



# ADEOS-II

## Data Acquisition and Distribution

13-14 December, 2000

Workshop on ADEOS-II Data Utilization in Asia and Pacific Region  
Bangkok, Thailand

Yasuyuki ITO  
Earth Observation Research Center

# ADEOS-II Mission Operations

ADEOS-II is a GLOBAL observing satellite.

- AMSR, GLI and SeaWinds are basically 100% duty global observation.
- ILAS-II : sun-rise & sun-set
- POLDER : day time
- GLI operation parameters are only:
  - Tilt operation; +20deg., 0, -20deg.
  - 250m resolution data acquisition

# ADEOS-II Mission Operations

## Tilt Nominal Operation

- Nadir at Land
- Ocean
  - 60deg.N to 60deg.S : 20deg. Tilt
  - Higher than 60deg. : Nadir
  - Staggered by orbit

# ADEOS-II Mission Operations

- Operation requirements of GLI from science community summarized at EORC.
- Atmosphere, Ocean, Land, Cryosphere - GLI team leaders and EORC Mission Manager will be the focal points.
- ILAS-II, SeaWinds, POLDER operation requirements will be directly from sensor providing agency to EOC.

# ADEOS-II Mission Operations

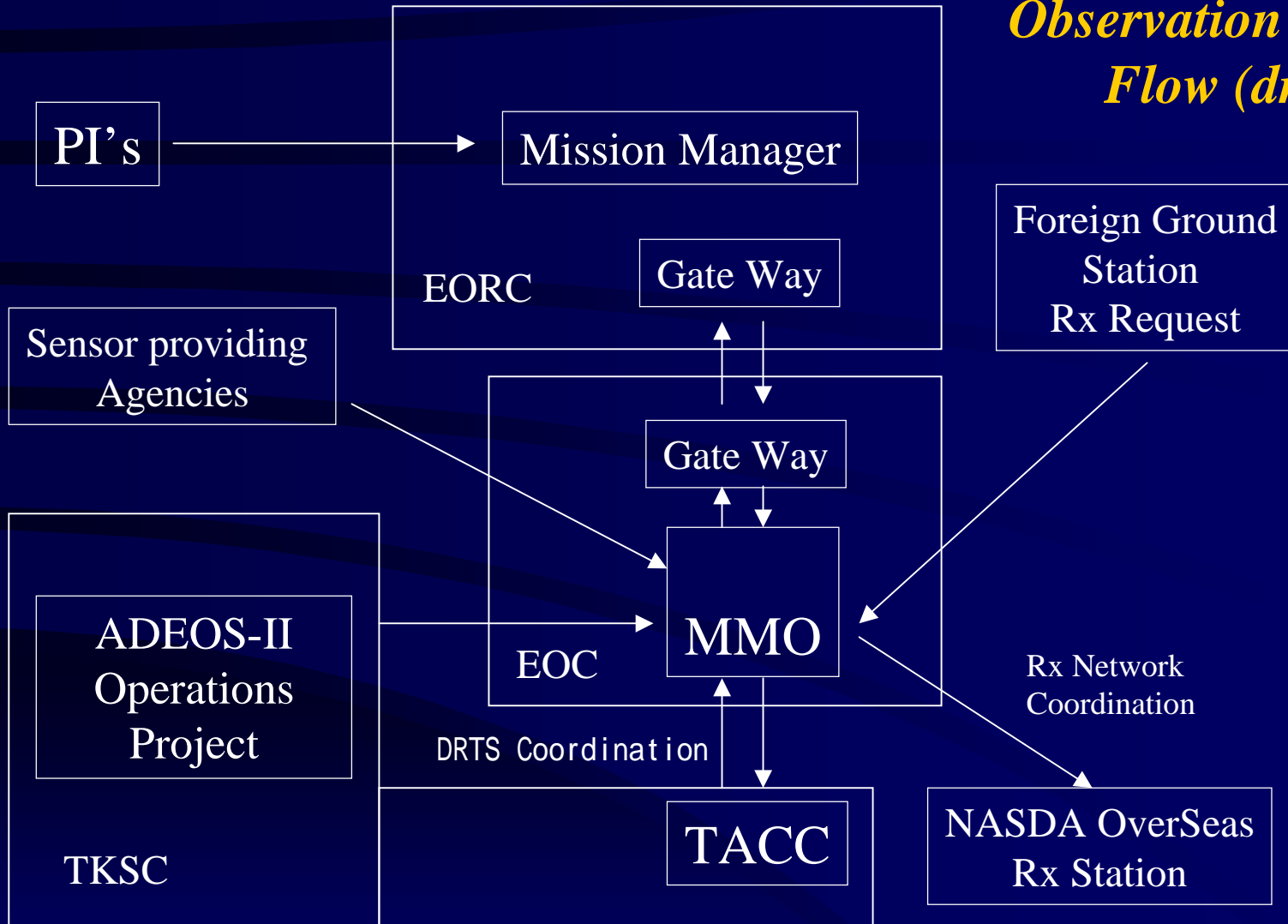
GLI 250m resolution data acquisition depends on :

- Data Relay Test Satellite (DRTS),
- ARTEMIS - ESA's data relay satellite,
- Optical Data Recorder (ODR; Engineering Test Payload of MO disk recorder technology),
- Orbital power & thermal budget of satellite operation.

# ADEOS-II Mission Operations

- Mission Operation final Planning & Operation results will be open on the WEB.
- Global observation has priority.
- GLI 250m regional observation to be within system resources.
- Data request procedure will be through another system.

# ADEOS-II Observation Request Flow (draft)



# ADEOS-II Data Distribution

Different by:

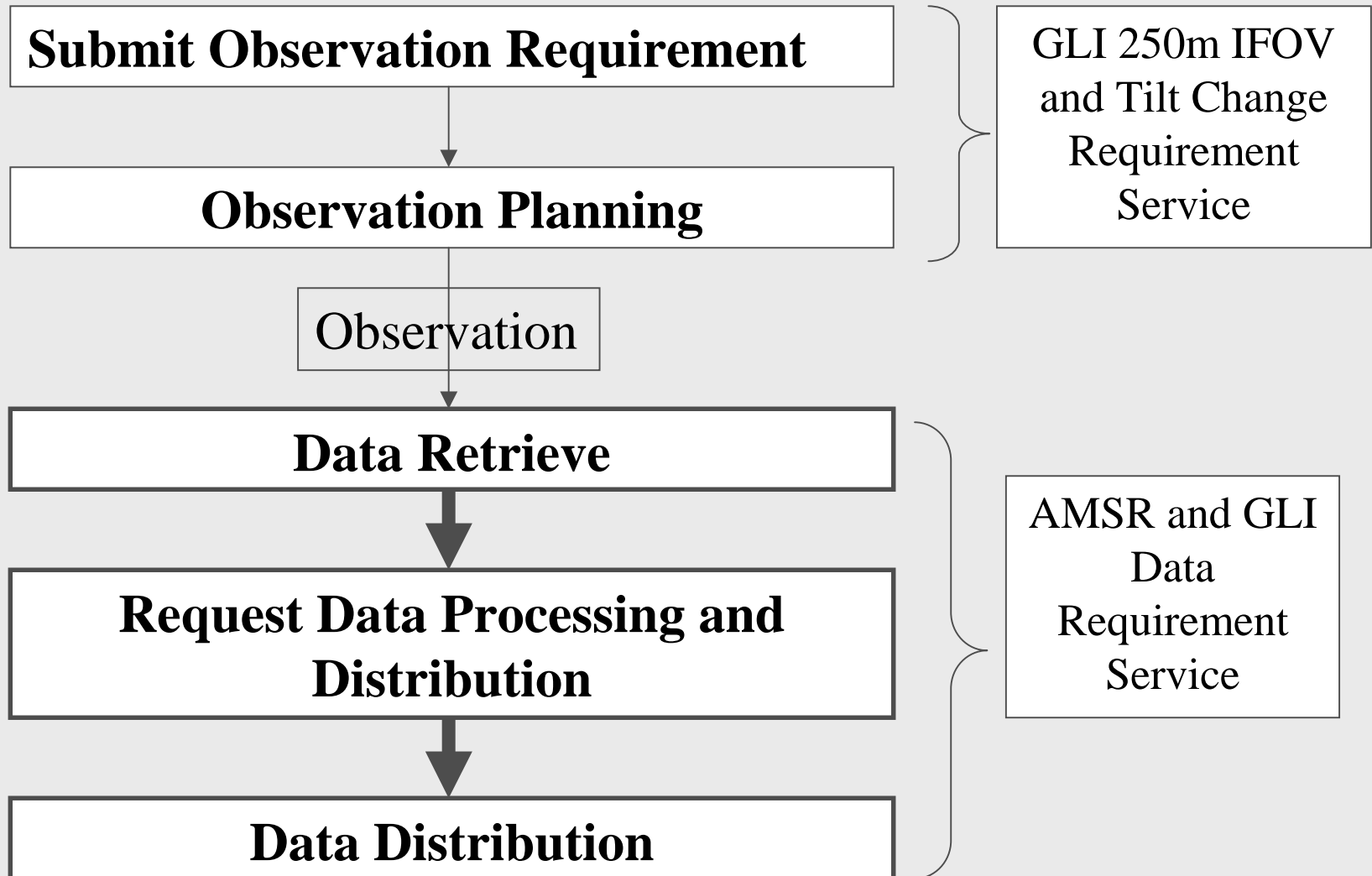
- Phase (When)
  - Cal/Val Phase, Data Utilization Phase (L+12M)
- User Category (Who)
  - NASDA, PI, MOU Organizations, Public
- Data Category (What)
  - Level-1, Level-2/3
  - Validated, Non-Validated



# ADEOS-II Data Distribution

- EOC is receiving, archiving, processing and distributing center
- EORC is algorithm development, update, calibration & validation center
- Validated Level 1 and Level 2 data will be available at EOC 12 months (TBD) after launch for public.
- PI's will have access to data at EORC before EOC public data release.

# Science User Service Flow



[CAL/VAL Phase] ( L+3M ~ L+12M )



Users \ Services	GLI Observation Requirement	AMSR/GLI Data Requirement		
		Data Retrieve	Data processing Requirement	Data Distribution Requirement
CAL/VAL PI and Algorithm PI			×	
Research Algorithm PI	×		×	
Earth Science PI	×	×	×	×

Data Products	Users	Reception desk
Unvalidated Level 1B products, Unvalidated standard products, Research products, Match up data	Cal/Val PI and Standard Algorithm PI, Research Algorithm PI	EORC

## 【Routine Operation & Data Utilization Phase】 ( L+12M ~ )

Users \ Services	GLI Observation Requirement	AMSR/GLI Data Requirement		
		Data Retrieve	Data processing Requirement	Data Distribution Requirement
CAL/VAL PI and Algorithm PI				
Research Algorithm PI				
Earth Science PI				

Data Products	Users	Reception desk
Level 1B products, Standard products	Cal/Val PI and Standard Algorithm PI, Research Algorithm PI, Earth Science PI	EOC (EORC)
Unvalidated standard products (improved version), Research products, Match up data	Cal/Val PI and Standard Algorithm PI, Research Algorithm PI, Earth Science PI	EORC

## **ADEOS-II Science User Support Desk :**

**E-mail:** [ad2help@restec.or.jp](mailto:ad2help@restec.or.jp)

**FAX:** +81-3224-7051

**URL:** <http://www.eorc.nasda.go.jp/>

**Phone:** +81-3-3224-TBD

**Address:** Earth Observation Research Center

National Space Development Agency of Japan

1-9-9, Roppongi, Minato-ku, Tokyo 106-0032, Japan

## **User Guide Book for ADEOS-II Observation Requirement and Data Requirement Service :**

**for PI : ready at URL:** <http://eorc.nasda.go.jp/pisdoor/>

**for General Users : under preparation**

# User Services from EOC

## 1. Catalogue information

- Catalogue search
- Browse search
- Product Order

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

- Scene orders
- Standing orders

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

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

# Catalogue Information

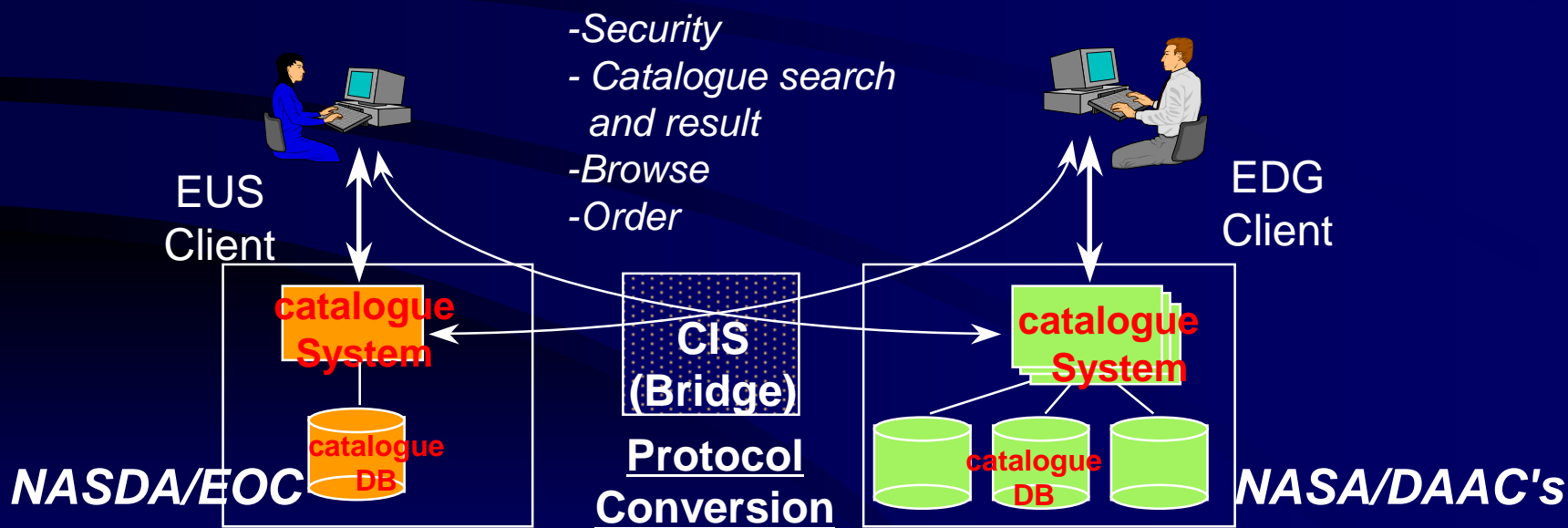
- Data Ordering
  - Users can submit orders for products identified in catalogue searches by the EUS ( EOIS User Software )



**URL:** [http://www.eoc.nasda.go.jp/catalogue/catalogue\\_e.html](http://www.eoc.nasda.go.jp/catalogue/catalogue_e.html)

# Catalogue Interoperability with NASA

- NASDA and NASA will implement catalogue, browse and order interoperability for the ADEOS-II phase





# Off-line Data Distribution

1. Standard product orders (Scene orders)
  - distribution of each products identified in catalogue searches
2. Standing orders ( Note: PI only )
  - periodic distribution of products according to requirements submitted in advance

# Off-line Data Distribution

## Standard product orders (Scene orders)

- Media : 8mm, CD-ROM, DLT
- Ordering : both on-line by EUS and off-line by FAX are available
- Format : NCSA-HDF
- Scene editing : will not be supported at the EOC

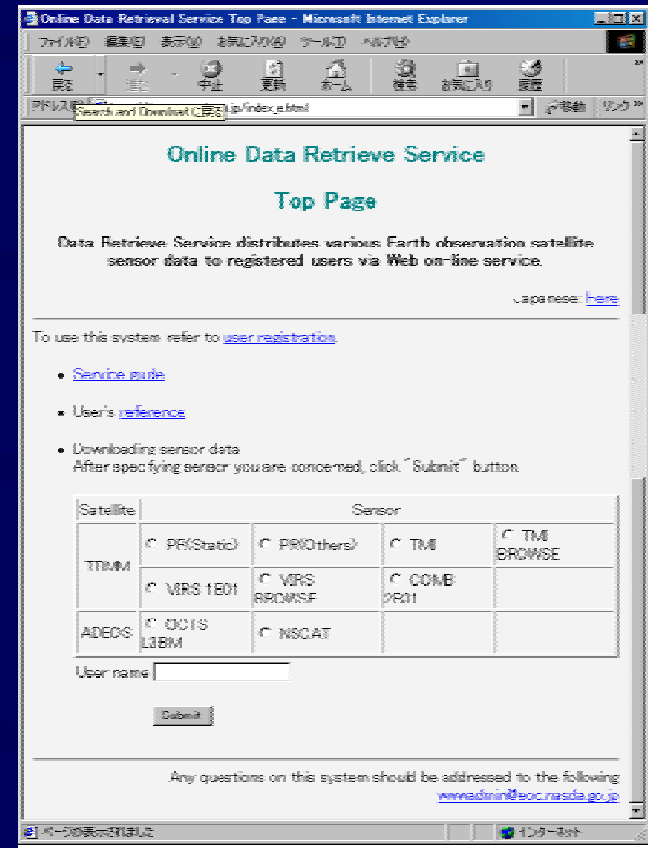
# On-line Data Distribution

1. Exhibition of graphical images on the WWW (ADS)
2. Distribution of standard products via the internet (DRS)
3. Data transmission to designated organizations

# On-line Data Distribution (DRS)

## Standard product distribution

- Recent 6 months of the following products available via the internet (http)
  - All of the AMSR level 3 (daily/monthly) products
  - All of the GLI-1km level 3 STA Map products
- \* : Chosen according to data volume and available bandwidth
- This service will be available to all registered users, including PIs.



<http://drs.eoc.nasda.go.jp>

# Data Distribution from EOC

JFY	2001				2002				2003				2004				2005			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
milestone	ADEOS-II Launch				Cal/Val Phase				Data Utilization Phase											
	C/O Phase																			
distribution					L+3M	L+6M	L+12M													
					←				L1 data release to EORC											
					←				L1 data release to the public											
					←				Higher level products release to the public											

# Data Distribution from EORC

JFY	2001				2002				2003				2004				2005			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
milestone	ADEOS-II Launch				Cal/Val Phase				Data Utilization Phase											
	C/O Phase																			
distribution					L+3M	L+6M	L+12M													
					L1 data to PI															
					L2, L3 products to PI				Research products to PI											
					L2, L3 products Beta Ver. to PI															

Please Visit  
EORC Web Site  
for details

<http://www.eorc.nasda.go.jp/>

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

Related LINK