u>systems at the</u> MSFC DAAC once per day within 24 hours of the last acquisition.
TRMM2120	SDPS <u>NONE</u>	SDPF retains LIS L0 5 days	SDPF shall retain retrieved LIS Level 0 data sets for five (5) days.
TRMM2130	SDPS	Scheduled & occasional Q/L	The ECS <u>systems at the</u> MSFC DAAC shall receive LIS scheduled quick-look from SDPF 3 times per day plus occasional special quick-look.
TRMM2140	SDPS <u>NONE</u>	Q/L data set = 1 contact	A LIS quick-look data set shall contain data received during a single spacecraft contact.
TRMM2150	SDPS	Q/L availability notification	SDPF shall notify the ECS <u>systems at the</u> MSFC DAAC of availability of a LIS quick-look data set within 2 hours of the end of the acquisition session.
TRMM2160	SDPS	LIS scheduled special Q/L	LIS special quick-look data collection and processing shall be scheduled <u>with SDPF by human interaction</u> .
TRMM2170	SDPS	LIS L0 and Q/L formats	ECS shall be able to process LIS Level 0 and quick-look data sets in SDPF-defined formats.
TRMM2180	SDPS <u>NONE</u>	Retain LIS raw data for 2 years	SDPF shall retain LIS data for 2 years.
<u>TRMM2185</u>	<u>SDPS</u>	<u>orbit data availability notification</u>	<u>SDPF shall send a notification to the ECS systems at the MSFC DAAC upon availability of predictive or definitive orbit data.</u>
TRMM2190	SDPS	MSFC ingests predicted orbit data	The ECS <u>systems at the</u> MSFC DAAC shall ingest predicted orbit data from the SDPF.
TRMM2200	SDPS	MSFC ingests definitive orbit data	ECS <u>systems at the</u> MSFC DAAC shall ingest definitive orbit data from the SDPF.

TRMM2210	SDPS	ECS archives definitive orbit data	ECS shall archive definitive orbit for LIS reprocessing of Level 1A data in case of data loss.
TRMM2220	SDPS	LIS defines ancillary, etc.	The LIS science team and instrument team shall define the ancillary, correlative, and flight dynamics data and algorithms needed for their processing.
TRMM2230	SDPS	LIS provides Q/L algorithms	The LIS instrument team and science team shall provide the quick-look data processing algorithms and quick-look operations concept needed for LIS.
TRMM2240	SDPS	LIS products and Q/A from MSFC	The ECS MSFC DAAC shall produce standard products for the LIS instrument and perform quality control for ECS-developed products.
TRMM2250	SDPS	MSFC archives LIS products	LIS standard products developed at the ECS MSFC DAAC shall be archived at the ECS MSFC DAAC.
TRMM2260	SDPS	MSFC testing 9 months before	The ECS MSFC DAAC and SPDF shall support TRMM end-to-end testing 9 months before TRMM launch.
TRMM2270	SDPS	ECS accepts LIS simulated data	ECS shall be able to accept LIS simulated data from SPDF.
TRMM2280	SDPS CSMS	Use standards and COTS products	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.
TRMM3010	SDPS	MSFC ingests PR & TMI L1A - 3B data	The ECS <u>systems at the</u> MSFC DAAC shall ingest <u>TRMM standard products (Level 1A - 3B)</u> data for PR and TMI from TSDIS.
TRMM3020	SDPS	MSFC ingests PR & TMI L1B-3B	The ECS MSFC DAAC shall ingest TRMM standard products (Level 1B-3B) for PR, and TMI from TSDIS.
TRMM3030	SDPS	MSFC ingests TRMM PR, TMI & GV browse	The ECS <u>systems at the</u> MSFC DAAC shall ingest TRMM browse products for PR, and TMI <u>and GV</u> from TSDIS.
TRMM3040	SDPS	MSFC ingests algorithms & doc	The ECS <u>systems at the</u> MSFC DAAC shall ingest algorithms and documentation for PR and TMI from TSDIS.

TRMM3050	SDPS	MSFC ingests TRMM GV & Metadata	The ECS systems at the MSFC DAAC shall ingest TRMM Ground Validation (GV) data products and associated metadata from TSDIS.
TRMM3060	SDPS	MSFC archives PR, TMI, &GV data	The PR, TMI, and GV data ingested from TSDIS by ECS shall be archived in the ECS systems at the ECS-MSFC DAAC.
TRMM3070	SDPS	MSFC ingests TRMM data daily	The ECS systems at the MSFC DAAC shall ingest TRMM data files and data products, including metadata, daily.
TRMM3080	SDPS	TSDIS provides product schedule	TSDIS shall electronically provide a schedule of TRMM product delivery to the ECS systems at the MSFC DAAC.
TRMM3090	SDPS	TSDIS statuses delayed products	TSDIS shall electronically provide status information to the ECS systems at the MSFC DAAC about delayed products.
TRMM3100	SDPS	ECS delivers 2-days data	ECS shall make daily deliveries of an average of 2-days worth of archived TRMM PR, TMI, GV, and SSM/I ancillary data to TSDIS for the purpose of reprocessing by TSDIS. ECS also shall daily ingest an average of 2-days worth of reprocessed data from TSDIS.
TRMM3110	SDPS	TRMM order for SSM/I data	TRMM shall make a standing order to ECS for SSM/I data to be delivered from the ECS systems at the MSFC DAAC to TSDIS.
TRMM3120	CSMS	ESDIS communications for TSDIS/MSFC	Communications between TSDIS and the ECS systems at the MSFC DAAC to transport the PR, TMI, and GV Level 1A data, Level 1B-3B standard products, metadata, SSM/I ancillary data, algorithms, and documentation shall be provided by ESDIS.
TRMM3130	SDPS	ESDIS data standards and formats	All data transferred between TSDIS and the ECS systems at the MSFC DAAC, including GV, shall follow ESDIS-defined standards with specific product formats to be jointly agreed to and documented in ICDs.
TRMM3140	SDPS CSMS	Use standards and COTS products	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.

TRMM4010	SDPS	GSFC ingests VIRS L1A - 3B data	The ECS systems at the GSFC DAAC shall ingest TRMM standard products (Level 1A - 3B) data for VIRS from TSDIS.
TRMM4020	SDPS	GSFC ingests VIRS L1B-3B products	The ECS GSFC DAAC shall ingest TRMM standard products Level 1B-3B for VIRS from TSDIS.
TRMM4030	SDPS	GSFC ingests VIRS browse products	The ECS systems at the GSFC DAAC shall ingest TRMM browse products for VIRS from TSDIS.
TRMM4040	SDPS	GSFC ingests algorithms and doc	The ECS systems at the GSFC DAAC shall ingest from TSDIS algorithms and documentation for VIRS.
TRMM4050	SDPS	GSFC archives VIRS	The VIRS data ingested from TSDIS by ECS shall be archived at the ECS systems at the GSFC DAAC.
TRMM4060	SDPS	GSFC ingests TRMM data daily	The ECS systems at the GSFC DAAC shall ingest TRMM data files and data products, including metadata, daily.
TRMM4070	SDPS	TSDIS provides product schedule	TSDIS shall electronically provide a schedule of TRMM product delivery to the ECS systems at the GSFC DAAC.
TRMM4080	SDPS	TSDIS statuses delayed products	TSDIS shall electronically provide status information to the ECS systems at the GSFC DAAC about delayed products.
TRMM4090	SDPS	ECS delivers 2-days TRMM data	ECS shall make daily deliveries of an average of 2-days worth of archived TRMM VIRS and AVHRR, GOES Precipitation Index (GPI), Global Precipitation Climatology Project (GPCP), and National Meteorological Center (NMC) ancillary data to TSDIS for the purpose of reprocessing by TSDIS. ECS shall also daily ingest an average of 2-days worth of reprocessed data from TSDIS.
TRMM4100	SDPS	TSDIS standing orders ancillary	TSDIS shall make a standing order to ECS for AVHRR, GPI, GPCP, and NMC ancillary data to be delivered from the ECS systems at the GSFC DAAC to TSDIS.

TRMM4110	CSMS	ESDIS communications for TSDIS/GSFC	Communications between TSDIS and the ECS <u>systems at the</u> GSFC DAAC to transport the VIRS Level 1A data, Level 1B-3B standard products, metadata, AVHRR, GPI, GPCP, and NMC ancillary data, and algorithms and documentation shall be provided by ESDIS.
TRMM4120	CSMS	TSDIS and ECS I/Fs to GSFC LAN	TSDIS and ECS shall each provide an interface to the GSFC local area network.
TRMM4130	SDPS	ESDIS data standards and formats	All data transferred between TSDIS and the ECS <u>systems at the</u> GSFC DAAC shall follow ESDIS-defined standards, with specific product formats to be jointly agreed to and documented in ICDs.
TRMM4140	SDPS + CSMS	Use standards and COTS products	The interfaces between TRMM and ECS shall make appropriate use of standards for data structures and data transport as defined for use within the publications of CCSDS and ISO/OSI, and shall use COTS hardware and software products as appropriate.
TRMM5010	SDPS	ECS ingests products in ECS format	ECS shall ingest TRMM metadata, and browse from TSDIS along with the TRMM standard products in the ECS format.
TRMM5020	SDPS	TRMM product schedule & status	Availability of TRMM data products (PR, VIRS, TMI, and GV) shall be based on the TSDIS product schedule, and an electronic status mechanism shall be available for late products.
TRMM5030	SDPS	ECS ingests directory & guide	ECS shall have the capability to ingest directory and guide information from TSDIS.
TRMM5040	SDPS	ECS archives & distributes TRMM	ECS shall have the capability to archive and distribute standard TRMM data files and products (including VIRS, PR and TMI data, metadata, GV data, algorithms and documentation) as provided and produced by TSDIS and the TRMM Science Team.
TRMM5050	NONE	TRMM supports ECS user model	TRMM shall support maintenance of a TRMM user model for use in the overall ECS user model.
TRMM5060	SDPS	ECS supports browse, order of data	ECS shall provide standard information management functions for browse, and order of data and products provided by TSDIS and delivered to the MSFC and GSFC DAACs (including VIRS, PR and TMI data, metadata, GV data, TRMM Science Team algorithms and documentation).

TRMM5070	SDPS	ECS archives TRMM L1B-3 6 months	ECS will continue to archive original TRMM standard products (Level 1B-3) after reprocessing for 6 months, after which the products will become eligible for deletion.
TRMM5080	SDPS	ECS notifies Team after reprocessing	The ECS shall notify TRMM Science Team (TST) members when a TRMM product has been reprocessed and therefore will become eligible for deletion. The product eligible for deletion shall be deleted after 6 months unless the ECS is directed otherwise by appropriate authority.
TRMM5090	SDPS	ECS supports product browse & order	ECS shall provide standard information management services for browse and order of CERES and LIS standard products, flight dynamics information, algorithms, and documentation developed from the CERES and LIS data.
TRMM5100	SDPS	ECS provides TRMM product status	ECS shall provide products status for TRMM products to users based upon ECS holdings. Status also shall be based on the TRMM schedule provided electronically by TSDIS and an interactive status mechanism for late products.
TRMM5110	NONE	MSFC & LaRC science expertise	The ECS MSFC and LaRC DAACS shall be responsible for providing science expertise to advise researchers on the use of CERES and LIS data.
TRMM5120	NONE	TRMM science expertise	The TRMM Science Team shall be responsible for providing science expertise to advise researchers on the use of TRMM (PR, TMI, VIRS, and GV) data.
<u>TRMM8010</u>	<u>NONE</u>	<u>End-to-end testing of interfaces</u>	<u>TRMM shall manage, and ESDIS shall support, the TRMM end-to-end system testing of the interfaces between ECS and TRMM.</u>
<u>TRMM8020</u>	<u>SDPS</u>	<u>ESDIS support testing</u>	<u>ESDIS shall support testing, fault isolation, verification, and validation of the interfaces with the TRMM end-to-end ground system.</u>
<u>TRMM8030</u>	<u>NONE</u>	<u>TRMM test plans and procedures</u>	<u>The TRMM I&T Program shall develop an overall ground segment integration and test plans and procedures.</u>
<u>TRMM8031</u>	<u>NONE</u>	<u>TRMM test plans and procedures</u>	<u>ESDIS shall develop test plans and procedures in support of the development, verification and testing of the interfaces with the TRMM ground system.</u>
<u>TRMM8040</u>	<u>NONE</u>	<u>ESDIS test plans and procedures</u>	<u>ESDIS shall support TRMM development of test plans and procedures in support of the development, verification and testing of the interfaces between with the TRMM ground system and ECS.</u>

<u>TRMM8050</u>	<u>NONE</u>	<u>TSDIS supports integration and test</u>	<u>The TSDIS elements shall support integration and test activities defined in the TRMM overall ground segment integration and test plans and procedures.</u>
<u>TRMM8060</u>	<u>SDPS</u>	<u>ECS archives and distributes TRMM test plans and procedures</u>	<u>ECS shall archive and distribute TRMM test plans and procedures for the interface between ECS and the TRMM ground system including TSDIS.</u>
<u>TRMM8071</u>	<u>SDPS</u>	<u>ECS supports dataflows, archive, and distribution tests with TRMM ground system</u>	<u>ECS shall support all dataflows and archival and distribution functionality for integration and test with the TRMM ground system.</u>
<u>TRMM8080</u>	<u>SDPS</u>	<u>ECS supports TRMM Mission Simulation #1</u>	<u>ECS shall support TRMM Mission Simulation #1.</u>
<u>TRMM8081</u>	<u>SDPS</u>	<u>ECS supports TRMM Mission Simulation #2</u>	<u>ECS shall support TRMM Mission Simulation #2.</u>
<u>TRMM8090</u>	<u>SDPS</u>	<u>ECS archives distributes TRMM algorithms and documentation in tests with TSDIS</u>	<u>ECS shall archive and distribute TRMM algorithms and documentation in support of test and integration of interfaces with TSDIS.</u>
<u>TRMM8100</u>	<u>SDPS</u>	<u>ECS processes CERES/LIS Level 0 and Q/L during testing</u>	<u>ECS shall process CERES and LIS Level 0 and quick-look data sets received from SDPF for early interface testing.</u>

<u>TRMM8110</u>	<u>NONE</u>	<u>TSDIS elements process simulated instrument data</u>	<u>The TSDIS elements shall be capable of processing simulated TRMM instrument data in support of pre launch checkout of the interfaces with ECS.</u>
<u>TRMM8120</u>	<u>NONE</u>	<u>ESDIS coordinates provision of simulated instrument data</u>	<u>ESDIS shall coordinate provision of LIS and CERES simulated instrument data and instrument data parameters to SDPF in support of integration and test.</u>