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NATIONAL SPACE DEVELOPMENT AGENCY OF JAPAN

EOIS

EOC Data User Services

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Earth Observation Center (EOC) / NASDA

November 14, 2001

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EOIS

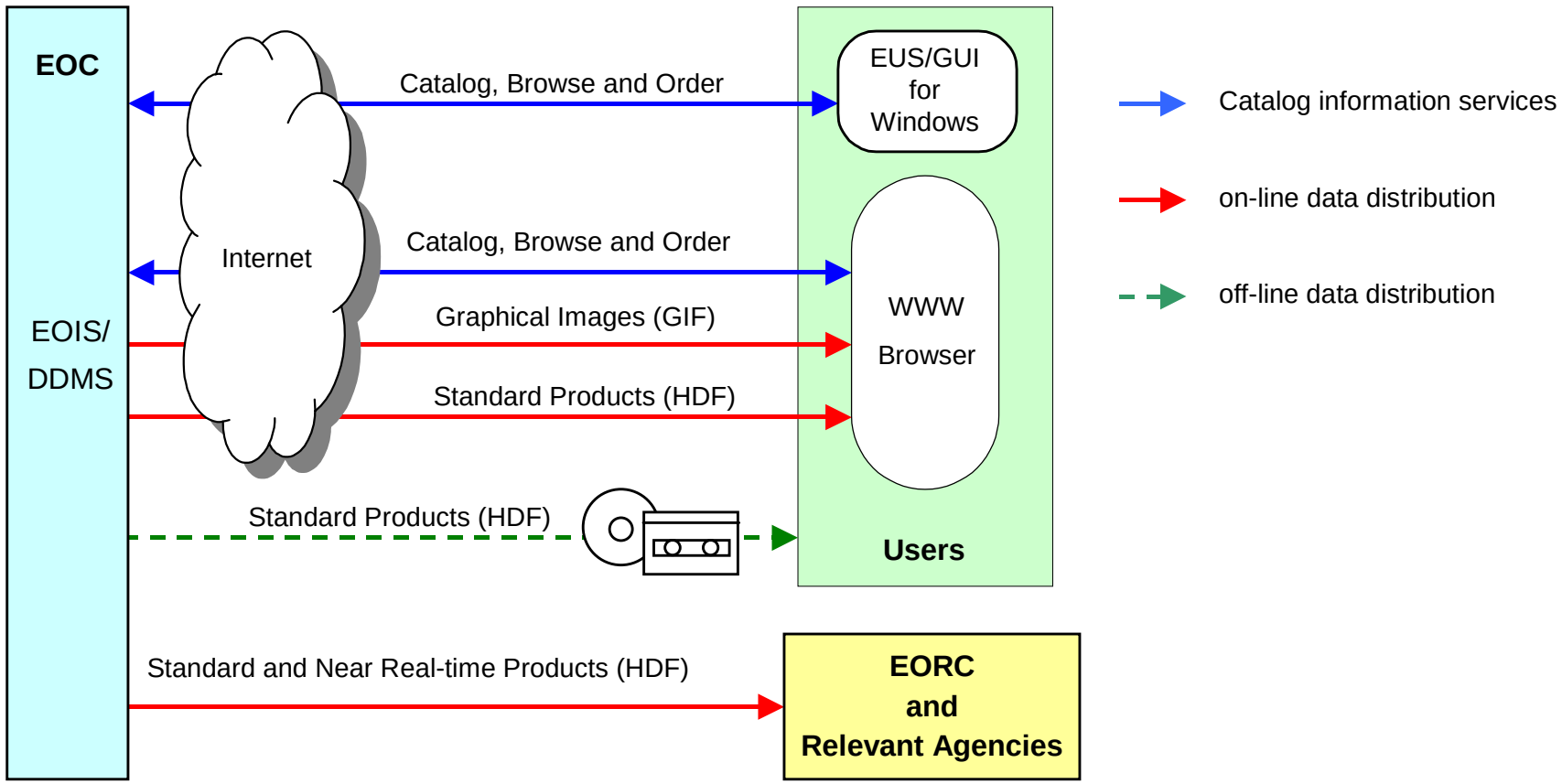
EOC systems for user services

- **The Earth Observation Center (EOC) receives, processes, archives and retrieves ADEOS-II earth observation data**
- **EOC user services are provided from EOIS/DDMS***

  *** EOIS : NASDA Earth Observation data and Information System**
  DDMS : Data Distribution and Management System

- **EOIS/DDMS is infrastructure facility to archive, manage and distribute earth observation data and information**
- **Objects of EOIS are all satellite and sensor data, and enhancements for ADEOS-II products has been finished this September**

EOIS user services overview



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EOIS

User services from EOIS

EOIS user services at EOC are categorized as :

1. Catalogue information services

- Catalogue search
- Browse search
- Product order

2. Off-line data distribution service (on media)

- Scene orders
- Standing orders

3. On-line data distribution service (via network)

- Graphical images (GIF data) on the WWW
- Standard products via the internet
- Data transmission to relevant agencies

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EOIS

Catalog information

Using the EUS*, users can access catalog information service

*** EUS : EOIS user interface software**

- **EUS/GUI**
  - Application software for Windows 95 /98 /NT4.0
    (Operation on Windows XP / 2000 / Me are not confirmed yet)
  - For PIs and relevant agencies only (user registration is necessary)
- **EUS/WWW Gateway**
  - Information service available via WWW browser software
  - Catalog and browse search are available for all users
  - Ordering interface is only for PIs (user registration is necessary)
  - The following is URL :

    http://www.eoc.nasda.go.jp/catalogue/catalogue_e.html

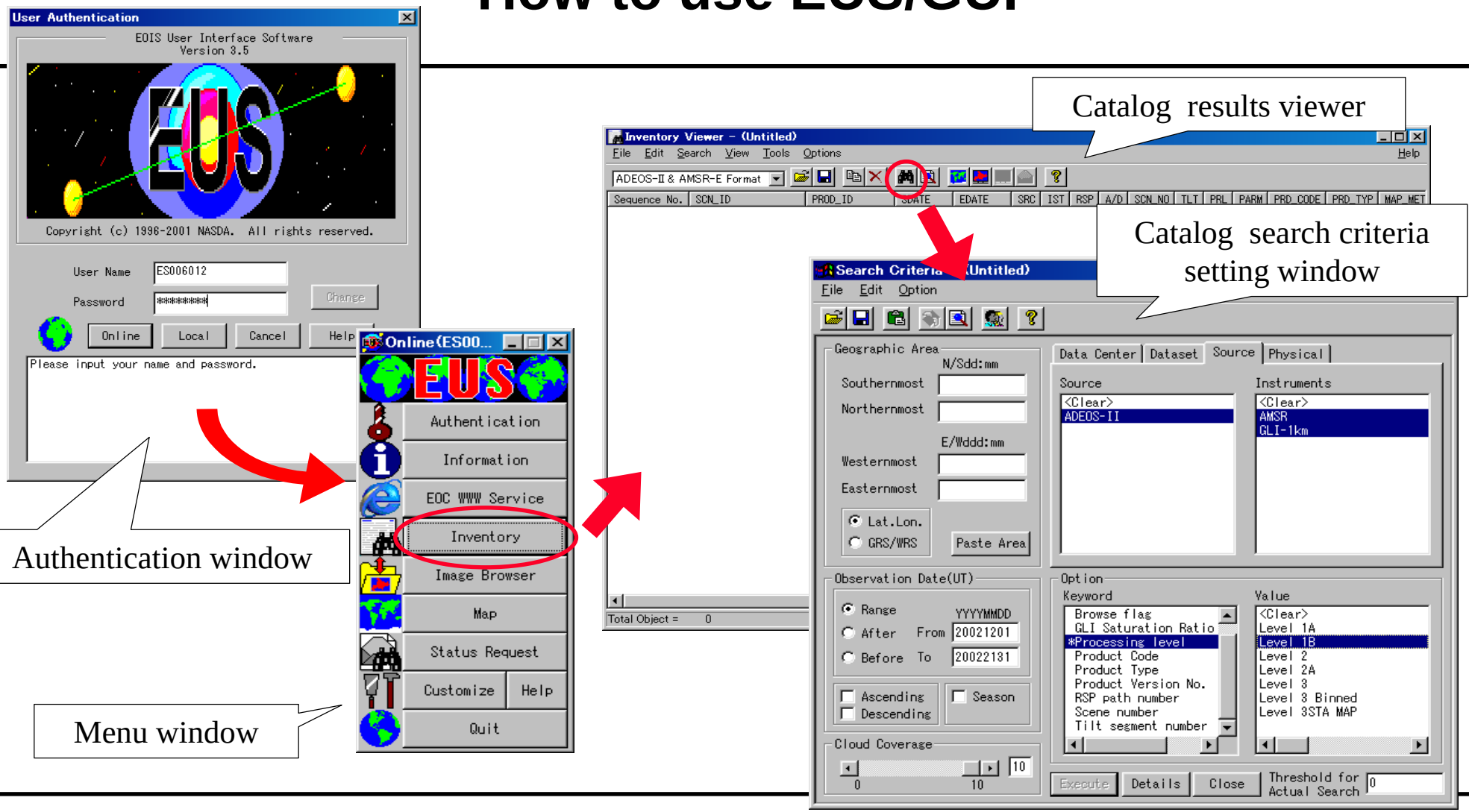
Preparation for EUS

What is necessary before use the EUS?

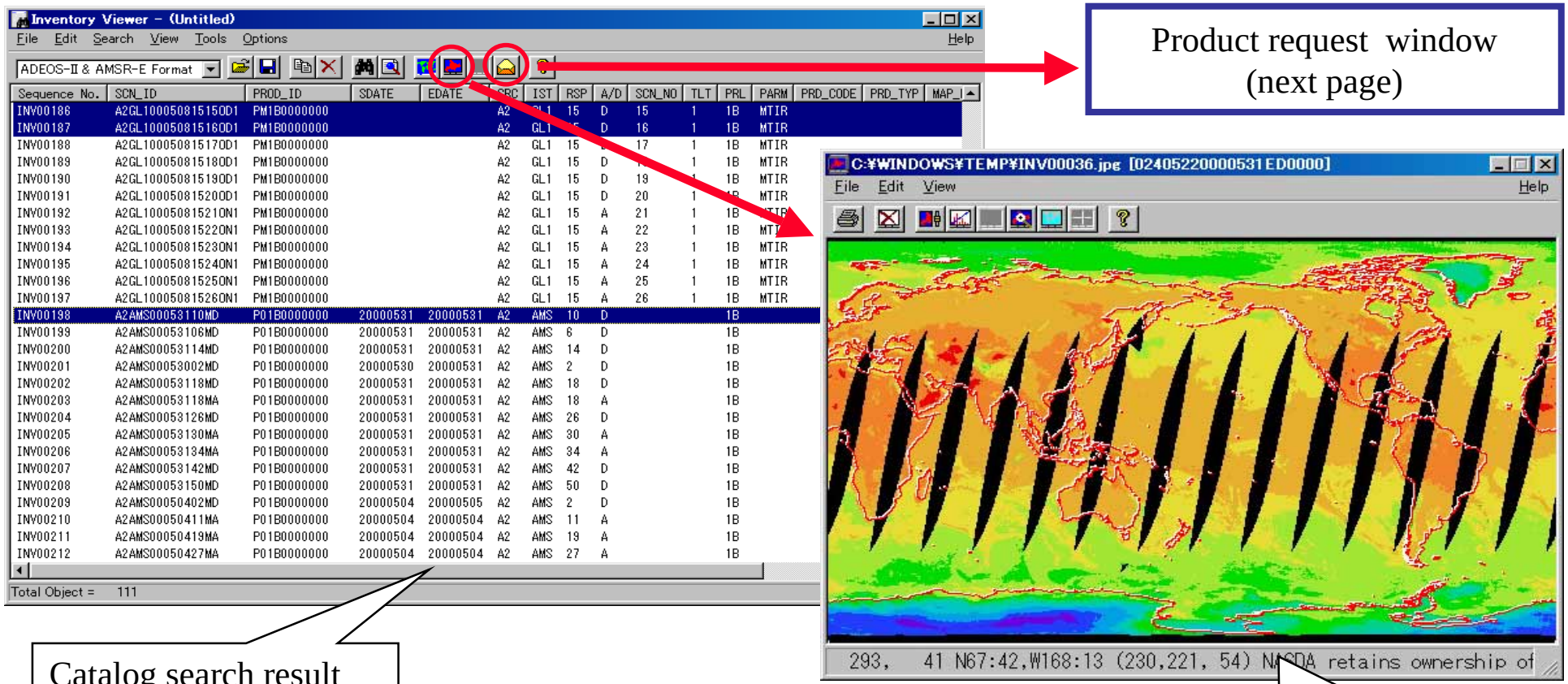
- **Software download (EUS/GUI)**
  - EUS/GUI download is available from the following site:
    - URL : http://www.eoc.nasda.go.jp/~eusadmin/homepage.html
    - user name : eusadmin
    - password : dontaku

- **User registration (EUS/GUI and EUS/WWW)**
  - Contact point for PIs will be set up at EORC order desk
    - e-mail : orderdesk@eorc.nasda.go.jp
    - Tel : 813-5561-8767
    - Fax : 813-5561-9542

How to use EUS/GUI



Catalog and browse search by EUS/GUI

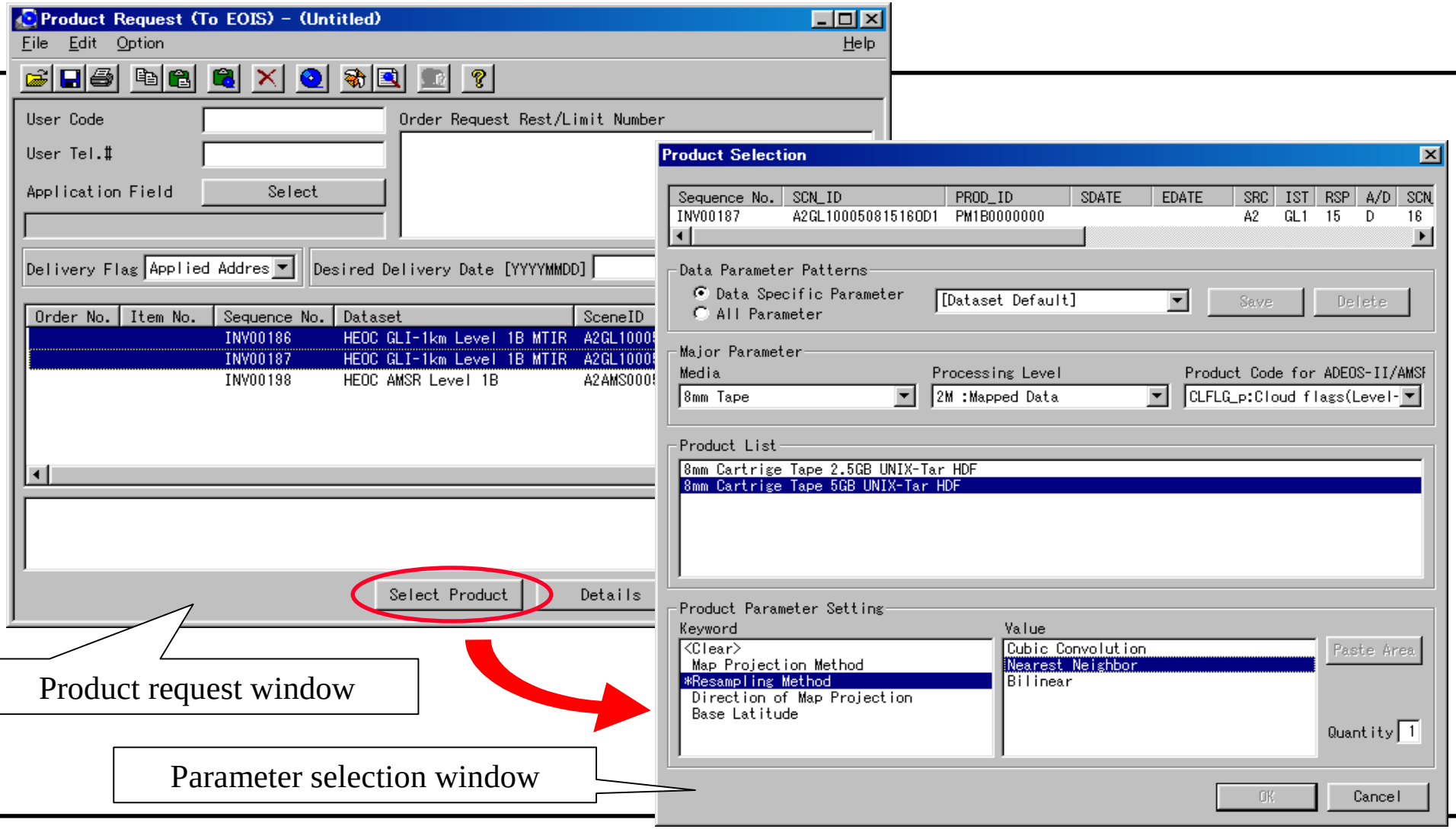


Product request window (next page)

Catalog search result

Browse data viewer (sample of AMSR L3 SSW)

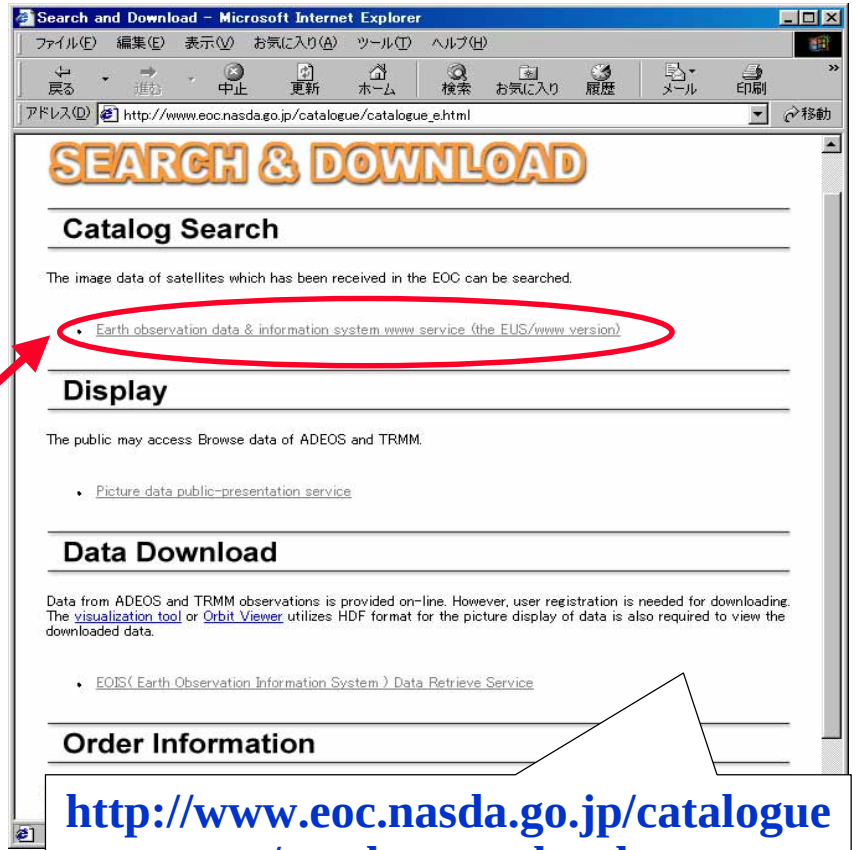
Products ordering by EUS/GUI



How to access the EUS/WWW

EOC Homepage > Search & Download > Catalog Search

http://www.eoc.nasda.go.jp

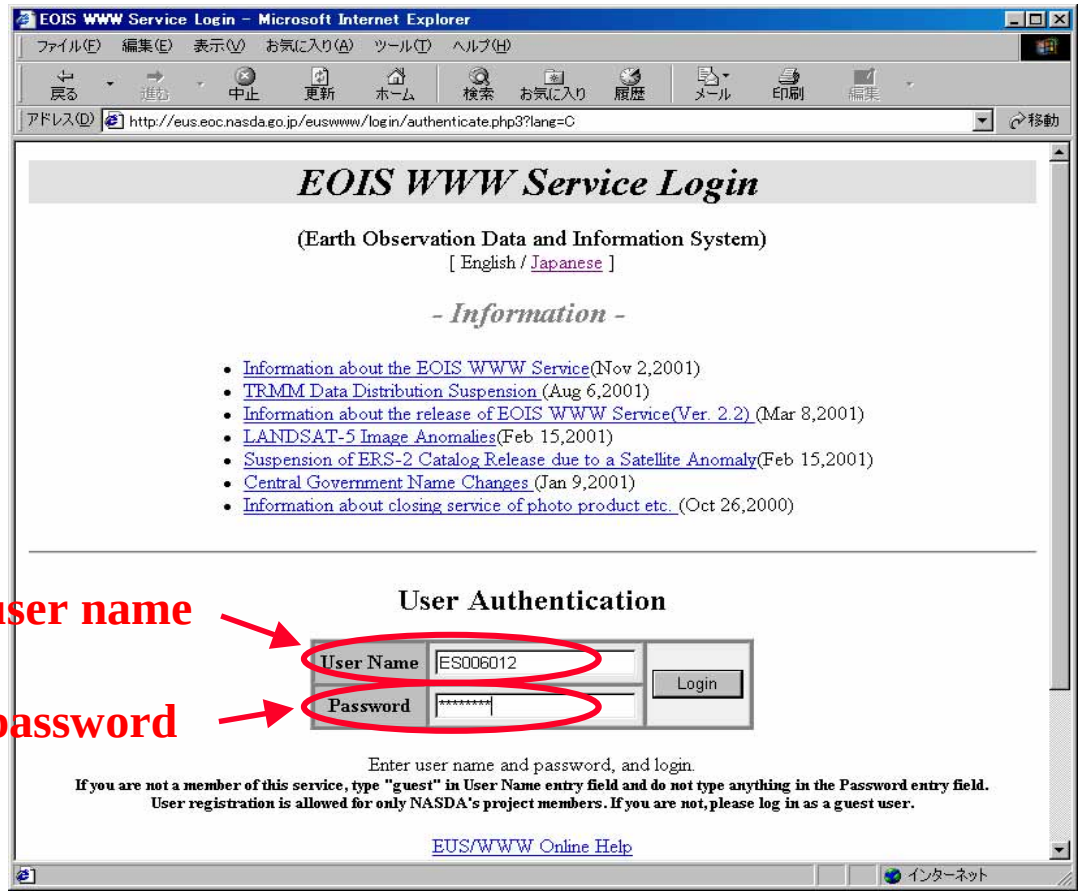


http://www.eoc.nasda.go.jp/catalogue/catalogue_e.html

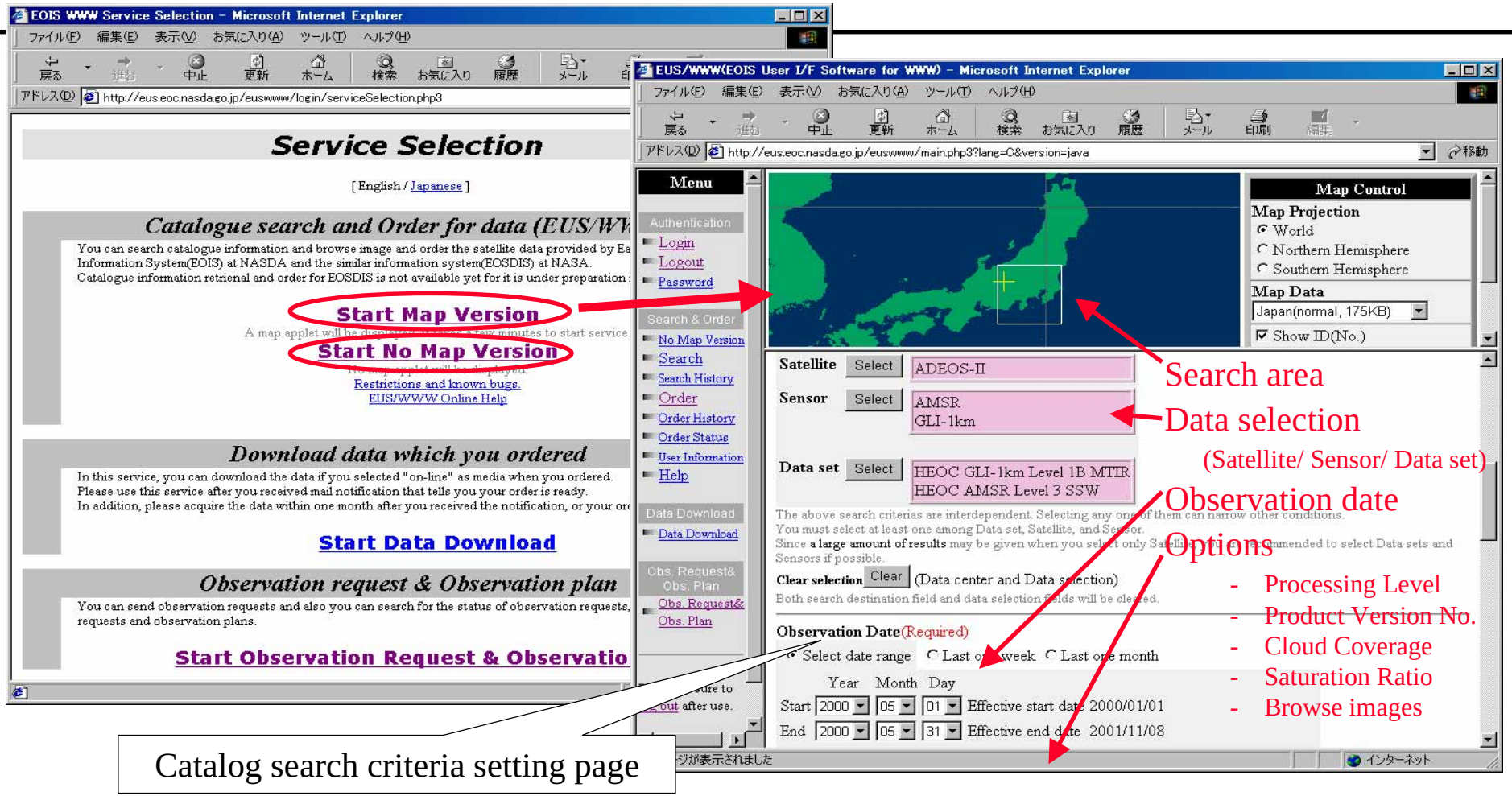
Login for EUS/WWW

Service login

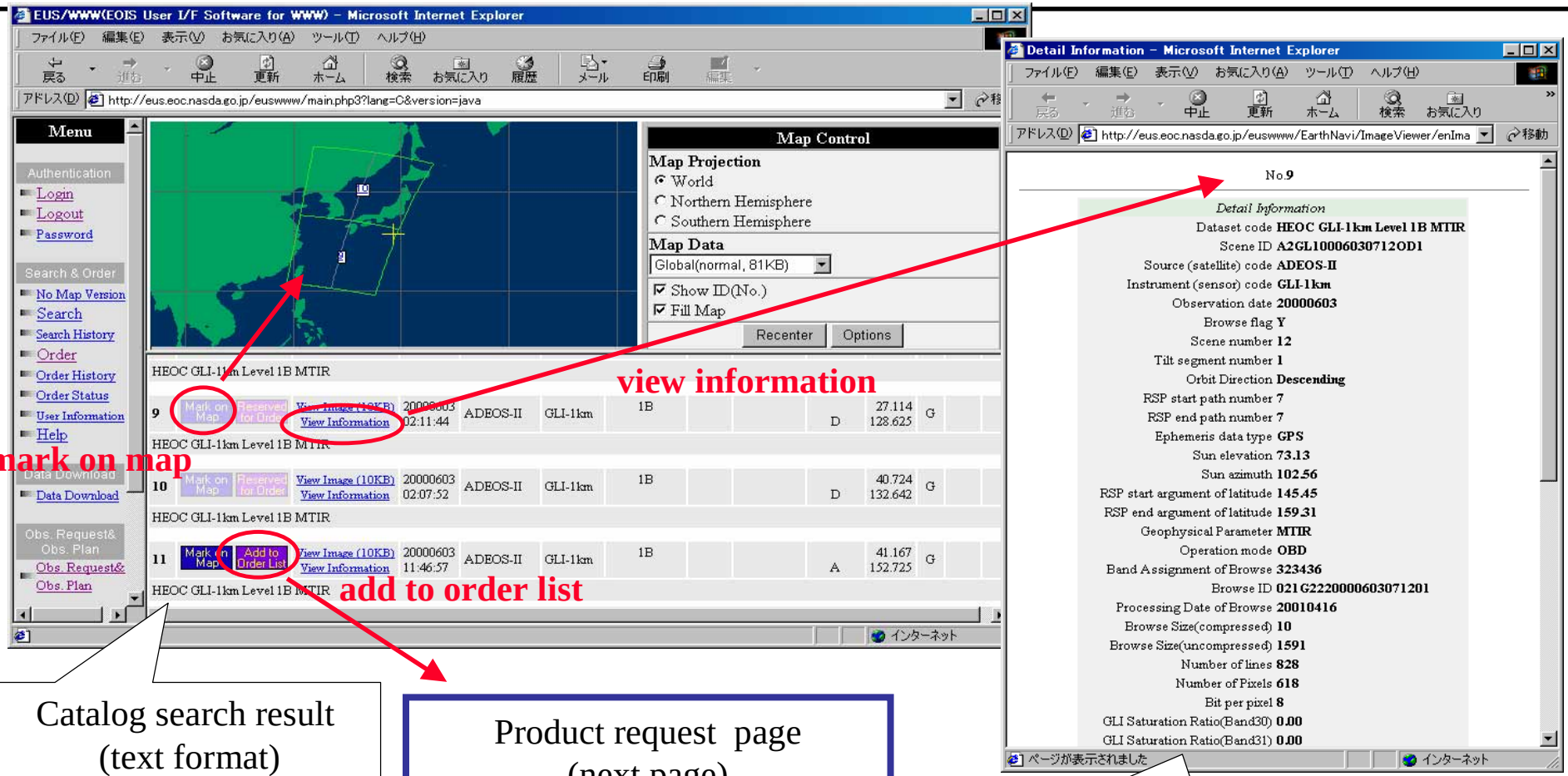
- Public users can login with
  1) user name “guest” and
  2) no password
- Registered users login with
  1) their own user name and
  2) assigned password



Catalog search by EUS/WWW



Catalog search result on EUS/WWW



Catalog search result (text format)

Product request page (next page)

Detail information page

Products ordering by EUS/WWW

Go to Order List

Click!

Order steps

Step1

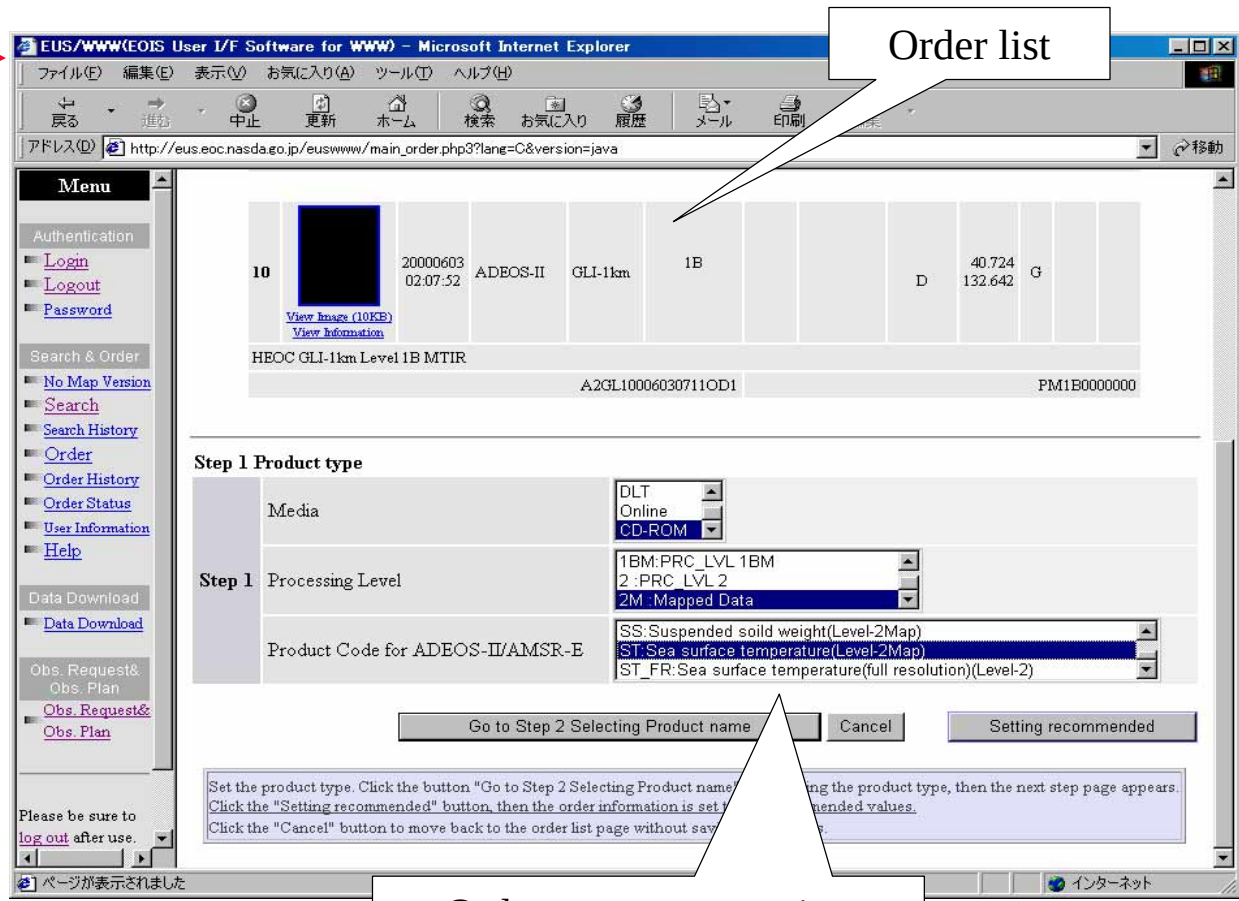
- Media
- Processing Level
- Product Code

Step2

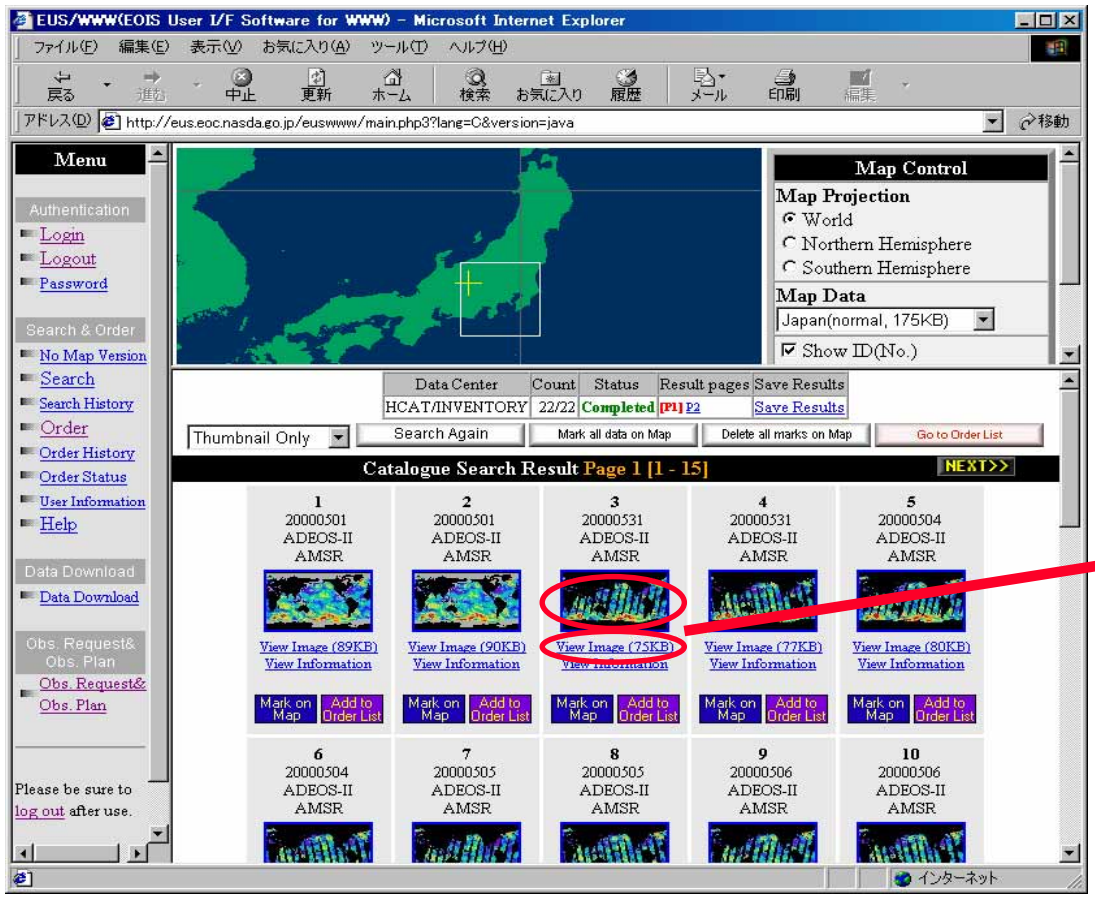
- Recording method to media
- Format (HDF fixed)

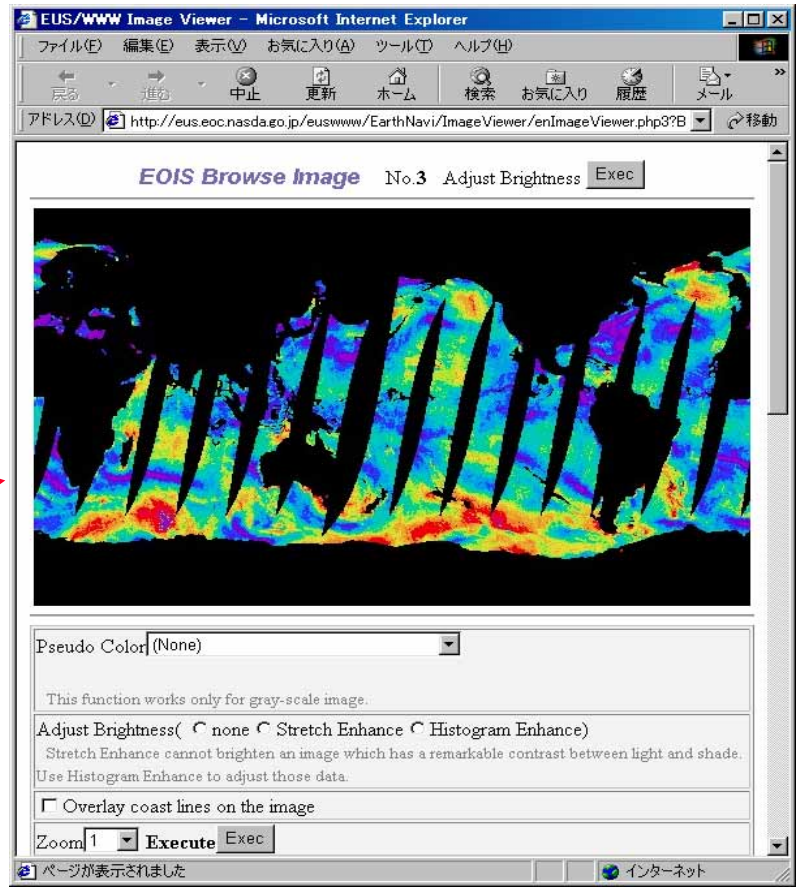
Step3

- Processing Parameter
  (Map projection method, etc.)
- Quantity



Browse image on EUS/WWW (sample of AMSR Level3)





Click “thumbnail” or “View Image” link

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EOIS

Catalog Information

- All of standard products processed at the EOC according to the observation plan will be available in the catalog search :
  - AMSR Level 1A, 1B
  - AMSR Level 2
  - AMSR Level 3
  - GLI-1km Level 1A, 1B
  - GLI-1km Level 2A
  - GLI-1km Level 2
  - GLI-1km Level 3 Binned
  - GLI-1km Level 3 STA Map
  - GLI-250m Level 1A, 1B

Browse search

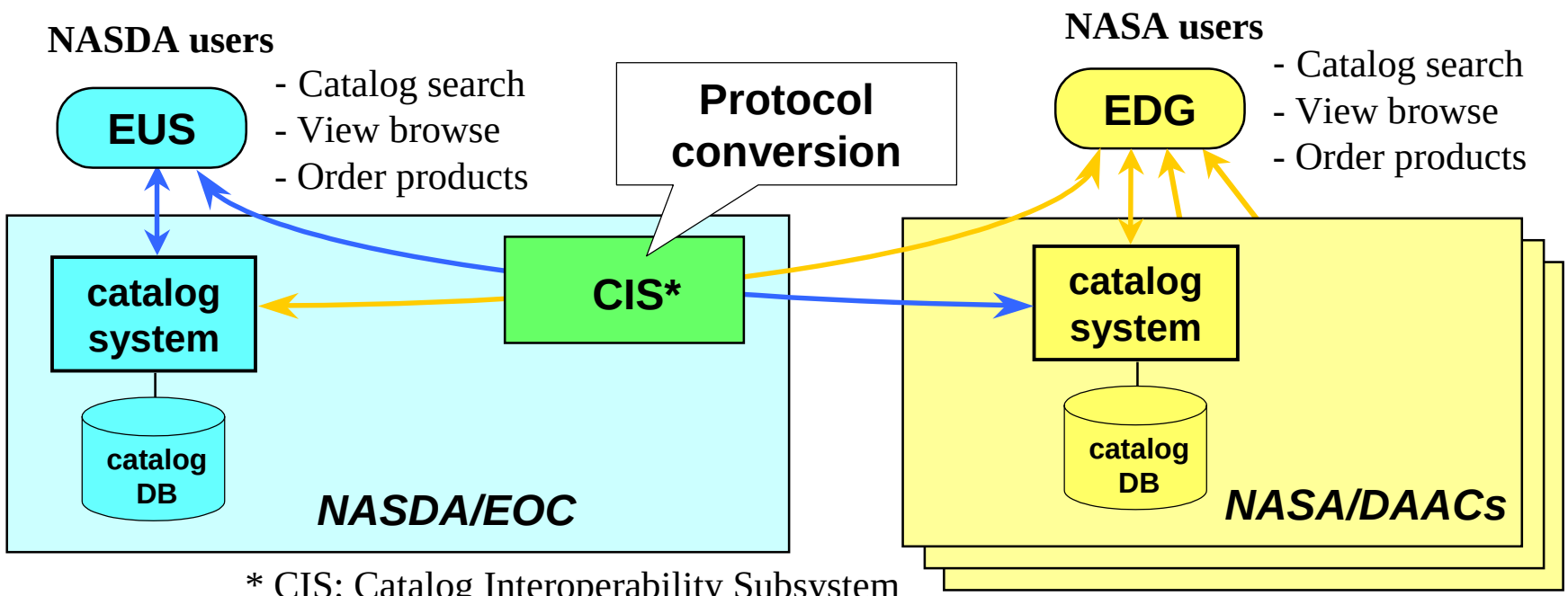
- Browse data of the following products are available via the EUS

-	AMSR	Level 3 (daily)	Brightness Temperature 6.9 GHz V (A/D)
-	AMSR	Level 3 (daily)	Brightness Temperature 36.5 GHz V (A/D)
-	AMSR	Level 3 (daily)	Brightness Temperature 89.0 GHz V (A/D)
-	AMSR	Level 3 (daily, monthly)	Water Vapor (A/D)
-	AMSR	Level 3 (daily, monthly)	Cloud Liquid Water (A/D)
-	AMSR	Level 3 (daily, monthly)	Amount of Precipitation (A/D)
-	AMSR	Level 3 (daily, monthly)	Sea Surface Wind speed (A/D)
-	AMSR	Level 3 (daily, monthly)	Sea Surface Temperature (A/D)
-	AMSR	Level 3 (daily, monthly)	Soil Moisture (A/D)
-	AMSR	Level 3 (daily, monthly)	Ice Concentration (A/D)
-	AMSR	Level 3 (daily, monthly)	Snow Water Equivalence (A/D)
-	GLI-1km	Level 1B	VNIR (R:ch.13, G:ch.8, B:ch.5)
-	GLI-1km	Level 1B	SWIR (ch.26)
-	GLI-1km	Level 1B	MTIR (ch.35)
-	GLI-1km	Level 2	All products processed according to plan (except for CLFLG_p and PGCP)
-	GLI-1km	Level 3 STA Map	All products
-	GLI-250m	Level 1B	(R:ch.22, G:ch.21, B:ch.20)

A : Ascending
D : Descending

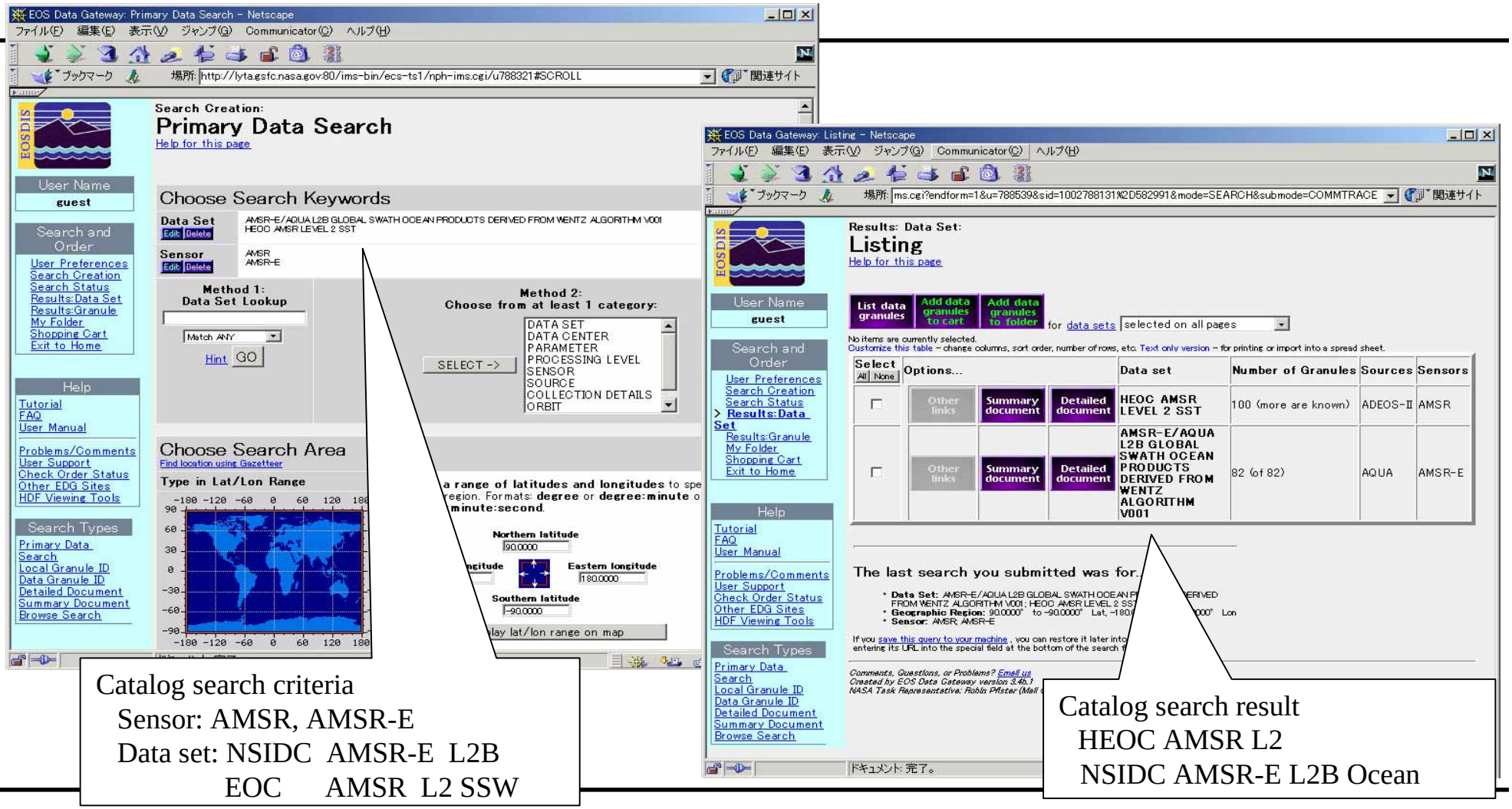
Catalog interoperability with NASA

- Both NASDA and NASA PIs can access ADEOS-II information service from NASDA and NASA data center using each client system provided each agencies



* CIS: Catalog Interoperability Subsystem

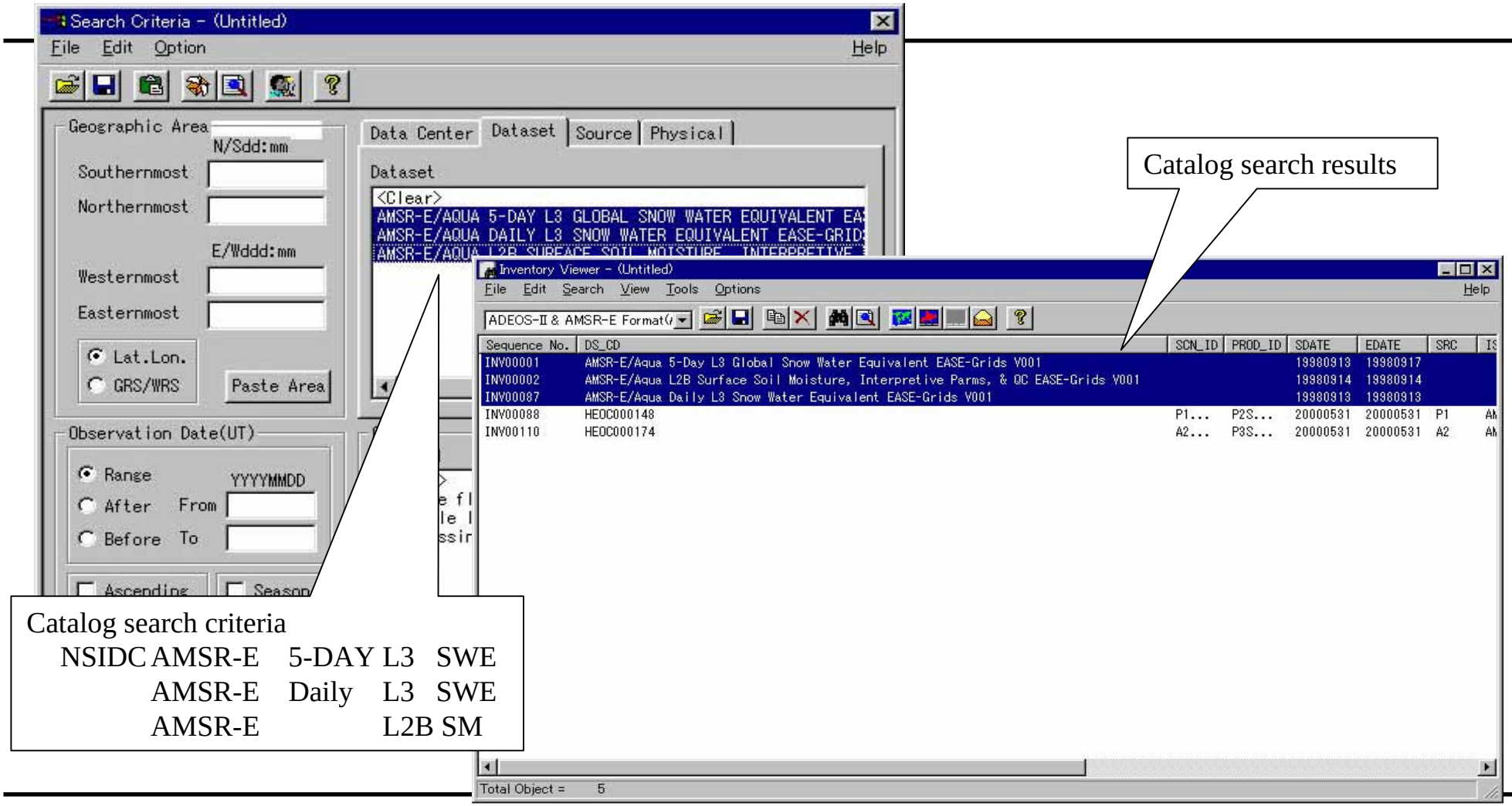
Catalog interoperability (access from NASA/EDG)



Catalog search criteria
- Sensor: AMSR, AMSR-E
- Data set: NSIDC AMSR-E L2B
  EOC AMSR L2 SSW

Catalog search result
- HEOC AMSR L2
- NSIDC AMSR-E L2B Ocean

Catalog interoperability (access from NASDA EUS/GUI)



Off-line data distribution

There are two ways of off-line data distribution

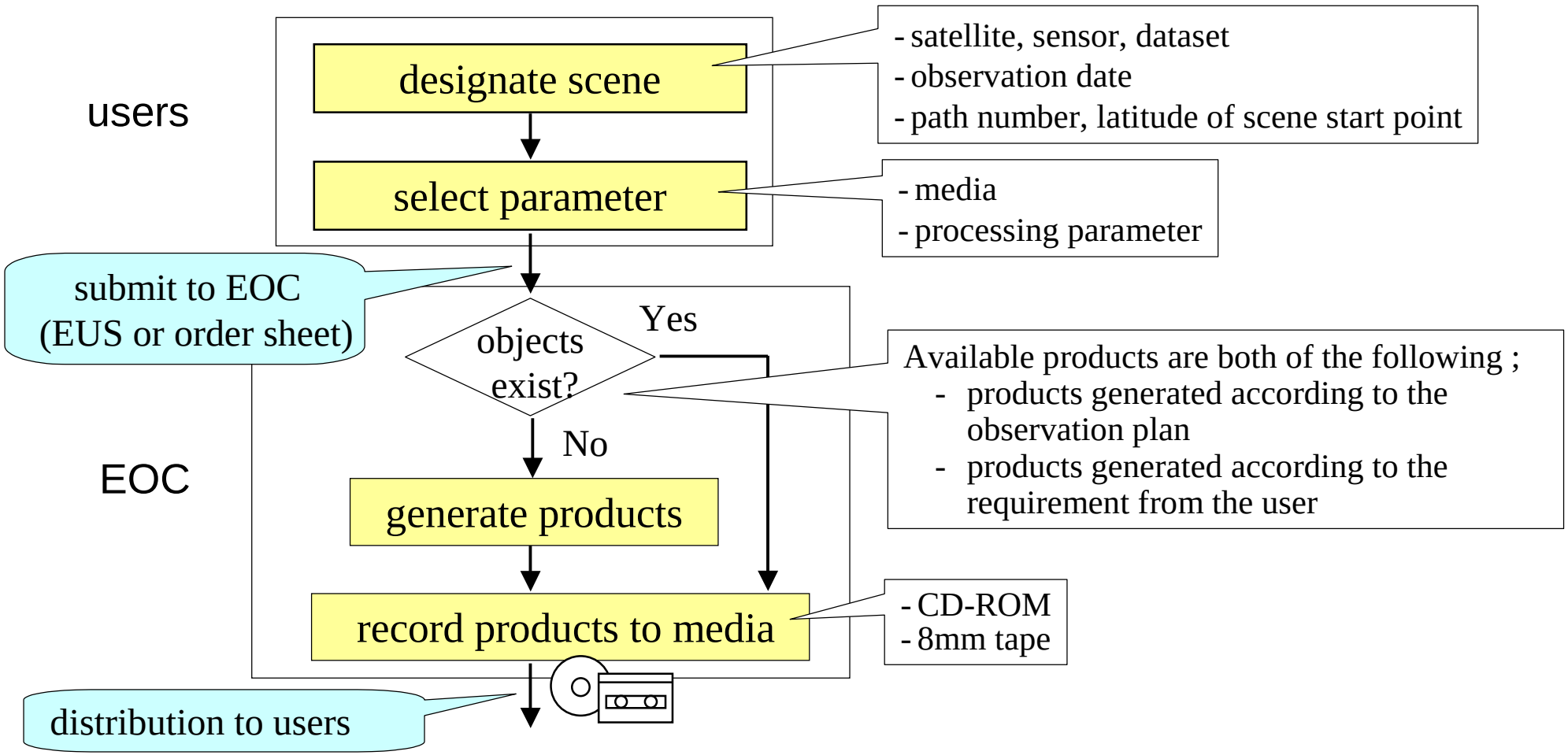
1. Standard product orders (Scene orders)
   - Distribution of each products identified in catalog searches
   - All standard products processed at the EOC are available
   - Ordering : both on-line by EUS and off-line by order sheet are available

2. Standing orders
   - Periodical distribution of products according to the requirements from users submitted beforehand
   - The following products, generated according to sensor observation plans, are available :

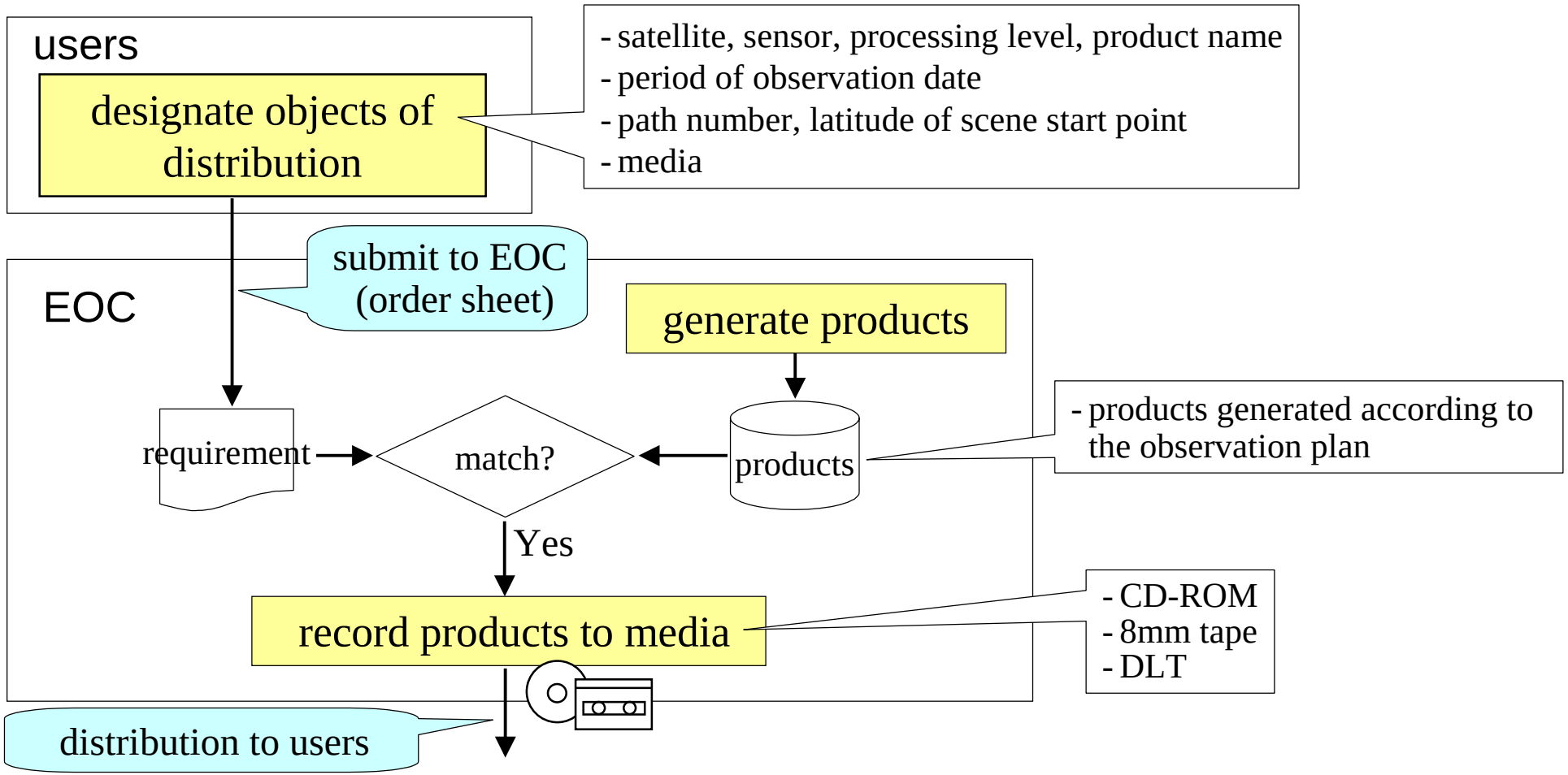
AMSR	Level 1A , 1B , 2 , 3
GLI-1km	Level 1A , 1B , 2 , 3 Binned , 3 STA Map
GLI-250m	Level 1A , 1B

   - Ordering : off-line interface only (contact point will be EORC order desk)
   - Standing order service is provided only to PIs and relevant agencies

Procedure of scene order method



Procedure of standing order method



Media and format

Scene order

	CD-ROM	8mm tape
Capacity	650 MB	5 GB
Recording Format	Joliet*	tar
Data Format	NCSA-HDF	NCSA-HDF

* Enhancement format of ISO9660, long file name is available

Standing order

	CD-ROM	8mm tape	DLT
Capacity	650 MB	5 GB	35 GB
Recording Format	Joliet*	tar**	tar**
Data Format	NCSA-HDF	NCSA-HDF	NCSA-HDF

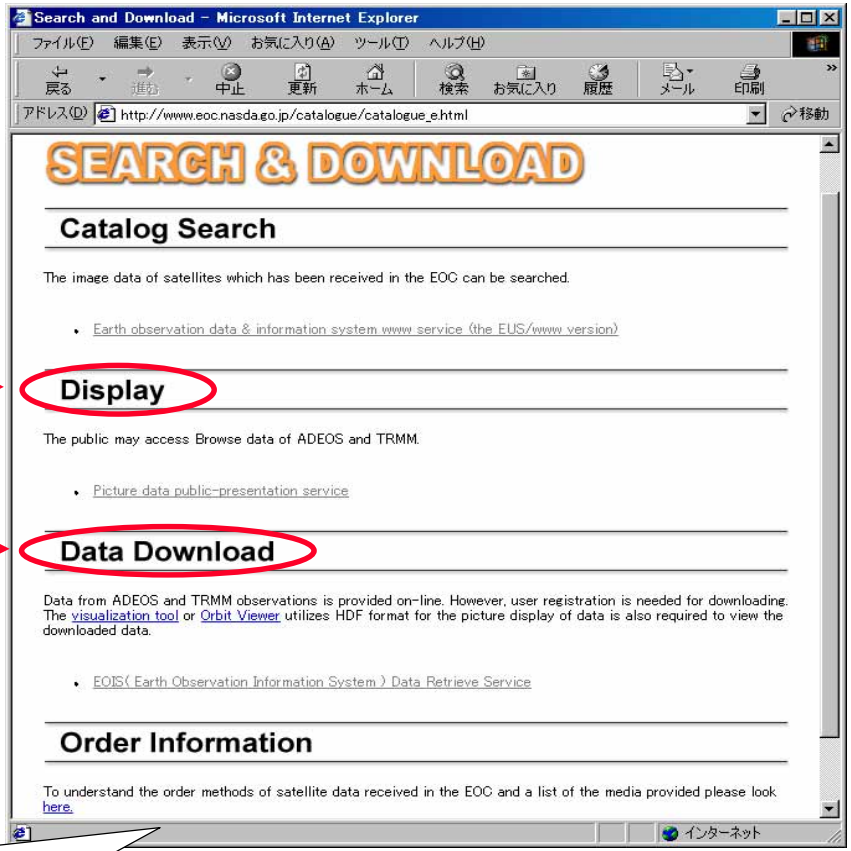
** Every file is archived by “tar command” and added to the media

- DVD will be available after the increase of distribution capacity

On-line data distribution

There are three services in on-line data distribution

1. Exhibition of graphical images on the WWW > “Display”
2. Distribution of standard products via the internet > “Data Download”
3. Data transmission to relevant agencies



http://www.eoc.nasda.go.jp/catalogue/catalogue_e.html

Top page of graphical image sevice

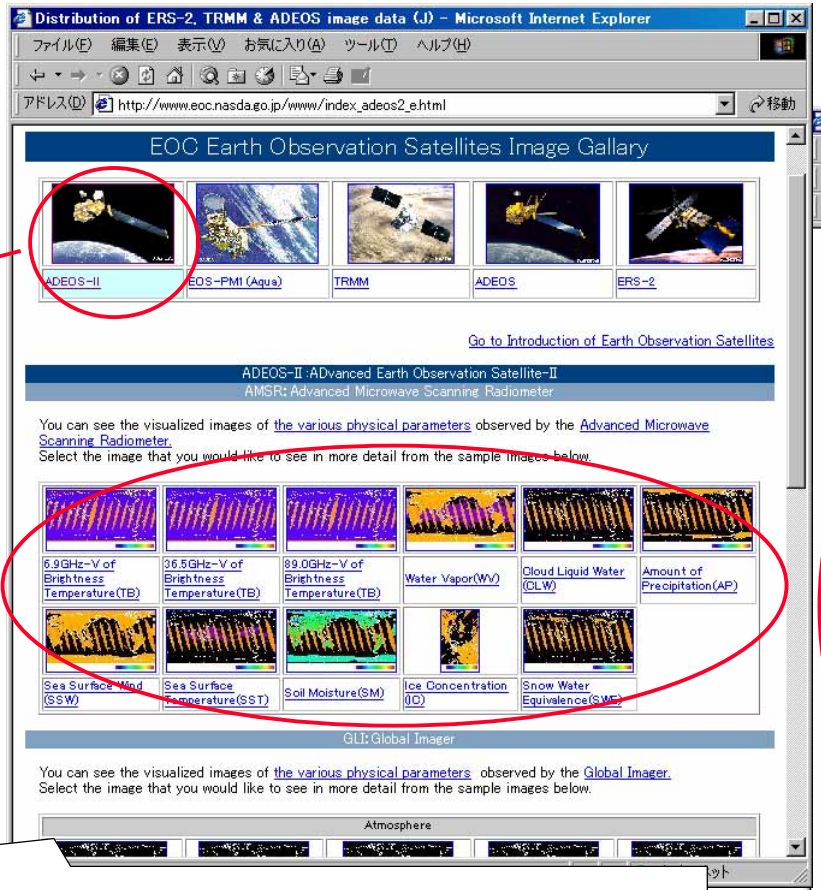
EOC homepage

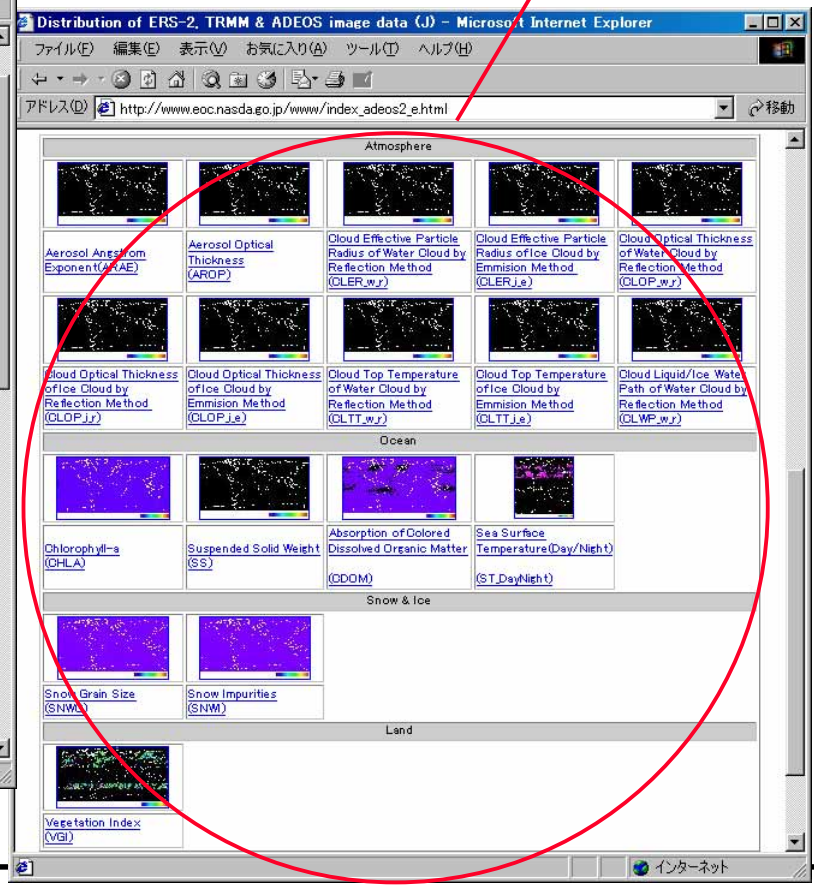
> Display

ADEOS-II

AMSR products

GLI products



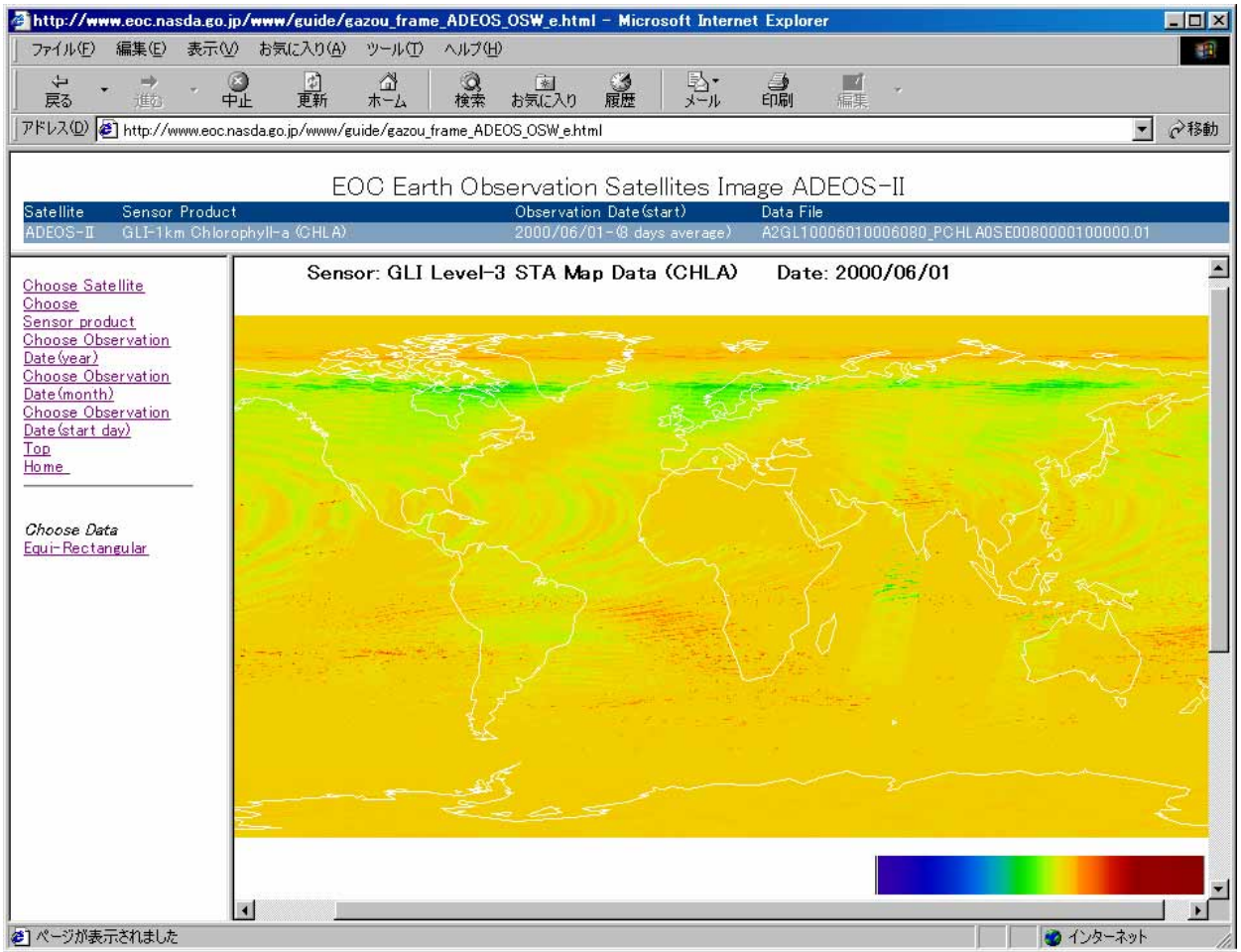


http://www.eoc.nasda.go.jp/www/index_e.html

Graphical images (sample of GLI-1km)

Users choose :

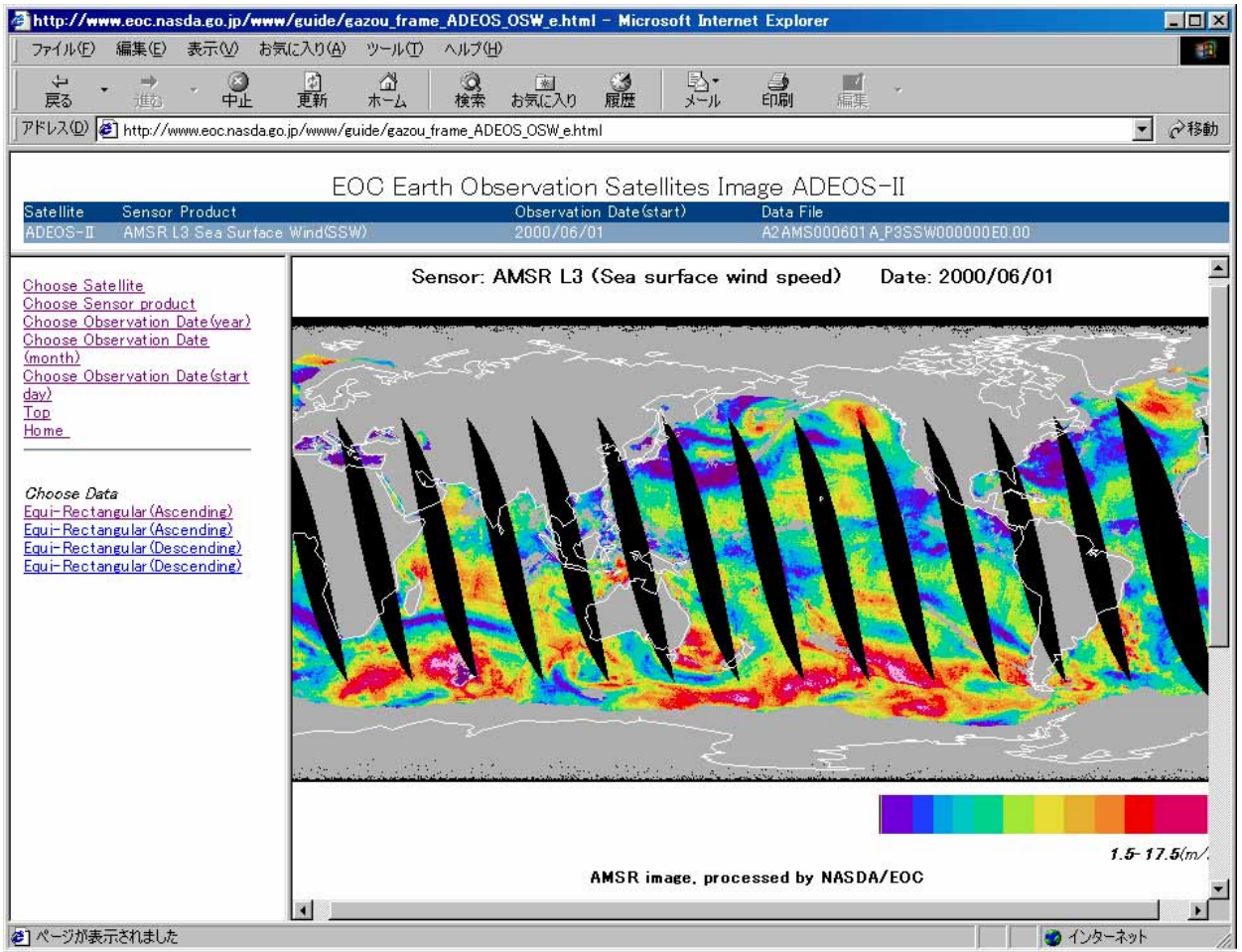
- satellite
- sensor
- product name
- observation date
- processing period
  (8days, 16days, 1month)
- map projection



Graphical images (sample of AMSR)

Users choose :

- satellite
- sensor
- product name
- observation date
- processing period (day / month)
- map projection
- orbit direction (Ascending / Descending)



Available products of graphical images (AMSR)

- Graphical images (GIF) of the following products are available on the WWW:

- AMSR	Level 3 (daily)	Brightness Temperature 6.9 GHz V (A/D)
- AMSR	Level 3 (daily)	Brightness Temperature 36.5 GHz V (A/D)
- AMSR	Level 3 (daily)	Brightness Temperature 89.0 GHz V (A/D)
- AMSR	Level 3 (daily, monthly)	Water Vapor (A/D)
- AMSR	Level 3 (daily, monthly)	Cloud Liquid Water (A/D)
- AMSR	Level 3 (daily, monthly)	Amount of Precipitation (A/D)
- AMSR	Level 3 (daily, monthly)	Sea Surface Wind speed (A/D)
- AMSR	Level 3 (daily, monthly)	Sea Surface Temperature (A/D)
- AMSR	Level 3 (daily, monthly)	Soil Moisture (A/D)
- AMSR	Level 3 (daily, monthly)	Ice Concentration (A/D)
- AMSR	Level 3 (daily, monthly)	Snow Water Equivalence (A/D)

A : Ascending
D : Descending

Available products of graphical images (GLI)

- Graphical images (GIF) of the following GLI-1km products are available on the WWW:

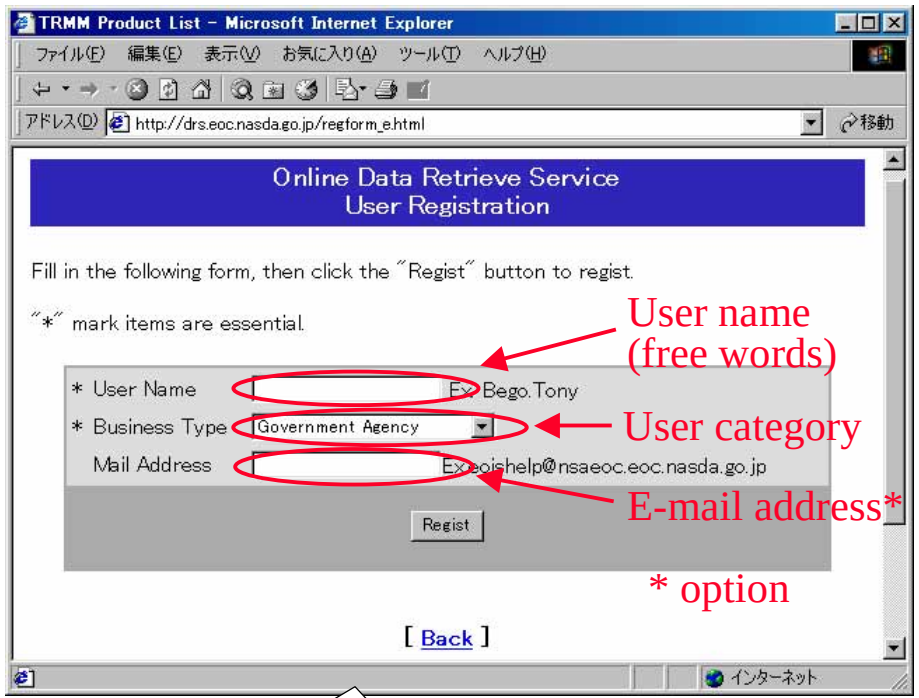
- GLI-1km	Level 3 STA Map (16days, 1month)	ARAE (16days, 1 month)	Atmosphere
- GLI-1km	Level 3 STA Map (16days, 1month)	AROP (16days, 1 month)	
- GLI-1km	Level 3 STA Map (16days, 1month)	CLER_w_r, CLER_i_e	
- GLI-1km	Level 3 STA Map (16days, 1month)	CLOP_w_r, CLOP_i_r, CLOP_i_e	
- GLI-1km	Level 3 STA Map (16days, 1month)	CLTT_w_r, CLTT_i_e	
- GLI-1km	Level 3 STA Map (16days, 1month)	CLWP_w_r	
- GLI-1km	Level 3 STA Map (8days, 1month)	CHLA	Ocean
- GLI-1km	Level 3 STA Map (8days, 1month)	SS	
- GLI-1km	Level 3 STA Map (8days, 1month)	CDOM	
- GLI-1km	Level 3 STA Map (8days, 1month)	ST_DayNight	
- GLI-1km	Level 3 STA Map (16days)	VGI	Land
- GLI-1km	Level 3 STA Map (16days, 1month)	SNWG	Cryosphere
- GLI-1km	Level 3 STA Map (16days, 1month)	SNWI	

On-line data distribution (Data Download)

Standard products distribution

- The following products are available via the internet during the most recent 6 months
  - All of AMSR Level 3 products
  - All of GLI-1km Level 3 STA Map products

    (except for NW, LA, K490, ST_DayNight, because of the large file size)
- This service is available to all registered users, including PIs
- User account will be issued immediately



User registration window

Top page of data download service

EOC Homepage

> **Data Download**

1) registration

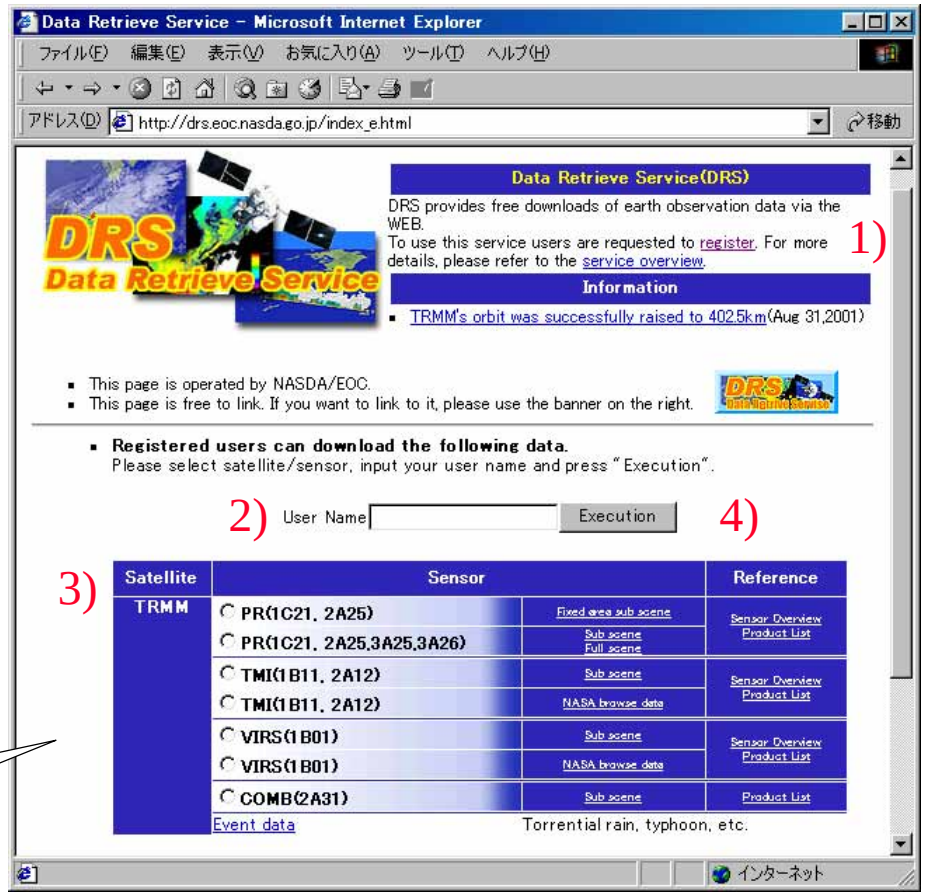
2) enter user name

3) check satellite/sensor

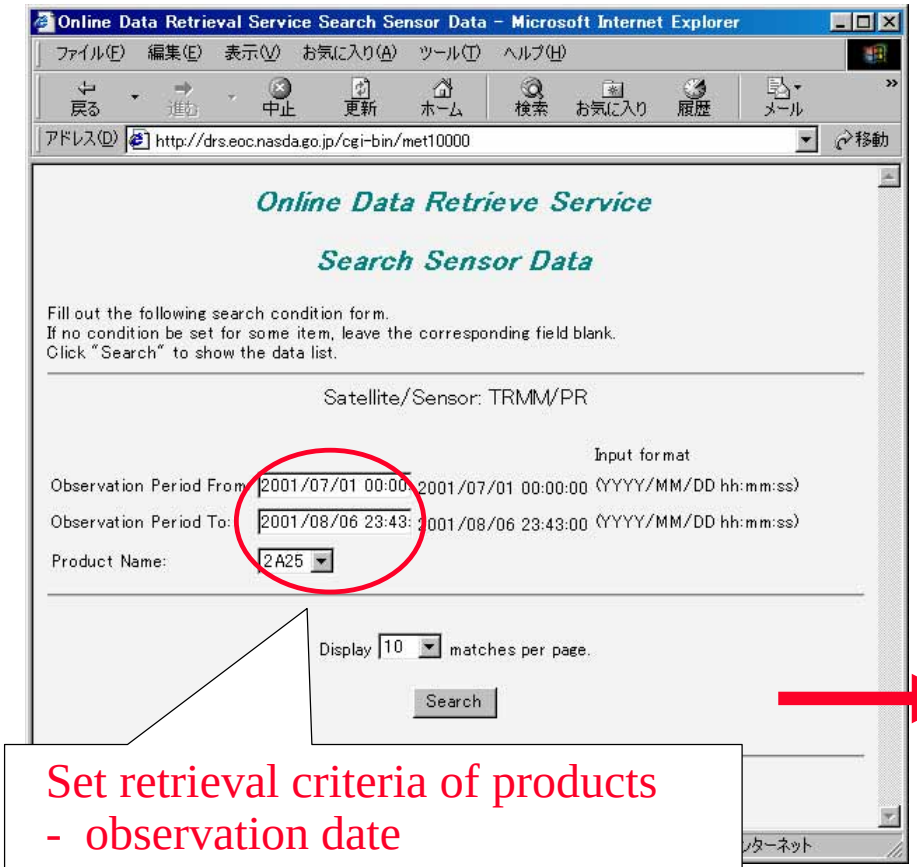
4) push “Execution”

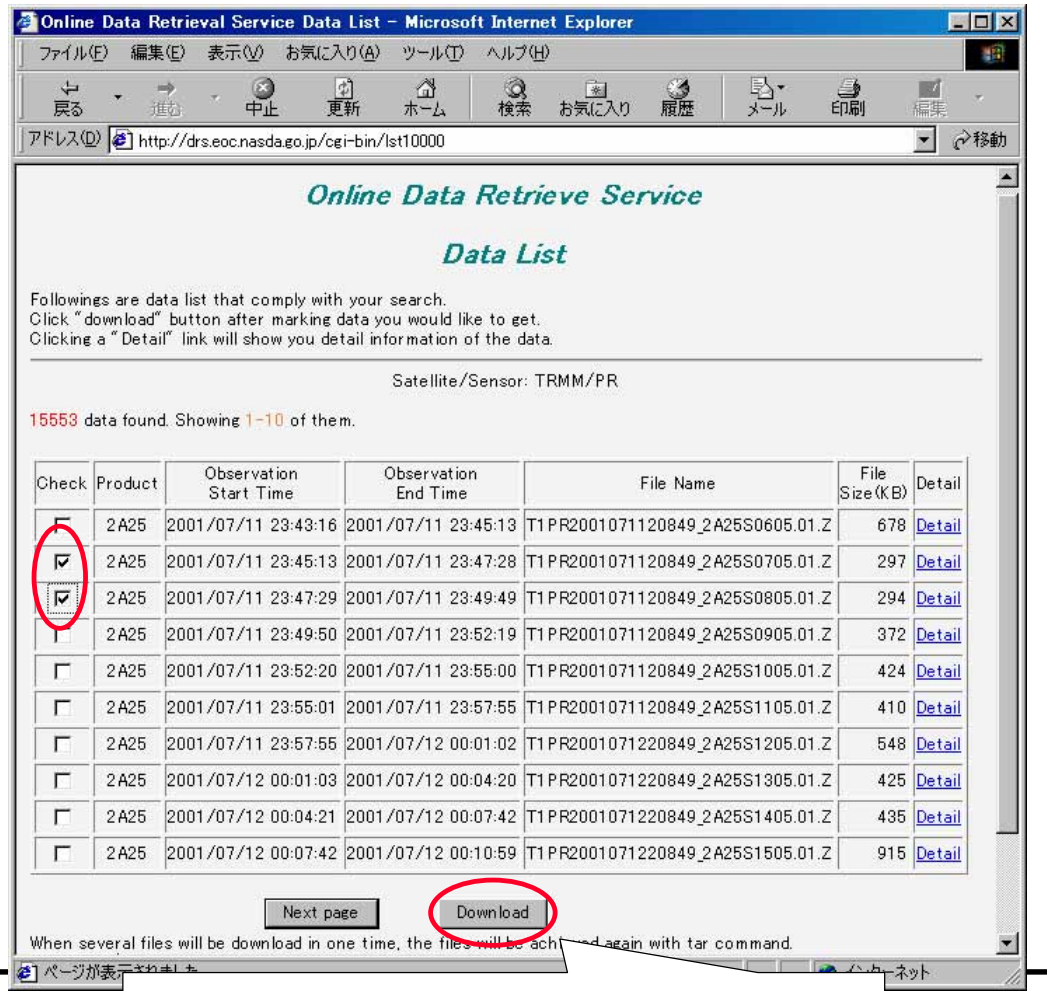
*** Currently, only TRMM products are available**

http://drs.eoc.nasda.go.jp/index_e.html



Selection of download products



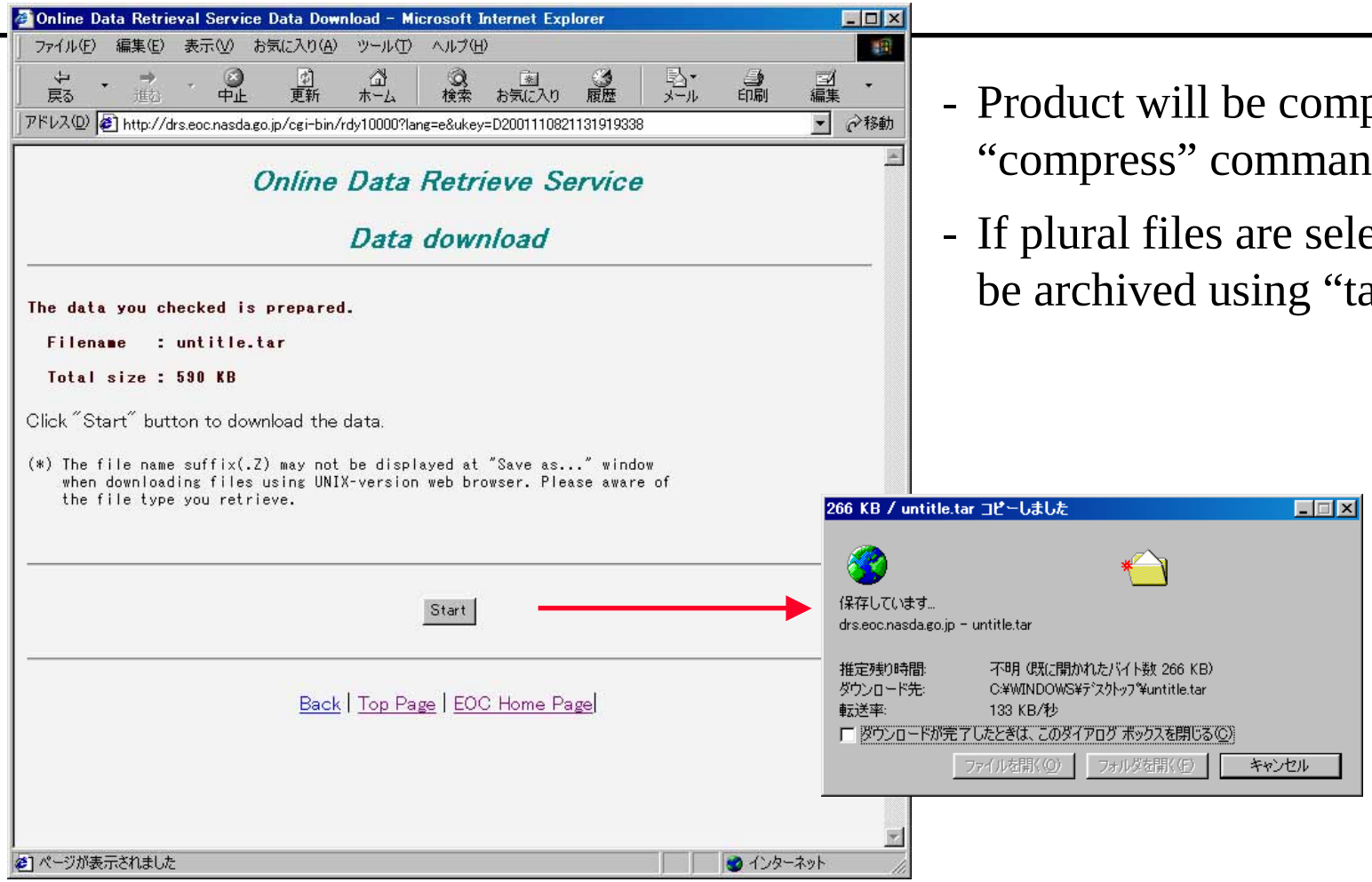


Check	Product	Observation Start Time	Observation End Time	File Name	File Size(KB)	Detail
☐	2A25	2001/07/11 23:43:16	2001/07/11 23:45:13	T1PR2001071120849_2A25S0605.01.Z	678	Detail
☑	2A25	2001/07/11 23:45:13	2001/07/11 23:47:28	T1PR2001071120849_2A25S0705.01.Z	297	Detail
☑	2A25	2001/07/11 23:47:29	2001/07/11 23:49:49	T1PR2001071120849_2A25S0805.01.Z	294	Detail
☐	2A25	2001/07/11 23:49:50	2001/07/11 23:52:19	T1PR2001071120849_2A25S0905.01.Z	372	Detail
☐	2A25	2001/07/11 23:52:20	2001/07/11 23:55:00	T1PR2001071120849_2A25S1005.01.Z	424	Detail
☐	2A25	2001/07/11 23:55:01	2001/07/11 23:57:55	T1PR2001071120849_2A25S1105.01.Z	410	Detail
☐	2A25	2001/07/11 23:57:55	2001/07/12 00:01:02	T1PR2001071220849_2A25S1205.01.Z	548	Detail
☐	2A25	2001/07/12 00:01:03	2001/07/12 00:04:20	T1PR2001071220849_2A25S1305.01.Z	425	Detail
☐	2A25	2001/07/12 00:04:21	2001/07/12 00:07:42	T1PR2001071220849_2A25S1405.01.Z	435	Detail
☐	2A25	2001/07/12 00:07:42	2001/07/12 00:10:59	T1PR2001071220849_2A25S1505.01.Z	915	Detail

Set retrieval criteria of products
- observation date
- processing level
- product name

Select products and begin download

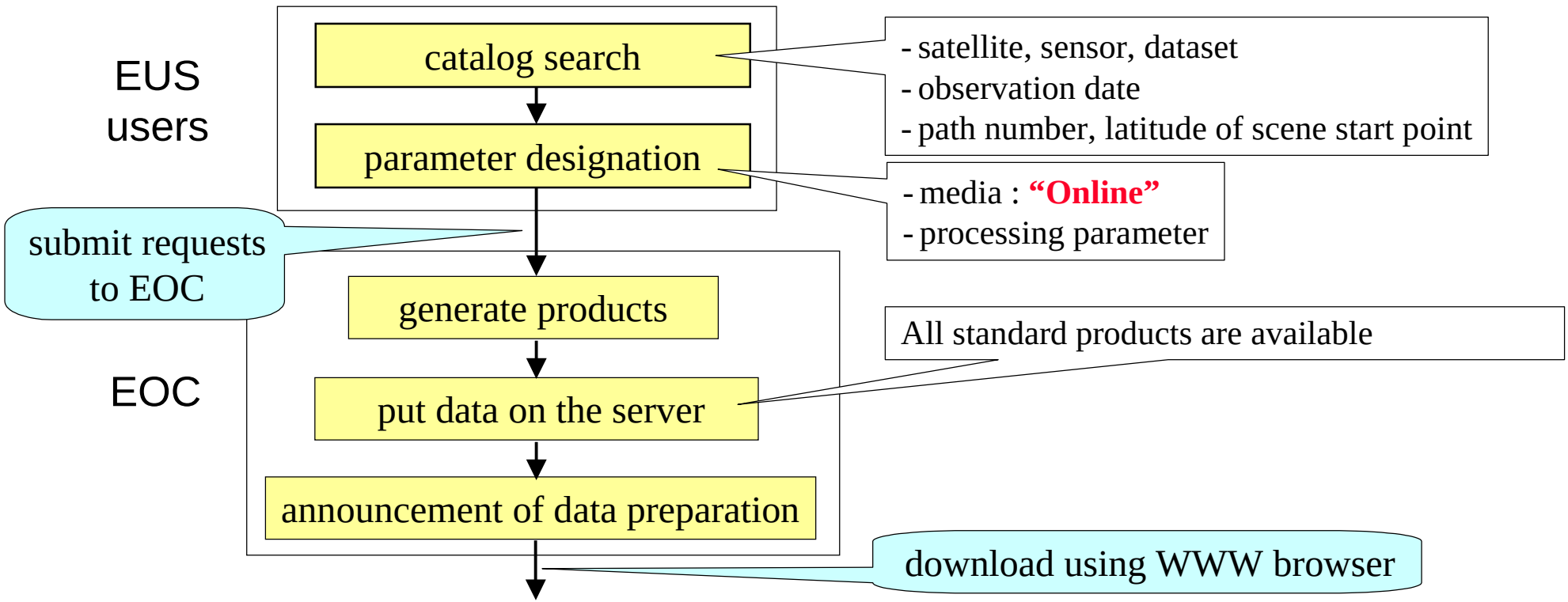
Format of download data



- Product will be compressed using “compress” command
- If plural files are selected, products will be archived using “tar” command

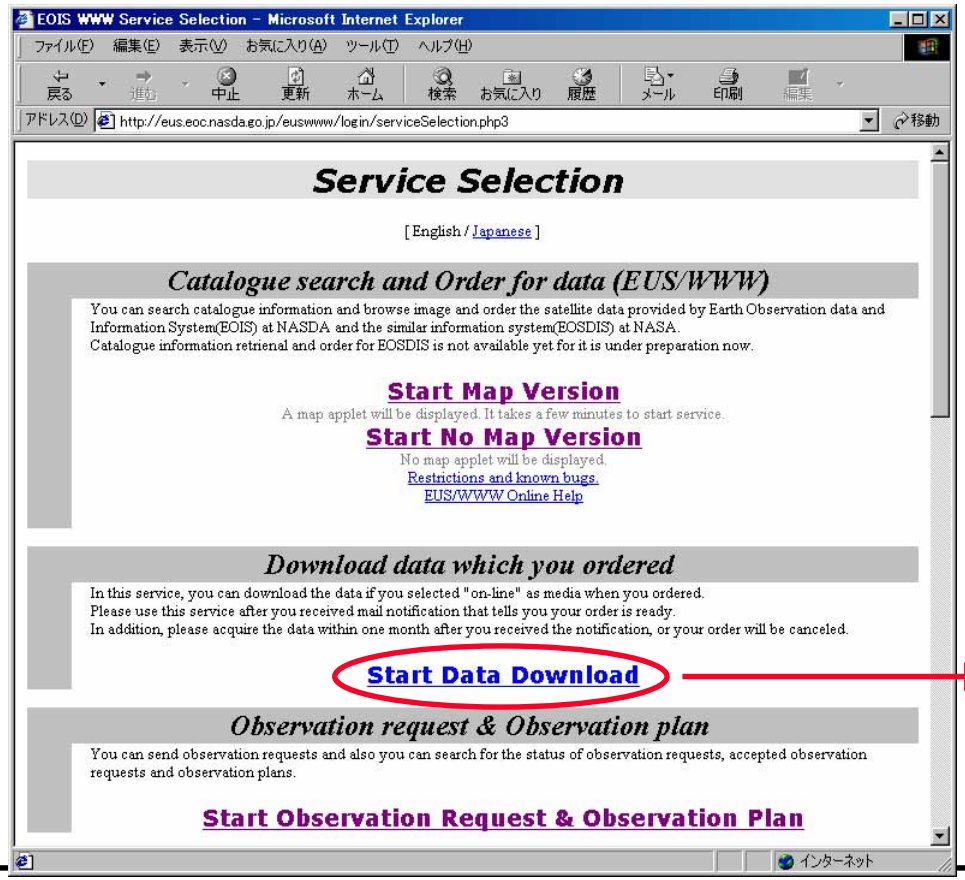
On-line distribution according to the scene order

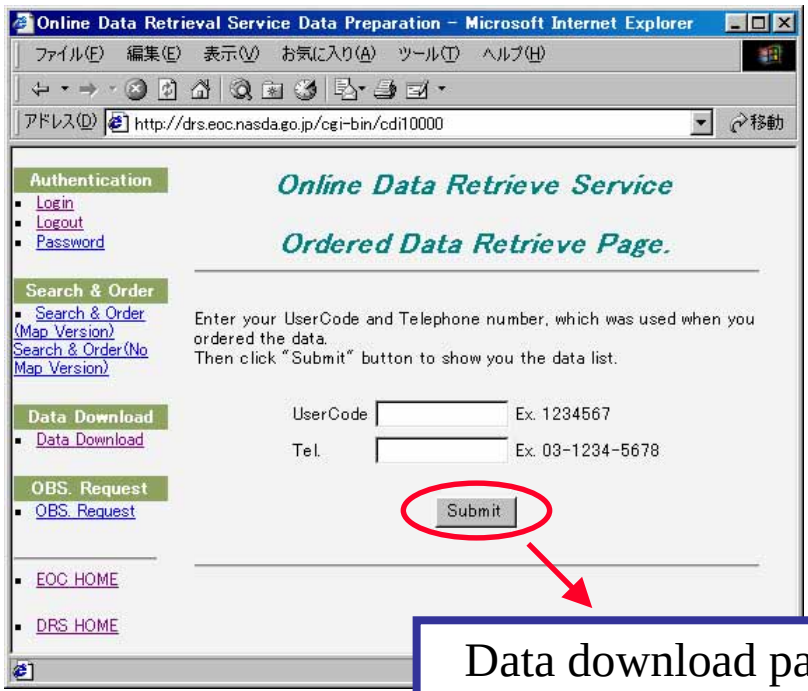
- Designating the “on-line” option, EUS users are able to receive every standard products via the internet (only for PIs)



Ordered data retrieve

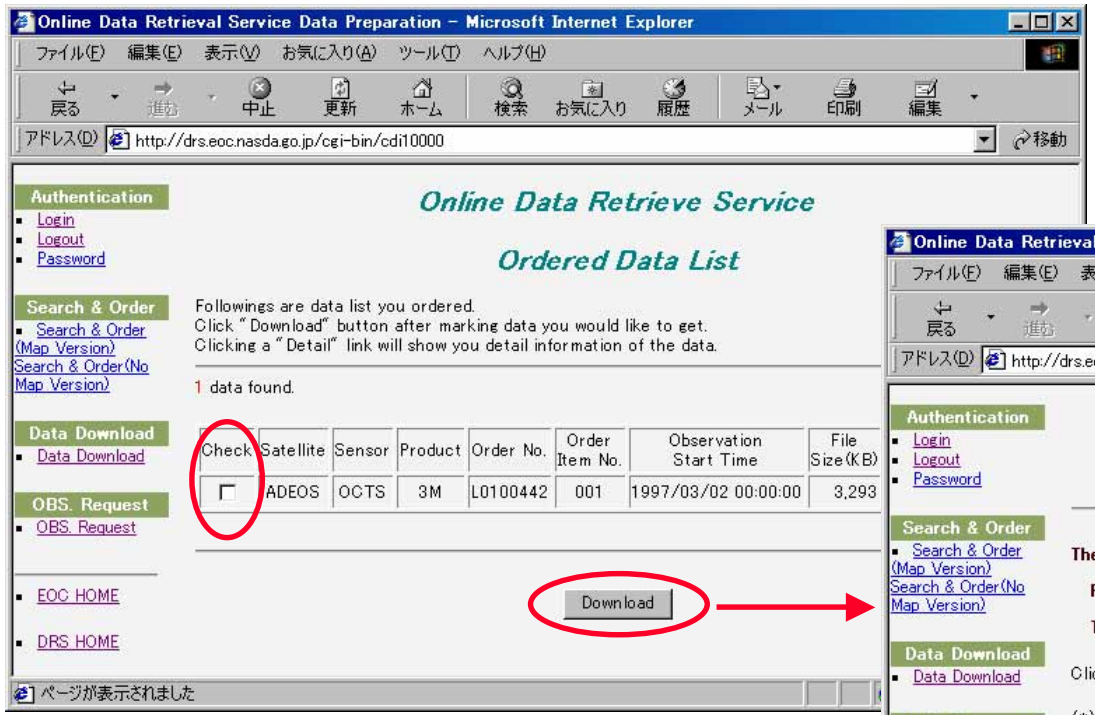
EOC Homepage > Search & Download > Catalog Search (EOIS WWW Service Login) >

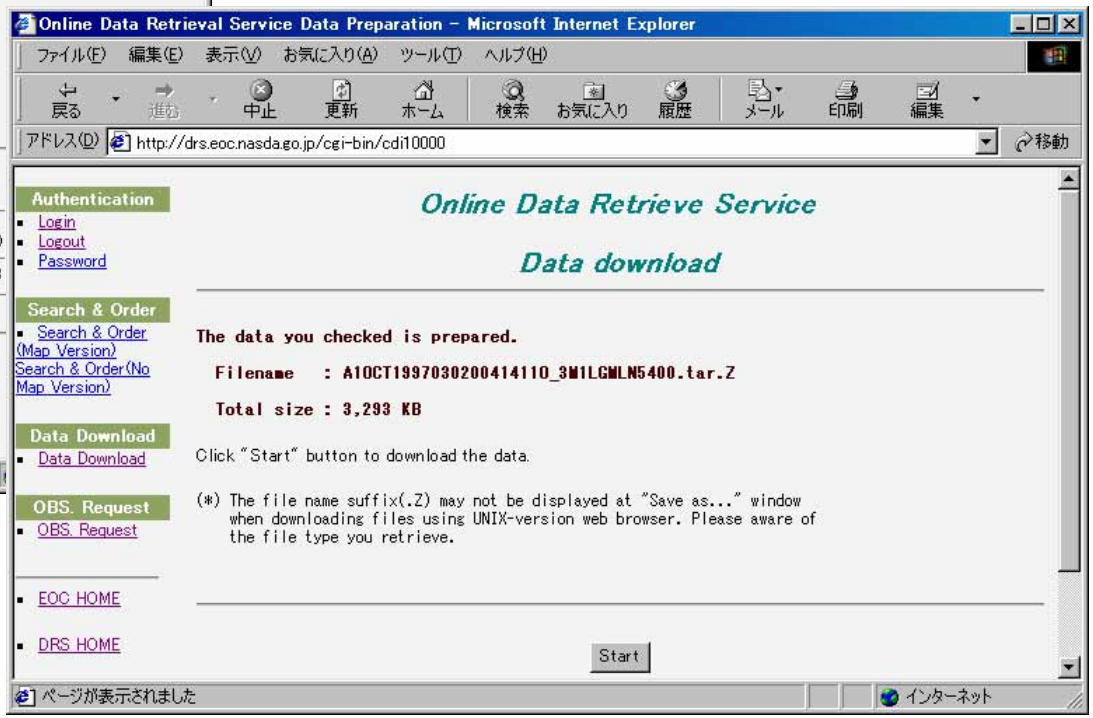




Data download page

Ordered data download page





- Products will be archived using "compress" and "tar"

On-line data transmission

Near real-time data transmission

- The following data processed at the EOC are transmitted to relevant agencies immediately
  - AMSR Level 1A : JPL/PO.DAAC
  - AMSR Level 1B : EORC , JMA
  - AMSR Level 2 : EORC , JMA , JAFIC
  - GLI-1km Level 1B : EORC*, NOAA , JMA
  - GLI-1km Level 2 : EORC , JMA
  - GLI-1km Level 2 Map : EORC , JMA , JAFIC

* until the start of transmission to the JMA

NASDA
NATIONAL SPACE DEVELOPMENT AGENCY OF JAPAN

EOIS

Availability of each services

Services		PIs	the Public
EUS/GUI	Catalog and Browse	Available	N/A
	Scene Order	Available	N/A
EUS/WWW	Catalog and Browse	Available	Available
	Scene Order	Available	N/A
Standing Order		Available	N/A
Graphical images on the WWW		Available	Available
Data Download		Available	Available
Ordered Data Download		Available	N/A

Data distribution schedule from EOC

Services	Launch - L+4M	L+4M - L+9M	L+9M - L+12M	L+12M -
Catalog search and Data distribution	Distribution of sample data			AMSR level 1 products release to PIs
	Distribution of sample data			GLI level 1 products release to PIs
				AMSR level 1 products release to the public
				GLI level 1 products release to the public
				AMSR and GLI higher level products release
Graphical images on the WWW				Graphical image of AMSR and GLI data release
Data download via the internet				On-line data distribution service of AMSR and GLI release