

**Ingest subsystem requirement changes based on RTM VERSION012696**

CCR 96-0104A for Rel B Requirements Spec (DID 304) Rejection Recovery

Changes since original CCR submission:

1) Removed mapping of S-INS-00175 to DADS0130#A, DADS0130#B, DADS0250#A, DADS0250#B, EDOS-B.1.6#B, EDOS-B.3.3#B, EDOS-C.4.4#B, TRMM3060#A, TRMM3060#B.

DADS0130#A, DADS0130#B, DADS0250#A, and DADS0250#B are mapped to other INS L4s; they are not remapped by this CCR.

2) Added mapping of existing S-INS-00085 to EDOS-B.1.6#B.

3) Added mapping of existing S-INS-00170 to EDOS-B.3.3#B. Issue: INS is assuming that this IRD reqt means delivery of an acceptance notification to EDOS 8 hours after they have completed ingest/archive of the ADS data (which arrives on tape). This needs to be clarified in the IRD. The text seems to indicate that we return status within 8 hours of delivery of the tapes (with 24 hours worth of data). ECS has no F&PRS-equivalent requirement to handle this sort of tape ingest rate.

4) Added mapping of existing S-INS-00130 to EDOS.C.4.4#B.

5) Added mapping of existing S-INS-00570 to TRMM3060#A and TRMM3060#B.

6) Removed mapping of new S-INS-00345 to DADS1070#A and DADS1070#B.

7) Added mapping of new S-INS-00345 to DADS0901#A and DADS0901#B.

8) Rephrased S-INS-00345 -- changed "ongoing ingest request" to "ingest requests".

9) Removed new S-INS-00847 and its mappings. ECS has not committed to accepting ASF File Processing System input.

10) Removed new S-INS-60775, S-INS-60776, S-INS-61100, S-INS-61120, S-INS-60780 -- there is no ICLHW (L0 ingest hardware) at ASF.

11) Removed mapping of new S-INS-60900 to DADS0070#A. Added mapping to DADS0070#B. Deleted DADS0070#A and its mapping to S-INS-00408. There is no digitizer/scanner capability in Release A.

12) Removed mapping of S-INS-03200 to DADS0281#A. Recommend that DADS0281#A be handled as a "system" requirement (no additional hardware/software required to satisfy it at Release A for TRMM pre-launch).

13) Added mapping of new S-INS-60900 to DADS0250#B.

Changes since first submittal:

1) renumber new L4s to not use previously deleted L4 IDs (S-INS-00842 -> S-INS-00841; S-INS-00844 -> S-INS-00847; S-INS-00846 -> S-INS-00849)

Table 1 - Reference table for review of changes to L4s and their parent RbR links

L3 RbR ID	RT M key	L3 RbR Text	Interpretation	L4 ID	Rel	RT M key	L4 Rqmt Text	Clarification
DADS0310# A	4088	Each DADS shall verify that data received came from an approved/authorized source.		<u>S-INS-00175</u>	A	new	The INGST CI shall report <u>Hard Media Ingest Request status to the MSS event log for the following:</u> a. <u>Unauthorized hard media provider</u> b. <u>Unauthorized operations staff</u>	
DADS0310# B	3483	Each DADS shall verify that data received came from an approved/authorized source.		<u>S-INS-00175</u>	A	new	The INGST CI shall report <u>Hard Media Ingest Request status to the MSS event log for the following:</u> a. <u>Unauthorized hard media provider</u> b. <u>Unauthorized operations staff</u>	
EOSD2400# A	4843	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.		<u>S-INS-00175</u>	A	new	The INGST CI shall report <u>Hard Media Ingest Request status to the MSS event log for the following:</u> a. <u>Unauthorized hard media provider</u> b. <u>Unauthorized operations staff</u>	
EOSD2400# B	3883	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.		<u>S-INS-00175</u>	A	new	The INGST CI shall report <u>Hard Media Ingest Request status to the MSS event log for the following:</u> a. <u>Unauthorized hard media provider</u> b. <u>Unauthorized operations staff</u>	
EDOS- B.1.6#B		The DIF shall provide the capability to receive status data from the LaRC DAAC as specified in Applicable Document 1, including but not limited to the following: b. Verification of PDSs delivered c. Verification of ADSs delivered		<u>S-INS-00085</u>	A	4934	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. Failure to archive data; g. Missing required request information; h. Successful archive of the data.	

EDOS-B.3.3#B		The LaRC DAAC shall provide the capability to initiate transfer of the Verification of ADSs delivered status message to the DIF within 8 hours following the delivery of all ADSs for a 24 hour period.		<u>S-INS-00170</u>	A	4042	The INGST CI shall report Hard Media Ingest Request status to the submitting operations staff for the following: a. Media file transfer failure b. Invalid Data Type Identifier c. Missing required metadata d. Metadata parameters out of range e. Data conversion failure f. Failure to archive data g. Missing file describing media data to be ingested h. Unauthorized hard media provider i. Unauthorized operations staff j. Successful archive of data
EDOS-C.4.4#B		The DPF shall provide the capability to transfer ADSs to the GSFC DAAC.		<u>S-INS-00130</u>	A	4037	The INGST CI shall interactively accept Hard Media Ingest Requests from operations staff for data to be ingested from hard media.
TRMM3060 #A		The PR, TMI, and GV data ingested from TSDIS by ECS shall be archived in the ECS systems at the MSFC DAAC.		<u>S-INS-00570</u>	IR1	4125	The INGST CI shall ingest Data, provided by the TSDIS, from the ESN into the MSFC DAAC using a file transfer protocol.
TRMM3060 #B		The PR, TMI, and GV data ingested from TSDIS by ECS shall be archived in the ECS systems at the MSFC DAAC.		<u>S-INS-00570</u>	IR1	4125	The INGST CI shall ingest Data, provided by the TSDIS, from the ESN into the MSFC DAAC using a file transfer protocol.
DADS0901# A	4122	The DADS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management h. Distribution and Ingest Management		<u>S-INS-00345</u>	A	new	<u>The INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> a. <u>file transfer duration</u> b. <u>file processing duration</u> c. <u>data insert duration</u>

DADS0901# B	3524	The DADS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management h. Distribution and Ingest Management		<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> <u>a. file transfer duration</u> <u>b. file processing duration</u> <u>c. data insert duration</u>	
DADS1390# B	3554	Each DADS shall monitor data transfer between elements of the ECS and the DADS.		<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> <u>a. file transfer duration</u> <u>b. file processing duration</u> <u>c. data insert duration</u>	
DADS1380# B	3553	Each DADS shall monitor data transfer between external (non-ECS) elements and the DADS.		<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> <u>a. file transfer duration</u> <u>b. file processing duration</u> <u>c. data insert duration</u>	
DADS1380# A	4477	Each DADS shall monitor data transfer between external (non-ECS) elements and the DADS.		<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> <u>a. file transfer duration</u> <u>b. file processing duration</u> <u>c. data insert duration</u>	
DADS1390# A	4480	Each DADS shall monitor data transfer between elements of the ECS and the DADS.		<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>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; and c. data insert duration.</u>	
Modified L4		*****		<u>S-INS-00210</u>	<u>A</u>	<u>4050</u>	<u>The INGST CI shall allow authorized science users to save the contents of an interactively entered Network Ingest Request in a <u>Delivery Record</u> file with a specified file name.</u>	

DADS0200# B	3473	Each DADS shall receive from the IPs at a minimum, the following: a. L0-L4 data products b. Orbit/attitude data c. Metadata associated with data sets d. Ancillary data e. Calibration data f. Correlative data g. Documents h. Algorithms		<u>S-INS-00841</u>	B	new	<u>The INGST CI shall ingest data, provided by RADARSAT Geophysical Processing System (RGPS), into the ASF DAAC via file transfer protocol.</u>	
DADS0200# B	3473	Each DADS shall receive from the IPs at a minimum, the following: a. L0-L4 data products b. Orbit/attitude data c. Metadata associated with data sets d. Ancillary data e. Calibration data f. Correlative data g. Documents h. Algorithms		<u>S-INS-00843</u>	B	new	<u>The INGST CI shall ingest data, provided by the Acquisition Planning System (APS), into the ASF DAAC via file transfer protocol.</u>	
DADS0200# B	3473	Each DADS shall receive from the IPs at a minimum, the following: a. L0-L4 data products b. Orbit/attitude data c. Metadata associated with data sets d. Ancillary data e. Calibration data f. Correlative data g. Documents h. Algorithms		<u>S-INS-00847</u>	B	new	<u>The INGST CI shall ingest data, provided by the Production Planning System (PPS), into the ASF DAAC via file transfer protocol.</u>	
DADS0200# B	3473	Each DADS shall receive from the IPs at a minimum, the following: a. L0-L4 data products b. Orbit/attitude data c. Metadata associated with data sets d. Ancillary data e. Calibration data f. Correlative data g. Documents h. Algorithms		<u>S-INS-00845</u>	<u>B</u>	new	<u>The INGST CI shall ingest data, provided by the Product Verification System (PVS), into the ASF DAAC via file transfer protocol.</u>	

DADS0200# B	3473	Each DADS shall receive from the IPs at a minimum, the following: a. L0-L4 data products b. Orbit/attitude data c. Metadata associated with data sets d. Ancillary data e. Calibration data f. Correlative data g. Documents h. Algorithms		<u>S-INS-00849</u>	B	new	<u>The INGST CI shall ingest data, provided by the Flight Agency Interface (FAIF), into the ASF DAAC via file transfer protocol.</u>	
<b>Modified L4</b>				S-INS-00401	B	8950	The INGST CI shall convert ingested data into a form accepted by the SDSRV CI/DDSRV CI, for the following data types: TBD	
DADS0175# B	3470	The GSFC DADS shall receive from FDF, at a minimum: a. Orbit data b. Attitude data c. Metadata		<u>S-INS-00740</u>	B	<del>8959</del>	The INGST CI shall accept a TBD request for Repaired Orbit Data.	
DADS0070# A	3951	Each DADS shall provide the capability of scanning or digitizing hardcopy input for the purpose of archiving documents.		<u>S-INS-00408</u>	A	4104	For each data granule specified in an Ingest Request the INGST CI shall determine by means of an Advertisement the appropriate SDSRV CI/DDSRV CI in which to store the data granule.	
DADS0070# B	3460	Each DADS shall provide the capability of scanning or digitizing hardcopy input for the purpose of archiving documents.		<u>S-INS-60900</u>	B	new	<u>The INGST CI shall provide the necessary hardware/software to perform scanning and/or digitizing of hardcopy documents for the purpose of inputting document request from authorized users.</u>	
DADS0250# B	3477	Each DADS shall receive, at a minimum, data in the following forms: a. Physical electronic media b. Electronic communications network c. Hardcopy media		<u>S-INS-60900</u>	B	new	<u>The INGST CI shall provide the necessary hardware/software to perform scanning and/or digitizing of hardcopy documents for the purpose of inputting document request from authorized users.</u>	
DADS0281# B	3479	Each DADS shall be capable of ingesting and storing data to support the instrument science team(s) in: a. Pre-launch checkout of their instruments b. Pre-launch science checkout c. Development of initial calibration information		<u>S-INS-03200</u>	B	8986	The INGST CI shall be capable of operating in an off-line (test) mode.	

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Table 2 - Changes to LEVEL\_4

L4 ID	Rel	RT M key	L4 Rqmt Text	Clarification
<u>S-INS-00175</u>	A	new	The <u>INGST CI shall report Hard Media Ingest Request status to the MSS event log for the following:</u> a. <u>Unauthorized hard media provider</u> b. <u>Unauthorized operations staff</u>	
S-INS-00210	A	4050	The <u>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.</u>	
<u>S-INS-00345</u>	A	new	The <u>INGST CI shall report status on the performance of ingest requests to the MSS with the following information:</u> a. <u>file transfer duration</u> b. <u>file processing duration</u> c. <u>data insert duration</u>	
S-INS-00401	B	8950	The <u>INGST CI shall convert ingested data into a form accepted by the SDSRV CI/DDSrv CI, for the following data types: TBD</u>	
S-INS-00740	B	<del>8959</del>	<del>The <u>INGST CI shall accept a TBD request for Repaired Orbit Data.</u></del>	
<u>S-INS-00841</u>	B	new	<u>The INGST CI shall ingest data, provided by RADARSAT Geophysical Processing System (RGPS), into the ASF DAAC via file transfer protocol.</u>	
<u>S-INS-00843</u>	B	new	<u>The INGST CI shall ingest data, provided by the Acquisition Planning System (APS), into the ASF DAAC via file transfer protocol.</u>	
<u>S-INS-00845</u>	B	new	<u>The INGST CI shall ingest data, provided by the Product Verification System (PVS), into the ASF DAAC via file transfer protocol.</u>	
<u>S-INS-00847</u>	B	new	<u>The INGST CI shall ingest data, provided by the Production Planning System (PPS), into the ASF DAAC via file transfer protocol.</u>	

<u>S-INS-00849</u>	<u>B</u>	<u>new</u>	<u>The INGST CI shall ingest data, provided by the Flight Agency Interface (FAIF), into the ASF DAAC via file transfer protocol.</u>	
<u>S-INS-60900</u>	<u>B</u>	<u>new</u>	<u>The INGST CI shall provide the necessary hardware/software to perform scanning and/or digitizing of hardcopy documents for the purpose of inputting document request from authorized users.</u>	

Table 3 - Links to be added between LEVEL\_4 and REQ\_BY\_REL

<b>L3 RbR ID</b>	<b>L4 ID</b>
DADS0310#A	S-INS-00175
DADS0310#B	S-INS-00175
EOSD2400#A	S-INS-00175
EOSD2400#B	S-INS-00175
EDOS-B.1.6#B	S-INS-00085
EDOS-B.3.3#B	S-INS-00170
EDOS-C.4.4#B	S-INS-00130
TRMM3060#A	S-INS-00570
TRMM3060#B	S-INS-00570
DADS0901#A	S-INS-00345
DADS0901#B	S-INS-00345
DADS1390#B	S-INS-00345
DADS1380#B	S-INS-00345
DADS1380#A	S-INS-00345
DADS1390#A	S-INS-00345
DADS0200#B	S-INS-00841
DADS0200#B	S-INS-00843
DADS0200#B	S-INS-00847
DADS0200#B	S-INS-00845
DADS0200#B	S-INS-00849
DADS0070#B	S-INS-60900
DADS0250#B	S-INS-60900
DADS0281#B	S-INS-03200

Table 4 - Links to be deleted between LEVEL\_4 and REQ\_BY\_REL

<b>RbR ID</b>	<b>L4 ID</b>
DADS0175#B	S-INS-00740
DADS0070#A	S-INS-00408

Table 5 - Reference table for review of changes to design component trace

L4 ID	Rel	RT M key	L4 Rqmt Text	Clarification	PARAGRAPH ID (Object, CSC, CI, subsystem)	RT M Key	Component Type	Dev Cat	Text
<u>S-INS-00175</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report Hard Media Ingest Request status to the MSS event log for the following:</u> <u>a. Unauthorized hard media provider</u> <u>b. Unauthorized operations staff</u>		<u>InMediaIngest</u>	671	Object	Develop	Provides operations personnel the capability to perform physical media ingest via the GUI interface. The is a derived object class from the InGUISession object class. It inherits all data and service members provided by the InGUISession.
<u>S-INS-00345</u>	<u>A</u>	<u>new</u>	<u>The INGST CI shall report status on the performance of ongoing ingest request to the MSS with the following information:</u> <u>a. file transfer duration</u> <u>b. file processing duration</u> <u>c. data insert duration</u>		<u>InRequest</u>	679	Object	Develop	Contains information provided by a requestor/external interface requesting ingest of data. The object class has the responsibility to perform basic request component checking and to assign a unique identifier for the new ingest request.

Table 6 - Links to be added between LEVEL\_4 and COMPONENT

L4 ID	PARAGRAPH_ID (Object, CSC, CI, subsystem)
S-INS-00175	InMediaIngest
S-INS-00345	InRequest

Table 7 - RbR to be deleted

L3 RbR ID	RT M key	L3 RbR Text	Interpretation
DADS0070# A	3951	Each DADS shall provide the capability of scanning or digitizing hardcopy input for the purpose of archiving documents.	

