AverStar

AverStar, Inc.
6301 Ivy Lane, Suite 200
Greenbelt, MD 20770-6347

Tel (301) 982-5414
Fax (301) 982-8902
www.averstar.com

April 26, 1999

NASA
Goddard Space Flight Center
Greenbelt, MD 20771

Attention: Ms. Jamala Jones, Contract Specialist
                 Code 214.6

Reference: Contract No. NAS5-32605

Subject: Contract Deliverable (Work Element 4 - Item 1112H– E-ICT-12)

Dear Ms. Jones:

Attached is the EGS I&T Program Test Packages – AM-1 Science System Interface Confidence Tests (Final) E-ICT-12. Distribution is also being made as noted below.

Should you require any additional information, please let me know.

Sincerely,

INTERMETRICS, INC.,
An AverStar Company

Katherine A. Smith
Business Manager

Enclosure

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EOS GROUND SYSTEM
INTEGRATION AND TEST
(EGS I&T)

EDC DAAC – ASTER GDS INTERFACE CONFIDENCE TEST PACKAGE

April 26, 1999

AM-1 Science System Interface Confidence Tests (Final)

(Deliverable 1112H)

Prepared By:

INTERMETRICS
6301 Ivy Lane, Suite 200
Greenbelt, MD 20770

Prepared For:

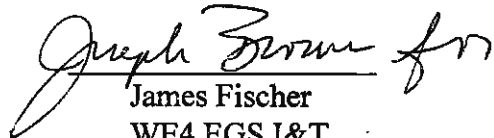NASA Goddard Space Flight Center
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EDC DAAC - ASTER GDS INTERFACE CONFIDENCE TEST PACKAGE
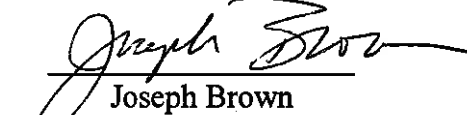
Prepared by:

Ehsann R Quabili

Ehsanur Quabili
WE4 EGS I&T
EDC DAAC Team

Submitted By:

Joseph Brown for

James Fischer
WE4 EGS I&T
EDC DAAC Team Lead

Approved By:

Joseph Brown

Joseph Brown
WE4 EGS I&T Element Lead

Approved By:

Dawn Leaf

Dawn Leaf
EOSDIS IV&V Program Manager

Approved By:

_____

Susan Sekira
EOSDIS IV&V COTR

INTERMETRICS
6301 Ivy Lane, Suite 200
Greenbelt, MD 20770

EDC DAAC - ASTER GDS INTERFACE CONFIDENCE TEST

E-ICT12

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DAAC - ASTER GDS Interface Confidence Test - E-ICT12

1.0   Overview

System interfaces between the ECS and the ASTER GDS provide the means for transferring ASTER data and for sending messages supporting data transfer. Additionally, these interfaces support exchange of information concerning system status, user activity, product pricing, and directory and guide information.

The interfaces between ASTER GDS and ECS can be classified as Electronic via the EBnet and the trans-pacific link. The interfaces are verified as listed below:

- System management and scheduling interface between ECS (CSMS and SMC) and ASTER GDS.
- Ability of ASTER users to access ECS data holdings via the ECS ASTER GDS and EDC DAAC.
- Ability of ECS to ingest, from physical media, Level 1A, 1B, and Browse data products. (D3 tapes via mail).
- DAR interface between the JAVA DAR Tool at EDC DAAC and the ASTER GDS.
- Interface between ECS GSFC DAAC and ASTER GDS ADN DADS for transferring EDSs.
- Ability of ECS users to access ASTER data.
- Level 0 D3 tapes from EDOS to ASTER GDS for format and correctness.

1.1   Test Objectives:

The test objectives are:

- Transfer of expedited data sets from GSFC DAAC to ASTER GDS
- Data transfer via tape media supporting the transfer of Level 1A and 1B products from ASTER GDS to the EDC DAAC.
- Two Way Catalog interoperability between ECS at EDC DAAC and ASTER GDS.
- DAR User registration, submission and status.
- E-mail communications between the sites for message exchange, system status and problem reporting.

The specific test cases addressing the interfaces described above are the following:

1. **E-ICT12.1 ECS/ASTER Media Exchange.** This test case verifies the transfer of ASTER Level 1A and 1B data on tapes from ASTER GDS to EDC DAAC. The test case verifies the formats of the tapes against the ECS/ASTER GDS ICD Section 6.4[1] and the exchange of email messages verifying sending and receipt of the tapes.

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[1] Interface Control Document between EOSDIS Core System (ECS) and ASTER Ground Data System, 505-41-34, dated November 1998, Revision D.

2. **E-ICT12.2 Catalog Interoperability/Valids Exchange Verification, ECS User to ASTER GDS.** This test case verifies the ability of an ECS User to access products in the ASTER GDS catalog. The ability to do inventory searches and view the results, browse the products, submit product request, cancel product request and finally, obtain price information and place an order. Verify message flow between ECS and ASTER GDS and that the translations are correct and in accordance with the ECS/ASTER GDS ICD Section 6.2 and 6.6.

3. **E-ICT12.3 DAR Verification.** This test case verifies the messages used to obtain status, and modify, and obtain the contents of a DAR. The message flow is the exchange between ECS and ASTER GDS. DAR verification is in accordance with ECS/ASTER GDS ICD Section 6.3 and Appendix C.

4. **E-ICT12.4 GSFC DAAC/ASTER GDS Expedited Data Set Exchange.** This test case verifies GSFC DAAC has placed a subscription on the subscription server, on behalf of ASTER GDS. The test case will verify that the Notification and Request formats are as specified in ECS/ASTER GDS ICD Section 9 and the email header is as specified.

5. **E-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification.** This test verifies the system status exchange interfaces between the ECS and the ASTER GDS. The functions listed in the ECS/ASTER GDS ICD[1] Section 8 will be verified and tested. Tes

6. **E-ICT12.6 Catalog Interoperability/Valids Exchange Verification, ASTER User to ECS.** This test case verifies the ability of an ASTER User to access products in the ECS catalog, do directory and inventory searches, view the results, browse the products, submit product requests, cancel that request, obtain price information, and place an order. The test will verify message flow between ASTER GDS and ECS and that the translations are correct and in accordance with the ECS/ASTER GDS ICD[1] Section 6.2, 6.6 and 6.7.

7. **E-ICT12.7 Level 0 Data Tapes from EDOS to ASTER GDS.** This test case verifies the capability of EDOS to produce and ship, via mail, to ASTER GDS Level 0 production data tapes. This test verifies the PDS Physical Media Unit Delivery Record (PPMUDR) for the D3 tapes with reference to EDOS/ASTER GDS ICD, 510_ICD-EDOS/ASTER[2] Section 4.1.3.4.

8. **E-ICT12.8 NCEP Data (Ancillary Data Sets - Cloud Cover) to ASTER GDS.** This test case verifies the capability of GSFC DAAC to receive the NCEP Cloud Cover product from NOAA and forwarding the data sets on to ASTER GDS in a timely fashion.

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[2] Interface Control Document Between the Earth Observing System (ECS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Element, 510-ICD-EDOS/EGS, 01-23-1998, Revision 1.
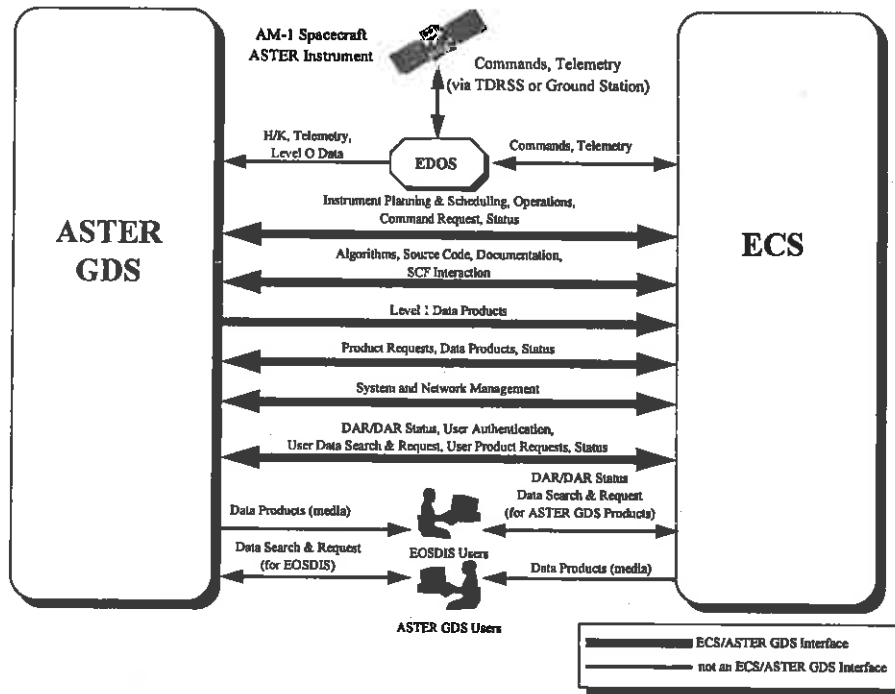
Exhibit E-ICT12.1 ECS/ASTER GDS Context Diagram

1.2 Participants and Support Requirements:

Participants:

- DAAC M&O personnel
- ASTER DADS M&O
- ASTER AND M&O
- ASTER JGI/SI personnel
- Test Team
- PGS (ASTER)

Communications:
- Voice: Phone
  SCAMA CNXN to GDS, EDOS
- Data: EBnet circuits at GSIF, GSFC DAAC & GDS
- Data – D3 tapes via mail

Equipment and Software:
- SMC Release
- ASTER GDS ADN
- ASTER GDS DADS

- ASTER GDS IMS
- ASTER GDS SDPS

Test Tools:

- No special test tools have been identified.

1.4   Test Data

Test Data	Description	Source	Location Tested	Test Case Used	Comments
ASTER Level 0 EDSs	Expedited data sets	EDOS	GSFC DAAC	E-ICT12.4	Need 1A products from GDS to compare against.
ASTER Level 0 PDSs	Level 0 data prepared in D3 tapes and shipped to ASTER GDS	EDOS	EDOS	E-ICT12.7	
ASTER Level 1A Product	Level 1A Products from ASTER GDS for User Browse	ASTER GDS	EDC DAAC	E-ICT12.1	
ASTER L1A and 1B data tapes	D3 tapes prepared by ASTER GDS containing L1A and L1B data.	ASTER GDS	ASTER GDS	E-ICT12.1	

Test Data	Description	Source	Location Tested	Test Case Used	Comments
Level 2 and above ASTER data	Simulated Level 2 or 3 data to form a product database.	EDC DAAC SSI&T	JPL	E-ICT12.2 E-ICT12.6	
NCEP Cloud Cover Product	NCEP Cloud cover product from NOAA to GSFC DAAC and transferred to ASTER GDS.	NOAA	GSFC DAAC	E-ICT12.8	
DAR Request	A simulated DAR request.	ASTER GDS	EDC DAAC	E-ICT12.3	
DAR User Profile	A DAR user whose profile is available for changing or using during the test.	EDC DAAC	EDC DAAC	E-ICT12.3	
Product Browse data	A database that can be used to browse for a product during interoperability tests	ECS and ASTER		E-ICT12.2	ASTER to supply the ASTER Browse DB

Test Data	Description	Source	Location Tested	Test Case Used	Comments
DAR ID Mapping table	A definition of the inputs that the DAR User requests in the submittal and is contained on the Level 1 data tapes.	ASTER GDS	EDC DAAC	E-ICT12.1	To be provided by ASTER GDS along with the Level 1 tapes.
ASTER Valids file	Information ASTER uses for data dictionary and in the Advertising Service	ASTER GDS	ASTER GDS	E-ICT12.2	To be provided by ASTER GDS
ECS Valids file	Information ECS uses for data dictionary and in the Advertising Service.	ECS	EDC DAAC	E-ICT12.6	

1.5   Prerequisites/Workaround:

The following prerequisites should be met before testing begins:

- The system is configured and operating for all functionality necessary for testing ASTER GDS and the ECS interface.

- ESDTs that are needed and located at:
  - Level 0 EDSs at GSFC
  - Level 1A and 1B at EDC DAAC
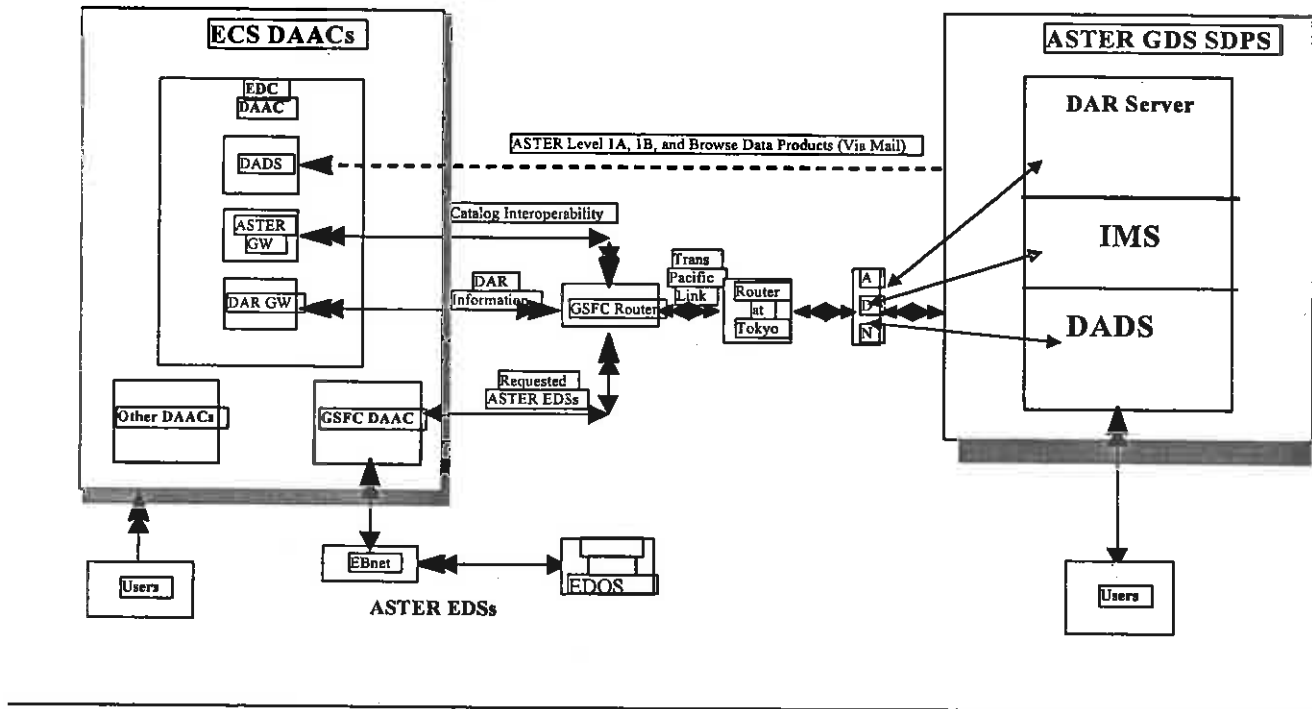
Exhibit E-ICT12.2 ECS/ASTER GDS Mid-Level Test Diagram

1.6   Test Case Descriptions

The EDC DAAC to ASTER GDS interface test package is composed of six test cases, plus two test cases, are between the GSFC DAAC and ASTER GDS. The individual test cases address a narrower range of requirements. The test cases, along with their narrower objectives are presented in the following sections.

2.0   E-ICT12.1   ECS-ASTER MEDIA EXCHANGE

This test case verifies the capability of EDC DAAC to utilize tapes from ASTER GDS.

2.1   Requirements to be Verified:

The test requirements are:

ASTER-0700#B, EOSD1770#B, SDPS0020#B

2.2   Test Objectives:

Verify receiving media tapes from ASTER GDS, being able to mount and ingest the contents of the tapes and successfully archive the data. Verify the transmission of emails between ASTER GDS and ECS. Successful ingest of the data tapes will verify the data format on the tapes is in accordance with Appendix D of the ICD.

2.3   Test Case Description:

This test verifies the capability to receive from ASTER GDS tapes containing Level 1A, 1B, and browse data products, receive and mount the tapes and ingest and archive into the system. This test will verify the following:

- Verify the proper media, format, and storage rules of Level 1A, 1B, and browse data products delivered to ECS from ASTER GDS. Verify ASTER GDS sends a Data Shipping Notice to ECS via e-mail when the tapes have been completed and shipped.
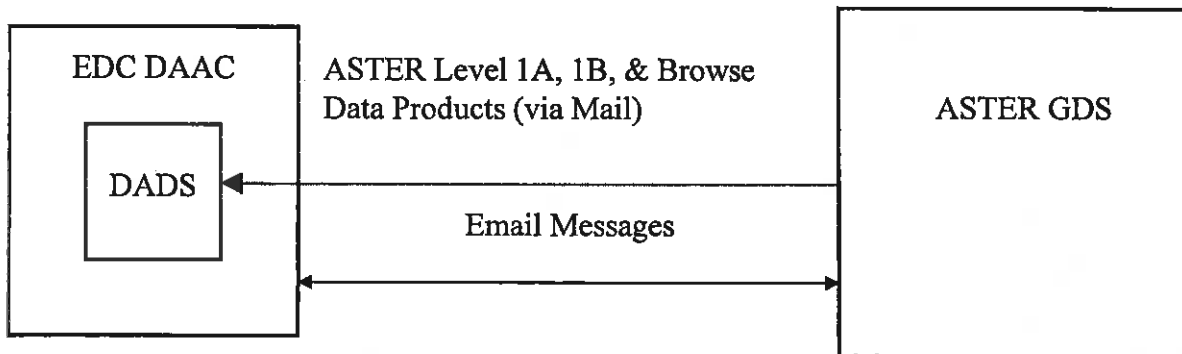
Figure E-ICT12.1-1 Media Exchange and Ingest Test Diagram

2.4   Prerequisite Conditions:

- A prerequisite for this test is the receipt of Level 1A/1B D3 tapes from ASTER GDS.

2.5   Test Inputs:

Test inputs consist of:

1. ASTER Level 0 to Level 1 science software package.
2. ASTER Level 1A/1B data tapes.

2.6   Expected Test Results:

The expected test results are to verify:

1. Successful receipt and processing of ASTER GDS e-mail.
2. Successful receipt of D3 tapes.
3. Tape header information and the Product Delivery Record against Table 4-2 of the ICD.
4. Data Shipping Notice against Table 4-3 and Table 4-5 of the ICD.
5. Receipt of D3 tapes and that the Data Shipping Notice, Table 4-3 of ICD matches the format and agrees with the D3 tapes received.
6. GDS e-mail header is in the format defined in Figure 4-9 of the ICD.
7. DAR ID mapping table is ingested and can be used to populate the inventory database.

2.7   General Test Flow Summary

The test will be executed as follows:

Step No.	Station	Input Action	Results	Comments
1.001	ASTER GDS	**ASTER GDS** sends email to EDC DAAC notifying that a D3 tape has been sent	EDC DAAC receives email and awaits tape. Match email header Data Shipping notice against ICD.	
1.002	EDC DAAC	**EDC DAAC** receives D3 tape delivery, logs the tapes in and checks DSN against the tapes received.	DSN is verified against the tapes and log is verified that the tapes have been logged in.	
1.003	EDC DAAC	Mount the D3 tapes into the tape drive.		
2.001	EDC DAAC	**Tester:** Verify that the **Ready** light is illuminated in the second row of the panel near the window of the D3 tape, unit where the tape is inserted.		If the **Ready** is not illuminated, push the **Ready** button.

Step No.	Station	Input Action	Results	Comments
2.003	EDC DAAC	**Tester:** Click on the **ECS Ingest** icon.	The **ECS Ingest** tool is opened and the **Ingest Intro** screen is displayed.	
2.004	EDAAC	**Tester:** Click on the **Media Ingest** tab widget.	The **Media Ingest** screen is displayed.	
2.005	EDAAC	**Tester:** Click on the **Media Type** field.	Cursor moves to the **Media Type** field.	
2.006	EDAAC	**Tester:** Enter the **Media Type**, then press **Tab.** To enter the type of medium (i.e., **D3 Tape**) click and hold on the option button to the right of the **Media Type** field , move the mouse cursor to the desired selection (highlighting it), then release the mouse button.	The select type of medium is displayed in the **Media type** field. Cursor moves to the **Data Provider** field.	
2.007	EDAAC	**Tester:** Enter the **Data Provider**, then press **Tab.** To enter the data provider (e.g., **SCF**) click and hold on the option button to the right of the **Data Provider** field, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.	The selected data provider is displayed in the **Data Provider** field. The cursor moves to the **Media Volume ID** field.	
2.008	EDAAC	**Tester:** Enter the **Media Volume ID** number from the tape in the **Media Volume Id (Barcode)** field.	The **Media Volume ID** number is displayed in the display box below the **Media Volume ID** field.	
2.009	EDAAC	**Tester:** Click on the **On Network** button located in the Radio Box.	This tells the system that the **Delivery Record** is located on the Network.. If the **Delivery Record** is embedded in the tape, select the **Embedded in Media** button.	
2.010	EDAAC	**Tester:** Enter the data delivery record file name in the **Data Delivery Record File Name** field.		
2.011	EDAAC	**Tester:** Click (once only) on the **OK** button at the bottom of the GUI		
2.012	EDAAC	**Tester:** Insert the tape cartridge in the D3 tape drive.	The message "Loading" should be displayed on the D3 tape drive unit panel. Then the message "Ready" should be displayed on the D3 tape drive unit panel and the "ready" light should blink on and off for a while. Once the extraction command has been executed, the system reads the D3 tape from the header label, then accesses the data needed for	Note: There may be as many as four (4) D3 tapes received from ASTER GDS for one day's worth of data (330 scenes)

Step No.	Station	Input Action	Results	Comments
			Ingest processing.	
2.013	EDAAC	**Tester:** When the data transfer has been completed, wait for the message "Ingest Request Completed."	The messages "Rewinding" then "Unloading" should be displayed on the D3 tape drive unit panel as the D3 tape drive unit rewinds and unloads after the data transfer. Upon completion of the process the D3 tape automatically rewinds and ejects itself from the tape drive.	
2.015	EDAAC	**Tester:** Remove the tape cartridge from the D3 tape drive		
2.016	EDAAC	**Tester:** Tester during the ingest process monitor the "Ingest Report Script" which is printed every half hour for status of the ingest and when the ingest has been completed.		
3.001	EDAAC	**Tester:** Close out the ingest GUI and remove tapes from the D3 drives.		

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3.0   E-ICT12.2   Catalog Interoperability/Valids Exchange Verification, ECS User to ASTER GDS

This test case verifies the ECS Catalog interoperability with ASTER GDS and ASTER GDS Valids ingested by ECS.

3.1   Requirements to be Verified:

The following requirements are verified in this test:

ASTER-0760#B, ASTER-0805#B, ASTER-0810#B, ASTER-0820#B, ASTER-0825#B, ASTER-0830#B, ASTER-0835#B, ASTER-0870#B, ASTER-0875#B, ASTER-0880#B, ASTER-0895#B, ASTER-0900#B, ASTER-0915#B, ASTER-0910#B, ASTER-0945#B, EOSD1502#B, EOSD1770#B, EOSD5060#B, IMS-0120#B, IMS-0380#B, IMS-0390#B, SDPS0020#B, SMC-5320#B

3.2   Test Objectives:

The objective of this test is to verify ECS catalog interoperability with ASTER GDS and ASTER GDS valids ingested by ECS. This test verifies Section 6.2 of the ICD. The tests are as follows:

- Verify the following catalog interoperability messages between ECS SDPS and ASTER IMS SDPS:

    1. Inventory Search Requests and Results
    2. Acknowledge
    3. Browse Requests and Results (integrated and ftp)
    4. Product Request/Results
    5. Guide Request/Results
    6. Product Status Requests and Results
    7. Product Cancel Requests/Responses
    8. Price Estimate Request/Estimate
    9. Price Update Request and Results
    10. Quit

- Verify the valids transfer (including formats) from ASTER SDPS and ECS:
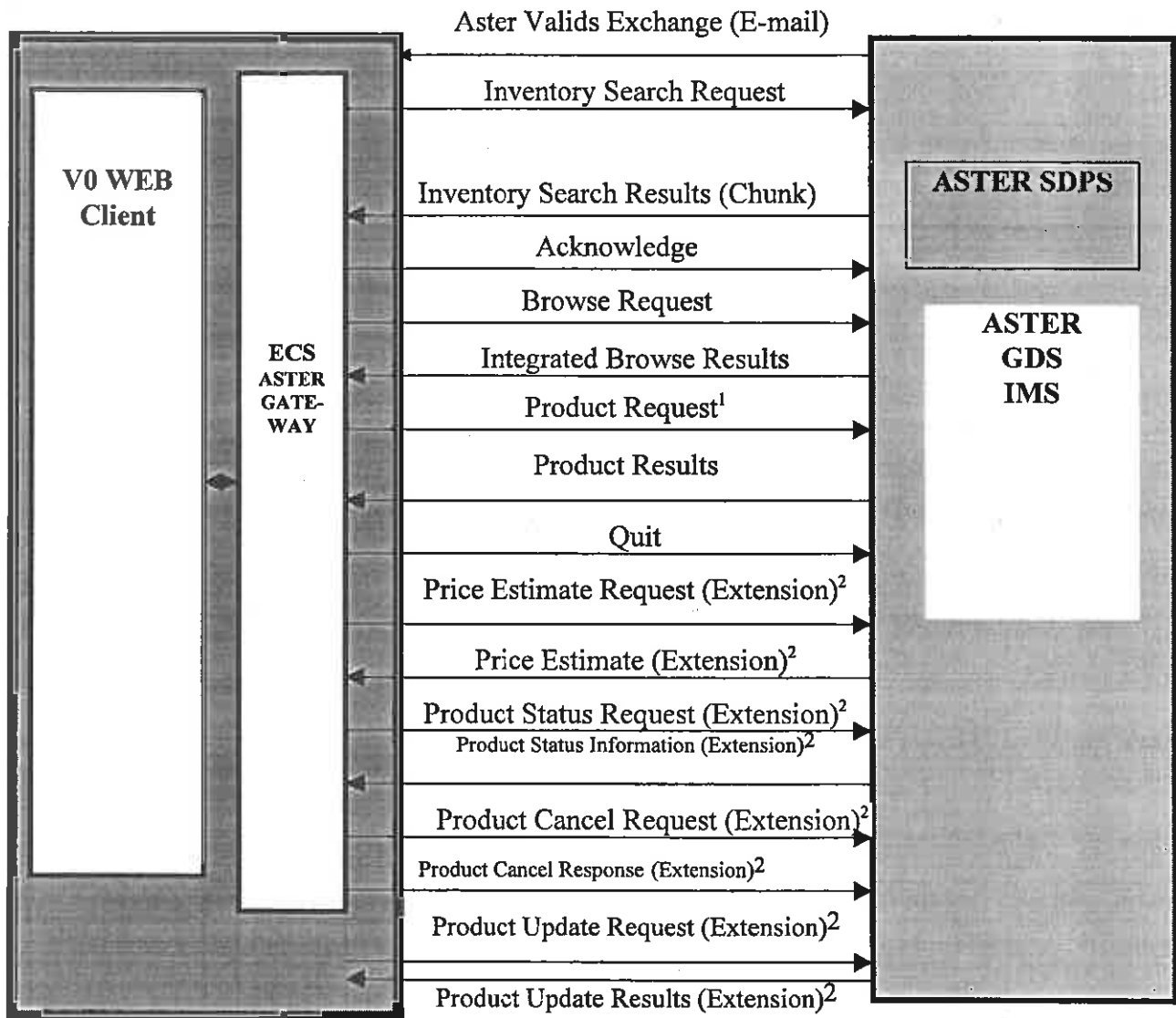
Figure E-ICT12.2-1 Interfaces Between V0 WEB Client and ASTER SDPS

3.3   Test Case Description:

This test verifies the capability of a user to log into the ECS system, search the ASTER GDS inventory, locate and retrieve Metadata about specific granules of the product(s) of interest, and determine whether any granules should be ordered.

3.4   Prerequisite Conditions:

The prerequisite for this test is having the tester contact User Services at an ECS DAAC for log-in procedures.

3.5   Test Inputs:

- A qualified user at an ECS client workstation enters the request based on specific characteristics of the data.   The external interfaces needed for this sequence are shown in Figure E-ICT12.2.1.
- Valids file from ASTER GDS.

3.6   Expected Test Results:

This test verifies the:

1. Ability to register as a new user or change the user profile.
2. Ability to submit an Inventory Search Request.
3. Receipt of the Inventory Search Result.
4. Ability to submit an Integrated Browse Request to the ASTER GDS IMS system.
5. Receipt of the integrated browse results message.
6. Ability to submit an Guide search request.
7. Ability to receive Guide search results.
8. Ability to receive and ingest ASTER GDS Guide for ASTER via Tapes.
9. Sending or submitting of the order of a product.
10. Receipt of the product result message.
11. Receipt of the product.
12. Ability to quit the system.
13. Ability to send a product status request.
14. Receipt of the product status results message.
15. Ability to submit a product cancel request.
16. Receipt of the product cancel result message.
17. Ability to request a price estimate on a product.
18. Receipt of the price estimate message.
19. Ability to request a product update.
20. Receipt of the product update results messages.

3.7   Methods for Results Analysis:

The results will be analyzed as follows:

1. All testing will be run from a user station utilizing the V0 Web client. The ability to request the various items and receive back from the user station under use is indication that the correct structure is being utilized.
2. All results will be compared with Section 6.2.1 through Section 6.2.1.9 of the ICD for completeness.
3. Valids e-mail will be validated against Section 6.6.1 of the ICD.

3.8   General Test Flow Summary

The test will be executed as follows:

Step ID	Test Station	Actions	Expected Results	Comments
1.001		**Open Netscape**	Netscape successfully starts.	
1.002		Sign on to the Web Gateway using the following address: **http://lyta.gsfc.nasa.gov/~imswww //Ops/imswelcome**	**Earth Science Data and Order System** web page is displayed.	
1.003		If you are a **Registered User Sign on to your Account.** If you are not a Registered User, Click on the **Create a USER Account.**		
1.004		"Click on **'Compose a Search'**		
1.005		**Select your search type.** The user has the option of choosing the **Data Search and Order (Inventory):** Search for and order data products or the user can select **Data Granule ID:** using the Data Granule ID allows the user to search for individual data products, using product or data granule IDs.	**Advanced Search Form: Data Search and Order (Inventory),** screen appears.	The user has the option to use two search options: 1) Data Search and 2) Data Granule ID.
1.006		Under "**Geographic Region**", click on the **Edit** button.	**Geographic Region** screen is displayed.	
2.001		Click on the drop down button next to "Select region…" message and select one of the choices listed below: "**Orthographic Map**", (Java), will display a geological selection Java Applet.	**Geographic Region** Page appears.	Each Geographic Region needs to be tested for complete verification.

Step ID	Test Station	Actions	Expected Results	Comments

		"**Equatorial Map, Equatorial Map (small), Steoreographic N-Pole, or Ste S-Pole,** will show a non-Java map corresponding to your choice. You will use multiple clicks on these maps to select an area to be used to refine your search.
		
		"**Lat/Lon Range**", enter a latitude and longitude range.
		             Northern
		Southern
		Example: Latitude 78.1456° to 13.5876°
		             Eastern
		Western
		      Longitude 82.7348° to 129.6179°
		
		"**Path/Row**", enter a ASTER path/row for obtaining a certain area of a ASTER scan.
		
		"**GLOBAL SEARCH**" will search the entire globe for data.
		
		"**GLOBAL GRANULE**" will search for data that COVERS the entire globe. **Note** this is NOT the same as searching the entire globe.		

2.002		Click on the <u>OK!</u> Button.	User is returned to **Data Search and Order (Inventory)** Screen.	
2.003		Click on <u>User Preferences Link</u> located on the top left of the Page.		
2.004		If Java *is Turned ON*, Click The Java ON Button to turn Java Off.		If *Java OFF Button is displayed Skip this step.*
2.005		Click on "Ok! Accept Display Options Only!" button.	You are returned to the **User Preference Screen.**	The user must click on the **"Back Button"**, located in the

Step ID	Test Station	Actions	Expected Results	Comments
				Netscape Header.
2.006		Under **Data Center** click on the **Edit** button.		
2.007		Select the Data Centers you would like to be a part of your query, This is located under the **"Choices** Select **"ECS-ASTER GDS"** option and click on **OK!** Button.		Data Center Screen appears. or a Data Center of you choice.
2.008		Under Data **Set,** click on the **Edit** button.	**Data Set Screens** appears.	Use assigned **"Data Set"** that is given at the time of test.
2.009		Select the **"Data Set"**, which you would like to be a part of your query, **"Aster Data Sets"** and click on **OK!** Button. This is located under the **"Choices."**	**Data Set** Screens appears with a list of queries found.	
2.010		Under **Search Options...** click on the **Edit** button	User is returned to **Data Search and Order (Inventory)** screen.	
2.011		Change the Maximum number of granules returned to 100.		
2.012		Click on the **OK!** button.	Screen should read, "Return a maximum of 100 granules per data set."	Appropriate data sets will be provided at the time of testing.
2.013		Under **Are You Ready?** Click **START SEARCH!** button	User is returned to **Data Search and Order (Inventory)** screen. User will see the Search in Progress... screen. Screen will refresh every 15 seconds. Screen updates. **Status – Request sent.** Screen updates	FTP and CPF Browse request is also available for the user make Browse request. This information is needed by data centers. Fields highlighted in red are required. Click on the "Submit Button" to send an FTP browse request. FTP

Step ID	Test Station	Actions	Expected Results	Comments
			Status – Receiving Results Data Search and Order Results Screen is displayed.	instructions will be sent to the e-mail address. **The test verified that images could be retrieved.**
2.014		Click on the **Data Granule or Data Granules** button next to data set, "Landsat-7 LOR"	If the granules the user selected are available on the **Data Search and Order Results** screen.	The user can select multiple **Data Granules** when doing the search.
2.015		In **Data Set** listing area, click on **Selected** check box.		
2.016		Select specified granules or granule.	The **Granule List: Listing** screen appears. This screen contains Unselected data granules sorted by Data Set ID and then Data Granule ID:	
2.017		Click on **"Add the selected data granules to the shopping cart"** button.		
2.018		Under Granules, click on **Order Options** button.	**Shopping Cart: Choose Ordering Options** screen will appear.	Granule will be specified at time of testing.
2.019		Under **Step 1: Choose Ordering Options**, select item with **Data Format** of "Native Granule" with the desired **Media Type** FtpPull or Tarformat with a desired **Media Type** of 8MM. Then click on **OK! Accept my choice...**	**Shopping Cart: Choose Ordering Options** screen will appear.	The user also has the option of selecting Multiple **Media Types** such as 8MM and FTPpull.
2.020		Click on **OK! Accept my choice & return to the shopping cart** button.		
2.021		Click on **Go to Step 2: Order Form** button.	**Shopping Cart Step 1: Choose Ordering Options** screen appears.	
2.022		Fill out **Your affiliation** and **Your**	**Shopping Cart**	Once a user

Step ID	Test Station	Actions	Expected Results	Comments
		contact address.	**Step2: Shipping Ordered Data** screen appears.	account is set-up the user can change the Contact, shipping, billing and email address if desired.
2.023		Click on **Go to Step 3:** Review **Order** **Summary** button.		
2.024		Click on: **Go to Step 4 Submit Order!** Button		
2.025		Make a note of the Tracking numbers provided on the Order submitted screen.	**Shopping Cart: Order Submitted Completed** screen appears.	Items in red are required fields for this step.
2.026		Close on all screens		

4.0   E-ICT12.3   DAR ACTIVITIES

This test case verifies DAR activities and exchanges between ECS and the ASTER GDS SDPS.

4.1   Requirements to be Verified:

The following requirements are verified:

ASTER-0100#B, ASTER-0110#B, ASTER-0120#B, ASTER-0130#B, ASTER-0140#B, IMS-0280#B, IMS-1070#B, IMS-1130#B, IMS-1260#B, IMS-1261#B, IMS-1262#B

4.2   Test Objectives:

The objective of this test is to verify DAR activities and exchanges between ECS and the ASTER GDS SDPS. This test verifies Section 6.3 and Appendix C, of document 505-41-34, Interface Control Document Between EOSDIS Core System (ECS) and ASTER Ground Data System. The tests verifies the:

- ASTER GDS SDPS and ECS can exchange DAR information via Application Programming Interfaces (APIs).
- APIs provide interface between the ECS SDPS DAR/Tool (DART) GUI and the ASTER GDS DAR server application.
- Exchange of the following DAR information between ASTER SDPS and ECS:

    1. E DAR Submit/Results
    2. XAR Status Search Requests/Results
    3. Sub-XAR Status Search Requests/Results
    4. XAR Contents Search Requests/Results
    5. XAR Modify Search Requests/ Resulted
    6. E DAR User Profile
    7. Query XAR Scene
    8. Query XAR Summary
    9. E DAR Budget

4.3   Test Case Description:

This test case verifies the DAR input parameters specify the required conditions and instrument configuration(s) for filling a user's request for data acquisition by the ASTER instrument. The DAR Input Parameters List is the mechanism by which the ASTER science team conveys its DAR submission preferences. API is used to convert for DCE to RPC for GDS DAR server. Figure E-ICT12.3-1through E-ICT12.3.4 illustrates the DAR API data flow.

The DAR Parameters are provided to the ASTER GDS DAR Client application by the ECS Client via the submitDar call contained in the ASTER GDS API. The ASTER GDS DAR Client application validates the DAR input parameters against an internal data base of valid DAR input values. If the DAR parameters are valid, the ASTER DAR Client application submits the user's DAR to the ASTER GDS SDPS. ASTER IMS DAR Server validates user DAR requests before the DAR is submitted to the AOS.

Upon submittal to the ASTER GDS SDPS, the DAR Client application obtains a confirmation that the DAR was received by the ASTER GDS. The ASTER GDS DAR Client application returns this confirmation and the assigned DAR ID and DAR request version number to the ECS SDPS Client.
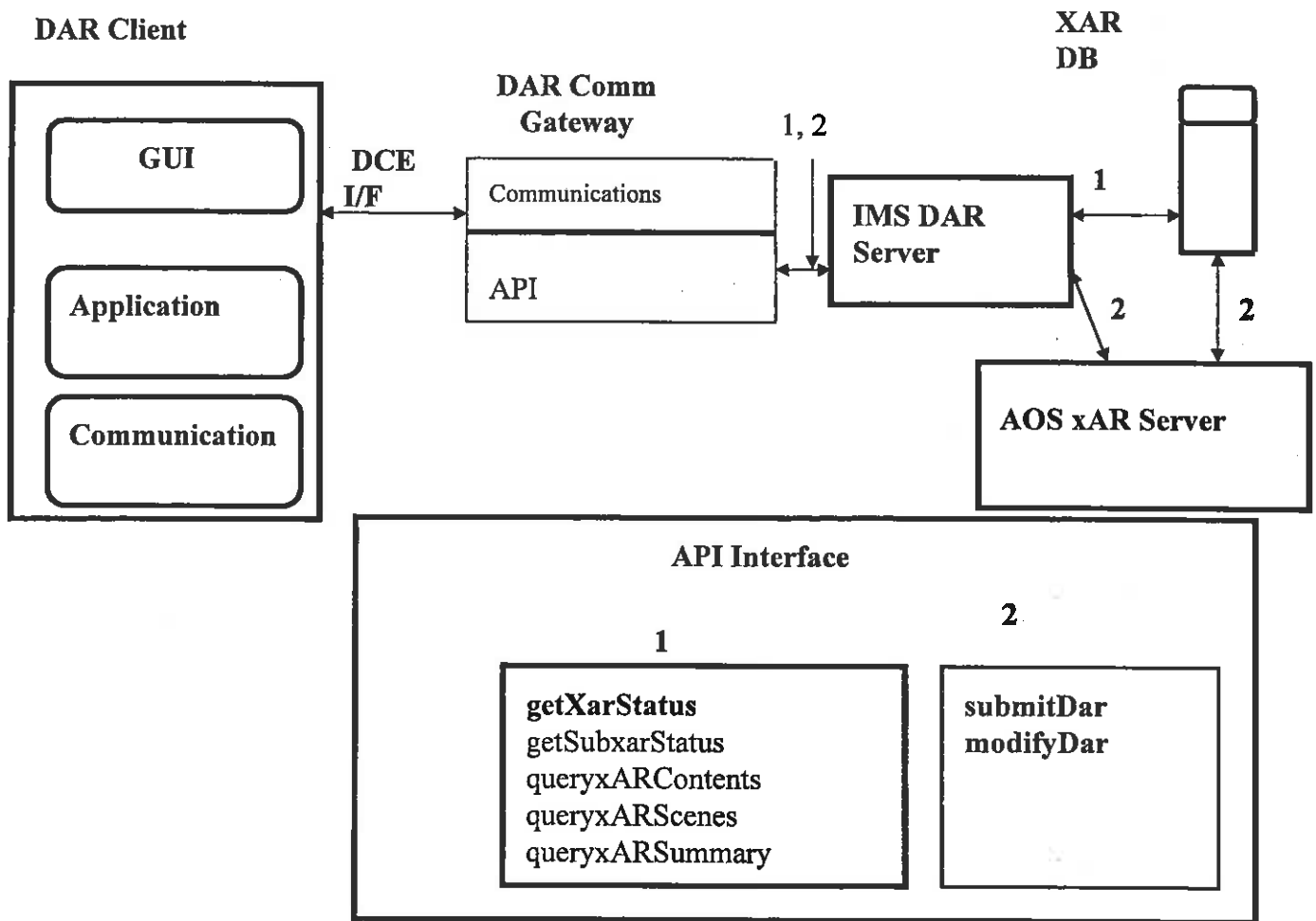
Figure E-ICT12.3-1 Data Flows for Calls Through the ASTER-GDS IMS API

EDC DAAC

1. **DAR Submit (ECS DAR Client to DAR Comm Gateway Server)**
2. **DAR Submit (DAR Comm Gateway Server to ASTER GDS)**
3. **DAR storage in local holdings**
4. **DAR ID (ASTER GDS To DAR Comm Gateway Server)**
5. **DAR ID (DAR Comm Gateway Server to ECS DAR Client)**
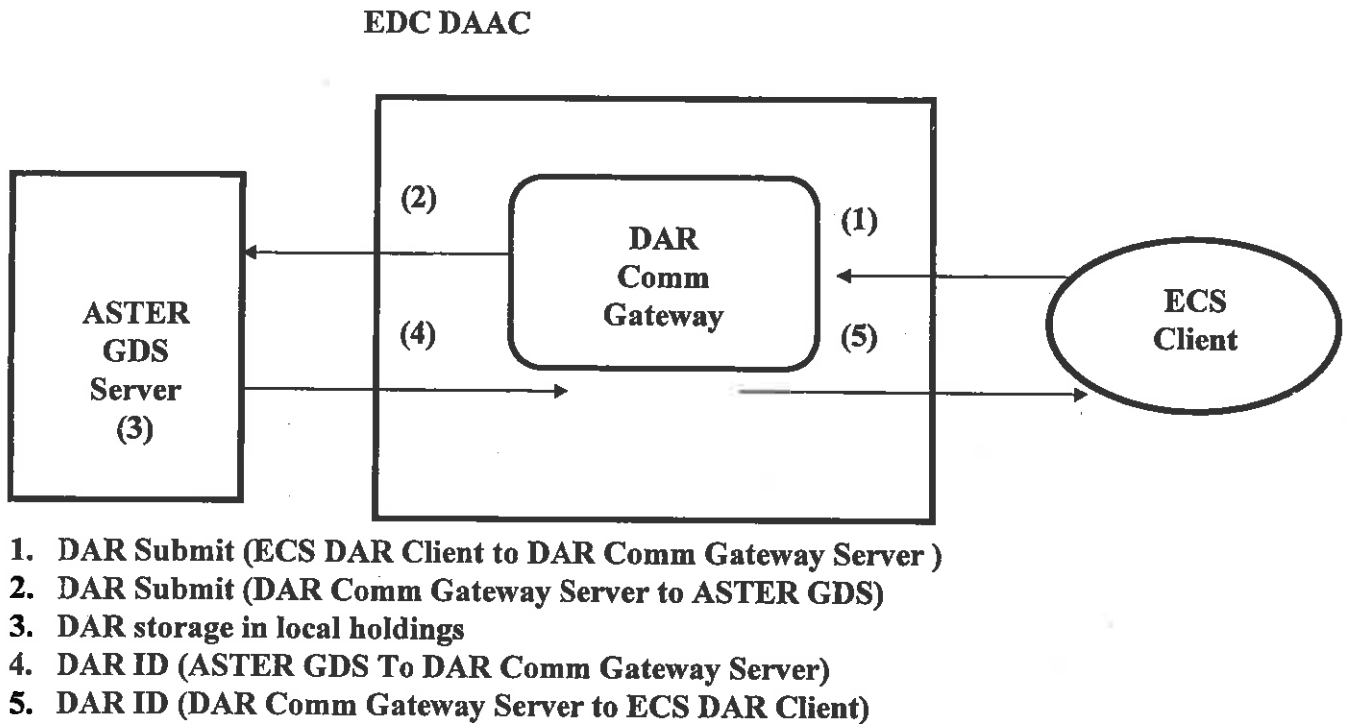
Figure E-ICT12.3-2 Data flow for the submitDar API Call

EDC DAAC

1. **DAR Modify (ECS DAR Client to DAR Comm Gateway Server)**
2. **DAR Modify (DAR Comm Gateway Server to ASTER GDS)**
3. **DAR Modify stored in local holdings**
4. **Return code (ASTER GDS To DAR Comm Gateway Server)**
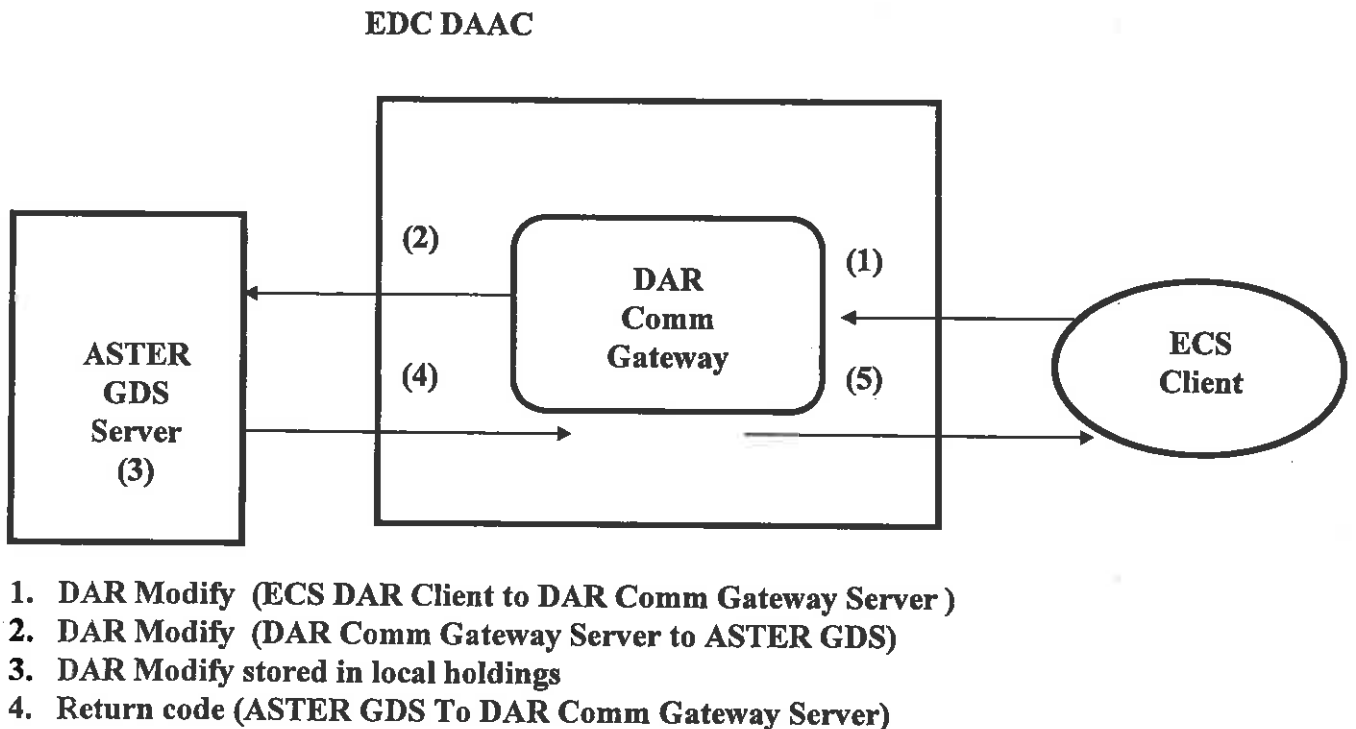
5. **Return code (DAR Comm Gateway Server to ECS DAR Client)**

Figure E-ICT12.3-3 Data flow for the modifyDar API Call

EDC DAAC
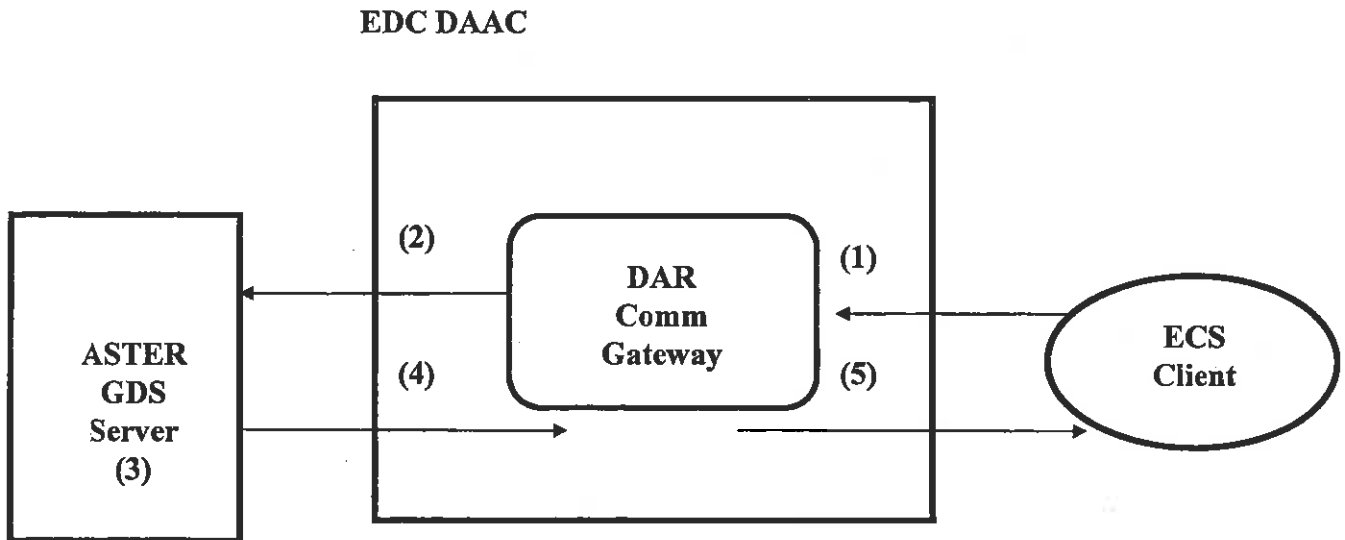
1. **DAR Query Request (ECS DAR Client to DAR Comm Gateway Server)**
2. **DAR Query Request (DAR Comm Gateway Server to ASTER GDS)**
3. **DAR Query Processing**
4. **DAR Query Result (ASTER GDS To DAR Comm Gateway Server)**
5. **DAR Query Result (DAR Comm Gateway Server to ECS DAR Client)**

Figure E-ICT12.3-4   Data Flow for the ASTER Query API Calls

4.4   Prerequisite Conditions:

The prerequisite for this test is to establish communications with ASTER GDS.

4.5   Test Inputs:

Test inputs include:

JAVA DAR Tool availability and email established from EDC DAAC via Ebnet to SMC to ASTER GDS.

4.6   Expected Test Results:

Expected test results are to verify:

1. Successful DAR submittal.
2. Ability to obtain a XAR status search.

3. Ability to obtain a sub-XAR status search.
4. Ability to obtain a xAR contents.
5. Ability to get converted xAR schedule.
6. Ability to modify DAR.
7. Ability to query xAR Contents.
8. Ability to query xAR Scenes.
9. Ability to query xAR Summary.
10. Ability to modify a User profile.

4.7 Methods for Results Analysis:

Results analysis consists of comparing:

1. Results received from the submittal of the various requests against the submitted DAR.
2. The submitted and the received information against Section 6.3 through Section 6.3.5.3 and Appendix C of the ICD.

4.8 General Test Flow Summary

Step No.	Station	Input Action	Results	Comments
1.001	EDC DAAC	**Create a User Account**		
1.002	EDC DAAC	**Personal Information**		
2.001	EDC DAAC	**Tester: Click the "Personal Information"** folder	The "Personnel Information" folder opens and the cursor defaults to the "**Title**" field.	
2.002	EDC DAAC	**Tester:** Enter the user's **Title**, then press **Tab.**	The title you have chosen appears in the "**Title**" field. The Titles in the dropdown box are **Dr., Mr., Mrs., Ms.,** etc. The cursor moves to the "**First Name**" field.	
2.003	EDC DAAC	**Tester:** Enter the user's **first name,** then press **Tab.**	The cursor moves to the "**MI**" field.	
2.004	EDC DAAC	**Tester:** Enter the user's **middle initial,** then press **Tab.**	The cursor moves to the "**Last Name**" field.	
2.005	EDC DAAC	**Tester:** Enter the user's **last name,** then press **Tab.**	The cursor moves to the "**email address**" field.	
2.006	EDC DAAC	**Tester:** Enter the user's **Email address,** then press **Tab.**	The cursor moves to the "**User ID**" field.	
2.007	EDC DAAC	**Tester:** Enter the User ID, then press **Tab.**	The cursor moves to the "**Organization**" field.	
2.008	EDC	**Tester:** Enter the user's	The cursor moves to the	

Step No.	Station	Input Action	Results	Comment
	DAAC	organization, then press **Tab.**	"Telephone" field.	
2.009	EDC DAAC	Tester: Enter the user's telephone number (area code first), then press **Tab.**	The cursor moves to the "Mother's Maiden Name" field.	
2.010	EDC DAAC	Tester: Enter the user's **Mother's Maiden Name**, then press **Tab.**	The cursor moves to the "Affiliation" field.	
2.011	EDC DAAC	Tester: Enter the user's **affiliation**, then press **Tab.**	The cursor moves to the "Project" field.	
2.012	EDC DAAC	Tester: Enter the user's **Project**, then press **Tab.**	The cursor moves to the "**Home DAAC**" field.	
2.013	EDC DAAC	Tester: Enter the user's **Home DAAC, EDC DAAC,** then press **Tab.**		
2.014	EDC DAAC	Tester: Enter the user's **Primary Area of Study**, then press **Tab.**		
2.015	EDC DAAC	**Mailing Address**		
2.016	EDC DAAC	Tester: Click the "Mailing Address" folder tab.	The "Mailing Address" folder opens. The cursor moves to the first "Address" field.	
2.017	EDC DAAC	Tester: Enter the user's mailing address, then press **Tab.**	The cursor moves to the second "Address" field.	
2.018	EDC DAAC	**Shipping Address**		
2.019	EDC DAAC	**Tester: Click the " Shipping Address" folder tab and enter the "Shipping Address information.**		
2.020	EDC DAAC	**Account Information**	This section is not expected to be granted by the DAAC because of security considerations and therefore will not be tested.	
2.021	EDC DAAC	**Tester: On the User Services Desktop, click the ECS User Account Management icon.**	The ECS Account Management window is displayed. The window shows two folders: "Request Account" and "Profile Account."	
2.022	EDC DAAC	**Tester: Click the "Request Account" folder tab.**	Six folders are displayed that contain detailed information about the selected user's account: **Personal Information, Mailing Address, Shipping Address, Billing Address, Account Information and DAR Information.**	
2.022	EDC DAAC	Tester: Click the "Account Information" folder.	The "Account Information" folder opens.	

Step No.	Station	Input Action	Results	Comment
2.023	EDC DAAC	**Tester: Click the "Expiration Date"** field.	The cursor moves to the "Expiration Date" field.	
2.024	EDC DAAC	**Tester: Enter the Expiration Date** only if required by the DAAC for new accounts, then press **Tab.**	When the **Expiration Date** is reached, the system automatically deletes the account from the system. The expiration date depends on the policies at each DAAC.	
2.025	EDC DAAC	**Tester: Click on the "Account Number"** field. Enter a new **Account Number,** then press **Tab.** DAAC policy will determine how new account numbers are assigned.		
2.026	EDC DAAC	**Tester: Click on the "Privilege Level"** field. Enter the **Privilege Level,** then press **Tab..**	Privilege Level appears in the "Privilege Level" field.	
2.027		**Tester: Click on the "NASA User"** field. Enter "Yes" or "No" for the **NASA User,** then press **Tab..**	The highlighted NASA	
2.028	EDC DAAC	**Tester: Click on the "DCE Password"** field. Enter a new password, then press **Tab..** DAAC policy will determine how DCE passwords are assigned.		
2.029	EDC DAAC	**Tester: Click on the "DCE Group"** field. Enter a **DCE Group,** then press **Tab..** DAAC policy will determine how users are assigned to DCE groups.		
2.030	EDC DAAC	**Tester: Click on the "DCE Organization"** field. Enter the **DCE Organization,** then press **Tab..** The DCE Organization must be the one which corresponds to the selected DCE Group. *If the user needs access to the V0 Gateway, enter V0 Gateway User Type and V0 Gateway Password.*		
2.031	EDC DAAC	**Tester: Click on the "V0 Gateway User Type"** field. Enter the **V0 Gateway User Type,** then press **Tab..**		
2.032	EDC DAAC	**Tester: Click on the "V0 Gateway Password"** field. Enter the **V0 Gateway Password,** then press **Tab..**	The six folders are now complete.	
		Log on to ECS User Services		
2.033	EDC DAAC	**Tester:** From the workstation/PC/Mac desktop, launch the Netscape browser.	The Netscape browser loads onto the desktop.	
2.034	EDC	**Tester:** Select/Enter the hyperlink for	The ECS home page is displayed	

Step No.	Station	Input Action	Results	Comment
	DAAC	the EOSDIS Home Page.	on the browser window.	
2.035	EDC DAAC	**Tester:** Scroll to 'Access Data' portion of the EOSDIS H ome Page where the link for the Java DAR Tool is located.	The 'Access Data' section of the Home Page is displayed, including a link for the Java DAR Tool (JDT).	Currently, there is no link on the 'Access Data' home page for the JDT.
2.036	EDC DAAC	**Tester:** Click on the link for the Java DAR Tool. **Note:** This is the correct integrated flow, but currently the ECS Home Page has no such link! Instead, type the Java DAR Tool (JDT) URL directly: http://<server.domain.nam>:<configu red_port_num>/JdTApplet_plugin.ht ml. Example: In TS2 mode for the Mini-DAAC, this would be http://incagold:10402/ JDTApplet_plugin.html		*SNAP
2.037	EDC DAAC	**Tester:** Click on the Login field and type: <ecs_login> Click on the Password field and type: <ecs_password> and click on the **OK** button or press 'Return' on the keyboard. **NOTE:** An ECS account username and password that allow the tester to submit a DAR must be created prior to the test by the system administrator and provided to the tester.	The Java DAR Tool spashscreen is displayed. The spashscreen is a dialog which displays introductory information to the user and indicates whether the user is authorized. After the splashscreen is displayed, the Java DAR Tool is displayed in it's own window. If there is no session data for this user, JDT will display the 'Create/Edit DAR' tab on top to allow the user to immediately create a new DAR. If the user has existing session data, JDT will display the Organizer on top to support selection of existing DARs. **NOTE:** Depending on the state of the user's session (whether they are logged in with ASTER authorization or as a Guest with ECS authorization only), the splashscreen will display different information. Make sure you read the splashscreen to determine if the account has DAR Submit authorization.	Info: The DAR Organizer tab contains a list of Folders that contain the names of any previously saved or submitted DARs.

Step No.	Station	Input Action	Results	Comment
2.38		**ECS USER CREATES NEW DARS**		
2.039		**Select Information Parameters**		
2.040	EDC DAAC	**Tester:** Click on the **Create/Edit DAR** tab.	The Create/Edit DAR tab and it's contents are displayed. The 'General' nested tab should be displayed as the default tab.	
2.041	EDC DAAC	**Tester:** Click on the **xAR Title** text entry box and type **JDARTest_<date>.**	The title is displayed in the box.	
2.042	EDC DAAC	**Tester:** Click on the arrow to the right of the **Investigation Class Combobox.**	A drop down menu is displayed.	
2.043	EDC DAAC	**Tester:** Verify all Investigation Class items are displayed in drop down menu (see comments) by comparing with the ASTER-GDS DAR Client API List, Table-1 DarDataStream, item #6, Investigation Class. You must SCROLL through the drop down menu to see all of the values.	All items in API List for Investigation Class are listed in drop down menu.	
2.044	EDC DAAC	**Tester:** Click on **Air-land interaction** from the Investigation Class drop down menu.	**Air-land interaction is displayed in the Investigation Class box and the drop down menu disappears**	
2.045	EDC DAAC	**Tester:** Click in the **Scientific Objective** box and type **This is a test**	The typed words are displayed in the box.	
2.046	EDC DAAC	**Tester:** Click on the **Maximum Cloud Coverage (%)** button labeled **<20%.**	A drop down menu is displayed.	
2.047	EDC DAAC	**Tester:** Inspect the displayed Maximum Cloud Coverage (%) items and compare them with the ASTER-GDS DAR Client API List for compliance by comparing with the ASTER-GDS DAR Client API List , Table-1 DarDataStream, item #38, Cloud Coverage.	All items in API List for Cloud Coverage are listed in drop down menu.	
2.048	EDC DAAC	**Tester:** Click on **<50%** from the Maximum Cloud Coverage (%) drop down menu.	<50% is displayed in the Maximum Cloud Coverage (%) box.	
2.049	EDC DAAC	**Tester:** Click on the **Day and/or Night Settings** combobox selection labeled **Day Only**	A drop down menu is displayed.	Info: The default setting is 'Day Only.' The API parameter is called Day/Night.

Step No.	Station	Input Action	Result	Comments
2.050	EDC DAAC	**Tester:** Verify all **Day and/or Night Settings** are displayed in drop down menu (see comments) by comparing its contents with the ASTER-GDS DAR Client API List Table-1 DarDataStream, item #18, Day/Night. .	All items in API List Day and/or Night Settings will be listed in drop down menu.	
2.051	EDC DAAC	**Tester:** Click on '**Day or Night**' from the Day and/or Night Settings drop down menu.	'Day or Night' is displayed in the Day and/or Night Setting text field.	
2.052	EDC DAAC	**Tester:** Select the check box next to **Show Gain Settings** to display the Gain Settings on the GUI.	The Gain Settings panel just below is displayed with Bands 1 to 9 set to the default High.	
2.053	EDC DAAC	**Tester:** 1) Click on each combobox displayed under Gain Settings to display the available options. 2) Verify all **Gain Settings** are displayed in panel by comparing the settings with the listing in the ASTER-GDS DAR Client API List, Table-1 DarDataStream, items #28 - #36.	All items in API List for Gain Settings will be listed in panel.	
2.054	EDC DAAC	**Tester:** Click on the **Telescope Selection** combobox selection labeled **VNIR, SWIR, & TIR.**	A drop down menu will appear.	
2.055	EDC DAAC	**Tester:** Verify all Telescope Selection items are displayed in drop down menu by comparing the list of items with the ASTER-GDS DAR Client API List, Table-1 DarDataStream, item #27, Instrument Mode.	All items in API List for Telescope Selection will be listed in drop down menu.	
2.056	EDC DAAC	**Tester:** Click on **VNIR Only** from the Telescope Selection drop down menu.	Band numbers 4 to 9 are desensitized	
2.057	EDC DAAC	**Expected Results:.**		
2.058	EDC DAAC	**Tester:** Click on the **Band 1** combobox selection labeled **High.**	A drop down menu will appear.	
2.059	EDC DAAC	**Tester:** Verify that all options for Band 1 are displayed in drop down menu by comparing the list of items with the ASTER-GDS DAR Client API List, Table-1 DarDataStream, item #28, VNIR Band 1 Gain Setting.	All items in API List for Band 1 will be listed in drop down menu.	
2.060	EDC DAAC	**Tester:** Click on **Normal** from the Band 1 drop down menu.	Normal is displayed in the combobox next to Band 1.	

Step No.	Station	Input Action	Results	Comments
			Bands 2 to 3 remain High	
2.061	EDC DAAC	**Tester:** Click on the desensitized parameters, Bands 4 to 9, and try to select them.	The desensitized parameters cannot be selected.	
2.062	EDC DAAC	**Tester:** Click on the **Telescope Selection** combobox selection now labeled **VNIR Only.**	A drop down menu is displayed.	
2.063	EDC DAAC	**Tester:** Click on **SWIR & TIR** from the Telescope Selection drop down menu.	Band numbers 4 to 9 are available to change options. Band numbers 1 to 3 are desensitized.	
2.064	EDC DAAC	**Tester:** Click on the **Band 9** combobox selection labeled **High.**	A drop down menu will appear.	
2.065	EDC DAAC	**Tester:** Verify that all options for Band 9 are displayed in drop down menu by comparing the list with the ASTER-GDS DAR Client API List, Table-1 DarDataStream, item #34, SWIR Band 9 Gain Setting.	All items in API List for Band 9 will be listed in drop down menu.	
2.066	EDC DAAC	**Tester:** Click on **Very Low** from the Band 9 drop down menu.	Very Low is displayed in the box next to Band. Bands 4 to 8 remain High.	
2.067	EDC DAAC	**Tester:** Click on the desensitized parameters, **Bands 1 to 3**, and try to select them.	The desensitized parameters cannot be selected.	
2.068	EDC DAAC	**Tester:** Click on the **Update DAR>>>** button at the bottom of the screen.	The parameters entered above are displayed under the Heading: "General" in the DAR Summary display that is to the immediate right of "General" nested tab.	Note: The DAR Summary currently shows "General" attribute values under the heading of "Primary Attribute"
2.069		**Add Spatial Parameters**		
2.070	EDC DAAC	**Tester:** Click on the Spatial nested tab (**Required**).		
2.071	EDC DAAC	**Tester:** Click on the 'Enter AOI mode' (⬀)icon in the **map tool icon toolbar.**	The mouse cursor changes to the shape of a crosshair when located within the boundary of the map display area. In addition, a dialog displaying the AOI latitude/longitude fields is displayed. **Note:** Currently, this has the following tooltip label: "AOI Mode"	Note: The AOI dialog does not display automatically at this point. The tester must manually bring this dialog up by clicking on the "View AOI Coordinates"

Step No.	Station	Input Action	Results	Comment
				(⊞)button on the spatial toolbar.
2.072	EDC DAAC	**Tester:** Click on Row 1/Column 1 (the **Latitude** column) in the 'Area of Interest Lat./Lon. Coordinates' dialog, and type the following numbers as the cursor moves to the right; **64.225**	The entered numbers are displayed.	
2.073	EDC DAAC	**Tester:** Click on Row 1/Column 2 (the **Longitude** column) in the 'Area of Interest Lat./Lon. Coordinates' dialog, and type the following numbers as the cursor moves to the right; **-22.8813**	**The** entered numbers are displayed.	
2.074	EDC DAAC	**Tester:** Press the 'Enter' key.	The list box will display Pt. # 1, Latitude: **64.225** Longitude: **-22.8813** and the point (x) will appear on the map.	All points in this example are located in SW Iceland
2.075	EDC DAAC	**Tester:** Click on Row 2/Column 1 (the **Latitude** column) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **63.6625**	The entered numbers are displayed.	
2.076	EDC DAAC	**Tester:** Click on Row 2/Column 2 (the **Longitude** column) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **--22.7969**	The entered numbers are displayed.	
2.077	EDC DAAC	**Tester:** Press the 'Enter' key.	The dialog will display Pt. # 2, Latitude: **63.6625** Longitude: **-22.7969**, The point will appear on the map with a line connecting it to Pt # 1.	All points in this example are located in SW Iceland.
2.078	EDC DAAC	**Tester:** Click on Row 3/Column 1 (the **Latitude** column) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **63.6625**	The entered numbers are displayed	

Step No.	Station	Input Action	Results	Comments
2.079	EDC DAAC	**Tester:** Click on Row 3/Column 2 (the **Longitude** column)) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **-22.2625**	The entered numbers are displayed.	
2.080	EDC DAAC	**Tester:** Press the 'Enter' key.	The dialog will display Pt. # 3, Latitude: **63.6625** Longitude: **-22.2625,** The point will appear on the map along with another line to form a triangular shape. (This is the minimum required to create a 'legal' polygon.)	All points in this example are located in SW Iceland.
2.081	EDC DAAC	**Tester:** Click on Row 4/Column 1 (the **Latitude** column) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **64.225**	The entered numbers are displayed.	
2.082	EDC DAAC	**Tester:** Click on Row 4/Column 2 (the **Longitude** column) in the Area of Interest Lat./Lon. Coordinates dialog and type the following numbers as the cursor moves to the right; **-22.2625**	The entered numbers are displayed.	
2.083	EDC DAAC	**Tester:** Press the 'Enter' key.	The dialog will display Pt. # 4, Latitude: **64.225** Longitude: **-22.2625** The point will appear on the map along with another line to form a rectangular shape.	All points in this example are located in SW Iceland.
2.084	EDC DAAC	**Tester:** Observe the Resources calculation displayed above the upper right-hand side of the map tool.	Resources calculation displayed	If the resources required to obtain the data requested were greater than the DAR budget available to this user then s/he would have the option to reduce the size of the AOI polygon.
2.085	EDC DAAC	**Tester:** Click on the **Update DAR>>>** button.	The 4 pairs of latitude/longitude coordinates are displayed under the Spatial heading in the DAR	Note: Currently labeled as "Spatial Setting".

Step No.	Station	Input Action	Results	Comments
			Summary display area.	
2.086		**Verify Pan and Zoom Tools**		
2.087	EDC DAAC	**Tester:** Click on the **Pan** ( )mode button on the Spatial toolbar.	The cursor changes to a thick crosshair	
2.088	EDC DAAC	**Tester:** Click on the **South-West (SW) corner of Iceland**	No visible results. However, this action actually changes the effective center point of the map. This will allow the user to zoom in to the South-West corner of Iceland to see the newly created AOI.	Note: Changing the center point means that future zooms will be centered on that point.
2.089	EDC DAAC	**Tester:** Click on the **Zoom In** button labeled '1 scene' on the Zoom Control.	The Zoom In radio button labeled '1 scene' shows as selected. The map tool redraws showing the map at approximately one scene's worth of scale. This should display a little teeny bit of Iceland and the AOI polygon drawn around it.	
2.090		**Verify Map Display Controls**		
2.091	EDC DAAC	**Tester:** Click on the **Projection** ( )button shown in the Spatial toolbar.	: A dialog containing the available projections is popped up. Plate Carre should be the default selection.	Note: The Plate Carre is currently mislabeled as "Simple Cylindrical Projection".
2.092	EDC DAAC	**Tester:** Select the **Lambert Conformal Conic** projection.	The radio button for "Lambert Conformal Conic" should show as selected and the map should refresh to show the correct projection.	Note: While the map data is being fetched from the server, all of the related spatial controls will be disabled (greyed-out). This is to prevent inadvertant button clicks which could end up creating a long parade of data fetches to the server.
2.093	EDC DAAC	**Tester:** With the projection selection dialog still being displayed, select the **Plate Carre** projection radio button to return to that projection.	The map redraws to the Plate Carre projection with the same pan and zoom selections as for the Lambert Conformal Conic projection.	Note: The Plate Carre is currently mislabeled as "Simple Cylindrical Projection".

Step No.	Station	Input Action	Results	Comment
2.094	EDC DAAC	**Tester:** Click on the Overlay (📑)button shown in the Spatial toolbar. 1) Note that the Coastline map overlay is the default display. 2) Click on the **Country** button.	1) The "Country" button is displayed as being selected (or checked). 2) Country borders are displayed in the map area in yellow.	
2.095	EDC DAAC	**Tester:** Click on the **Lakes** button.	1) The "Lakes" button is displayed as being selected (or checked). 2) Lakes are displayed in the map area in cyan .	
2.096	EDC DAAC	**Tester:** Click on the **Rivers** button.	1) The "Rivers" button is displayed as being selected (or checked). 2) River areas are displayed in the map area in blue.	
2.097	EDC DAAC	**Tester:** Click on the **Coastlines** button.	1) The "Coastlines" button is displayed as not selected. 2) Brown coastlines are removed from the map	
2.098	EDC DAAC	**Tester:** Click on the **Pan** button shown on the spatial toolbar.	The "Pan" button is selected (or highlighted).	
2.099	EDC DAAC	**Tester:** Click on another prominent area on the map that is not at the center.	The map is redrawn and the selected area is displayed in the center	
		Select Temporal Parameters		
2.100	EDC DAAC	**Tester:** Click on the **Temporal** nested tab.	The "Temporal" nested tab is displayed.	
2.101	EDC DAAC	**Tester:** In the **xAR Lifetime** box; Click on the **Begin dd** field, highlight the number, and use the up arrow to change the date to **25**. Click on the **End mm** field, highlight the number, and use the arrows to change the date to the following as the cursor moves to the right; **12** for **mm** **25** for **dd** **2000** for **yyyy**	The Start Date on the timeline is now 12/25/1998 and the End Date is now 12/25/2000.	
2.102	EDC DAAC	**Tester:** Click on the **Repeat Interval** days field and use the up arrow to change the days to **10**.	10 days are shown in the text entry area for the Repeat Interval.	
2.103	EDC DAAC	**Tester:** Click on the **Acquisition Window** days field and use the up arrow to change the days to **5**.	5 days is displayed in the Acquisition Window text entry area	

Step No.	Station	Input Action	Results	Comments
2.104	EDC DAAC	**Tester:** Click on the **Update DAR>>>** button.	The temporal parameters are displayed under the heading 'Temporal' in the DAR Summary display area.	
2.105		**Verify Coverage Controls**		
2.106	EDC DAAC	**Tester:** Click on the **Coverage nested** tab.	The Coverage nested tab appears on the GUI. The defaults are: Multiple Observations: No Coverage Method: Complete Full AOI Duration Required: No Allow Cross Track Fragmentation: Yes	
2.107	EDC DAAC	**Tester:** Click on the **Coverage Method: Sampled** radio button.	1) The Sampled radio button is selected. 2) The following fields will become displayed and available to change; -Minimum Sampled Length (km): 1 -Maximum Sampled Length (km): 1 -Number of Samples: 1 -Coverage Amount (%): 50	
2.108	EDC DAAC	**Tester:** Click on the **Minimum Sampled Length** text field, click on the up arrow **once**.	The number 2 is displayed in the box.	
2.109	EDC DAAC	**Tester:** Click on the **Maximum Sampled Length** text field, highlight the number in the field, and type: **10**	The number 10 is displayed in the box	
2.110	EDC DAAC	**Tester:** Click on the **Number of Samples** text field, highlight the number in the field, and type **5**	The number 5 is displayed in the box	
2.111	EDC DAAC	**Tester:** Click on the **Coverage Amount (%)** text field, highlight the number in the field, and type **80**	The number 80 is displayed in the box	
2.112	EDC DAAC	**Tester:** Click on the Full AOI Duration Required: **Yes** button.	The 'Yes' button is displayed as selected.	
2.113	EDC DAAC	**Tester:** Click on the Allow Cross Track Fragmentation: **No** button.	The 'No' button is displayed as selected.	
2.114	EDC DAAC	**Tester:** Click on the **Update DAR>>>** button at the bottom of the Coverage nested tab.		
2.115		**Select Geometry Parameters**		

Step No.	Station	Input Action	Results	Comments
2.116	EDC DAAC	**Tester:** Click on the **Geometry** nested tab.	1) The Geometry nested tab is displayed. 2) The "Any Look Angle" and "Any Sun Angle" radio buttons are the default selections.	
2.117	EDC DAAC	**Tester:** Click on the **Specific Look Angle** radio button.	The Specified Look Angle field is displayed, enabled and available for changes.	
2.118	EDC DAAC	**Tester:** Highlight the Specific Look Angle box, and click on the Up arrow **5 times.**	0.25 is displayed in the Specific Look Angle numeric entry field.	
2.119	EDC DAAC	**Tester:** Click on the **Preset Look Angle radio** button.	1) The Preset Look Angle (Specific View Swath ID 1 – 7) field is displayed and available to change. 2) The Specified Look Angle value resets to 0.00.	
2.120	EDC DAAC	**Tester:** Click the Preset Look Angle up arrow until the value '7' is displayed.	The value '7' is displayed in the Preset Look Angle box.	
2.121	EDC DAAC	**Tester:** Click on the **Look Angle Range radio** button.	1) The Look Angle Range fields are displayed and available for changes. 2) The Specific View Swath ID value resets to 1.	
2.122	EDC DAAC	**Tester:** Click on the second **Acceptable Look Angle Range: Minimum Angle** field, highlight the number in the box and enter **4.00.**	4.00 is displayed in the minimum angle box.	
2.123	EDC DAAC	**Tester:** Click on the second **Acceptable Look Angle Range: Maximum Angle** field, highlight the number in the box and enter: **7.00**	7.00 is displayed in the maximum angle box.	
2.124	EDC DAAC	**Tester:** Click on the **Sun Angle Range** radio button.	All fields under Sun Angle are enabled.	
2.125	EDC DAAC	**Tester:** Click on the **Minimum Angle** field box under the Sun Angle Range area and use the **up** arrow to display **0.50**	0.50 is displayed in the box.	
2.126	EDC DAAC	**Tester:** Click on the **Maximum Angle** field box under the Sun Angle Range area and use the **down** arrow to display **89.00**	89.00 is displayed in the box	

Step No.	Station	Input Action	Results	Comments
2.127	EDC DAAC	Tester: Click on the **Update DAR>>>** button.	The Coverage parameters are displayed under the Geometry heading in the DAR Summary display area.	
2.128		**Select Priority Parameters**		
2.129	EDC DAAC	Tester: Click on the **Priority nested tab**	1) The Priority nested tab is displayed. 2) The defaults are: -Ground Campaign: No -Implementation Urgency: Normal -Requester Comments: [blank field] -Request for Expedited Data: No -Justification for Expedited Data: [blank field]	
2.130	EDC DAAC	Tester: Click on the **Yes** radio button in the **Ground Campaign:** section.	The Ground Campaign "Yes" radio button is displayed as depressed.	
2.131	EDC DAAC	Tester: Click on the **Urgent** radio button in the **Implementation Urgency:** section.	A message pop-up box is displayed with the following message An urgent request cannot be selected when the xAR Lifetime end date is beyond 18 days of the current date.	
2.132	EDC DAAC	Tester: Click on the **OK** button in the message box.	The dialog box is removed and the Priority nested tab is displayed with the Implementation Urgency set to **its default setting, namely, 'Normal'**.	
2.133	EDC DAAC	Tester: Click on the **Requester Comments** box and Type: **JDARTest_<date>_Requester Comments.**	The entered text is displayed in the box.	
2.134	EDC DAAC	Tester: Click on **Yes** radio button for **Request for Expedited Data.**	The Justification for Expedited Data text is enabled.	
2.135	EDC DAAC	Tester: Click on the box under **Justification for Expedited Data,** and enter the following text in the field: **JDARTest_<date>_Expedited Data Justification**	The text is displayed in the box in two lines.	
2.136	EDC DAAC	Tester: Click on the **Update DAR>>>** button.	A dialog is with the following message is displayed:	

Step No.	Station	Input Action	Results	Comments
			The xAR Lifetime must be 18 days or less when the Implementation Urgency is set to 'Yes'.	
2.137	EDC DAAC	**Tester:** Set the **Implementation Urgency** to **No**, verify that the other settings are as intended and click the **Update DAR >>>** button once again.	The Priority parameters are displayed under the Priority heading in the DAR Summary display area.	
2.138		**User Services Displays the DAR Gateway Server Log**		
2.139	EDC DAAC	**Tester:** If using one DAAC workstation: Click on another workspace window name at the bottom of the screen, highlight the workspace name, and type: **DAAC** If using a two DAAC workstation: 1) Log in to the host workstation with the DAAC username. Login: <use_ services_username> Password: <user_services_password> 2) Click on current workspace window name at the bottom of the screen, highlight the current work-space name, and type: **DAAC**	DAAC is displayed for the workspace name of the DAAC production net workstation.	
2.140	EDC DAAC	**Tester:** On Workspace DAAC, open a terminal window by clicking on the Sun desktop with the right mouse button to open the Workspace menu, and selecting Programs / Terminal...	**Another** Terminal window is opened and the UNIX prompt is displayed.	
2.141	EDC DAAC	**Tester:** At the UNIX prompt in the new Terminal window type: **telnet e0ins01 (EDC DAAC) or t1ins02 (VATC)** <user_services_username> <user_services_password>	The tester is logged on to the DAR Comm Gateway server platform and the new UNIX prompt is displayed.	
2.142	EDC DAAC	**Tester:** Display the DAR Gateway server log file; type: **cd /usr/ecs/<MODE>/CUSTOM/lo gs** **tail –f EcGwDARServer.ALOG**	The last ten lines of the EcGwDARServer.ALOG is displayed. This will be updated as new lines are entered in the file to always show the last 10 lines.	Note: After a DAR has been submitted, the EcGwDARServer. ALOG records the transmission data for the DAR. A "tail –f" command allows

Step No.	Station	Input Action	Results	Comments
				the user to view the log updated with the current entries to the log which will be the DAR transmissions.
2.143	EDC DAAC	**Tester:** In a new window, display the MOJO Gateway log file; type: **cd /usr/ecs/<MODE>/CUSTOM/logs tail –f EcCsMojoGatewayDebug.log**	The MOJO Gateway log file will be displayed. **Note:** Make sure that the MOJO Gateway debug level has been set to three otherwise, no useful information will show in the log file. If the debug level needs to be reset, the server must be restarted in order to initialize at the new debug setting.	
2.144		**ECS User Submit the DAR**		
2.145	EDC DAAC	**Tester:** From the ECS User workstation, click on the **Submit DAR >>>** button and note the time.	A confirmation dialog will be displayed.	
2.146	EDC DAAC	**Tester: Confirm** the DAR submit.	: A XAR ID dialog box is displayed: "The identification number for this xAR is 54321"	
2.147	EDC DAAC	**Tester:** Click on the **OK** button from the XAR ID dialog box.	1) The XAR ID dialog box is removed and the DAR Tool window is displayed. 2) The user receives an e-mail confirming the creation of the subscription as well as the Subscription ID.	
2.148	EDC DAAC	**User Services Verifies DAR Values**		
2.149	EDC DAAC	**Tester:** In the MOJO log, search for **SUBMIT** and the time index (to the minute) recorded at submission time.	This should result in the display of the start of the submit message from MOJO to the DAR Comm Gateway.	
2.150	EDC DAAC	**Tester:** Scroll through the contents of the **SUBMIT** message. This data should be recorded by highlighting and saving to a separate text file. Compare the values listed in this submit message against the values entered via the Java DAR Tool.	The two sets of values should be the same. Use the API tables to translate the hexadecimal values as necessary.	
2.151	EDC	**Tester:** On the DAAC workstation,	The terminal window is accessed	

| Step No.	Station	Input Action	Results	Comments
	DAAC	click on the **EcGwDARServer.ALOG** terminal window to make it active.	and the logs shows the most recent entry, which is the DAR that was just submitted.	
2.152	EDC DAAC	**Expected Results:**		
2.153	EDC DAAC	**Tester:** Review the submission data recorded in the EcGwDARServer.ALOG file for the following actions: --SsubmitDARSrfReceived-time Gateway received from DART --SsubmitDARSrfRqSent-time sent to ASTER (or simulator) --SsubmitDARSrfRqAck-time reply received from ASTER (or simulator) --SsubmitDARSrfRqComp-time notification sent to DART	The data is recorded: .-Time DAR was received from DAR Tool -Time sent to ASTER (or simulator) -Time reply received from ASTER (or simulator) -Time notification sent to DAR Tool	Note: This does not appear to be displayed in the current log.
2.154		**ECS User Modifies DAR Cloud Coverage**		
2.155	EDC DAAC	**Tester:** On the ECS User's workstation, click on the **Java DAR Tool** window to activate it.	The Java DAR Tool window is active.	
2.156	EDC DAAC	**Tester:** Click on the DAR Organizer tab, select the **DAR that was just submitted (JDARTest <date>** in the DAR Organizer tree and click on the **Modify Cloud Coverage (⌀)** button on the Organizer toolbar.	The Modify Cloud Coverage for 'DAR 54321' dialog is displayed on the screen	
2.157	EDC DAAC	**Tester:** Attempt to click on x**AR Title** and **User ID** boxes to select them for change.	The tester is unable to change the data.	
2.158	EDC DAAC	**Tester:** Click on the **Maximum Cloud Coverage (%)** button.	A drop down menu will appear containing options in bold from <50% to <100% . Verify the contents by comparing with the ASTER-GDS DAR Client API List, Table-7 modifyStream, item #38, Cloud Coverage.	Note: Only less restrictive cloud coverage values (above the initial percentage selected) are allowed to be selected as modification values.
2.159	EDC DAAC	**Tester:** Click on **<70%** for Maximum Cloud Coverage (%).	<70% will appear in the Maximum Cloud Coverage (%) box.	
2.160	EDC DAAC	**Tester:** Click on the **Submit** button.	The DAR modification is transmitted and a message pop-up box with the following	

Step No.	Station	Input Action	Results	Comments
			message is displayed: "Cloud coverage for DAR 54321 was successfully modified."	
2.161	EDC DAAC	**Tester:** Click the **OK** button from the Cloud Coverage Modification Acknowledgement dialog box.	The dialog box is removed and the DAR Tool window is displayed.	
2.162		**User Services Verifies Cloud Coverage Modification Values**		
2.163	EDC DAAC	**Tester:** On the DAAC workstation, click on the **EcCsMojoGatewayDebug.log** terminal window and inspect latest entries	The MOJO log should display.	
2.164	EDC DAAC	**Tester:** In the MOJO log, search for **MODIFY tag** and the time index (to the minute) recorded at submission time.	This should result in the display of the start of the modify request message from MOJO to the DAR Comm Gateway.	
2.165	EDC DAAC	**Tester:** Scroll through the contents of the **MODIFY** message. This data should be recorded by highlighting and saving to a separate text file. Compare the values listed in this submit message against the values entered via the Java DAR Tool.	The two sets of values should be the same. Use the API tables to translate the hexadecimal values as necessary.	
2.166	EDC DAAC	**Tester:** On the DAAC workstation, click on the **EcGwDARServer.ALOG** terminal window and inspect the latest entries.	The terminal window is displayed and the log shows a modification of the DAR that was just submitted. EcGwDARGatewayRequest_SmodifyDARSrfRqRecvd EcGwDARGatewayRequest_SmodifyDARSrfRqSent EcGwDARGatewayRequest_SmodifyDARSrfRqAck EcGwDARGatewayRequest_SmodifyDARSrfRqComp	
2.167		**ECS User Suspends/Activates DAR**		
2.168	EDC DAAC	**Tester:** Click on the DAR Organizer tab, select the existing DAR **JDARTest <date>** in the DAR Organizer tree and click on the **Suspend/Activate (⍉)** button on the Organizer toolbar.	The Suspend/Activate DAR 54321 dialog is displayed on the screen.	Note: Currently, the icon for this button looks like a question mark with a circle around it.
2.169	EDC DAAC	**Tester:** Attempt to click on **xAR ID** and **User ID** boxes to select them for change.	The tester is unable to change the data.	
2.170	EDC	**Tester:** Click on the **Suspended**		

Step No.	Station	Input Action	Results	Comments
	DAAC	button for the **xAR Status** option.		
2.171	EDC DAAC	**Expected Results:** The xAR Status is set to Suspended.		
2.172	EDC DAAC	**Tester:** Click inside the **Requester Comments** box and type **Modify JDARTest<date>.**	The text is displayed in the box.	
2.173	EDC DAAC	**Tester:** Click on the **Submit** button.	The DAR modification is transmitted and a message pop-up box with the following message is displayed: "DAR 54321 was successfully suspended."	
2.174	EDC DAAC	**Tester:** Click the **OK** button from the DAR <<Suspend/Activate>> Acknowledgement dialog box.	The dialog box is removed and the DAR Tool window is displayed.	
2.175		**User Services Verifies Suspend/Activate DAR Values**		
2.176	EDC DAAC	**Tester:** On the DAAC workstation, click on the **EcCsMojoGatewayDebug.log** terminal window and inspect latest entries	The MOJO log should display.	
2.177	EDC DAAC	**Tester:** In the MOJO log, search for **MODIFY tag** and the time index (to the minute) recorded at submission time.	This should result in the display of the start of the modify request message from MOJO to the DAR Comm Gateway.	
2.178	EDC DAAC	**Tester:** Scroll through the contents of the **MODIFY** message. This data should be recorded by highlighting and saving to a separate text file. Compare the values listed in this submit message against the values entered via the Java DAR Tool.	The two sets of values should be the same. Use the API tables to translate the hexadecimal values as necessary.	
2.179	EDC DAAC	**Tester:** On the DAAC workstation, click on the **EcGwDARServer.ALOG** terminal window and inspect the latest entries.	The terminal window is displayed and the log shows a modification of the DAR that was just submitted. EcGwDARGatewayRequest_Sm odifyDARSrfRqRecvd EcGwDARGatewayRequest_Sm odifyDARSrfRqSent EcGwDARGatewayRequest_Sm odifyDARSrfRqAck EcGwDARGatewayRequest_Sm odifyDARSrfRqComp	
2.180		**Edit Spatial Parameters**		
2.181	EDC DAAC	**Tester:** Click on the **Spatial** nested tab .	The Spatial nested tab is displayed with the information	

Step No.	Station	Input Action	Results	Comments
			previously saved.	
2.182	EDC DAAC	**Tester:** Click on the **Enter/Edit AOI Mode** (⌂)button	The icon stays in the detented position and the mouse cursor changes to the crosshairs shape.	
2.183	EDC DAAC	**Tester:** Add a point to the map by clicking on the map with the mouse, above and between the 4th and 1st points to form a five-sided polygon.	Point number 5 is displayed on the map and added to the Coordinates table in the dialog.	
2.184	EDC DAAC	**Tester: Click** on point number 4 on the Coordinates table, **(64.225 -22.2625)**	Point number 4 is highlighted in the table on the dialog the map displays the point in a red color.	
2.185	EDC DAAC	**Tester:** Change the value of point number 4 to Latitude : 70 and Longitude : **-30**	Point number 4 is now listed in the table as Latitude 70 and Longitude –30 and it is displayed on the graph in a red color.	
2.186	EDC DAAC	**Tester:** Click on the **Update DAR>>>** button.	The changed spatial parameters are updated in the DAR Summary display area under the Spatial heading.	Note: Currently, heading is shown as 'Spatial Setting' in the DAR Summary
2.187	EDC DAAC	**Tester:** Create a DAR around Lake Okeechobee and repeat the DAR submit.		
2.188	EDC DAAC	**Tester:** Create a DAR crossing the International Date line and repeat the DAR submit.		
2.189	EDC DAAC	**Tester:** Create a DAR in an area near the North Pole but excluding the North Pole. and repeat the DAR submit.		
2.190	EDC DAAC	**Tester:** Create a DAR in an area around the South Pole but excluding the South Pole and repeat the DAR submit.		
2.191	EDC DAAC	**Tester:** Create a DAR in an area including the North Pole and repeat the DAR submit.		
2.192	EDC DAAC	**Tester:** Create a DAR in an area including the South Pole and repeat the DAR submit.		
2.193	EDC DAAC	**Tester:** Create a DAR in an area bisecting the equator and repeat the DAR submit.		
3.001		**Exit DAR Tool**		
3.002	EDC DAAC	**Tester:** Click on **File** from the task bar on the browser.	The browser closes.	

Step No.	Station	Input Action	Results	Comments
		Click on **Exit** from the drop down menu.	.	
3.003		**Verify Subscription ID for Submitted DARs**		
3.004	EDC DAAC	**Tester:** (On the workstation on the DAAC Production Net) open a new Terminal window and log onto the Subscription GUI server, type: **telnet e0dms03** **(VATC=t1dms02)** login: **<DAAC_operator_username>** Password: **<DAAC Operator_password>**	The UNIX prompt for the server is displayed.	
3.005	EDC DAAC	**Tester:** Launch the Subscription GUI by typing: **setenv DISPLAY <host_workstation>:0.0** **dce_login <dce_username>** Password: **<dce_password>** **cd /usr/ecs/<MODE>CUSTOM/utilities/** **EcSbSubServerGUIStart <MODE>**	The ECS Subscription Service GUI is displayed with the Subscriptions tab displayed on top. Note 1: The GUI display may take a few minutes. Note 2: In case an error window is displayed: No application specific help is available, click on the **OK** button to remove it.	
3.006	EDC DAAC	**Tester:** Inspect the Subscription listing in the GUI for the Subscriptions IDs noted in the UNIX window in Steps **2190** and **3570** (Expand screen and scroll as required).	The Subscriptions IDs are displayed and have been entered. Data is displayed in the following columns for each ID generated by the submission of a DAR: -Subscription ID -Event ID -Requester ID -Start Date -Expiration Date -Email Address -Email Text	
3.007	EDC DAAC	**Tester:** Click on **File/Exit** from the ECS Subscription Service window.	The window is removed.	
3.008		**End of Aster DAR Services Test Procedure.** **Log off any remaining processes.**		

Step No.	Station	Input Action	Results	Comments
		Log off any remaining workstations.		
		THE FOLLOWING STEPS ARE TO ASSIST THE TESTER IN THE TEST SET-UP, AND ARE NOT PART OF THE PROCEDURE		
		Supplemental Procedure 1: Verify username entered in EcTvRoleFile.dat File		
	EDC DAAC	**Tester:** From a DAAC workstation window, type: **rlogin e0ins02**	Obtain access to the Client Server e0ins02.	
	EDC DAAC	**Tester:** Change the directory; type **cd /usr/ecs/<Mode>/CUSTOM/data/MSS/**	The directory changes to the path specified.	
	EDC DAAC	**Tester:** Type **ls**	The file list includes EcTvRoleFile.dat.	
	EDC DAAC	**Tester:** Type: **more EcTvRoleFile.dat**	The EcTvRoleFile.dat file is displayed with a minimum of two default lines. 1) The default lines (they wrap around in the window) : -cls1 (followed by a list of roles, separated by commas) -cls2 (followed by a list of roles, separated by commas) 2) Other usernames must include the username used for this test. -other usernames (one line each with the name followed by an editable list of roles.)	If desired username is not displayed, continue with the next series of steps to add the desired username.
		Supplemental Procedure 2: Entering a Username in the EcTvRoleFile.dat File		
	EDC DAAC	**Tester:** Type **vi EcTvRoleFile.dat** **Note:** Any other UNIX word editor may be substituted or the Sun Text Editor may be used. When in the same directory as the file, type **dtpad** at the UNIX prompt	The EcTvRoleFile.dat file is displayed with a minimum of two default lines. -cls1 (followed by a list of roles, separated by commas) -cls2 (followed by a list of roles, separated by commas) -other usernames	
	EDC DAAC	**Tester:** Put the vi cursor on one of the two default role lines and use the **yy** (copy). Tab using the down arrow	A duplicate line is created.	

Step No.	Station	Input Action	Results	Comments
		to the last line in the file and type the p (for paste) command to create a duplicate line.		
	EDC DAAC	**Tester:** Move the cursor in front of the cls word on the duplicate line and type **dw** (delete word).	**The** cls word is deleted from the line	
	EDC DAAC	**Tester:** Let the cursor remain at the location of the deleted word and type **i** (lower case = insert mode), then type the required **username** followed by **a space**.	**The** required username is inserted in place of the cls word.	
	EDC DAAC	**Tester:** Press the <Esc> Key.	**Returns** the vi editor to the command mode.	
	EDC DAAC	**Tester:** Press the : (colon), **w**, and **q** keys.	**The** changes are saved, the file quits, and the UNIX prompt is displayed.	
	EDC DAAC	**Exit DAR Tool**		
	EDC DAAC	**Tester:** Click on **File** from the task bar. Click on **Exit** from the drop down menu.	The DAR Tool is removed leaving the CLS DAAC Desktop.	

5.0   E-ICT12.4   GSFC DAAC/ASTER GDS Expedited Data Set Exchange

This test case verifies GSFC DAAC has placed a subscription on the subscription server, on behalf of ASTER GDS for the ASTER expedited data sets.

5.1 Requirements to be Verified

For this test, the requirements are:

ASTER-0940#B, DADS0130#B, DADS0205#B, DADS0250#B, DADS0760#B, DADS0770#B, DADS1020#B, DADS1030#B, DADS1380#B, DADS1620#B, DADS1805#B, DADS1806#B, DADS2390#B, DADS2430#B, EOSD0020#B, EOSD1015#B, EOSD1502#B, EOSD1760#C, ESN-0006#B, ESN-0280#B, ESN-1340#B, PGS-0510#B, PGS-0512#B, SDPS0150#B

5.2 Test Objectives

This test case verifies the network and system status exchange interfaces between GSFC DAAC and the ASTER GDS. This test verifies Section 9 of the ICD and Section 4 of the Operations Agreement Between GSFC DAAC and the ASTER GDS, dated January 1, 1999. This test verifies:
- Exchange of ASTER Expedited L0 from GSFC DAAC to ASTER GDS.
- Subscription for the ASTER GDS to receive EDS can be entered at the GSFC DAAC.
- Transfer of EDS Data Notification (EDN) via Email over EBnet from GSFC DAAC to ASTER GSD DADS.
- Transfer of EDS Data Request (EDR) from ASTER to GSFC DAAC.
- Signal file is automatically transferred from GSFC DAAC to the FTP server to identify completion of the file transfer.
- SMC can route EDR, EDN, and EDDN's.

Aster - ECS EDS Test Configuration
ICT 12
January 21, 1999
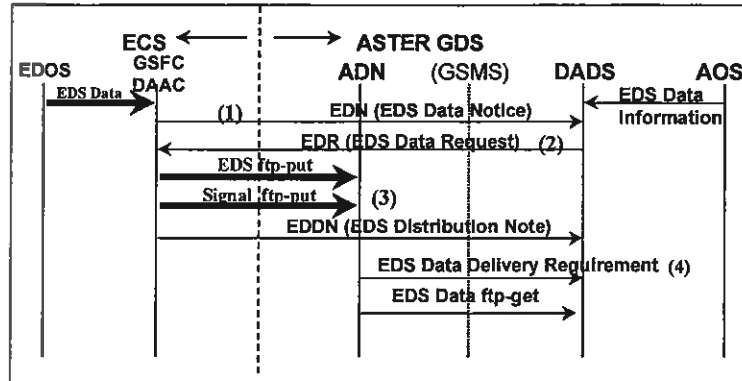
Exhibit 12.4.1 ECS/ASTER GDS

5.3   Prerequisite Conditions

The prerequisites for this test are:
- GSFC DAAC has placed a subscription on the subscription server, on behalf of the ASTER GDS, as defined by the operations agreement, to notify ASTER GDS of arrival of the expedited data sets to ASTER GDS.
- GSFC DAAC has entered a User Profile for Aster Expedited Data.
- The system has to be configured correctly with the email addresses, IP addresses, Host Names, Passwords and Aster Information. See Operations Agreement and Appendices D and E .
- Configure EcCsEmailParser.cfg and parser.sh. See Appendices D and E
- Verify GSFC Aliases and SMC Aliases are correct.
- AST_EXP.001 ESDT Installed.

5.4 Test Procedures

The test will be executed as follows:

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.001	Aster GDS	Contact Aster GDS administrator for test support.	Test support available.		
1.002	EDOS	Verify that EDOS is up and in a position to support the test.	EDOS is ready.		
1.003	EDOS	Verify that EDOS Aster expedited files are available.	The files exist in a specified directory on EDOS.		
1.004	GSFC	Verify that GSFC DAAC is in a position to support the test.	GSFC DAAC is ready.		
1.005	GSFC	Verify all ESDTs are loaded.	AST_EXP.001 ESDT exists.		
1.006	GSFC	Verify ECS system is available and all servers are up.	System is ready.		
1.007	GSFC	Verify parser.sh and $EcCsEmailParser.cfg files have the correct parameters.	Config files are correct.		
1.008	GSFC	Verify GSFC aliases are correct.	Aliases are correct.		

ICT 12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.009	SMC	Verify that SMC is in a position to support the test.	SMC is ready.		
1.010	SMC	Verify SMC aliases are correct.	Aliases are correct.		
User Profile Set-Up					
1.011	MSS21	Open a x-term window and telnet to the MSS server. Enter telnet g0mss21	Login screen is displayed.		
1.012	MSS21	Enter <login> <password>	Login is successful.		
1.013	MSS21	Set DCE_login dce_login <*****> password <*****>	Login is successful.		
1.014	MSS21	Verify DCE login. Enter klist	Display shows principal information. If an error message is displayed, login to DCE was not successful. Perform step 1.013 again.		
1.015	MSS21	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.016	MSS21	Change to the utilities directory. Enter: cd /user/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set	MODE = TS1, TS2, or OPS	
1.017	MSS21	List the contents of the directory. Enter ls or ll	Directory contents displayed.		

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.018	MSS21	Start the User Profile GUI: Enter or select : EcMsAcRegUserGUIStart <MODE>	User Profile is successfully started.	MODE = TS1, TS2, or OPS	
1.019	MSS21	Click on Profile Account.			
1.020	MSS21	Select GSF for Retrieve by DAAC.			
1.021	MSS21	Click on Retrieve.			
1.022	MSS21	Select Expedited Data ASTER for USER ID: $EcCsEmailPr			

Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.023	MSS21	Verify entries.	Entries verified. Name: Aster Expedited Data Affiliation: Government Telephone: 301-614-5581 Home DAAC: GSF Userid: $EcCsEmailPr Email address: eddelivnotice@m0css03.ecs.nasa.gov Organization: ASTER_DAAC ACCT INFO: Priviledge: Very High Nasa User: Y V0 Gateway: DAACOPS V0 Gateway Password: EcCsEmailPr	Matches to SMC alias.	
Subscription Event Set-Up					
1.024	DMS03	Open a x-term window and telnet to the Subscription Server. Enter: telnet g0dms03	A login screen is displayed.		
1.025	DMS03	Enter <login> <password>	Login is successful.		
1.026	DMS03	Set DCE_login dce_login <*****> password <*****>	Login is successful.		

			ICT 12.4 GSFC DAAC/ASTER GDS EDS Exchange			
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.027	DMS03	Verify DCE login. Enter klist	Display shows principal information. If error message is displayed, login to DCE is not successful. Perform step 1.026 again.		
1.028	DMS03	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.029	DMS03	Enter setenv MODE <MODE>		MODE = OPS, TS1, or TS2	
1.030	DMS03	Change to the utilities directory. Enter: cd /user/ecs/<MODE>/ CUSTOM/utilities	Utilities directory is set	MODE = TS1, TS2, or OPS	
1.031	DMS03	List the content of the directory: Type: ll or ls	Directory content is displayed.		
1.032	DMS03	Start the Subscription Server GUI. Enter or select EcSbSubServerGUI Start <MODE>	The ECS Subscription Server Operator tool is opened.	MODE = OPS, TS1, or TS2	
1.033	DMS03	Click OK to error message displayed.	Error message disappears.		
1.034	DMS03	Click on Events tab.	A list of events display.		

ICT 12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.035	DMS03	In the ECS subscription service Window: Record the Event ID of the data from the list: AST_EXP.001:INSERT	Subscription Event ID is set up on behalf of ASTER GDS. Event ID =	Description Message: Granule of AST_EXP type was inserted to DataServer Holdings.	
Create Subscription Notice for Japan					
1.036	DMS03	Click on Subscription tab.	Subscriptions display.		
1.037	DMS03	Select the Subscription for the Event Id recorded above.	Subscription selected.		
1.038	DMS03	Click EDIT Note: Do not click User Profile or Browse Events buttons. GUI will cancel.	ECS Subscription window displays.		

Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
			ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange		
1.039	DMS03	ECS Subscription window: Enter Event ID: <event ID #> Enter user id: <username> Enter: <email address> Enter: <email text:> Select start date: <start date> use today's date Select expiration date: <expiration date> use a date greater than current date. Click on "Submit" button.	New subscription ID and its associated event ID are displayed. Event ID: use event from step 1.035 UserId: $EcCsEmailPr Email address: Internal: local_aster_user_2 External: aster_user Email Text: test #, and description of test	Start and Expiration Date is the time the Subscription is active. Expiration Data cannot be equal to Start Date.	
1.040	DMS03	Record Subscription ID.	Subscription ID recorded. Subscription ID =		
Create Subscription Notice for EDC					
1.041	DMS03	Click on Subscription tab.			
1.042	DMS03	Select the Subscription for the Event Id recorded in step 1.035.	Subscription selected.		
1.043	DMS03	Click EDIT Note: Do not click User Profile or Browse Events buttons. GUI will cancel.			

Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.044	DMS03	ECS Subscription window: Enter Event ID: <event ID #> Enter user id: <username> Enter: <email address> Enter: <email text:> Select start date: <start date> use today's date Select expiration date: <expirationdate> use a date greater than current date. click on "Actions" button	New subscription ID and its associated event ID are displayed. Event Id: use Event Id from step 1.032 UserId: aster-x Email address: sapplebee@interme trics.com Email Text: ICT12 – EDC Aster	Start and Expiration Date is the time the Subscription is active. Expiration Data cannot be equal to Start Date.	
1.045	DMS03	ECS Actions window: Acquire: Select FTP Push Enter User Profile: < user profile > Enter User Name: <username> Enter: <user password> Enter: <verify password> Enter: <host name:> Enter: <destination> Click on "OK" button	Acquire: FTP Push User Profile: aster-x User Name: aster-x Password: **** Verify password: **** Host Name: e0spg05.edcb.ecs.n asa.gov Destination: /vol1/TS1/ssit/AST ER_EDS	Passwords can be obtained from EGS personnel.	

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.046	DMS03	On the Add/Edit Window: Click on "Submit" button			
1.047	DMS03	Record Subscription ID.	Subscription ID recorded. ID =		
1.048	DMS03	On the Menu: Click: File/Exit	Exit Subscription GUI.	.	
Perform Clean up.					
1.049	ICG01	Open a x-term window and telnet to the polling server. Enter telnet g0icg01	Login screen is displayed.		
1.050	ICG01	Enter <login> <password>	Login is successful.		
1.051	ICG01	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.052	ICG01	Change to the utilities directory: Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = TS1, TS2, or OPS	
1.053	ICG01	List the contents of the directory. Enter: ll or ls	Directory contents displayed.		

Step No.	Station	Input Action	Results	Comments	Status (P = Pass F = Fail)
1.054	ICG01	Enter or select cleanup<mode> EDOS	Cleanup is successful.	Will cleanup request and response directories and stale endpoints. MODE = TS1, TS2, or OPS	
Ingest GUI					
1.055	INGEST GUI	Open a x-term window and telnet to the Ingest server. Enter telnet g0acs02	Login screen is displayed.		
1.056	INGEST GUI	Enter <login> <password>	Login is successful.		
1.057	INGEST GUI	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.058	INGEST GUI	Change to the utilities directory: Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = TS1, TS2, or OPS	
1.059	INGEST GUI	List the content of the directory: Type: ll or ls	Directory content is displayed.		
1.060	INGEST GUI	Start the Ingest GUI: Enter or select: EcInGUIStart <MODE>	Ingest GUI is successfully started.	MODE = TS1, TS2, or OPS	
Set-up Email Account for EAN Delivery					
1.061	INGEST GUI	Select the "Operator Tools" button.			

Step No.	**Station**	**Input Action**	**Results**	**Comments**	**Status (P = Pass F = Fail)**
1.062	INGEST GUI	Select the "Data Provider" button. Click on the arrow button in the text area field and select EDOS.			
1.063	INGEST GUI	Set-up email address.			
Monitor Ingest					
1.064	INGEST GUI	Select the "Monitor/Control " button.			
1.065	INGEST GUI	Select the "Data Provider" button. Click on the arrow button in the text area field and select EDOS.	Any ongoing EDOS Ingest requests appear on the screen.		
1.066	INGEST GUI	Select Text View			

Test Execution

Step No.	**Station**	**Action**	**Results**	**Comments**	**Status (P = Pass F = Fail)**
2.001	INGEST GUI	On the GUI window observe the status of ingest. Record the approximate time of the start of ingest for reference and the Request ID.	In the text view, a new request ID is generated for each of the files to be ingested, the request is preprocessed, and all the requests are archived.	The ingest Monitor and control shows the status as the Request.	

		ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange			
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
Verify Log Files for Ingest					
2.002	ICG01	On the g0icg01 window, change to the log directory: Enter: cd /usr/ecs/<MODE>/CUSTOM/logs	Log directory is set.	MODE = TS1, TS2, or OPS	
2.003	ICG01	View the contents of the log directory. Enter ls -al	Directory contents displayed.		
2.004	ICG01	Verify no core dumps are in the directory.	No core dumps have been generated.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
2.005	ICG01	View the polling process activity log corresponding to the correct time frame of ingest. Enter cat EcInPolling.EDOS.ALOG | more	Verify the polling process picked up the files, validated the data type, and a request ID was generated and passed on to the Request Manager.	Choose the latest log to look at. Verify the following. Staging Message: Staging disk allocation succeed for request #. MCF message: Get MCF file Preprocessing: Metadata preprocessing successful. Insert: GranInsert Request ID #, Provider = EDOS	
2.006	ICG01	View the polling process debug log corresponding to the correct time frame of ingest. Enter cat EcInPollingEDOSDebug.log | more	Check for error messages.	Choose the latest log to look at.	

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.007	ICG01	View the Request Manager activity log. Enter cat EcInReqMgr.ALOG | more	Verify Request Manager processed the Request IDs and passed them on to the Granule process.	Choose the latest log to look at.	
2.008	ICG01	View the Request Manager debug log. Enter cat EcInReqMgrDebug.log | more	Check for error messages.	Choose the latest log to look at.	
2.009	ICG01	View the Granule process activity log. Enter cat EcInGran.ALOG | more	Verify the request is pre-processed and is passed to the archive.	Choose the latest log to look at.	
2.010	ICG01	View the Granule process debug log. Enter cat EcInGranDebug.log | more	Check for error messages.	Choose the latest log to look at.	
Check History Log from the Ingest GUI					
2.011	INGEST GUI	From the Ingest GUI, click on 'History Log' icon			

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
		ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange			
2.012	INGEST GUI	Enter the following on the screen: > start time and date > stop time and date > data provider = EDOS > select detailed report > select display	Verify the Request Id in Step 2.001 matches the Request Id on the screen.		
2.013	INGEST GUI	Double Click the Request Id to get granule specific information			
2.014	INGEST GUI	Verify the summary information and note any discrepancies or errors.			
Verify EAN sent to EDOS					
2.015	GSFC	Call EDOS operator to verify EAN delivery or Perform steps 2.016 through 2.018			
2.016	ICG01	On the g0icg01 window, Enter cd /usr/ecs/<mode>/ CUSTOM/icl/dat a/remote/EDOS/R esponse	Response directory is set.		

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.017	ICG01	Display directory contents. Enter ls -al	Directory contents displayed.		
2.018	ICG01	Enter dmpxxx <EAN filename> | more	EAN delivery verified.	xxx is equal to the workstation being used. Ex: sun or sgi	
Check Science Data Server					
2.019	ACS03	Open a x-term window and telnet to the Science Data Server. Enter telnet g0acs03	Login screen is displayed.		
2.020	ACS03	Enter <login> <password>	Login is successful.		
2.021	ACS03	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.022	ACS03	Enter isql –U <username> -P <password> - Sg0acg01_srvr	Command is successful.		
2.023	ACS03	Enter use EcDsScienceData Server1_<mode>	Command is successful.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
			ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange		
2.024	ACS03	Enter >select *from DsMdGranules where Shortname = "AST_EXP" >order by insert time >go	AST_EXP granules display.		
Check Archive Server					
2.025	DRG01	Open a x-term window and telnet to the Archive server. Enter telnet g0drg01	A login screen is displayed.		
2.026	DRG01	Enter <login> <password>	Login is successful.		
2.027	DRG01	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.028	DRG01	Obtain a directory listing Type > cd /dss_stk1/<MODE>/aster > la –altr AST_EXP		Verify all ASTER files were archived (compare time stamps and file sizes to ingested data). MODE = OPS, TS1, or TS2	

**ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange**
Step No.	**Station**	**Action**	**Results**	**Comments**	**Status (P = Pass F = Fail)**
**Check Email Parser Logs**
2.029	INS01	On g0ins01, change to the log directory. Enter cd \usr\ecs\<MODE>/CUSTOM/logs	Log directory is set.	MODE = OPS, TS1, or TS2	
2.030	INS01	View the Email parser log. Enter: cat EcCsEmailParser. ALOG | more >	Look for ComposeandSend EDN message.	EDN processed successfully.	
2.031	INS01	View the Email parser debug log. Enter cat EcCsEmailParser Debug.log | more	You should see the following message: "trying to make a request to GSF: DSSDSRV AST_EXP.001"	MODE = TS1, TS2, or OPS	
**Distribution GUI**
2.032	DIS02	Open a x-term window and telnet to the Distribution server. Enter telnet g0dis02	A login screen is displayed.		
2.033	DIS02	Enter <login> <password>	Login is successful.		
2.034	DIS02	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.035	DIS02	Change to the utilities directory. Enter cd /usr/ecs/<MODE>/CUSTOM/utilities	Utility directory is set.	MODE = TS1, TS2, OPS	
2.036	DIS02	View directory contents. ls -al	Directory contents displayed.		
2.037	DIS02	Start the Distribution GUI. Enter or Select: EcDsDdistGuiStart <MODE>	Distribution GUI is successfully started.	MODE = OPS, TS1, or TS2	
2.038	DIS02	Click OK to error message.	Error message disappears.		
2.039	DIS02	View the Distribution GUI to verify the Acquire was completed successfully. Record the request ID.	GUI should state shipped.		
2.040	DIS02	Exit the GUI. On the menu, Click File/Exit			
Verify Distribution Server Log					
2.041	DIS02	Perform steps 2.043 through 2.045, if Distribution GUI status is other than shipped.			

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
		ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange			
2.042	DIS02	Change to the log directory. Enter cd /usr/ecs/<MODE>/CUSTOM/logs	Log directory is set.	MODE = TS1, TS2, OPS	
2.043	DIS02	View directory contents. ls -al	Directory contents displayed.		
2.044	DIS02	View the EcDsDistribution ServerDebug.log. Enter cat EcDsDistribution ServerDebug.log |more	Errors are located and recorded.	Locate the request id's from step 2.041 and record the errors.	
Order Tracking					
2.045	MSS21	On the g0mss21 window, change to the utilities directory. Enter cd /usr/ecs/<MODE>/CUSTOM/utilit ies	Utilities directory is set.	MODE = OPS, TS1, or TS2	
2.046	MSS21	Display directory contents. ls -al	Directory contents displayed.		
2.047	MSS21	Start the Order Tracking Gui. Enter or select: EcMsAcOrderGU IStart <MODE>		MODE = OPS, TS1, or TS2	
2.048	MSS21	Click on Request ID			
2.049	MSS21	Enter Request ID from step 2.041.	Request id entered.		

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.050	MSS21	Click Query Order			
2.051	MSS21	Check status.	Verify the status of the order was successful.		
2.052	MSS21	Exit Order Tracking Gui. Click File/Exit	Exit from GUI.		
Verify EDN, EDR, and EDDN at SMC					
2.053	M0CSS03	Open a x-term window and telnet to the server. Enter telnet m0css03	A login screen is displayed.		
2.054	M0CSS03	Enter <login> <password>	Login is successful.	Need SMC logon and password.	
2.055	M0CSS03	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.056	M0CSS03	Change to the Log directory. Enter cd /usr/ecs/SHARED /CUSTOM/logs	Log directory is set.		
2.057	M0CSS03	Display directory contents. ls –al	Directory contents displayed.		

ICT12.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.058	M0CSS03	View EcMsAsMail - Operation log and check the EDN. cat EcMsAsMail – Operation | more	Verify email message text. Check for GRANULE_ID – UR_ID. Should have header.	Should have one EDN for each EDS and for each subscription.	
2.059	M0CSS03	Look for the EDDN message in the EcMsAsMail-Operation log.	Verify email message text.	Verify the EDDN e-mail message was successfully sent to ASTER.	
2.060	M0CSS03	Change to the EcMsAsRcv directory. Enter cd /EcMsAsRcv	Directory is set.		
2.061	M0CSS03	View EcMsAsMail - Operation log and check the EDR. cat EcMsAsMail – Operation | more	Verify email message text.	Should have one EDR for each set of data requested. System cannot process multiple requests within one EDR.	

Test Termination

ICT 2.4 GSFC DAAC/ASTER GDS EDS Exchange					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
3.001	GSFC	Wherever DCE login used, Enter: kdestroy	Logout of DCE. INS01, MSS21	If this is not done, the DCE login will stay connected.	
3.002	GSFC	Exit all GUI's.			
3.003	GSFC	Logoff all workstations.			
3.004	EGS	Update Requirements Appendix with statuses.			

6.0   E-ICT12.5   ECS/ASTER GDS SYSTEM MANAGEMENT & SCHEDULING

This test verifies the system management and scheduling interchanges between the ECS and the ASTER GDS systems.

6.1   Requirements to be Verified:

For this test, the requirements are:

ASTER-1000, ASTER-1005, ASTER-1010, ASTER-1015, EOSD1770, SMC-1500

6.2   Test Objectives:

This test verifies the system status exchange interfaces between ECS and the ASTER GDS. This test verifies Section 8.0 of document 505-41-34, Interface Control Document Between EOSDIS Core System (ECS) and ASTER Ground Data System. Communications between ECS CSMS and the ASTER GDS Ground System Management System (GSMS) will be by e-mail. Exchanged information is system status information and maintenance scheduling information. This information will be formatted for automated import to and export from the Remedy Action Request System (ARS) on the ECS side and a custom problem tracking system on the ASTER GDS side. The interface (ECS CSMS or ASTER GDS CSMS GSMS) whose system status changes, will send its information to the other interface. This test verifies the following capabilities along with the event messages described in Table 8-1 of the ICD:

- DAR User profile message
- ECS-ASTER GDS Event Notification Message
- Standard E-mail GDS message format
- E-mail Remedy Trouble Ticketing
- DAR Budget
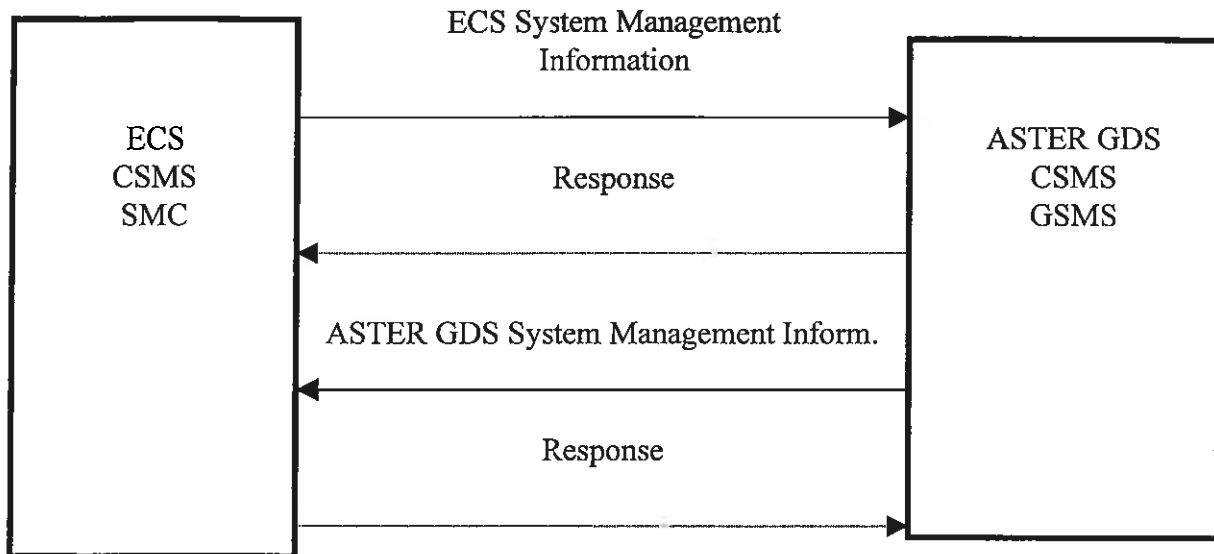
Figure E-ICT12.5-1 SMC Data Flow Diagram

6.3   Test Case Description:

This test verifies the system status exchange interfaces between ECS and the ASTER GDS. Communications between ECS CSMS and the ASTER GDS Ground System Management System (GSMS) will be by e-mail. Exchanged information is system running status information and maintenance scheduling information. This information will be formatted for automated import to and export from the Remedy Action Request System (ARS) on the ECS side and a custom problem tracking system on the ASTER GDS side. The interface (ECS CSMS or ASTER GDS CSMS GSMS) whose system running status changes, will send its information to the other interface.

The format for management information notification is via SMTP electronic mail (email) and will be formatted in a machine-readable form.

6.5   Expected Test Results:

This test verifies:
- E-mail the exchange of system running status information and maintenance scheduling information through automated import to the ECS Remedy Action Request System (ARS). E-mail message is to be formatted as defined in Table 8-1 and 8-3 of the ICD.
- E-mail the DAR User Profile. The e-mail message is to be formatted as defined in Table 8-3, pages 8-6 through 8-8 of the ICD.
- Estandard e-mail GDS message format as defined by Figure 8-2, page 8-6 of the ICD.

6.6   Methods for Results Analysis:

Analysis is done by comparing DAR User Profile e-mail against the ICD.

6.7   General Flow Summary:

The test procedure is as follows:

E/G-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification					
Step No.	Station	Action	Results	Comments	Status (P = Pass F= Fail)
1.001	MSH03	Open a x-term window and telnet to the server. Enter: telnet g0msh03	Login screen is displayed.		
1.002	MSH03	Enter <login> <password>	Login is successful.		
1.003	MSH03	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.004	MSH03	Set the terminal display setenv ARHELP /usr/ecs/OPS/COTS/ remedy/help	ARHELP environment variable is set.		
1.005	MSH03	Start the ARS System User Tool. Enter: /usr/ecs/OPS/COTS/ remedy/bin/aruser &			
**For First Time Users of the AR System perform steps 1.006 through 1.010**					
1.006	MSH03	A login screen will display. Enter your UNIX account name, leave the password blank.			

E/G-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification					
Step No.	Station	Action	Results	Comments	Status (P = Pass F= Fail)
1.007	MSH03	Click Apply.	Login successful. A home directory will be created.	If an error occurs, repeat step 2.006 & 2.007. If error occurs again, contact the AR System administrators.	
1.008	MSH03	Open a schema. Click File/Open Schema			
1.009	MSH03	Select RelB-Trouble Tickets.			
1.010	MSH03	Click Apply.	Schema created.	The next time the system is used this schema will open automatically.	
E/G-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification					
Step No.	Station	Action	Results	Comments	Status (P = Pass F= Fail)
2.001	MSH03	A Query window is displayed.			
2.002	MSH03	To submit a new trouble ticket Click File/Open Submit	A submit window displays. Required fields appear in bold font.		

E/G-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.003	MSH03	Enter the following fields. Short Description Submitter ID – select from dropdown or enter. Long Description Submitter Impact		Long Description should include the machine name, mode, drop number, full path names.	
2.004	MSH03	Click Apply.			
2.005	MSH03	Click Dismiss.	Submit window closes.		
2.006	MSH03	Exit the AR System. Click File/Exit		An email should be received by the submitter of the trouble ticket and the CM administrator will be notified the ticket was submitted.	
E/G-ICT12.5 ECS/ASTER GDS System Management and Scheduling Verification					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
3.001	GSFC	Exit all GUI's.			
3.002	GSFC	Logoff all workstations.			
3.003	EGS	Update Requirements Appendix with statuses.			

7.0   E-ICT12.6   ASTER GDS-ECS CATALOG &VALIDS

The test case verifies Catalog interoperability and Valids exchange between the ASTER GDS SDPS and the ECS SDPS.

7.1   Requirements to be Verified:

The requirements for this test are:

ASTER-0770#B, ASTER-0800#B, ASTER-0815#B, ASTER-0840#B, ASTER-0845#B, ASTER-0850#B, ASTER-0855#B, ASTER-0860#B, ASTER-0865#B, ASTER-0870#B, ASTER-0875#B, ASTER-0890#B, ASTER-0910#B, ASTER-0920#B, ASTER-0935#B, ASTER-0945#B, EOSD1502#B, EOSD1770#B, EOSD5060#B, IMS-0780#B, IMS-1010#B, SDPS0020#B, SDPS0100#B, SMC-5320#B

7.2   Test Objectives:

The objective of this test is to verify catalog interoperability and valids exchange between the ASTER GDS SDPS and the ECS SDPS. This test verifies Section 6.2, pages 6-1 through 6-19, of document 505-41-34, Interface Control Document Between EOSDIS Core System (ECS) and ASTER Ground Data System. The test verifies the following:

- Catalog interoperability capabilities between ASTER SDPS and ECS:

    1. Directory Search Requests and Results
    2. Inventory Search Requests and Results
    3. Acknowledge
    4. Browse Requests and Results (integrated and ftp)
    5. Product Request/Results
    6. Product Status Requests and Results
    7. Product Cancel Requests/Responses
    8. Price Estimate Request/Estimate
    9. Guide Search Request/Guide Search Results
    10. Quit

- Valids exchange (including formats) between ASTER GDS and ECS:

ECS Valids Exchange (E-mail)

Directory Search Request

Directory Search Results

Inventory Search Request

Inventory Search Results (Chunk)

Acknowledge

Browse Request

Integrated Browse Results

Product Request

Product Results

Quit

Price Estimate Request (Extension)[1]

Price Estimate Result (Extension)[1]

Product Status Request (Extension)[1]

Product Status Results (Extension)[1]

Product Cancel Request (Extension)[1]

Product Cancel Results (Extension)[1]

Product Update Request (Extension)[1]

Product Update Results (Extension)[1]

Figure E-ICT12.6-1 ASTER GDS User to ECS via V0 Web Client
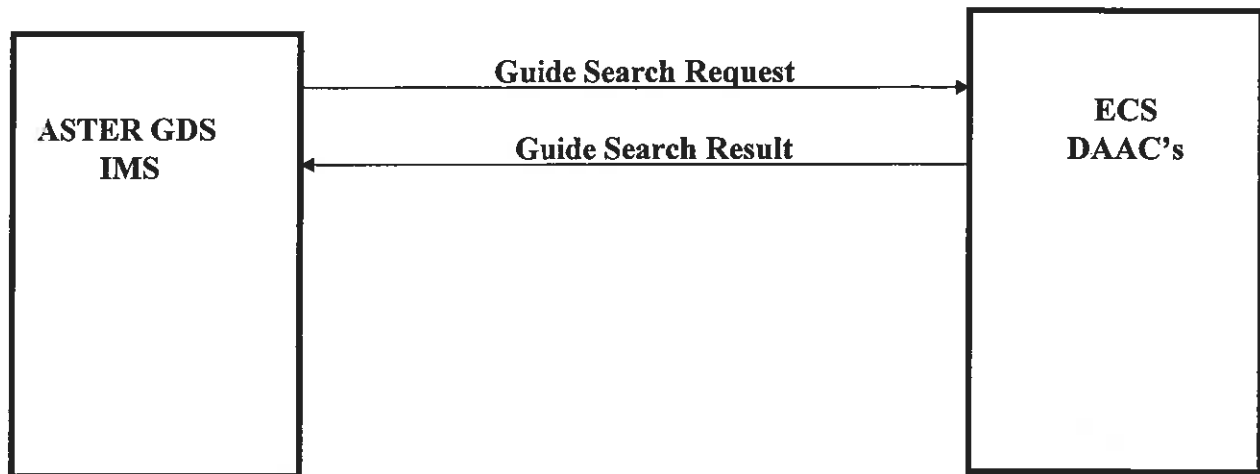
Figure E-ICT12.6-2   Guide Search Request/Result

7.3   Test Case Description:

This test verifies the capability of a user to log into the ECS system, search the inventory, locate and retrieve Metadata about specific granules of the product(s) of interest, and determine whether any granules should be ordered.

7.4   Prerequisite Conditions:

ASTER GDS installs a system equivalent to the ECS V0 Web Client.

7.5   Test Inputs:

Test inputs are:

- A qualified user at an ASTER GDS Client workstation enters the request based on specific characteristics of the data.

- Valids file from ECS.

7.6   Expected Test Results:

The test results verify the:

1. Ability to submit a Directory Search Request to the ECS System.
2. Receipt of the Directory Search Results message.
3. Ability to submit a Inventory Search Request.
4. Receipt of the Inventory Search Result.
5. Ability to submit a Integrated Browse Request to the ASTER GDS IMS system.
6. Receipt of the integrated browse results message.
7. Sending or submitting of the order of a product.
8. Receipt of the product result message.
9. Receipt of the product.
10. Ability to quit the system.
11. Ability to submit a Guide search request.
12. Ability to receive a Guide search results.
13. Ability to send a product status request.
14. Receipt of the product status results message.
15. Ability to submit a product cancel request.
16. Receipt of the product cancel result message.
17. Ability to request a price estimate on a product.
18. Receipt of the price estimate message.
19. Ability to request a product update.
20. Receipt of the product update results messages.

7.7   Methods for Results Analysis:

This test analysis will ensure:

- All testing were run from a user station utilizing a system design by ASTER GDS. The ability to request the various items and receive back from the user station under use is an indication the correct structure is being utilized.
- All results will be compared with Section 6.2.2 through Section 6.2.2.9.1 of the ICD for completeness.
- Valids e-mail will be validated against Section 6.6.1 of the ICD.

7.8   General Flow Summary

The test procedures are:

Step No.	Test Station	Actions	Results	Comments
1.001		**Open Netscape**	Netscape successfully starts.	
1.002		Sign on to the Web Gateway using the following address: **http://lyta.gsfc.nasa.gov/~imswww //Ops/imswelcome**	**Earth Science Data and Order System** web page is displayed.	
1.003		If you are a **Registered User Sign on to your Account.** If you are not a Registered User, Click on the **Create a USER Account**.		
1.004		"Click on **'Compose a Search'**		
1.005		**Select your search type.** The user has the option of choosing the **Data Search and Order (Inventory):** Search for and order data products or the user can select **Data Granule ID:** using the Data Granule ID allows the user to search for individual data products, using product or data granule IDs.	**Advanced Search Form: Data Search and Order (Inventory),** screen appears.	The user has the option to use two search options: 1) Data Search and 2) Data Granule ID.
1.006		Under **"Geographic Region"**, click on the **Edit** button.	**Geographic Region** screen is displayed.	
2.001		Click on the drop down button next to "Select region…" message and select one of the choices listed below: "**Orthographic Map"**, (Java), will display a geological selection Java Applet. "**Equatorial Map, Equatorial Map (small), Steoreographic N-Pole, or Ste S-Pole,** will show a non-Java map corresponding to your choice. You will use multiple clicks on these maps to select an area to be used to refine your search. "**Lat/Lon Range",** enter a latitude and longitude range. *Northern*	**Geographic Region** Page appears.	Each Geographic Region needs to be tested for complete verification.

Step No.	Test Station	Actions	Results	Comments
		Southern Example: Latitude 78.1456° to 13.5876° ***Eastern*** ***Western*** Longitude 82.7348° to 129.6179° **"Path/Row"**, enter a ASTER path/row for obtaining a certain area of a ASTER scan. **"GLOBAL SEARCH"** will search the entire globe for data. **"GLOBAL GRANULE"** will search for data that COVERS the entire globe. **Note** this is NOT the same as searching the entire globe.		
2.002		Click on the **OK!** Button.	User is returned to **Data Search and Order (Inventory)** Screen.	
2.003		Click on **User Preferences Link** located on the top left of the Page.		
2.004		If Java *is Turned ON*, Click **The Java ON Button to turn Java Off.**		If *Java OFF Button is displayed Skip this step.*
2.005		Click on **"Ok! Accept Display Options Only!"** button.	You are returned to the **User Preference Screen.**	The user must click on the **"Back Button"**, located in the Netscape Header.
2.006		Under **Data Center** click on the **Edit** button.		
2.007		Select the Data Centers you would like to be a part of your query, This is located under the **"Choices** Select **"ECS-EDC DAAC"** option and click on **OK!** Button.		Data Center Screen appears. or a Data Center of you choice.
2.008		Under Data Set, click on the **Edit**	**Data Set** Screens	Use assigned

Step No.	Test Station	Actions	Results	Comments
		button.	appears.	**"Data Set"** that is given at the time of test.
2.009		Select the **"Data Set"**, which you would like to be a part of your query, **"Aster Data Sets"** and click on **OK!** Button. This is located under the **"Choices."**	**Data Set** Screens appears with a list of queries found.	
2.010		Under **Search Options…** click on the **Edit** button	User is returned to **Data Search and Order (Inventory)** screen.	
2.011		Change the Maximum number of granules returned to 100.		
2.012		Click on the **OK!** button.	Screen should read, "Return a maximum of 100 granules per data set."	Appropriate data sets will be provided at the time of testing.
2.013		Under **Are You Ready?** Click **START SEARCH!** button	User is returned to **Data Search and Order (Inventory)** screen. User will see the Search in Progress… screen. Screen will refresh every 15 seconds. Screen updates. **Status – Request sent.** Screen updates **Status – Receiving Results** Data Search and Order Results Screen is displayed.	**FTP and CPF Browse** request is also available for the user make Browse request. This information is needed by data centers. Fields highlighted in red are required. Click on the "Submit Button" to send an FTP browse request. FTP instructions will be sent to the e-mail address. **The test verified that images could be retrieved.**
2.014		Click on the **Data Granule or Data Granules** button next to data set, "Landsat-7 LOR"	If the granules the user selected are available on the **Data Search and Order Results** screen.	The user can select multiple **Data Granules** when doing the search.

Step No.	Test Station	Actions	Results	Comments
2.015		In **Data Set** listing area, click on **Selected** check box.		
2.016		Select specified granules or granule.	The **Granule List: Listing** screen appears. This screen contains Unselected data granules sorted by Data Set ID and then Data Granule ID:	
2.017		Click on **"Add the selected data granules to the shopping cart"** button.		
2.018		Under Granules, click on **Order Options** button.	**Shopping Cart: Choose Ordering Options** screen will appear.	Granule will be specified at time of testing.
2.019		Under **Step 1: Choose Ordering Options**, select item with **Data Format** of "Native Granule" with the desired **Media Type** FtpPull or Tarformat with a desired **Media Type** of 8MM. Then click on **OK! Accept my choice...**	**Shopping Cart: Choose Ordering Options** screen will appear.	The user also has the option of selecting Multiple **Media Types** such as **8MM** and **FTPpull.**
2.020		Click on **OK! Accept my choice & return to the shopping cart** button.		
2.021		Click on **Go to Step 2: Order Form** button.	**Shopping Cart Step 1: Choose Ordering Options** screen appears.	
2.022		Fill out **Your affiliation** and **Your contact address.**	**Shopping Cart Step2: Shipping Ordered Data** screen appears.	Once a user account is set-up the user can change the Contact, shipping, billing and email address if desired.
2.023		Click on **Go to Step 3:** Review **Order Summary** button.		
2.024		Click on: **Go to Step 4 Submit Order!** Button		

Step No.	Test Station	Actions	Results	Comments
2.025		Make a note of the Tracking numbers provided on the Order submitted screen.	**Shopping Cart: Order Submitted Completed** screen appears.	Items in red are required fields for this step.
2.026		Close on all screens		

8.0   E-ICT12.7   EDOS-ASTER GDS LEVEL 0 DATA TAPES

This test case verifies the capability of ASTER GDS to receive from EDOS tapes containing Level 0 PDSs and non-science H/K playback, and utilize them.

8.1   Requirements to be Verified:

The requirements for this test are:

DADS0130#B, EOSD1502#B

8.2   Test Objectives:

EDOS delivers ASTER Production PDSs to ASTER GDS on the D3 and 4mm physical media units. The 4mm tapes record the H/K playback non-science data in DAT format without data compression. D3 tapes record science data. EDOS also delivers all of its EDOS Archived science and non-science PDSs on the D3 physical media. This test will verify receiving the media tapes from EDOS , being able to mount and ingest the contents of the tapes, compare the files ingested and archived against the PDS Physical Media Unit Delivery Letter, which is shipped with the tapes.   The PDS tapes will be constructed with the parameters specified in the EDOS-ASTER GDS Operations Agreement (OA) and in agreement with the Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Ground Data System (GDS), 510-ICD-EDOS/ASTER..

8.3   Test Case Description:

This test verifies the capability of ASTER GDS to receive from EDOS tapes containing Level 0 PDSs and non-science H/K playback, mount the tapes and ingest and archive into the system the data. Delivery sequence of the data from EDOS is shown in Figure E-ICT.7.1.
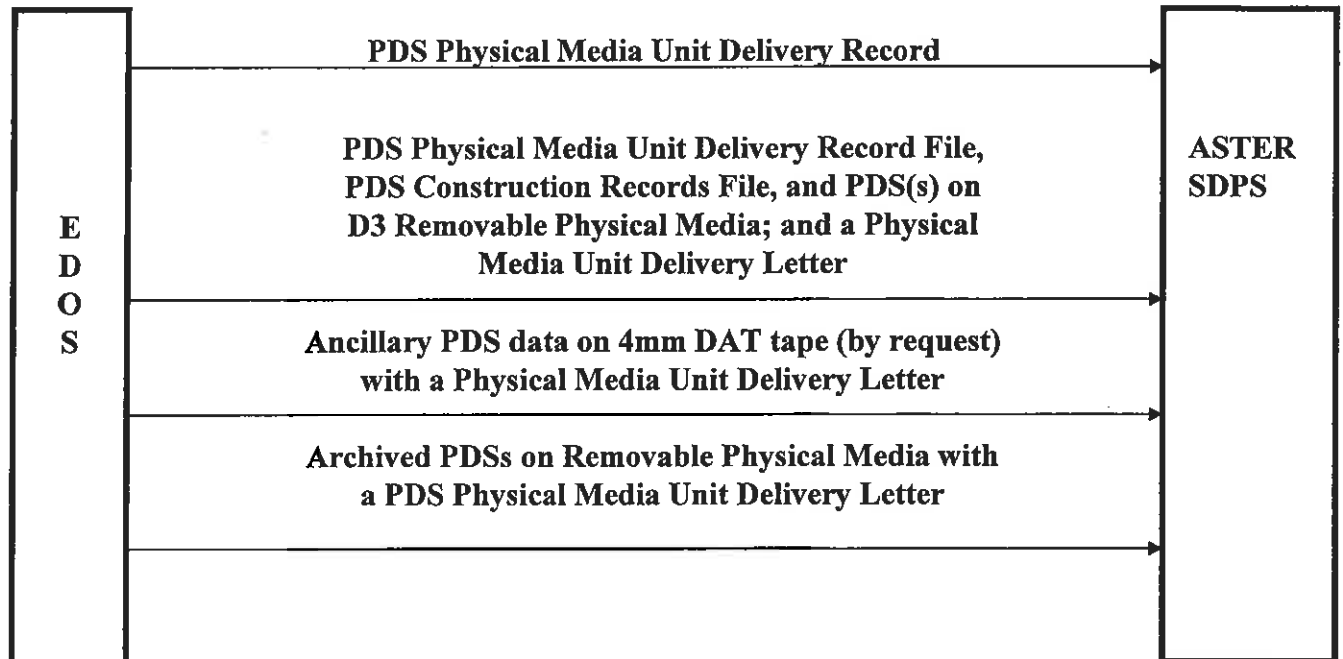
Figure E-ICT12.7-1   EDOS - ASTER SDPS Interface

8.4   Prerequisite Conditions:

The prerequisite conditions for this test is for EDOS to have a L0 data tape prepared.

8.5   Test Inputs:

The test input consists:

1. EDOS produced D3 PDS tapes.
2. EDOS produced 4mm H/K media tapes.
3. EDOS produced Physical Media Unit Delivery Letter.

8.6   Expected Test Results:

Expect test results consistof GSFC DAAC:

1. Receipt of the D3 PDS tapes with PDS Physical Media Unit Delivery Letter.
2. Receipt of the 4mm DAT tapes with Physical Media Unit Delivery Letter.
3. D3 tape files agree with the Physical Media Unit Delivery Letter.
4. 4mm DAT files agree with the Physical Media Unit Delivery Letter.

5. D3 tapes can be mounted, ingested and archived correctly.
6. 4mm DAT tapes can be mounted, ingested and archived correctly.

8.7   General Test Summary:

The test procedure is as follows:

Step No.	Station	Input Action	Results	Comments
1.001	EDOS	EDOS prepares the D3 PDS and 4 mm DAT tapes for ASTER Data.	Tapes are submitted to shipping along with a Physical Media Unit Delivery Letter.	
1.002	EDOS	EDOS Sends tapes via surface shipment	Tapes are sent from EDOS.	
2.001	ASTER GDS	ASTER GDS receives D3 PDS and 4 mm DAT tapes.		
2.002	ASTER GDS	ASTER GDS verifies the D3 and DAT tapes against the Physical Media Unit Delivery Letter.	Tapes are received by ASTER GDS.	
2.003	ASTER GDS	ASTER GDS mounts and ingests the PDS and DAT tapes.	ASTER GDS is able to ingest and archive the tapes received.	
2.004	ASTER GDS	ASTER GDS views the Archive log file and verifies the files archived against the Physical Media Unit Delivery Letter.	Archived data files match the Physical Media Unit Delivery Letter.	
3.001	ASTER GDS	Close out the system.		

9.0   E-ICT12.8   NOAA NCEP CLOUD COVER TO ASTER GDS

This test verifies that GSFC DAAC operations has the ability to place a subscription to the subscription server, on behalf of the ASTER GDS, upon every occurrence GDAS data ingest as defined in the Operations Agreement between the ASTER GDS and ECS.

9.1   Requirements to be Verified:

The requirements for this test are:

DADS0145#B, DADS0350#B, DADS0760 #B, DADS0770#B, DADS0800#B, DADS1030#B, DADS1380#B, DADS1620#B, DADS1805#B, DADS1806#B, DADS2430#B, EOSD0020#B, ESN-0006#B, ESN-0280#B, ESN-1340#B, PGS-0512#B, SDPS0021#B

9.2   Test Description:

NOAA's NCEP, part of the National Weather Service, produces, processes, handles, and distributes meteorological and oceanographic information to users. The GSFC DAAC pulls NCEP ancillary data products daily and makes them available on GSFC DAAC Data Link Server (Larry), larry.gsfc.nasa.gov. This test verifies GSFC DAAC operations has the ability to place a subscription to the subscription server, on behalf of the ASTER GDS, upon every occurrence GDAS data ingest as defined in the Operations Agreement between the ASTER GDS and ECS. Each time the GSFC DAAC receives NCEP data from GSFC DAAC Data Link Server, the subscription will automatically FTP push the GDAS data to the ASTER GDS DADS.

NOAA NCEP - GSFC - ASTER Interface

3/29/99
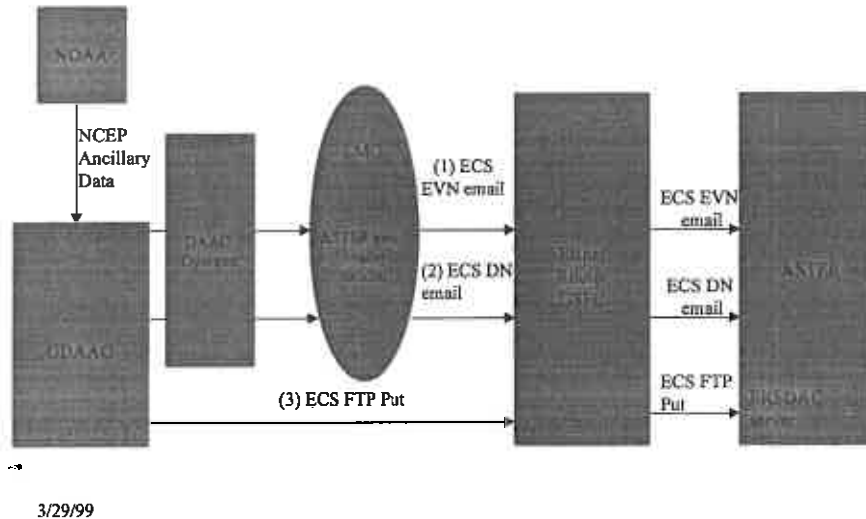
Exhibit 12.8.1 NOAA NCEP/GSFC /ASTER GDS

9.4   Test Objectives:

This test verifies the network and system status exchange interfaces between GSFC DAAC and the ASTER GDS. This test verifies Section 4 of the Ops. Agreement Between GSFC DAAC and the ASTER GDS, dated April 20, 1998. The tests verifies the following:

- Placing a Subscription request for the ASTER GDS to receive NOAA NCEP ancillary data and that it can be entered at the GSFC DAAC.
- Verify the exchange of NOAA NCEP ancillary data from GSFC DAAC to ASTER GDS.
- Automatically trigger delivery of an Event Notification to the GDS notifying ASTER GDS of data availability.

9.5   Prerequisite Conditions:

- GSFC DAAC has placed a subscription on the subscription server, on behalf of the ASTER GDS, as defined by the Operations Agreement, to notify ASTER GDS of arrival of the NOAA NCEP ancillary data to ASTER GDS.
- GSFC DAAC has entered a User Profile for NOAA NCEP ancillary data.
- The system has to be configured correctly with the IP addresses, Host Names, Passwords and Aster Information. See Operations Agreement.
- GSFC Aliases and SMC Aliases are correct.
- GDAS0ZFH ESDT Installed.
- GDAZ_0ZF ESDT Installed.

9.6   Test Inputs:

1. NOAA NCEP cloud cover data from NOAA to GSFC DAAC.

9.7   Expected Test Results:

- GSFC DAAC receives the NOAA NCEP cloud cover data as per agreement.
- GSFC DAAC provides the NOAA NCEP cloud cover data to ASTER GDS within the time limits agreed to between ESDIS and ASTER GDS.
- GSFC DAAC notifies ASTER GDS that the subscription data has been sent.

9.8   Methods for Results Analysis:

Analysis will verify the data has been received by ASTER GDS.

9.9   General Test Summary:

The test procedure is as follows:

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
			ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS		
1.001	Aster GDS	Contact Aster GDS administrator for test support	Test support available.		
1.002	Larry	Verify that Larry is up and is in a position to support the test.	Larry is ready.		
1.003	Larry	Verify that Larry GDAS files are available.	The files exist in a specified directory on Larry.		
1.004	GSFC	Verify that GSFC is in a position to support the test.	GSFC is ready.		
1.005	GSFC	Verify ECS system is available and all servers are up.	System is available.		
1.006	GSFC	Verify GSFC aliases are correct.	Aliases are correct.	g0ins01 Directory cd /etc Use ypcat – k command to view.	
1.007	SMC	Verify that SMC is up and in a position to support the test,	SMC is ready.		
1.008	SMC	Verify SMC aliases are correct.	Aliases are correct.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					

User Profile Set-Up

Step No.	Station	Action	Results	Comments	Status
1.009	MSS21	Open a x-term window and telnet to the MSS server. Enter <telnet g0mss21>	Login screen is displayed.		
1.010	MSS21	Enter <login> <password>	Login is successful.		
1.011	MSS21	Set DCE_login <dce_login <name>> password: <*****>	Login is successful.		
1.012	MSS21	Verify DCE login. Enter <klist>	Display shows principal information. If error message is displayed, DCE login was not successful. Perform step 1.010 again.		
1.013	MSS21	Set the terminal display. <setenv DISPLAY hostname:0.0>	Terminal Display is set.		
1.014	MSS21	Change to the utilities directory: Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = TS1, TS2, or OPS	

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
			ICT 12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS		
1.015	MSS21	Display directory contents. Enter: ls or ll	Directory contents displayed.		
1.016	MSS21	Start the User Profile GUI: Enter: EcMsAcRegUser GUIStart <MODE>	User Profile is successfully started.	MODE = TS1, TS2, or OPS	
1.017	MSS21	Click on Profile Account			
1.018	MSS21	Select GSF for Retrieve by DAAC			
1.019	MSS21	Click on Retrieve			
1.020	MSS21	Select GDAS_User			
1.021	MSS21	Verify email address and organization entries.	Userid: GDAS_User Email address: eddelivnotice@m0css03.ecs.nasa.gov Organization: ASTER_DAAC	Matches to SMC alias.	
Subscription Event GUI					
1.022	DMS03	Open a x-term window and telnet to the Subscription Server. Enter telnet g0dms03	A login screen is displayed.		
1.023	DMS03	Enter <login> <password>	Login is successful.		

ICT 12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
1.024	DMS03	Set DCE_login dce_login <name> password <*****>	Login is successful.		
1.025	DMS03	Verify DCE login. Enter klist	Display shows principal information. If error message is displayed, DCE login was not successful. Perform step 1.023 again.		
1.026	DMS03	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.027	DMS03	Enter setenv MODE <MODE>		MODE = OPS, TS1, or TS2	
1.028	DMS03	Change to the utilities directory. Enter cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = OPS, TS1, or TS2	
1.029	DMS03	List the content of the directory: Enter: ll or ls	Directory content is displayed.		
1.030	DMS03	Start the Subscription Server GUI. Enter or select EcSbSubServer GUIStart <MODE>	The ECS subscription Server Operator tool is opened.	MODE = OPS, TS1, or TS2	

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
		ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS			
1.031	DMS03	Click OK to error message displayed.	Error message disappears.		
1.032	DMS03	Click on Events tab.	A list of events display.		
1.033	DMS03	Record the Event ID of the data from the list for : GDAS_0ZF.001: INSERT	Event ID =	Description Message: Granule of GDAS_0ZF type was inserted to DataServer Holdings.	
Create Subscription Notice					
1.034	DMS03	Click on Subscription tab.			
1.035	DMS03	Select the Subscription for the Event Id recorded in step 1.033.	Subscription selected.		
1.036	DMS03	Click EDIT Note: Do not click User Profile or Browse Events buttons. Will cancel GUI.			

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
1.037	DMS03	ECS Subscription window: Enter Event ID: <event ID #> Enter user id: <username> Enter: <email address> Enter: <email text:> Select start date: <start date> use today's date Select expiration date: <expirationdate> use a date greater than current date. click on "Actions" button	New subscription ID and its associated event ID are displayed. Event Id: use Event Id from step 1.032 UserId: GDAS_User Email address: eddelivnotice@m0css03.ecs.nasa.gov Email Text: test #, and description of test	Start and Expiration Date tells when to start receiving data and when to stop receiving data. Expiration Data cannot be equal to Start Date.	

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
1.038	DMS03	ECS Actions window: Acquire: Select FTP Push Enter User Profile: < user profile > Enter User Name: <username> Enter: <user password> Enter: <verify password> Enter: <host name:> Enter: <destination> Click on "OK" button	Acquire: FTP Push User Profile: GDAS_User> User Name: dr_gsfc Password: Rich Verify password: Rich Host Name: drsc1.gds.aster.ersd ac.or.jp Destination: /home/dr_gsfc	For Testing User Name ts2user Password: ts2user password Host Name: g0mss20 Destination /tmp	
1.039	DMS03	On the Add/Edit Window: Click on "Submit" button			
1.040	DMS03	Record Subscription ID.	Subscription ID recorded. ID =		
1.041	DMS03	On the Menu: Click: File/Exit	Exit Subscription GUI.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS

Perform Clean Up

Step No.	Station	Action	Results	Comments	Status
1.042	ICG01	Open a x-term window and telnet to the ICG server. Enter telnet g0icg01	Login screen is displayed.		
1.043	ICG01	Enter <login> <password>	Login is successful.		
1.044	ICG01	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.045	ICG01	Change to the utilities directory: Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = TS1, TS2, or OPS	
1.046	ICG01	List the contents of the directory. Enter: ll or ls	Directory contents displayed.		
1.047	ICG01	Enter or select CleanupTS2 GSFC-V0	Cleanup is successful.	Will cleanup request and response directories and stale endpoints.	

Ingest GUI

Step No.	Station	Action	Results	Comments	Status
1.048	INGEST GUI	Open a x-term window and telnet to the Ingest server. Enter telnet g0acs02	Login screen is displayed.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
		ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS			
1.049	INGEST GUI	Enter <login> <password>	Login is successful.		
1.050	INGEST GUI	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
1.051	INGEST GUI	Change to the utilities directory: Enter: cd /usr/ecs/<MODE >/CUSTOM/utili ties	Utilities directory is set.	MODE = TS1, TS2, or OPS	
1.052	INGEST GUI	List the content of the directory: Type: ll or ls	Directory content is displayed.		
1.053	INGEST GUI	Start the Ingest GUI: Enter: EcInGUIStart <MODE>	Ingest GUI is successfully started.	MODE = TS1, TS2, or OPS	
Set-up Email Account for PAN Delivery					
1.054	INGEST GUI	Select the "Operator Tools" button.			
1.055	INGEST GUI	Select the "Data Provider" button. Click on the arrow button in the text area field and select GSFC-V0.			
1.056	INGEST GUI	Set-up email address.			

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)

Monitor Ingest

1.057	INGEST GUI	Select the "Monitor/Control" button.			
1.058	INGEST GUI	Select the "Data Provider" button. Click on the arrow button in the text area field and select GSFC-V0.	Any ongoing Ingest Request appears on screen.		
1.059	INGEST GUI	Select Text View.			

Test Execution

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.001	INGEST GUI	On the GUI window observe the status of ingest. Record the approximate time of the start of the ingest for reference and the Request ID.	In the text view, a new request ID is generated for each of the files to be ingested, the request is preprocessed, and all the requests are archived.	The ingest Monitor and control shows the status as the Request.	

ICT 12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
Verify Log Files for Ingest					
2.002	ICG01	On the g0icg01 window, change to the log directory: Enter: cd /usr/ecs/<MODE >/CUSTOM/ logs	Log directory is set.	MODE = TS1, TS2, or OPS	
2.003	ICG01	View the contents of the log directory. Enter ls –al	Directory contents displayed.		
2.004	ICG01	Verify no core dumps are in the directory.	No core dumps have been generated.		

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.005	ICG01	View the polling process activity log corresponding to the correct time frame of ingest. Enter Cat EcInPolling.GSFC-V0.ALOG | more	Verify the polling process picked up the files, validated the data type, and that the request ID was generated and passed on to the Request Manager.	Choose the latest log to look at. Verify the following. Staging Message - Staging disk allocation succeed for request #. MCF message – Get MCF file Preprocessing – Metadata preprocessing successful. Insert – GranInsert Request ID #, Provider = EDOS	
2.006	ICG01	View the polling process debug log corresponding to the correct time frame of ingest. Enter cat EcInPolling GSFC-V0DEBUG.log | more	Check for error messages.	Choose the latest log to look at.	

		ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS			
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.007	ICG01	View the Request manager activity log. Enter cat EcInReqMgr.ALOG | more	Verify the Request Manager processed the Request IDs and passed them on to the Granule process.	Choose the latest log to look at.	
2.008	ICG01	View the Request Manager debug log. Enter cat EcInReqMgrDEBUG.log | more	Check for error messages.	Choose the latest log to look at.	
2.009	ICG01	View the Granule process activity log. Enter cat EcInGran.ALOG | more	Verify the request is pre-processed and is passed on to the archive.	Choose the latest log to look at.	
2.010	ICG01	View the Granule process debug log. Enter cat EcInGranDEBUG.log | more	Check for error messages.	Choose the latest log to look at.	
Check History Log from the Ingest GUI					
2.011	INGEST GUI	From the Ingest GUI, click on 'History Log' icon			

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.012	INGEST GUI	Enter the following on the screen: > start time and date > stop time and date > data provider = GSFC-V0 > select detailed report > select display	Verify the Request Id in Step 2.001 matches the Request Id on the screen.		
2.013	INGEST GUI	Double Click the Request Id to get granule specific information			
2.015	INGEST GUI	Verify the summary information and note any discrepancies or errors.			
Verify PAN sent to Larry					
2.016	GSFC	Call Larry operator or perform steps 2.017 through 2.019 to verify PAN delivery.			
2.017	ICG01	On the g0icg01 window, Enter cd /usr/ecs/<mode>/ CUSTOM/icl/g0 icg01/data/INS/r emote/ GSFC-V0/Response	Response directory is set.		

	ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS				
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.018	ICG01	Display directory contents. Enter ls -al	Directory contents displayed.		
2.019	ICG01	Enter: dmpxxx <PAN filename> | more	PAN verified.	xxx is equal to the workstation being used. Ex: sun or sgi	
Check Science Data Server					
2.020	ACS03	Open a x-term window and telnet to the Science Data Server. Enter telnet g0acs03	Login screen is displayed.		
2.021	ACS03	Enter <login> <password>	Login is successful.		
2.022	ACS03	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.023	ACS03	Enter isql – U<username> - P<password > - Sg0acg01_srvr	Command is successful.		
2.024	ACS03	Enter use EcDsScienceDataServer1_<MODE>	Command is successful.	Mode = OPS, TS1, or TS2	
2.025	ACS03	Enter go	Command is successful.		

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.026	ACS03	Enter >select *from DsMdGranules where Shortname = "GDAS" >order by insert time >go	Granules for GDAS display.		
2.027	ACS03	>select *from DsMdGrStringIn foContent where granuleID = <Granule dblD> >go >quit	Note the DB ID #		
Check Archive Server					
2.028	DRG01	Open a x-term window and telnet to the Archive server. Enter telnet g0drg01	A login screen is displayed.		
2.029	DRG01	Enter <login> <password>	Login is successful.		
2.030	DRG01	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.031	DRG01	Obtain a directory listing Type: >cd /dss_stk1/<MODE>/aster > la –altr GDAS	Display: GDAS_0ZF (grib) and GDAS0ZFH (hdf)	Verify that all ASTER files were archived (look at file time stamps and compare file sizes to file sizes of original data in stage area). MODE = OPS, TS1, or TS2	
Science Data Server GUI					
2.032	ACS03	On the g0acs03 window, change to the utilities directory. Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = OPS, TS1, or TS2	
2.033	ACS03	View directory contents. ls -al	Directory contents displayed.		
2.034	ACS03	Start the Science Data Server GUI. Enter or select: EcDsSdSrvGuiStart <MODE>		MODE = OPS, TS1, or TS2	
2.035	ACS03	Under the Data Types tab, Search for GDAS_0ZF. Record the volume group.	GDAS: VG-14		

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.036	ACS03	Exit the GUI. Click File/Exit			
Distribution GUI					
2.037	DIS02	Open a x-term window and telnet to the Archive server. Enter telnet g0dis02	A login screen is displayed.		
2.038	DIS02	Enter <login> <password>	Login is successful.		
2.039	DIS02	Set the terminal display. setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.040	DIS02	Change to the utilities directory. Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.		
2.041	DIS02	View directory contents. ls -al	Directory contents displayed.		
2.042	DIS02	Start the Distribution GUI Enter or select: EcDsDdistGuiStart <MODE>	Distribution GUI is started.	MODE = OPS, TS1, or TS2	
2.043	DIS02	Click OK to error message.	Error message disappears.		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
		ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS			
2.044	DIS02	View the Distribution GUI to verify the Acquire Request was completed successfully. Record the request ID.	GUI should state shipped for request id.		
2.045	DIS02	Exit Distribution GUI. Click File, Exit			
2.046	DIS02	Perform steps 2.047 through 2.049, if Distribution GUI status is other than shipped.			
2.047	DIS02	Change to the log directory. Enter cd /usr/ecs/<MODE>/CUSTOM/logs	Log directory is set.	MODE = TS1, TS2, or OPS.	
2.048	DIS02	View Directory contents. Enter ls or ll	Directory contents displayed.		
2.049	DIS02	View the EcDsDistributionServerDebug.log file. cat EcDsDistributionServerDebug.log | more	Errors are located and recorded.	Locate the request id's from step 2.044 and record the errors.	

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
Storage Management GUI					
2.050	DIS02	Switch to the utilities directory. Enter: cd /usr/ecs/<MODE>/CUSTOM/utilities	Utilities directory is set.	MODE = OPS, TS1, or TS2	
2.051	DIS02	Display directory contents. ls or ll	Directory contents displayed.		
2.052	DIS02	Start the Storage Management GUI. Enter or select: EcDsStgmtGuiStart <MODE>	Storage Management GUI displays.	MODE = OPS, TS1, or TS2	
2.053	DIS02	Click Ok to error message.	Error message disappears.		
2.054	DIS02	Select Server Type: Archive			
2.055	DIS02	Click on View Server			
2.056	DIS02	Select Specific Server Information: EcDsStArchiveServerDRP1-TS2	EcDsStArchiveServerDRP1 selected.		
2.057	DIS02	Click on View Volume Group Information			
2.058	DIS02	Select Volume Group Information for group recorded in step 2.035	GDAS: VG-14		

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS					
2.059	DIS02	Record the path of where the data is stored on Archive.	Path for VG-14: /dss_stk1/TS2/data		
2.060	DRG01	Switch to the directory recorded above on the g0drg01 window. Enter: cd <pathname>	Directory is set.		
2.061	DRG01	Display directory contents. Enter ls or ll	Verify data files for data type (GDAS) and date.		
To Verify Metadata and Data Files					
2.062	ACG01	Open a x-term window and telnet to the Archive server. Enter telnet g0acg01	A login screen is displayed.		
2.063	ACG01	Enter <login> <password>	Login is successful.		
2.064	ACG01	Set the terminal display setenv DISPLAY hostname:0.0	Terminal Display is set.		
2.065	ACG01	Enter: ftp drsc1.gds.aster.ersdac.or.jp	Command is successful.	Use Host Name used in Subscription.	

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
2.066	ACG01	Login to site: login: <*****> password: <*****>	Command is successful.	Use User Name and Password used in Subscription.	
2.067	ACG01	Switch to directory: cd /home/dr_gsfc	Command is successful.	Use Destination used in Subscription.	
2.068	ACG01	List directory contents. Enter ls -altr	Directory contents are displayed. Should see the metadata file and data file. (*.met and gdas.*)		
2.069	ACG01	Logout of ftp. Enter: bye			

Test Termination

ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS

Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
3.001	GSFC	Wherever DCE login used, Enter: kdestroy	Logout of DCE. g0mss21, g0ins01	If this is not done, the DCE login will stay connected.	
3.001	GSFC	Exit all GUI's.			.
3.002	GSFC	Logoff all workstations.			

			ICT12.8 GSFC DAAC Transfer of NOAA NCEP Data to ASTER GDS		
Step No.	Station	Action	Results	Comments	Status (P = Pass F = Fail)
3.003	EGS	Update Requirements Appendix with statuses.			

APPENDIX A: TEST PACKAGE REQUIREMENTS SUMMARY

Requirement	Description	Test Case(s)
ASTER-0110#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive DARs for the ASTER instrument. DARs shall contain the following information, at a minimum: a. Observation number b. Experimenter identification c. Experimenter address d. Investigation identification e. Scientific discipline f. Observation repetition period g. Tolerance in observation time h. User priority i. Scheduling priority and target of opportunity flag j. Descriptive text k. Location data expressed in terms of longitude and latitude as earliest start coordinates and latest stop coordinates l. Earliest start time m. Latest stop time n. Minimum coverage required o. Maximum coverage desired p. Deleted q. Deleted r. Associated product generation request and product distribution request s. Pointing angle t. Calibration requirements u. Coordination requirements v. Data transmission requirements w. Illumination requirements (day/night) x. Specific time of observation y. Sun angle z. Direct downlink option	E-ICT12.3
ASTER-0120#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive DAR status, when requested by ECS. DAR status shall include such information as confirmation or rejection of the DAR, and notification of DAR scheduling and	E-ICT12.3

Requirement	Description	Test Case(s)
	completion, to include at a minimum: a. Date and time b. Instrument ID c. DAR ID d. Request status e. Implementation schedule f. If rejection, then the reason for the rejection	
ASTER-0130#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive queries for the current status of ASTER DARs which were previously submitted to the ASTER GDS by ECS	E-ICT12.3
ASTER-0140#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive changes to DARs for the ASTER instrument.	E-ICT12.3
ASTER-0700#B	ASTER GDS shall have the capability to send and ECS (EDC DAAC) shall have the capability to receive Level 1 data, ancillary data, Metadata, and browse.	E-ICT12.1
ASTER-0760#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive data availability schedules for ASTER GDS data products which were requested by ECS.	E-ICT12.2
ASTER-0770#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive data availability schedules for ECS data products which were requested by ASTER GDS.	E-ICT12.6
ASTER-0800#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive dependent valids information related to ECS data products.	E-ICT12.6
ASTER-0805#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive dependent valids information related to ASTER GDS data products.	E-ICT12.2
ASTER-0810#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive directory Metadata related to ECS data products.	E-ICT12.2
ASTER-0820#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive inventory search requests.	E-ICT12.2
ASTER-0825#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive guide search requests.	E-ICT12.2

Requirement	Description	Test Case(s)
ASTER-0830#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive browse requests.	E-ICT12.2
ASTER-0835#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive inventory data search results.	E-ICT12.2
ASTER-0840#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive guide search results.	E-ICT12.6
ASTER-0845#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive browse results.	E-ICT12.6
ASTER-0850#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive inventory search requests.	E-ICT12.6
ASTER-0855#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive guide search requests.	E-ICT12.6
ASTER-0860#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive browse requests.	E-ICT12.6
ASTER-0865#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive inventory search results.	E-ICT12.6
ASTER-0870#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive guide search results.	E-ICT12.2
ASTER-0875#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive browse results.	E-ICT12.2
ASTER-0880#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive user authentication requests for ASTER GDS privileges of EOSDIS users.	E-ICT12.2
ASTER-0885#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive user authentication information specifying ASTER GDS privileges for EOSDIS users.	E-ICT12.6
ASTER-0890#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive user authentication requests for ECS privileges of ASTER	E-ICT12.6

Requirement	Description	Test Case(s)
	GDS users.	
ASTER-0895#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive user authentication information specifying ECS privileges for ASTER GDS users.	E-ICT12.2
ASTER-0900#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive product requests for ASTER GDS data products	E-ICT12.2
ASTER-0910#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive product delivery status information. Product delivery status information contains the following information, at a minimum: a. Requester identification b. Request identification c. Request status d. If rejection, then the reason for the rejection e. If delayed longer than the latest completion time specified by the user, adjusted start and stop times.	E-ICT12.6
ASTER-0915#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive requests for product delivery status.	E-ICT12.2
ASTER-0920#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive product requests for ECS data products.	E-ICT12.6
ASTER-0930#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive product delivery status information. Product delivery status information contains the following information, at a minimum: a. Requester identification b. Request identification c. Request status d. If rejection, then the reason for the rejection e. If delayed longer than the latest completion time specified by the user, adjusted start and stop times.	E-ICT12.2
ASTER-0935#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive requests for product delivery status.	E-ICT12.6
ASTER-0940#B	ECS shall have the capability to send and ASTER	E-ICT12.4

Requirement	Description	Test Case(s)
	GDS shall have the capability to receive Expedited Level 0 and ECS data products, in response to a request from the ASTER GDS.	
ASTER-0945#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive ASTER data products, in response to a request from ECS.	E-ICT12.6
ASTER-1000#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive ECS system and network management information	E-ICT12.5
ASTER-1005#B	ECS shall have the capability to send and ASTER GDS shall have the capability to receive requests for ASTER GDS network management information.	E-ICT12.5
ASTER-1010#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive ASTER GDS system and network management information.	E-ICT12.5
ASTER-1015#B	ASTER GDS shall have the capability to send and ECS shall have the capability to receive requests for ECS system management information.	E-ICT12.5
DADS0130#B	The ECS shall receive from the EDOS the following: a. Production data (L0) b. Expedited data	E-ICT12.4 E-ICT12.7
DADS0145#B	The ECS shall be capable of receiving from NOAA the following: a. Metadata b. Ancillary data	E-ICT12.4 E-ICT12.2 E-ICT12.6 E-ICT12.8
DADS0205#B	The ECS shall be capable of receiving data in any and all formats produced by the distribution service.	E-ICT12.4
DADS0250 #B	The ECS shall receive data in the following forms: a. Physical electronic media b. Electronic network communications	E-ICT12.1 E-ICT12.2 E-ICT12.4 E-ICT12.5 E-ICT12.6
DADS0350#B	The ECS shall generate the following metadata items for each data granule: a. Unique Granule ID b. Date and time of storage c. Physical location d. Data check status	E-ICT12.2 E-ICT12.6 E-ICT12.8
DADS0760#B	The ECS shall distribute data in approved standard formats as specified in the ICDs and Data Type	E-ICT12.2

| Requirement	Description	Test Case(s)
	Services Matrix.	E-ICT12.4 E-ICT12.8
DADS0770#B	The ECS shall reformat data sets in one of the approved standard formats as specified in the ICDs and Data Type Services Matrix.	E-ICT12.3 E-ICT12.8
DADS0800#B	The ECS shall provide the capability to translate input data to the internal ECS format including HDF.	E-ICT12.2 E-ICT12.4 E-ICT12.8
DADS1020#B	The ECS shall generate data retrieval status to acknowledge the acceptance or rejection, including the reason for rejection (e.g., distribution parameters missing, data not present or unreadable), of a product order.	E-ICT12.2 E-ICT12.4
DADS1030#B	The ECS shall generate data distribution status to monitor the progress of the distribution process.	E-ICT12.2 E-ICT12.4 E-ICT12.6 E-ICT12.8
DADS1380#B	The ECS shall monitor data transfer between external (non-ECS) elements and the ECS.	E-ICT12.3 E-ICT12.4 E-ICT12.8
DADS1620#B	The ECS at each DAAC shall provide tools for operations/systems/maintenance personnel to monitor performance, carry out maintenance, and alter operating parameters.	E-ICT12.3 E-ICT12.4 E-ICT12.8
DADS1805#B	The ECS shall provide an inventory system capable of the following: a. Accepting the number of new inventory entries, one per granule, for the number of granules per day as specified in Appendix C b. Uniquely identifying each data granule c. Tracking the physical location of each data granule	E-ICT12.3 E-ICT12.4 E-ICT12.8
DADS1806#B	The ECS shall provide the capability of retrieving any data granule stored in the archives	E-ICT12.3 E-ICT12.4 E-ICT12.8
DADS2390#B	The ECS at GSFC shall have the capability to send to the ASTER GDS the following: a. Aster expedited data b. Metadata	E-ICT12.3 E-ICT12.4
DADS2430#B	The ECS shall be capable of distributing any data granule stored in the archive.	E-ICT12.1

Requirement	Description	Test Case(s)
		E-ICT12.2 E-ICT12.4 E-ICT12.6 E-ICT12.8
EOSD0020#B	The ECS shall use and support the EDOS/EBnet interface to obtain the data capture, data archival, and data distribution services needed to achieve full end-to-end ECS functionality.	E-ICT12.6 E-ICT12.4 E-ICT12.8
EOSD1015#B	Each ECS DAAC that receives instrument Level 0 data from EDOS shall provide the capability to ingest and archive the data at a rate that is equivalent to 1.2 times the DAACs average Level 0 input rate.	E-ICT12.5 E-ICT12.4
EOSD1502#B	The ECS shall use EBnet for data communications for the following types of data: a. Production data sets (Level 0 data) b. Expedited data sets c. Real-time data (for health and safety) d. Command data e. Data requested from back-up archive f. TDRSS schedule requests g. Data exchange with the FDS h. Production Data Transfers between DAACs i. Management Data exchange with SMC j. Data Products Exchange with Landsat and ASTER GDS	E-ICT12.2 E-ICT12.4 E-ICT12.6 E-ICT12.7
EOSD1760 #C	The ECS shall send the following types of data to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata d. Browse data e. Archived data f. Accounting information	E-ICT12.4
ESN-0006#B	The ECS shall interface with EBnet and NSI.	E-ICT12.4 E-ICT12.8
ESN-0280#B	The ECS shall provide file transfer service and as a minimum shall include the capability to transfer the following data types: a. Unstructured Text b. Binary Unstructured	E-ICT12.4 E-ICT12.8

Requirement	Description	Test Case(s)
	c. Binary Sequential d. Sequential Text	
ESN-1340#B	The ECS shall provide support for TCP/IP communications protocols and services to external interfaces as required by the IRDs.	E-ICT12.4 E-ICT12.8
PGS-0510#B	The ECS shall have the capability to generate metadata (see Appendix C) according to the Science Software provided by the scientists and associate this metadata with the corresponding Standard Product generated.	E-ICT12.4
PGS-0512#B	The ECS shall generate unique granule IDs for all products generated.	E-ICT12.4 E-ICT12.8
SDPS0021#B	The ECS shall convert ancillary data sets as identified in Appendix E from their native formats into ECS internal formats to allow access by science algorithms.	E-ICT12.8
SDPS0150#B	The ECS shall assign priority and distribute expedited data and expedited data availability notices.	E-ICT12.4

Appendix B: ASTER Expedited Data Flow
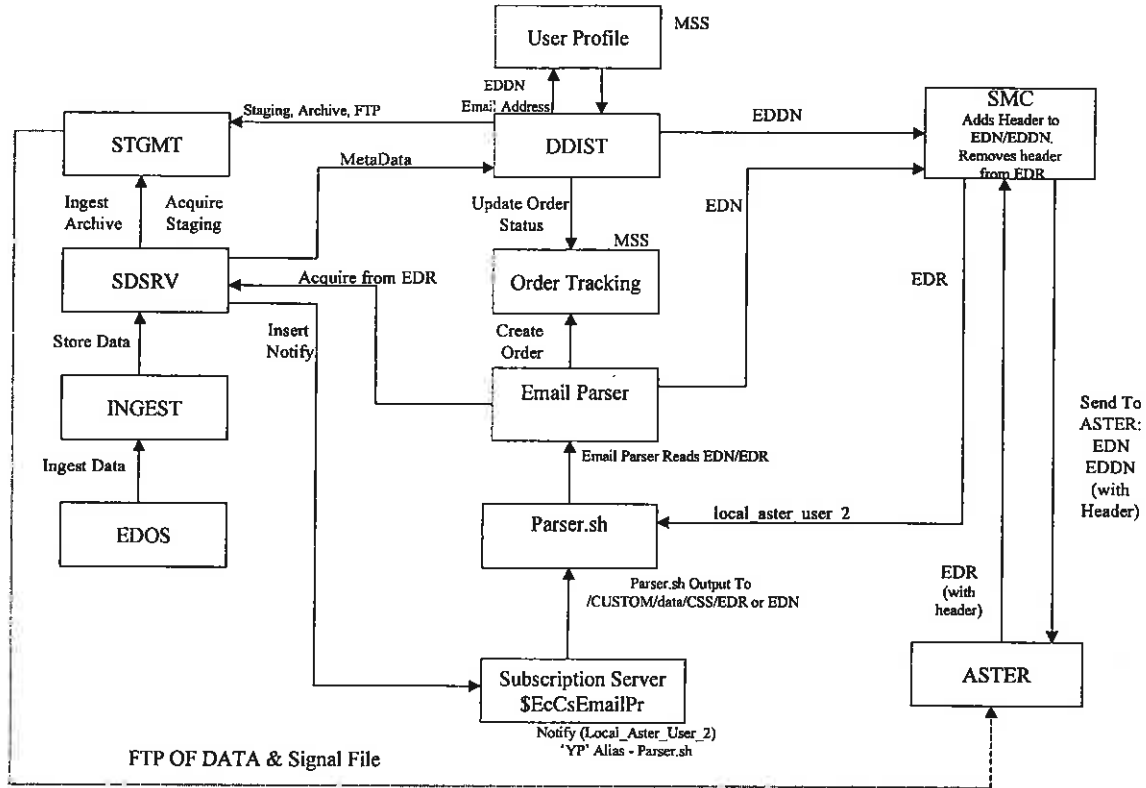
Appendix C: GSFC Tunable Parameters

Operator Tunable Parameters are those values supplied to the automated systems at both ends of the interface which enable mutual communications to be maintained. They are entered at set-up by development or operations personnel and changed infrequently during the operations phase. Operator tunable parameters are to be determined by each side of the interface, supplied to the other side via the forms below (also contained in Appendix B of the Operations Agreement), and entered to the appropriate software tables by the operations personnel at the end equipment site. Operator Tunable Parameters needed by the automated systems at both ends include Email account IDs, IP addresses, Port numbers, and account IDs/passwords for automated FTP transfers.

When configuration changes are needed, the side needing to implement a change will complete the forms below with the new/changed values and will Email the form to the Operations Controller/Manager at the other site well in advance of the actual change being implemented. The site needing to change must coordinate with the other site before implementation. The requesting site should take into consideration any scheduling impacts expressed by the other end site prior to scheduling the implementation.

This information is available upon request by qualified users.

Appendix D: 4PY Configuration Requirements

Mode	Configuration	Definition
User Profile ASTER Expedited Data – g0mss21		
External / Internal	Name: Aster Expedited Data Affiliation: Government Telephone: 301-614-5581 Home DAAC: GSF Userid: $EcCsEmailPr Email: eddelivnotice@m0css03.ecs.nasa.gov Organization: ASTER_DAAC Account Information: Priviledge: Very High Nasa User: Y V0 Gateway: DAACOPS V0 Gateway Password: EcCsEmailPr	
Subscription GUI ASTER Expedited Data – g0dms03		
Internal	User ID: $EcCsEmailPr Email Address OPS: local_aster_user TS2: local_aster_user_2	User ID: registered User account. Key field of User Profile needed for Subscription set-up. Email Address: acknowledgement of subscription notice. Check Aliases.
External	User ID: $EcCsEmailPr Email Address: aster_user	
Subscription GUI ASTER GDAS Data – g0dms03		

Internal	User ID: GDAS_User
	
	Email Address:
	eddelivnotice@m0css03.ecs.nasa.gov
	
	ACTIONS:
	User Profile: GDAS_User
	User Name:
	  OPS: opsuser
	  TS2: ts2user
	User Password:
	  OPS: opsuser password
	  TS2: ts2user password
	Verify Password: ******
	Host Name: g0mss20
	Destination: /tmp
		User ID: registered User account. Key field of User Profile needed for Subscription set-up.
		
		Email Address: acknowledgement of subscription notice. Check Aliases.
		
		User Password: OPS staff.

	SMC Aliases should point to simulated_aster	
External	User ID: GDAS_User Email Address: eddelivnotice@m0css03.ecs.nasa.gov ACTIONS: User Profile: GDAS_User User Name: dr_gsfc User Password: ****** Verify Password: ****** Host Name: drsc1.gds.aster.ersdac.or.jp Destination: /home/dr_gsfc	
EcCsEmailParser.cfg – g0ins01		

Internal	EDRDir:
	/usr/ecs/<mode>/CUSTOM/data/CSS/
	EDR/
	
	EDNDir:
	/usr/ecs/<mode>/CUSTOM/data/CSS/
	EDN/
	
	EDRFailDir:
	/usr/ecs/<mode>/CUSTOM/data/CSS/
	EDRFail/
	
	UserProfID: $EcCsEmailPr
	
	FTPHOST: g0icg01
	FTPDEST: /L0_buffer/aster_temp
	FTPUSER:
	  OPS: opsuser
	  TS2: ts2user
	FTPPASSWD:
	  OPS: opsuser password
	  TS2: ts2user password
	
	MSSEmailAddress:
	EDNotice@m0css03.ecs.nasa.gov
	
	EmailAddress:
		EDRDir: Match to parser.sh entry: ASTERDIR
		
		EDNDir: Match to parser.sh entry:
		SUBSCRIPTIONDIR
		
		UserProfID: Match to User ID entered for subscription event.
		
		FTP Information: Final destination as to where data will go (ASTER).
		
		MSSEmailAddress: Where EDN sent to. SMC alias.
		
		EmailAddress: Where EDN comes from.

	allmode@g0ins01u.ecs.nasa.gov AsterEmailAddress: eddelivnotice@m0css03.ecs.nasa.gov ESDT_Id: AST_EXP.001	AsterEmailAddress: Where EDDN is sent. System may not use this entry, may pull address from User Profile.
External	EDRDir: /usr/ecs/<mode>/CUSTOM/data/CSS/EDR/ EDNDir: /usr/ecs/<mode>/CUSTOM/data/CSS/EDN/ EDRFailDir: /usr/ecs/<mode>/CUSTOM/data/CSS/EDRFail/ UserProfID: $EcCsEmailPr FTPHOST: adn1.gds.aster.ersdac.or.jp FTPDEST: /incoming FTPUSER: ad-daac FTPPASSWD: ****** MSSEmailAddress: EDNotice@m0css03.ecs.nasa.gov EmailAddress: allmode@g0ins01u.ecs.nasa.gov AsterEmailAddress: eddelivnotice@m0css03.ecs.nasa.gov ESDT_Id: AST_EXP.001	
Parser.sh – g0ins01		

Internal & External	FAILEDADDR:
	  OPS:
	   opsuser@g0ins01.gsfcb.ecs.nasa.gov
	or
	  TS2:
	   ts2user@g0ins01.gsfcb.ecs.nasa.gov
	
	ASTERADDR:
		FAILEDADDR -- email address of where problems are sent to.
		
		ASTERADDR – EDR originates.

dar@pda2req01b00.gds.aster.ersdac.or.jp SUBSCRIPTIONADDR: allmode@g0ins01.gsfcb.ecs.nasa.gov ASTERDIR: /usr/ecs/<mode>/CUSTOM/data/CSS/ EDR SUBSCRIPTIONDIR: /usr/ecs/<mode>/CUSTOM/data/CSS/ EDN	SUBSCRIPTIONADDR – where subscription notice (EDN) is sent. Match to who Subscription GUI runs as (allmode). ASTERDIR – where EDR is placed. Match to EcCsEmailParser.cfg entry: EDRDir SUBSCRIPTIONDIR - where EDN is placed. Match to EcCsEmailParser.cfg entry: EDNDir