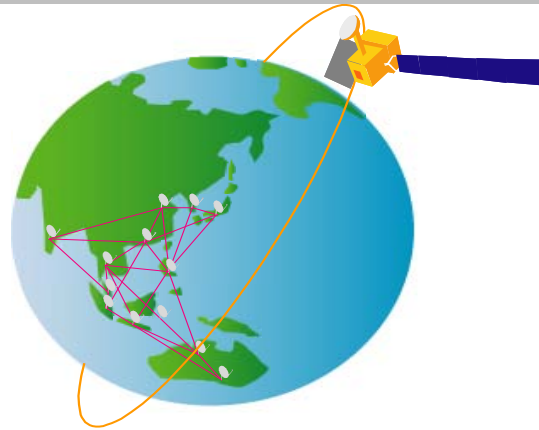




June 2007



Sentinel Asia / Digital Asia

building Information Sharing Platform by Geo web services and
contributing to Disaster Management Support in the Asia-Pacific Region

Hiromichi FUKUI
Faculty of Policy Management,
Global Security Research Center, Keio University
JAXA
hfukui@sfc.keio.ac.jp





Contents

0. What's "Digital Asia"?

1. What's "Sentinel Asia"?

1-1. Background / Philosophy / Framework

1-2. Main Activities

1-3. Information to be provided

1-4. How it works (Information-sharing Platform)

2. Operation History

3. Future Evolution (STEP2)

4. Summary (Relevance to GEO)

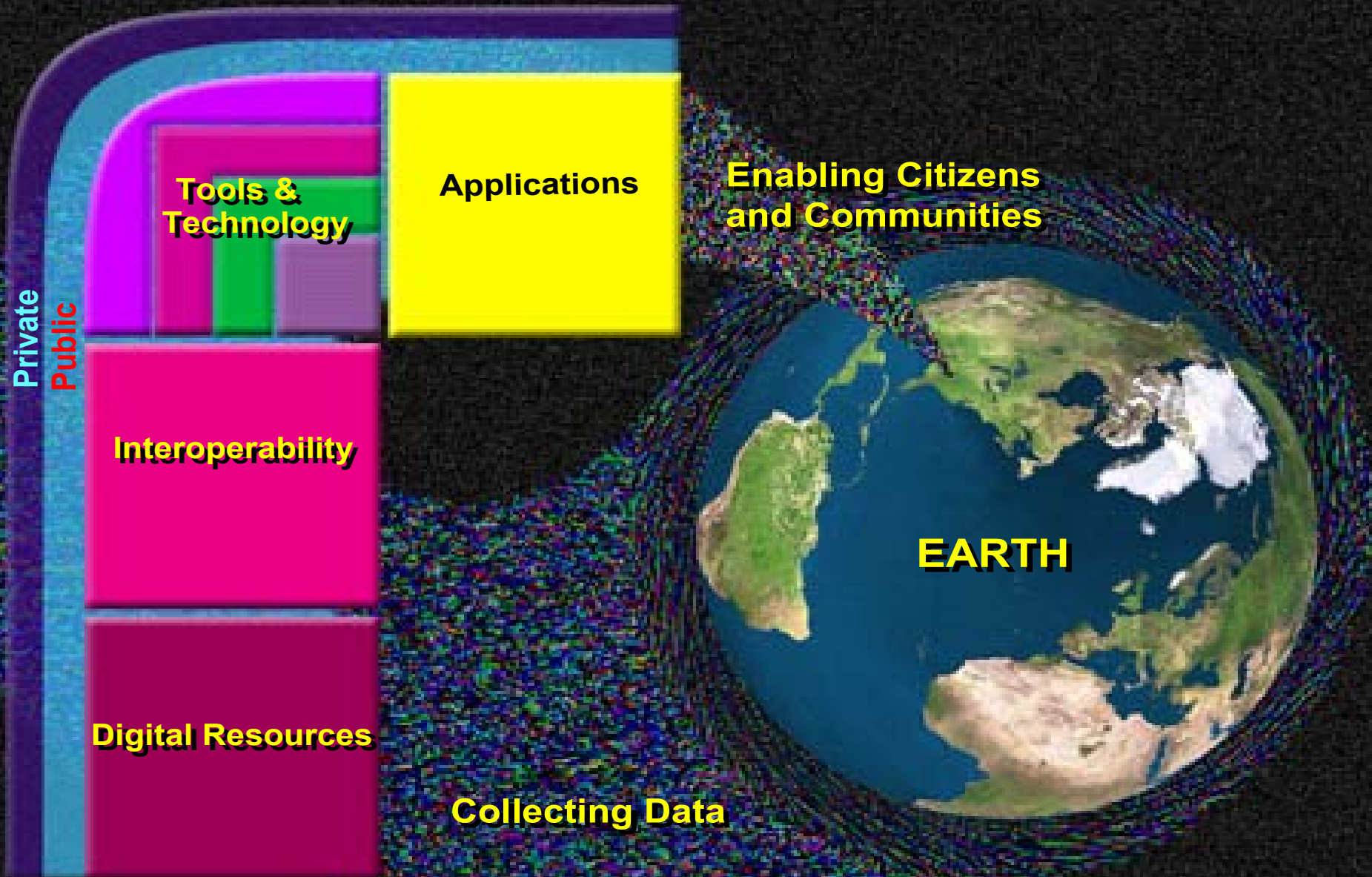


The Digital Earth Vision

- I believe we need a ‘ Digital Earth’, a multi-resolution, three-dimensional representation of the planet, into which we can embed vast quantities of geo-referenced data.
- a ‘**collaboratory**’ for research scientists seeking to understand the complex interaction between humanity and our environment.
- a ‘user interface’ -- a browsable, 3-D version of the planet available at various levels of resolution, a rapidly growing universe of networked geospatial information, and the mechanisms for integrating and displaying information from multiple sources.

(Gore, 1998)

Understanding Digital Earth



(White paper by NASA Digital Earth office, 2000)



Digital Earth History

- 1999 -1st Inter. Sympo., CAS, *Beijing*, China, *Towards DE*
Established “International Steering Committee for ISDE
- 2001 -2nd Inter. Sympo., *New Brunswick*, Canada, *Beyond Inf. Infra.*
- 2003 -3rd International Symposium, *Brno*, Czech Rep.
DE -- Information Resources for Global Sustainability
- 2005 -4th International Symposium, March 28-31, *Tokyo*, Japan
DE as the Global Commons
- 2007 -1st International Society of Digital Earth launched
on May 21, at Beijing
- New ISDE kicked off
i.e. from International Symposium on DE
to International Society for DE
- 2007- 5th International Symposium, June 5-9, San Francisco, USA
Grand challenge Digital Earth 3D visualization Contest



ISDE 5

THE 5TH INTERNATIONAL SYMPOSIUM ON DIGITAL EARTH
JUNE 5-9, 2007 SAN FRANCISCO BAY AREA, CALIFORNIA, USA



GRANDCHALLENGE

Digital Earth 3d Visualization Contest

Entry Deadline:
April 1st 2007!

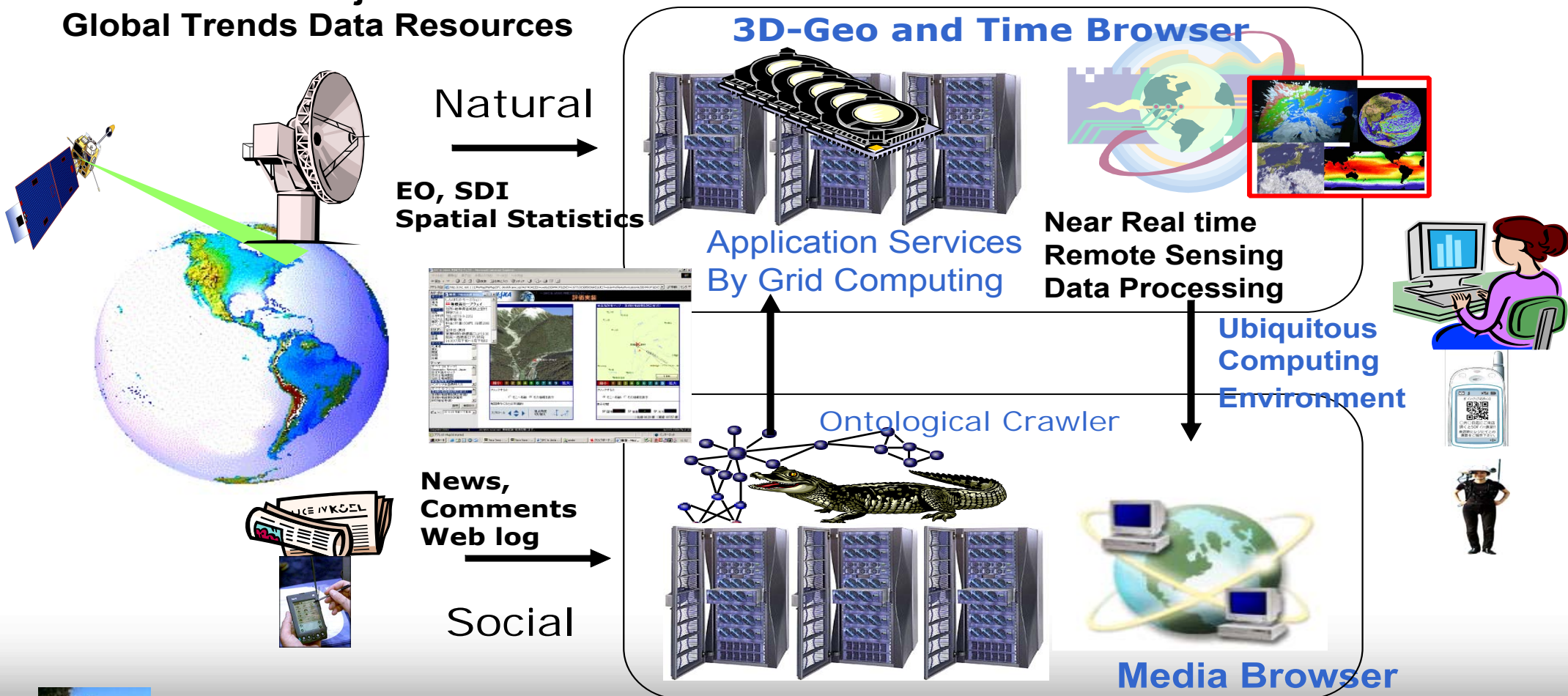
www.isde5.org/grandchallenge

ANNOUNCING the Digital Earth Contest that gives researchers, creative programmers, community leaders, activists, and students this unprecedented opportunity to demonstrate cutting edge 3D visualization applications and software tools for world-class recognition. Six Winners will be flown, all expenses paid, from around the world to attend ISDE5, and receive their awards and prize packages at the Gala Awards Dinner.

Contest sponsors, Google, ESRI, GeoFusion, NASA and others will be attending the awards dinner ceremonies and will afford winners a unique opportunity to interview for potential employment opportunities. Submit Your Entry by **1 April 2007** - entry form + rules available online at: www.isde5.org/grandchallenge

Digital Asia : Gateway for Global Security

Measuring the Real State of the World
Decoding the Earth and Human Evolution
Towards Intersubjectivities
Global Trends Data Resources



Digital Asia Research Centre for Strategic Design, Keio University
Academic Frontier Project, Matching Fund Subsidy from MEXT(2004-2009)



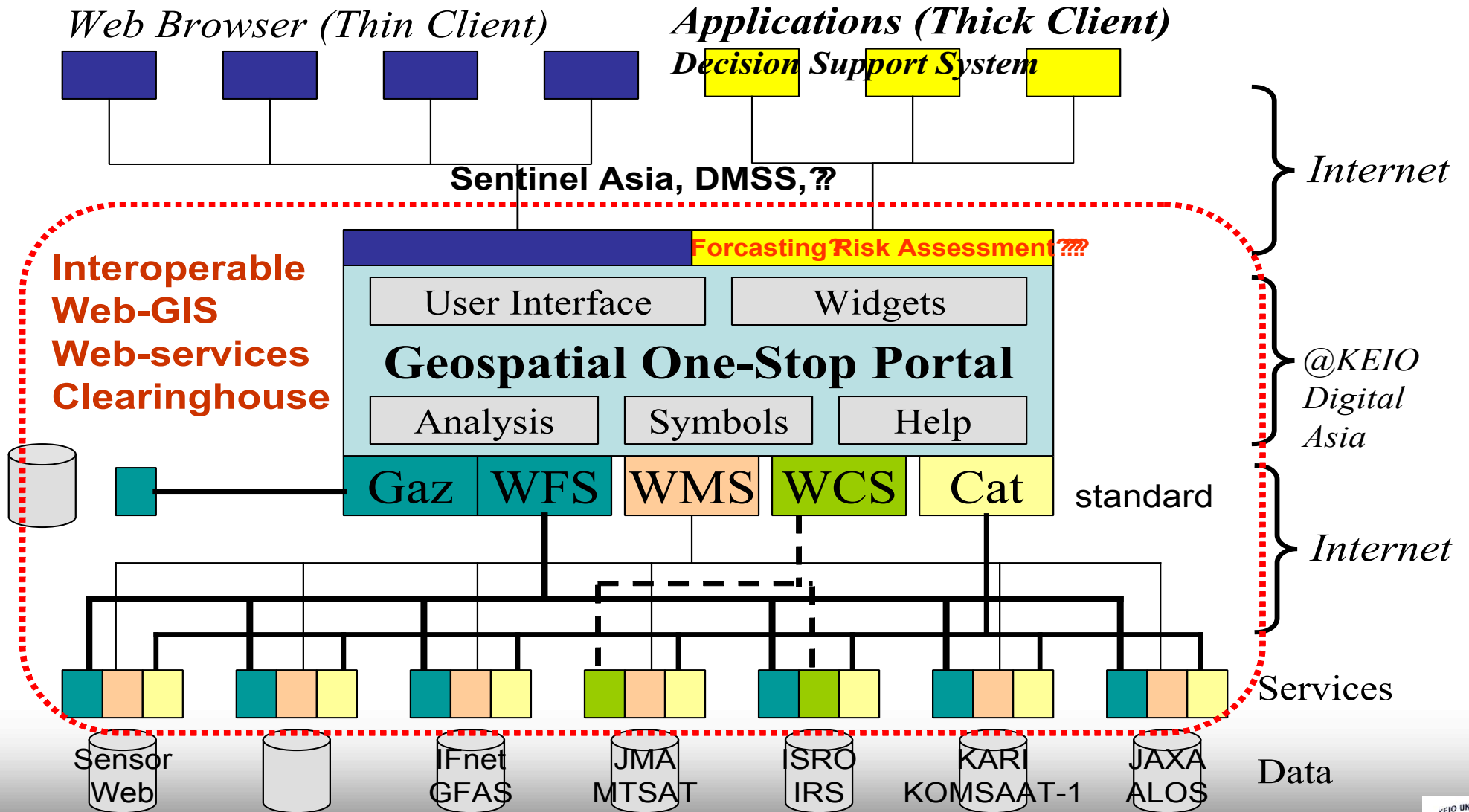


Action Plan 1 : Digital Asia (DA) Geospatial Data Portal project for data sharing

- To co-ordinate DA node network activities in the area of improving **access to both global and local EO datasets and Geospatial data infrastructure** including multi-resolution, multi-sensor and multi-date environment and socioeconomic data.
- To encourage the use of OGC standards to support the **interoperability of data services**.
- To prototype OGC-based web-services in order to generate Guidelines & Lessons learnt Documents to assist with the implementation of operational systems.
- To maintain a **DA Geospatial Data Portal Web-site** containing links to the **OGC-compliant data servers of DA node network** as well as CEOS members and others.

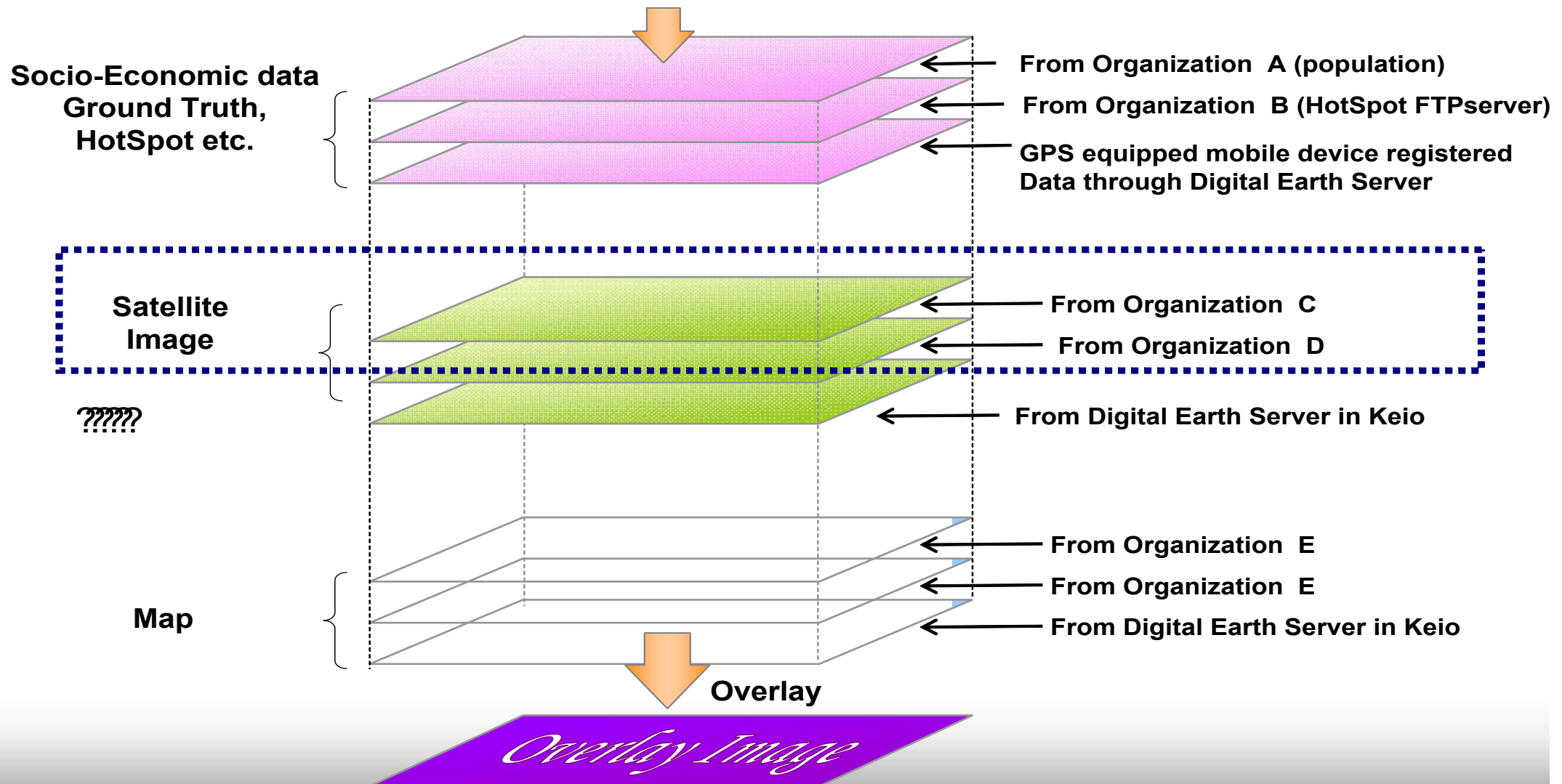


Geo Web Services





Retrieving by Space and Time to access Distributed Data Server





Metadata up-loader user interface.

“This up-loader has metadata editor .”

1. Select your JMP file.
2. Input MapServer's URL.
3. Input layer names of MapServer's mapfile.
4. Click “upload” button.

The screenshot shows a web browser window titled "Metadata List" with a URL of <http://geoinfo1.sfc.keio.ac.jp/MyMap/servlet/UserProfilingService?REQUEST=ListM>. The page displays a table of existing metadata entries and a "New registration" form. The form includes the following fields:

- JMP file**: *required, with a file selection button and a "Reflection" button. A red arrow points to this field.
- Thumbnail file**: *optional, with a file selection button.
- Cascaded server URL**: *required, with an empty text input field. A red arrow points to this field.
- Extent (reference system)**: *optional, with an empty text input field.
- Extent (east bound longitude)**: *optional, with an empty text input field.
- Extent (west bound longitude)**: *optional, with an empty text input field.
- Extent (south bound latitude)**: *optional, with an empty text input field.
- Extent (north bound latitude)**: *optional, with an empty text input field.
- Optional parameters for URL**: *optional, with an empty text input field.
- Layer names (comma separated)**: *required, with an empty text input field. A red arrow points to this field.
- Upload**: A button at the bottom right of the form. A red arrow points to this button.

The table of existing metadata entries includes:

title	abstract	Cascaded server URL	Layer names (comma separated)
Areas of steep slope in danger of collapsing (points)	This spatial data is point data of the areas of steep slope in danger of collapsing based on the regulation of land-use map.	http://demo2.fal.co.jp/cgi-bin/mapserv	Ground_collapse_danger_point
Areas of steep slope in danger of collapsing (polygons)			
Sites of steep slope in danger of collapsing			
Sand erosion control (lines)			
Sand erosion control (polygons)			
Landslide Prevention Zone			
Dangerous stream of debris flow			
Sites subject to disaster			
Sites of avalanche hazard			
Seen from Space Heat Wave in 10V			
JERS-1 SAR Global Rain Forest Mapping Project (CD-ROM)	regions produced in the JERS-1 SAR Global Forest Mapping (GRFM/GBFM) project.	http://fire.tksc.jaxa.jp/cgi-bin/wms_jers.cgi	mosaic_map
	This mosaic image of whole japan region is created using latest satellite data. Forest and agriculture		



Sample Metadata View of Digital Asia System

The screenshot shows the 'Metadata Finder - Sleipnir' web application. The search conditions on the left include:

- Area: A map of East Asia with red outlines, showing Pyeongyang, Seoul, and Tokyo.
- Region: Japan
- Term: (empty)
- Category: Farming
- Keywords: Any contains MODIS

The search results on the right show a list of MODIS data entries:

image	title	provider	actions
	MODIS	JAXA EORC	[+]
	MODIS_Japan_20060313	JAXA EORC	[+]
	MODIS	JAXA EORC	[+]
	MODIS_Japan_20060314	JAXA EORC	[+]
	MODIS	JAXA EORC	[+]
	MODIS_Japan_20060315	JAXA EORC	[+]
	MODIS	JAXA EORC	[+]
	MODIS_Japan_20060316	JAXA EORC	[+]

Below the search results is a section for 'Selected Maps to Show' with columns for 'image', 'title', and checkboxes for selection. A callout bubble points to the first row of results with the text: "Daily MODIS Data is registered".

Buttons at the bottom include 'clear conditions' and 'show map'.



Gateway System Development for Data Search & View System by Public users

Category Selection

Area Selection

Theme Selection

3D Image
(View Image on the surface of sphere)

2D Image



アドレス http://geoinfo1.sfc.keio.ac.jp/MyMap/MyMap/DEBrowser/index.jsp

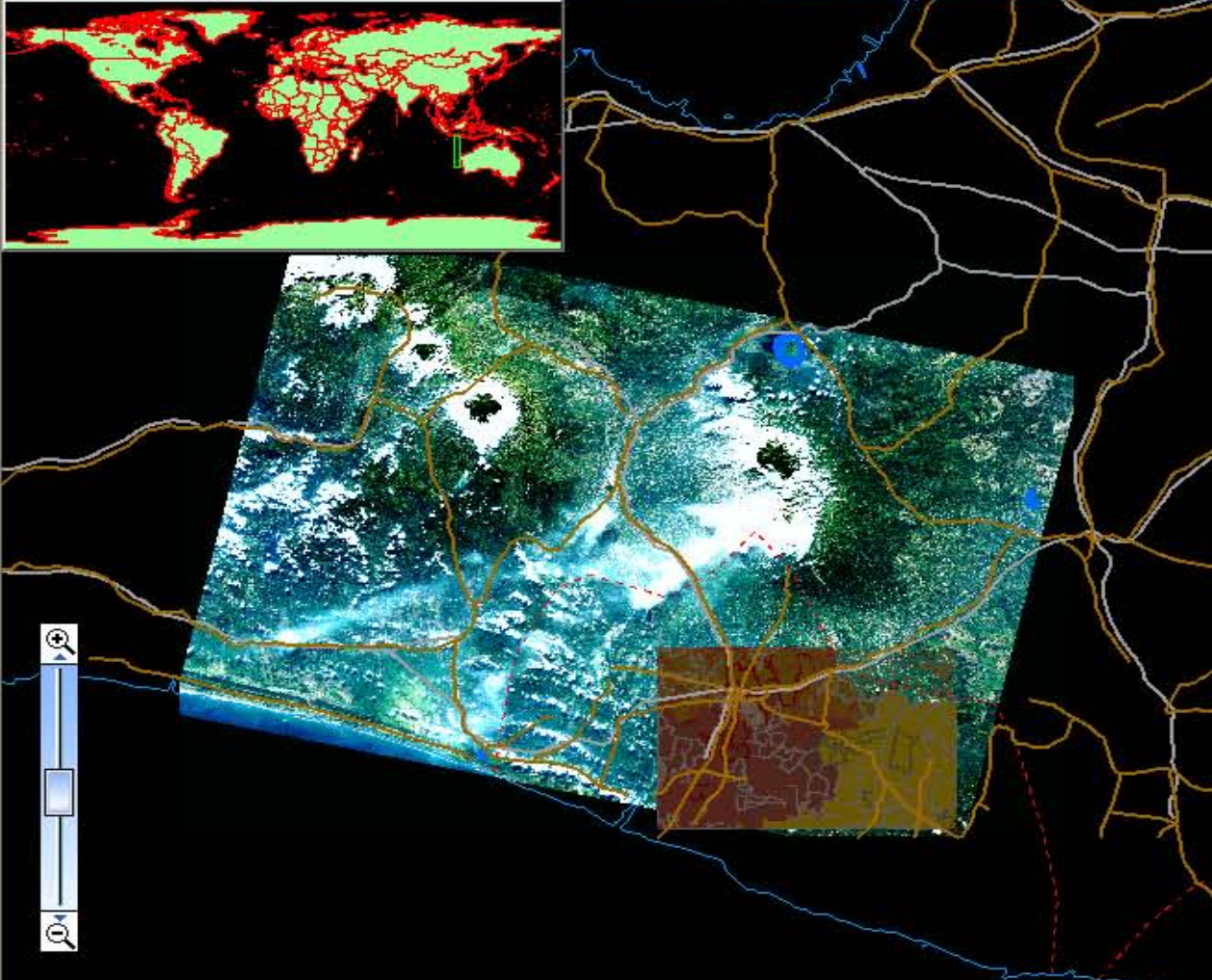
Google 検索 ポップアップを許可 チェック オプション

Y! カスタマイズ 検索 ブックマーク My Yahoo! Yahoo! JAPAN ファイナンス Yahoo!メール

Digital Earth Browse...

Digital Earth Browser

[Output to PDF] [Index Map] [Search Place] [Zoom Up] [Zoom Down] [Zoom to Full] [Scale Slider] [Legend] [Metadata Finder]



Legend:

User Layers:

- Administrative Boundary [snip]
- Population, Java, Indonesia [snip]
- ALOS Image around Mt. Merapi Vo

Pre-defined Layers:

Reference

- Political Boundaries
- Library Reference
- Place Name

Boundaries

- BarrierLine Features
- Coastlines
- Depth Contours
- Political Boundaries

Hydrography

- Aqueducts/Canals/Flumes
- Danger Point Features
- Inland Water Areas
- Miscellaneous Line Feature
- Miscellaneous Point Featur
- Water Courses

Industry

- Extraction Areas
- Extraction Point Features
- Fish Hacheries/Fish Farms
- Miscellaneous Industry Poi
- Storage Point Features

Physiography

20 km

[Output to PDF] [Index Map] [Search Place] [Zoom Up] [Zoom Down] [Zoom to Full] [Scale Slider] [Legend] [Metadata Finder]

Lat: 47d 42m 32.5

Lat: 42d 0m 18.1

Lat: 7d 29m 43.059s S, Lon: 110d 29m 32.699s E

[Redraw] [Add Layers]



Geobrowser

Japan Aerospace Exploration Agency

Disaster Management
Environment Monitoring
Ocean, Meteorological information
Media Browser etc.

User
(Public, Student, Specialist etc.)

Internet

KEIO University?
Digital Earth Server

Domain Application Services

Simulation Engine etc.

One Stop Portal Site

Application Services
Data Retrieval and Mining Education Risk Communication etc.

User Mang. Data Fusion Infrastructure

GIS,RS data overlay and Parallel Display

3D GIS-Service 2D GIS- Services

Clearinghouse server
Link to External Ch.
Catalog Services?

Open Application Interface

Core Geospatial data (Global, Asia, Japan, local?)

DEM Vector data Active Fault etc.? Satellite Image NOAA etc.? Gazetteer Statistics Population Census, etc.? Meta data

Landsat-SRTM

OpenGIS Consortium Interface (WMS,WFS,WCS)

Geobrowser

Other Univ. Research Institute AIT etc?

Observation Data

Interoperation

Meta data

Local Government GeoData Open Server

Regional Data

Interoperation

WMS

WMS

Digital Asia mini prj. Distributed Servers

Map Server open source?

Existing Server
JAXA Image Server (SE Asia)

Map Server open source?
JAXA Satellite Image

Geography Network

GIS Appli. Server Disaster Mang etc.?
operated Server

Chiba University CEReS?
Asian Land Cover
Hazard Map, etc.
MAFFIN?
Forestry Fire Map, hot spot, etc

Global Sea surface temperature
Chlorophyll a estimation map etc.
Local scene

Global Map data

1:25000 map DEM
JGSI

Distributed Servers



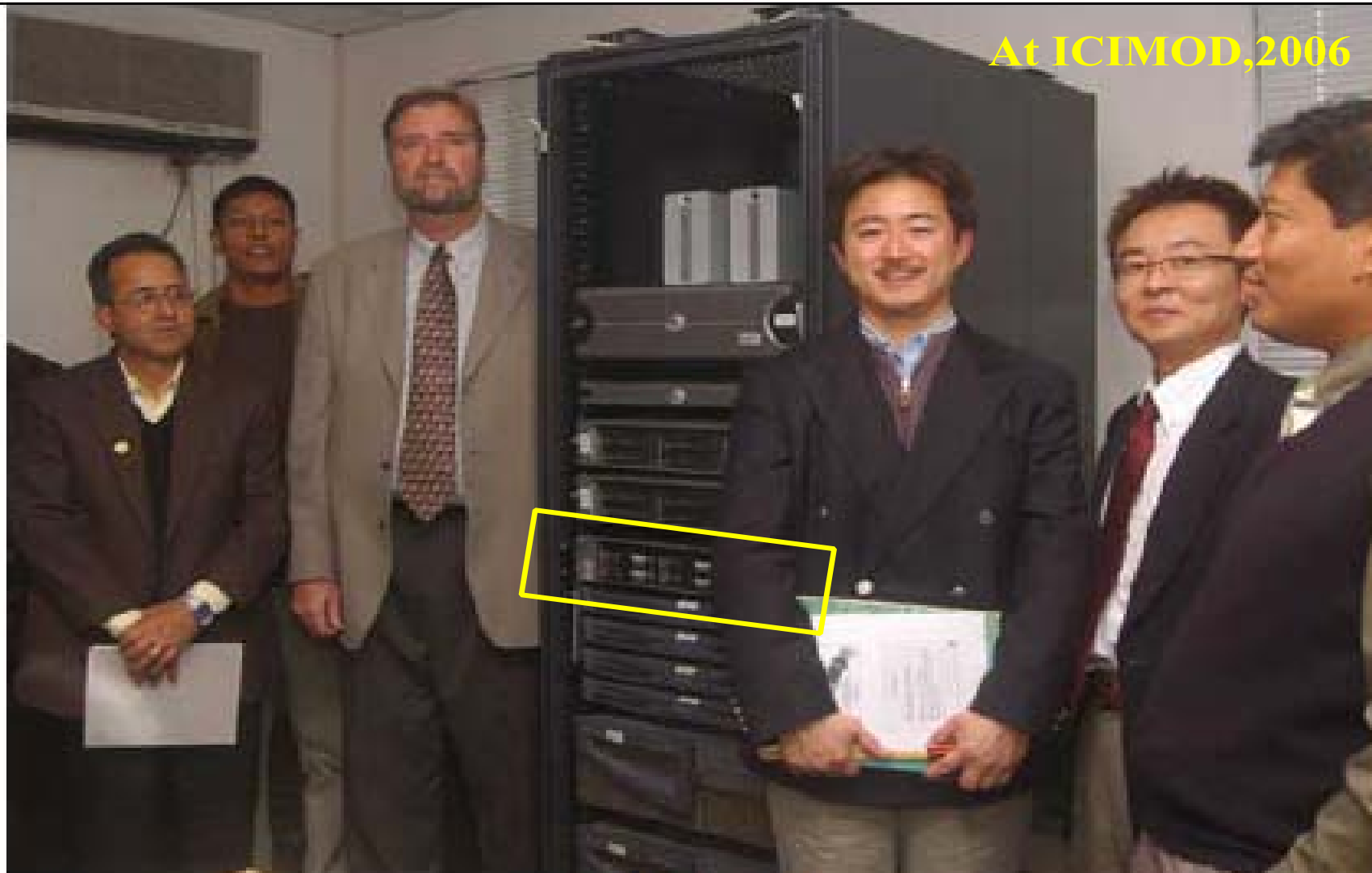


Digital Asia Node Network

- 1. AIT/GISTDA, Thailand
- 2. LAPAN, Indonesia
- 3. Survey Department, Sri Lanka
- 4. Institute of Geography/VAST, Vietnam
- 5. ICIMOD
- 6. UNEP-AP
- 7. Beijing Normal University
- 8. NAMRIA, Philippine
- ??National University Mongolia
- 10. Fuzho University
- 11. CRISP Singapore
-

*Keio Univ. provide WebGIS-base
Platform*

30 terminals in 5 years



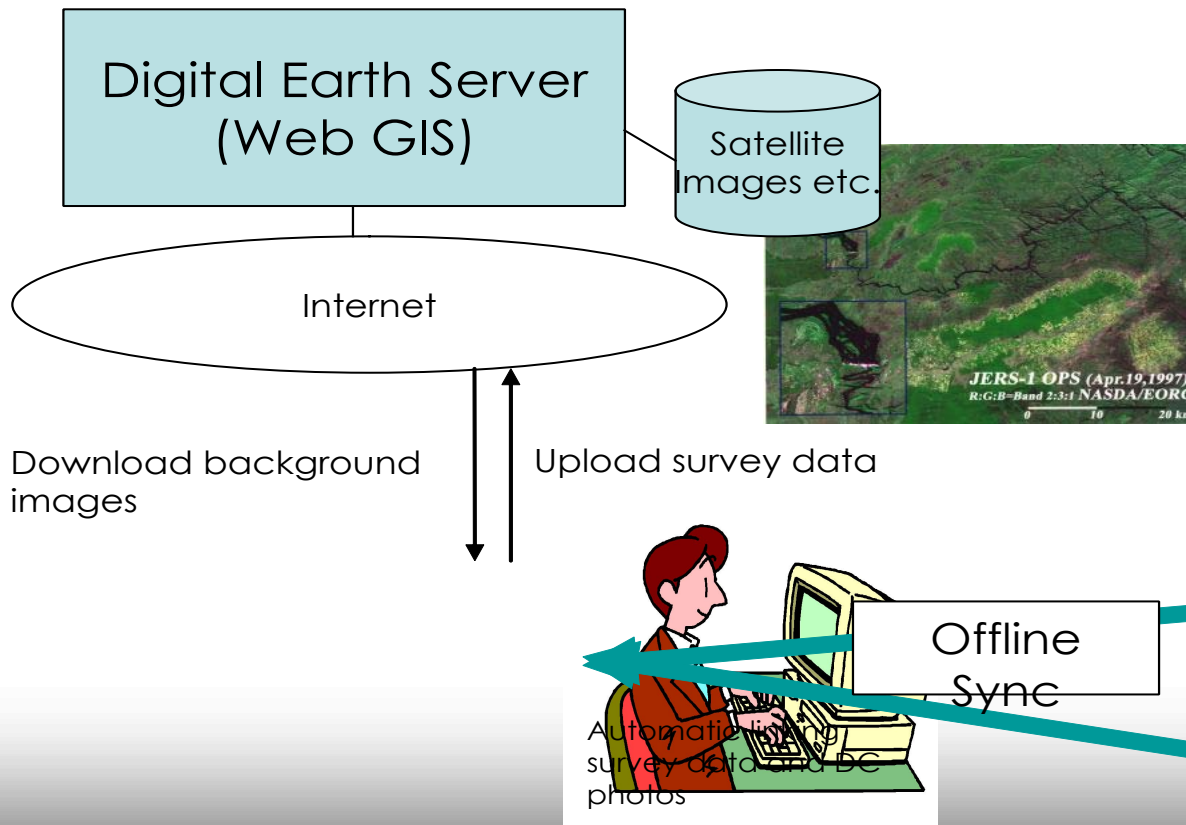
Server room

From left to right: Dr. Madhav Karki; Mr. Saisab Pradhan; Dr. J. Gabriel Campbell; Prof. Hiromichi Fukui; Mr. Kunisawa Kasuyoshi and Mr. Basanta Shrestha



Field Survey System for collecting ground truth data with the PDA (has built-in GPS) and the Digital Camera

- Download background images on the PC from the Digital Earth Server.
- Connect PDA to PC, then copy it to PDA with automatic
- Do field survey with PDA and Digital Camera.
- Connect PDA and DC to PC, then copy survey data from
- Upload survey data to the Digital Earth Server.





Field Server



- Wi-Fi Mesh-network
- Web Server
 - ✓ Measurement
 - ✓ Device Control
- Sensors (up to 24ch)
 - ✓ Air temp.
 - ✓ Humidity
 - ✓ Solar Radiation, Ultra-Violet
 - ✓ CO₂ concentration
 - ✓ Soil moisture
 - ✓ Soil temp.
 - ✓ Leaf-wetness
 - ✓ 3D Wind-velocity
 - ✓ 3D Acceleration
 - ✓ 3D Magnetic Field
- Camera (0.3-8M Pixels)
- Solar-cell
- LED Lighting





- [Home](#)
- [DA Activities](#)
- [Web Mapping](#)
- [Contact Us](#)

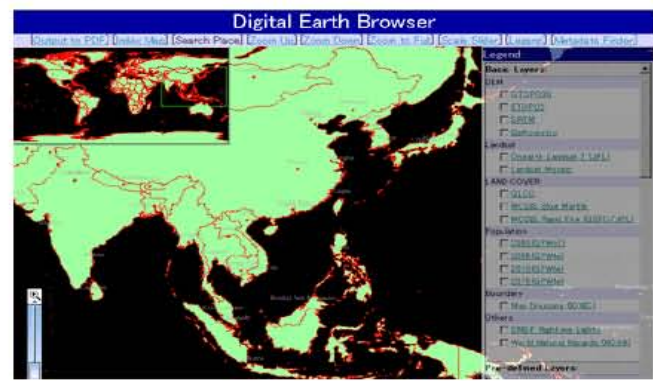
Distribution and Training

- Digital Asia project supports the installation process of all software tools in establishing a server as a Digital Asia node.
- Training that required for browser usage, Metadata edit, data upload, mapfile creation will be provided at the local node agency.

Server Specification

Model	-- HP Proliant DL 380 G4
CPU	-- Xeon 3.4 GHz * 2
Memory	-- 4 GB
H.D.D	-- 271.3 GB (RAID 5 with one spare HDD)
Power	-- Redundant Power Supply
Operation System	-- Red Hat Enterprise Linux Version 3

Digital Asia Browser

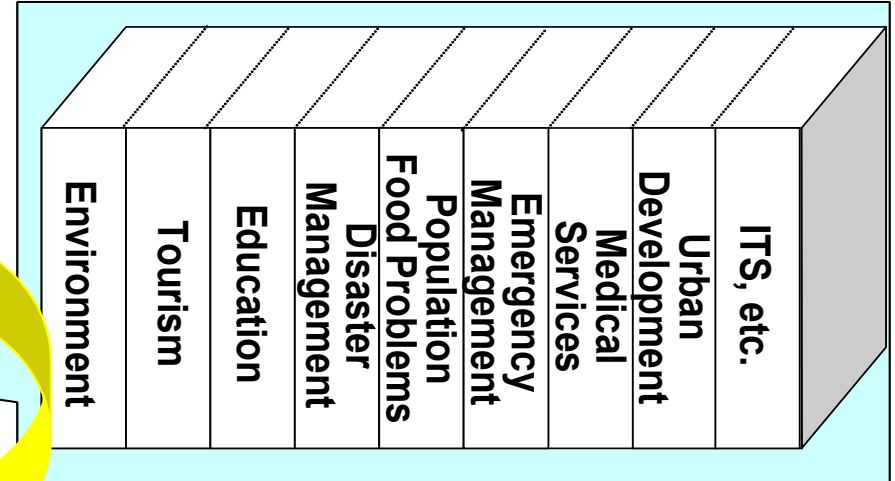
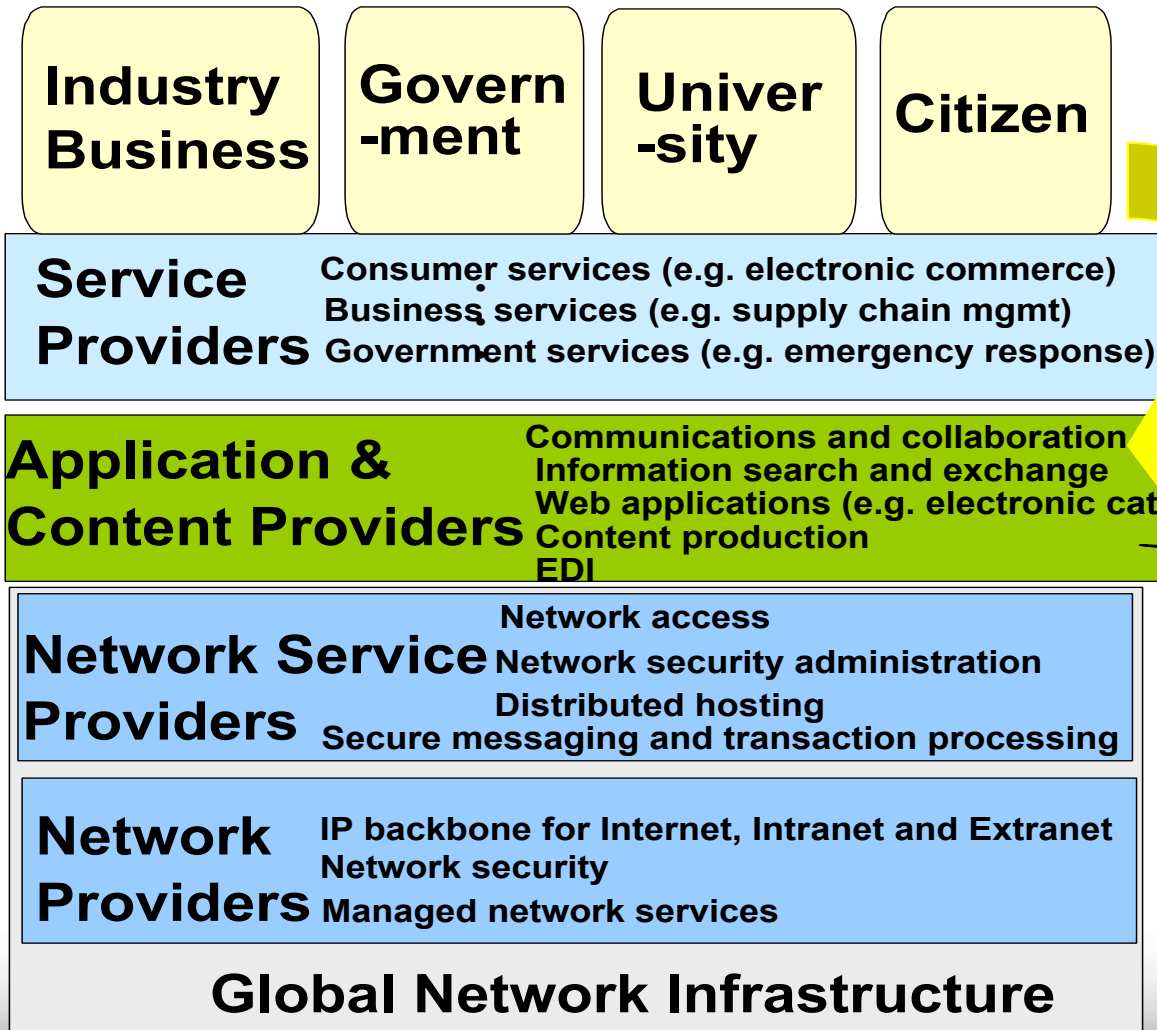


- Digital Asia Browser customized by Keio University <http://geoinfo1.sfc.keio.ac.jp/MyMap/MyMap/DEBrowser/index.jsp>.
- Users search for the data through Metadata Finder.
- Other functions
 - User friendly mode for searching places.
 - Pan, Zoom in - out
 - Adjust image by using scale sliding tool
 - Personalize the image mapping as PDF file

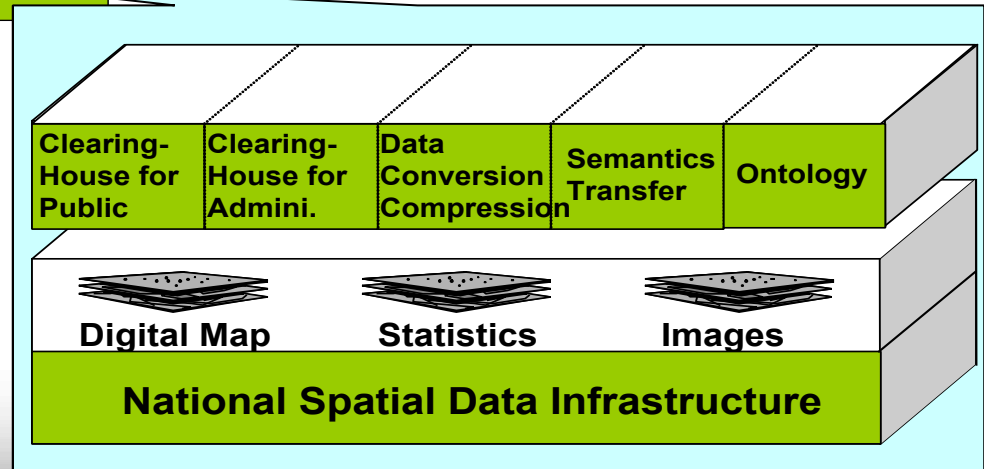




Framework of Digital Earth



*Evaluation, validation by user
From social context*



Ubiquitous Geo-processing Environment



Sentinel Asia Web Site

Disaster Management Support System in the Asia-Pacific Region

<ul style="list-style-type: none"> About Sentinel Asia How to provide data How to request ALOS observation JPT Members Library FAQ Web Forum Links Site Policy Contact 	<div style="background-color: #FFD700; border: 1px solid black; padding: 5px; margin-bottom: 5px;"> </div> <div style="background-color: #FF4500; border: 1px solid black; padding: 5px; margin-bottom: 5px;"> </div> <div style="background-color: #0000FF; border: 1px solid black; padding: 5px; margin-bottom: 5px;"> </div> <div style="background-color: #008000; border: 1px solid black; padding: 5px;"> </div>	<p>Topics</p> <p>Wildfire Validation Activities <small>read more ></small></p> <p>Past topics >></p> <p style="text-align: center;"><small>add</small></p>
--	---	--

Welcome to Sentinel Asia Web Site

Sentinel Asia is a "voluntary and best-efforts-basis initiatives" led by the [APRSAC](#) (Asia-Pacific Regional Space Agency Forum) to share disaster information in the Asia-Pacific region on the Digital Asia (Web-GIS) platform and to make the best use of earth observation satellites data for disaster management in the Asia-Pacific region.

Sentinel Asia is to initially be an internet-based, node-distributed, information distribution backbone, eventually distributing relevant satellite and in-situ spatial information on multiple hazards in the Asia-Pacific region. The system will draw on satellite derived products and imagery from all available earth observing geostationary, or low-earth orbiting satellites, including meteorological satellites that provide routine data to the region.

The system is also to be used by member countries of Sentinel Asia in the Asia-Pacific region to 'trigger' dedicated satellite-data acquisitions through their participating and cooperating space agencies during major and minor disasters in their countries.

[\[Sentinel Asia Leaflet \]](#) 570KB

Copyright 2006 Japan Aerospace Exploration Agency. All Rights Reserved.

<http://dmss.tksc.jaxa.jp/sentinel/>



Contents

1. What's "Sentinel-Asia"?
 - 1-1. **Background / Philosophy / Framework**
 - 1-2. Main Activities
 - 1-3. Information to be provided
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Summary (Relevance to GEO)



Natural Disaster Damages in Asia

Total number during 1975- 2005
 quoted from 'ADRC-Natural Disasters Data Book-2005'
 originated in CRED-EMDAT, 2005

■ Asia

➤ Number of Disaster

■ 3107

World : 8319



➤ Economical Damage

■ 55 Billion US\$

World :125 Billion US\$



➤ The Death Toll

■ 1251911

World : 2189116



➤ Victims

■ 47.5 Hundred Million

World : 53.4 Hundred Million





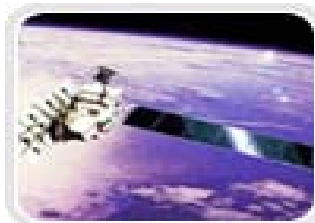
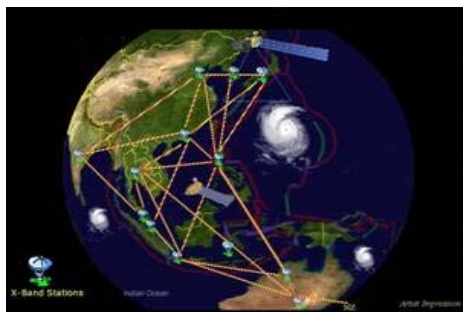
Established in 1993 after the Asia-Pacific International Space Year Conference (APIC) in 1992
 Enhance the development of space programs in the Asia-Pacific region and promote regional cooperation in the field of space technology and its applications.

[Participation] Space agencies, related governments, regional and international organizations, institutions responsible for applying space technology.

[Organizers] MEXT, JAXA and co-host organizations

- Past co-organizers: Government entities of Mongolia, Malaysia, The Republic of Korea, Thailand, Australia, Indonesia

Working Groups



Earth Observation



Communication Satellite Applications



ISS



Space Education & Awareness

Sentinel Asia Project
 establishing Disaster Management Support System



History

- APRSAF-12, Oct 2005, Kitakyushu, approved the plan to initiate the pilot project to contribute to disaster management support in the Asia-Pacific region.
- Joint Project Team (JPT) was organized and Sentinel Asia was initiated in the meeting in Feb 2006, Hanoi.
- Operations of Sentinel Asia have been commenced since Oct 2006 by opening its Web site.

(APRSAF: Asia-Pacific Regional Space Agency Forum)



Philosophy

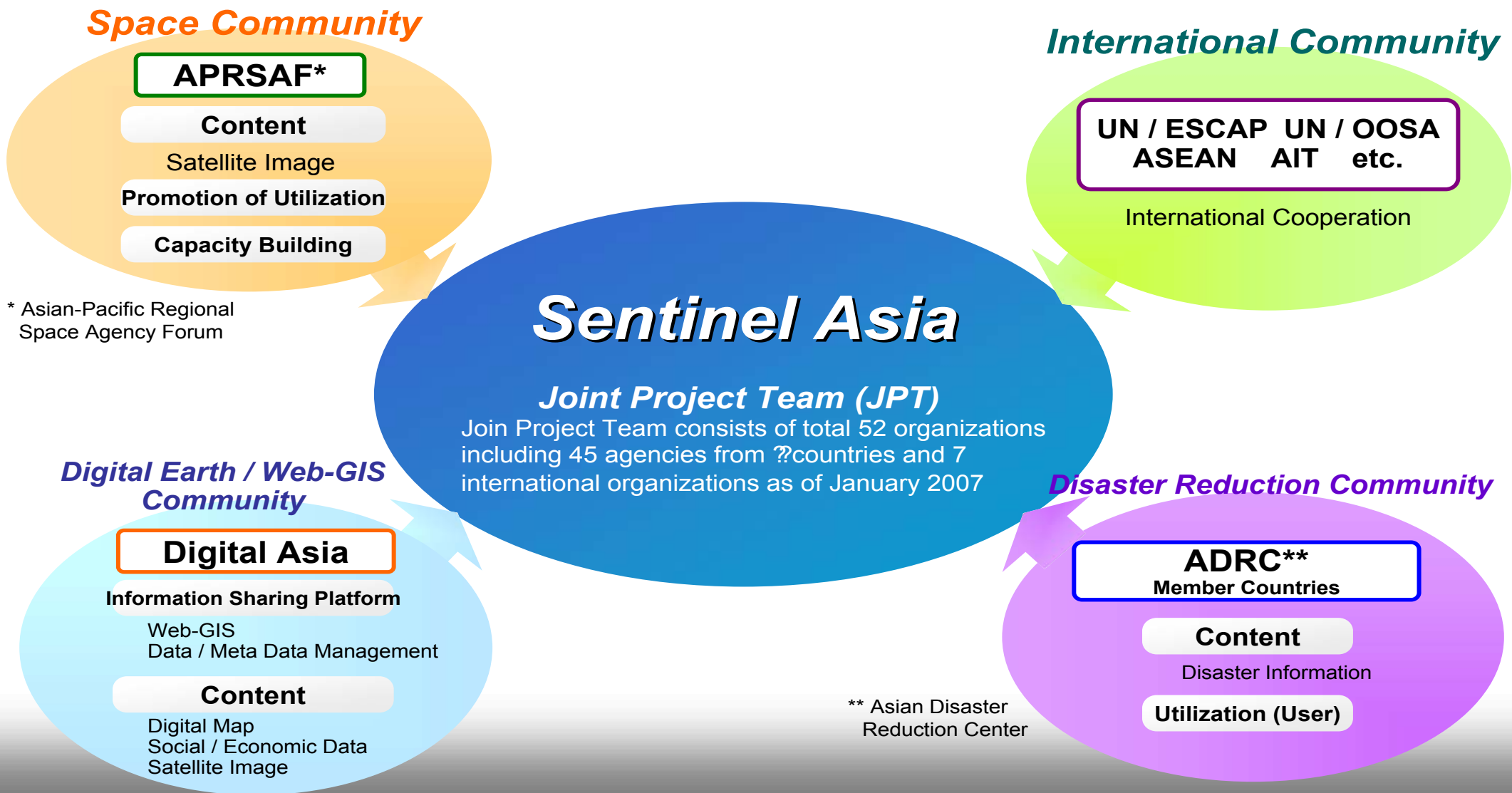
- APRSAF(Space community) should contribute to disaster management in Asia-Pacific region aiming at:
 - To construct life first society by ICT and Space technology
 - To improve speed and accuracy for disaster preparedness and early warning
 - To minimize victims and social economic losses
- Stepwise approach:
 - Step1: Utilization of earth observation satellite data for disaster management, which is called “Sentinel-Asia Project” (2006-2007)
 - Step2: Utilization of satellite communications system besides earth observation satellites (2008-2009)
 - Step3: Establishment of comprehensive disaster management support system (2010-)
- Best-efforts, Voluntary initiative by participating organizations

Framework

- Cooperation among APRSAF, ADRC, Digital Asia and international organizations
- Joint Project Team(JPT) consists of total 27 organizations including 23 agencies from 14 countries and 4 international organizations
- JAXA establishes two project offices in Tokyo and Bangkok



Framework of Sentinel Asia

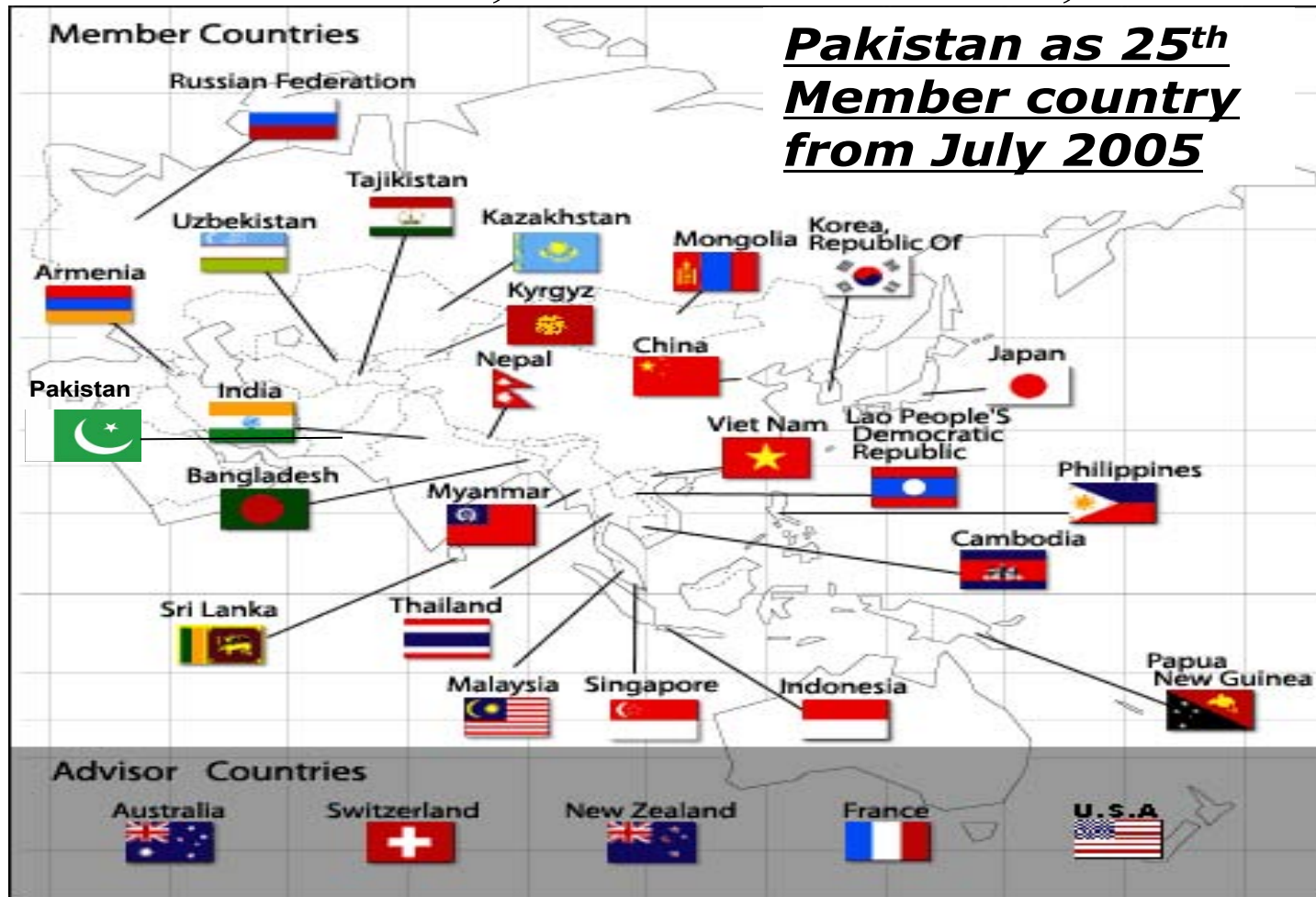


* Asian-Pacific Regional Space Agency Forum

** Asian Disaster Reduction Center

ADRC Member Countries

25 Member Countries, **5** Advisor Countries, **1** Observer



Implement Various Projects in cooperation with UN/ISDR, UN/OCHA, UNESCO, UNU, WMO, UN/ESCAP, etc.



Contents

1. What's "Sentinel-Asia"?
 - 1-1. Background / Philosophy / Framework
 - 1-2. Main Activities**
 - 1-3. Information to be provided
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Summary (Relevance to GEO)



Main Activities

Recent Disasters and Emergency Observation

An icon for 'Recent Disasters and Emergency Observation' showing a satellite in orbit over a globe with a red arrow pointing to a disaster area, and a hand holding a pen.

Emergency observation in case of major disasters by ALOS and others
To accept observation requests from ADRC members and space-related JPT members

Wildfire Monitoring

An icon for 'Wildfire Monitoring' showing three green trees on a yellow background.

Wildfire monitoring by MODIS and others

Flood Monitoring



Flood monitoring by TRMM and AMSER-E

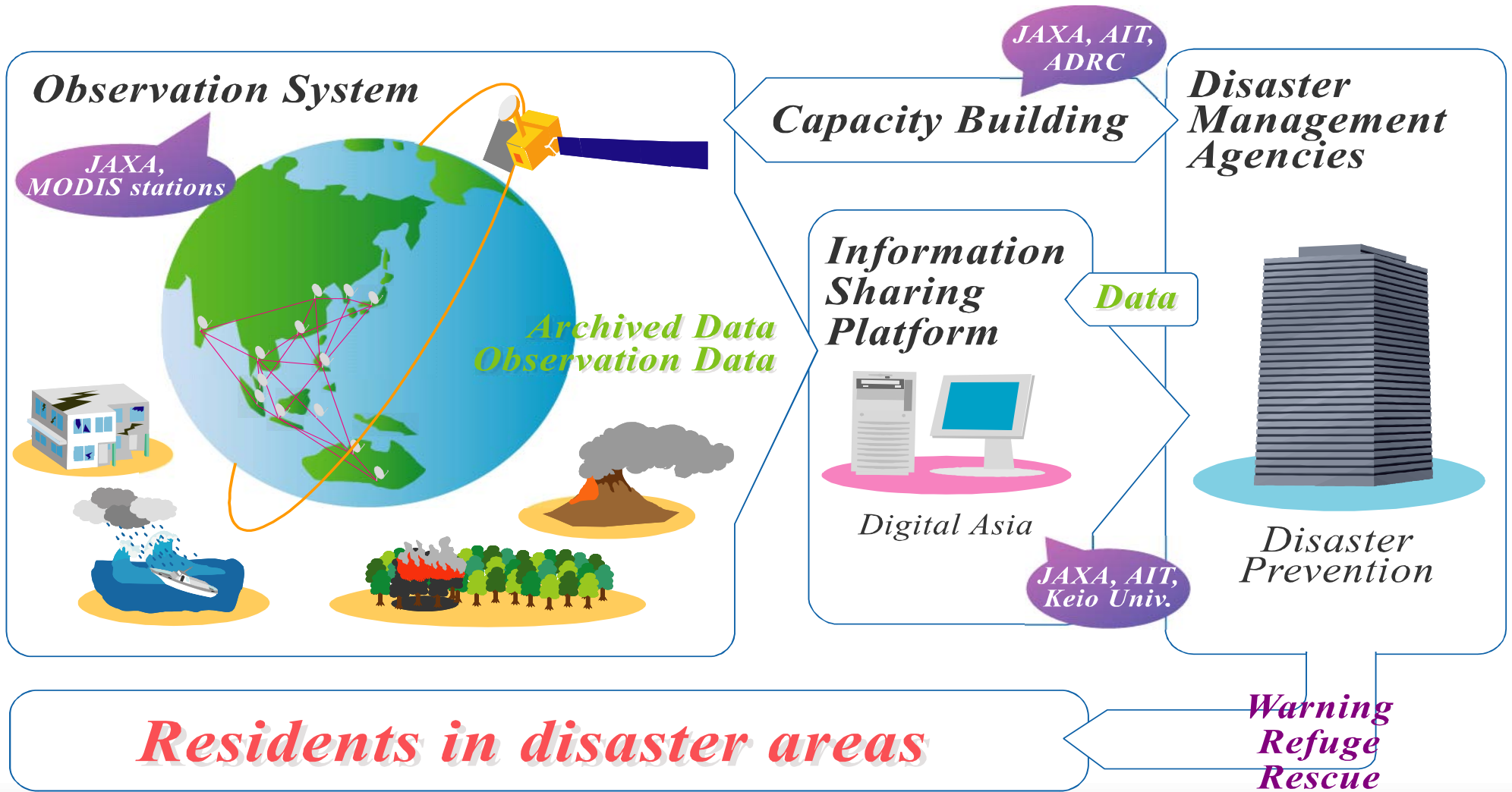
Capacity Building

An icon for 'Capacity Building' showing a globe on a stand.

Capacity building for utilization of satellite images for disaster management



Overall Flow of Sentinel Asia

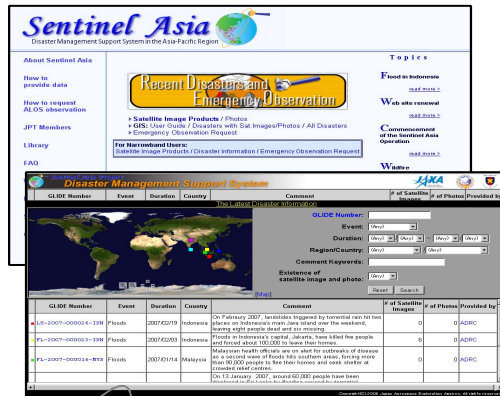


ALOS Observation Request

We accept ALOS observation request from JPT Member and ADRC Member



**JPT Members
ADRC Members**



Internet access

Question on SAS & anything about Sentinel Asia

ALOS Observation Request

ALOS imagery Via Sentinel Asia Web site

answer



ADRC

Asia Disaster Reduction Center



Receive, Judge the Request

Submit to JAXA



Sentinel Asia System

Disaster Info. management System

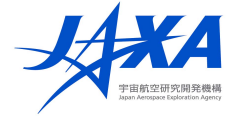
arrange

report

Arranged Request

ALOS imagery

Japan Aerospace Exploration Agency



Planning for ALOS Data Observation



ALOS Data Observation



ALOS Data Interpretation

Joint Project Office Bangkok Office
Support your Activities

- >New ID & Password
- >How to request ALOS Observation
- >How to operate SAS
- >Other Q & A



Sentinel Asia (MODIS Wildfire Monitoring)



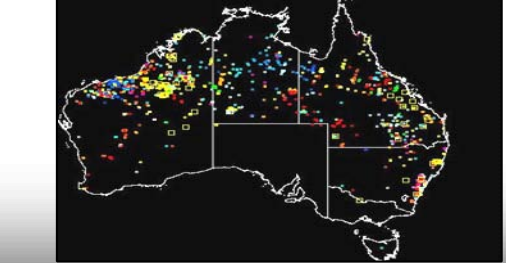
Hokkaido Univ. (Japan)



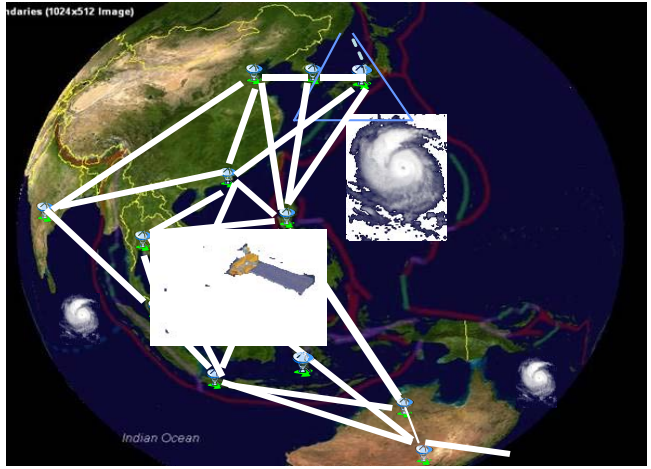
AIT/Tokyo Univ. (Thailand)



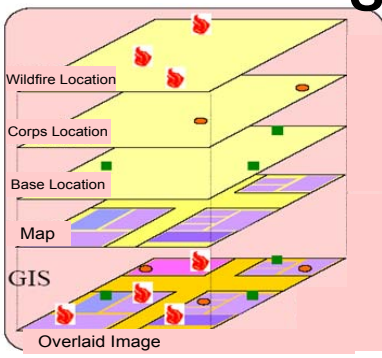
CRISP (Singapore)



CSIRO (Australia)



Satellite observation network



Integration by Digital Asia Web-GIS interface (Keio Univ.)

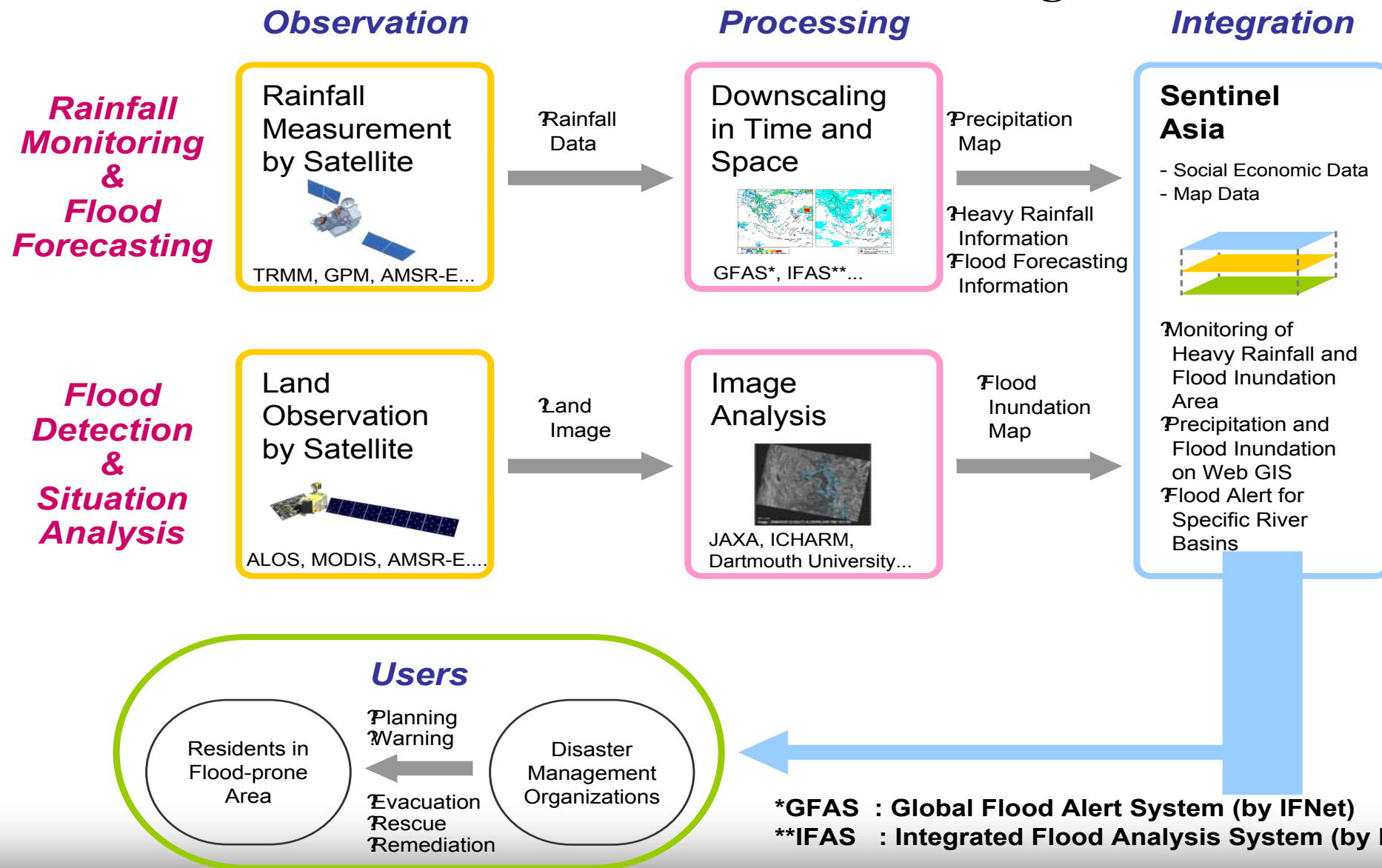
- Main Activities**
- Establishment and Improvement of Early Wildfire
 - Detection based on MODIS
 - Development of Wildfire Expansion Forecasting
 - Serving Value-Added Information to Forest Fire Control Agency



Wildfire map of Asia



Sentinel Asia Flood Monitoring





Contents

1. What's "Sentinel-Asia"?
 - 1-1. Background / Philosophy / Framework
 - 1-2. Main Activities
 - 1-3. Information to be provided**
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Relevance to GEO



Sharing Data

Various data related to disasters from space and ground

?Disaster information in the Asia-Pacific region provided by ADRC

?Digital maps data

 ?A millionth digital map stored in Digital Earth server

 ?Fine regional digital maps

?Satellite images of disaster area before and after disaster

?Satellite image products

?MODIS data for wildfire monitoring

?Precipitation data for flood monitoring

?On-site digital camera images

?Social / economic data

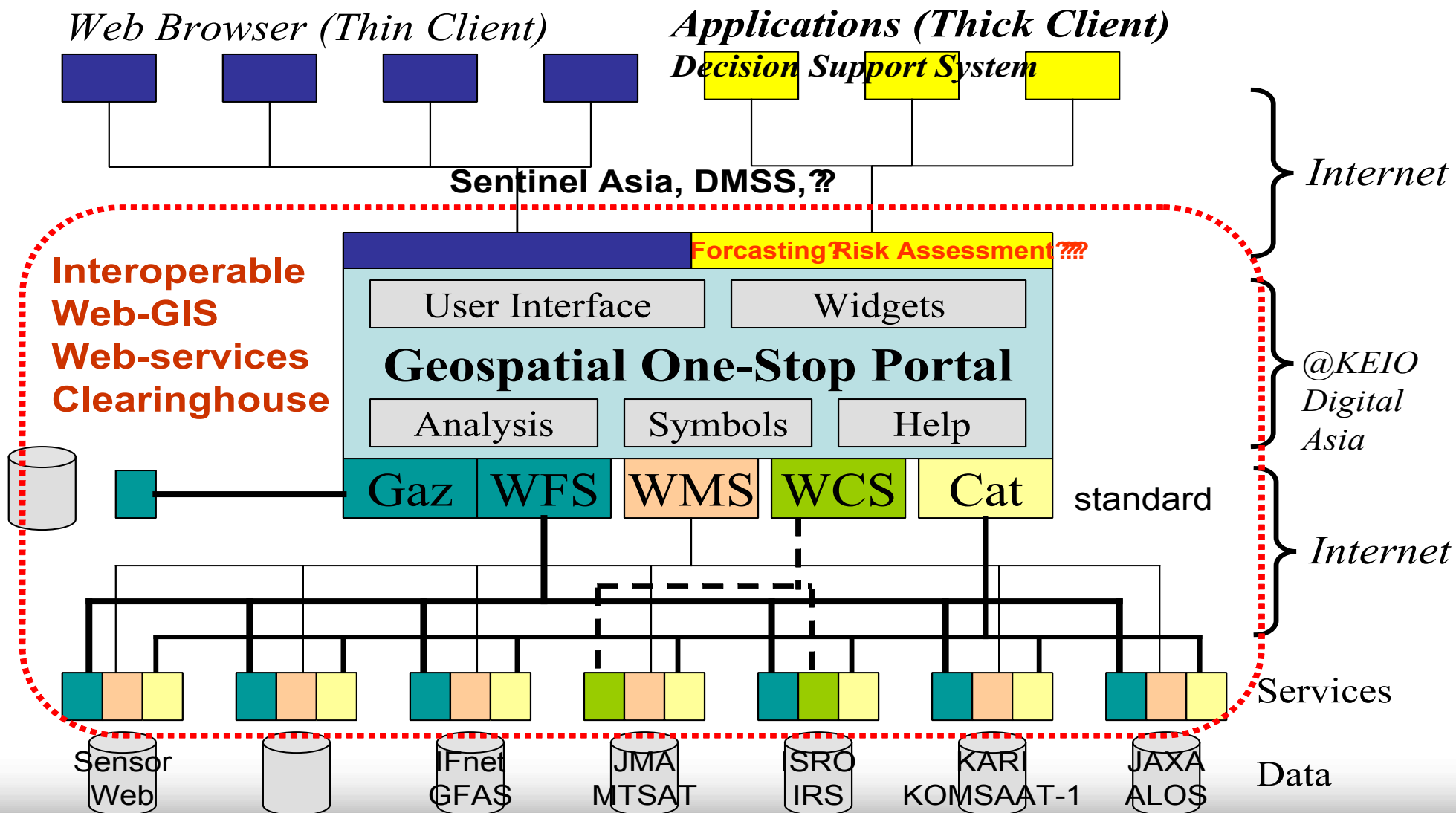


Contents

1. What's "Sentinel-Asia"?
 - 1-1. Background / Philosophy / Framework
 - 1-2. Main Activities
 - 1-3. Information to be provided
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Relevance to GEO

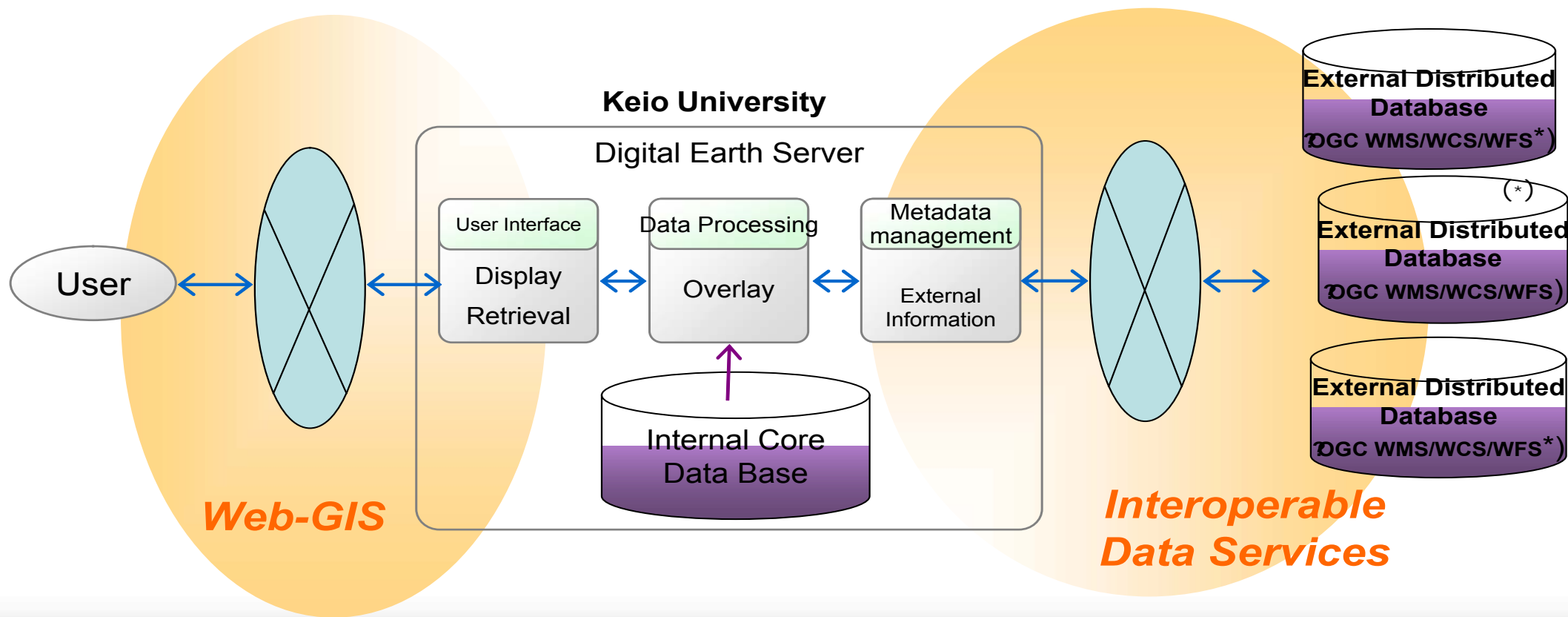


Geo Web Services



Digital Asia

Internet Web-GIS Dispersed Data Servers

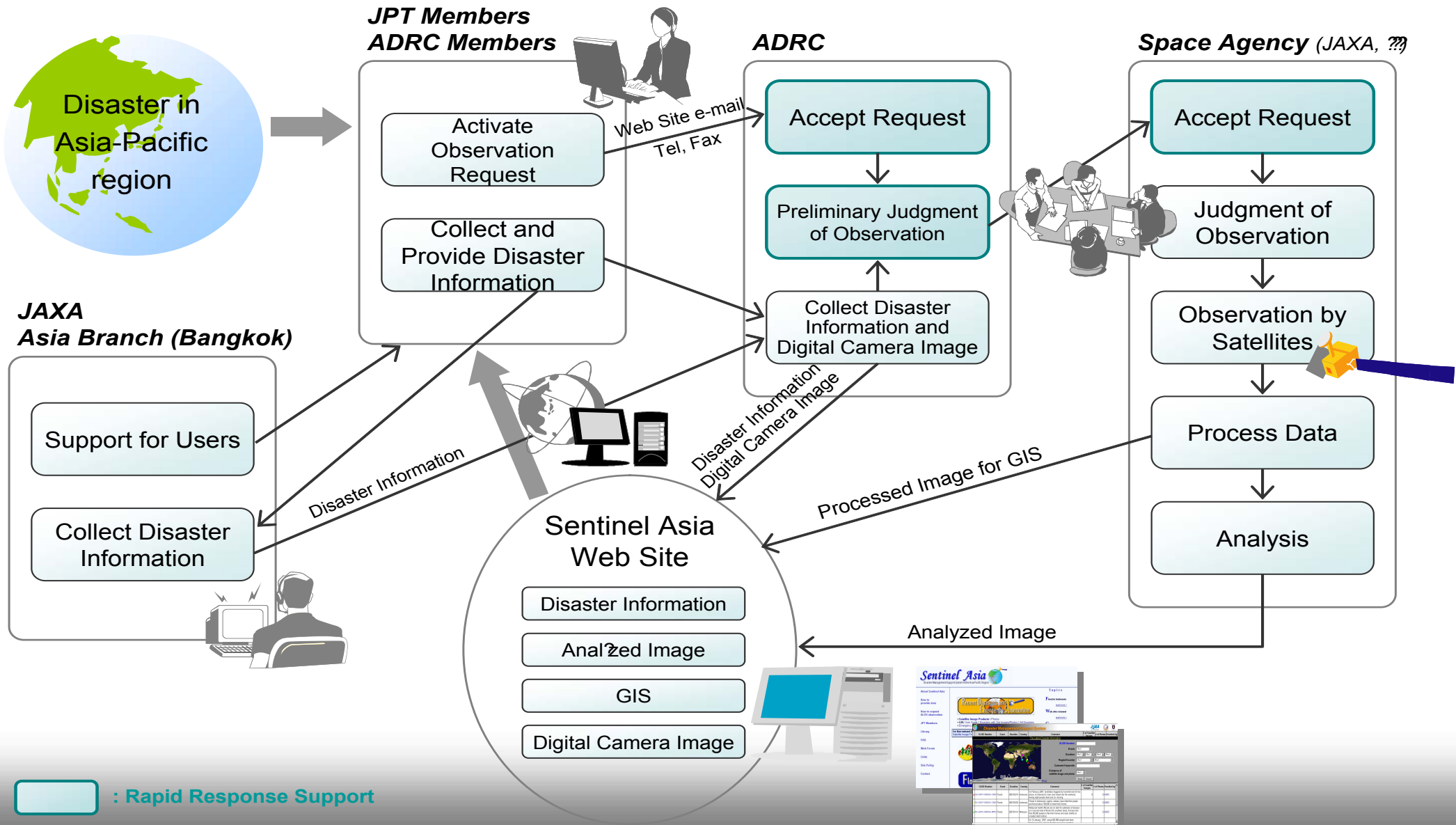




Contents

1. What's "Sentinel-Asia"?
 - 1-1. Background / Philosophy / Framework
 - 1-2. Main Activities
 - 1-3. Information to be provided
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Relevance to GEO

Sentinel Asia Operation Flow





Operation History

Emergency Observation by ALOS:

- Dec. 2006: Mudslide at Mt. Mayon, Philippines
activated by IC; observed by ALOS/AVNIR-2
- Feb. 2007: Flood in Jakarta, Indonesia
activated by SA; observed by ALOS/PULSAR
- March 2007: Earthquake in West Sumatra, Indonesia
activated by SA and IC; observed by ALOS/AVNIR-2(Cloudy)
- March 2007: Earthquake in Noto, Japan
activated by JAXA; observed by ALOS/PRISM/AVNIR-2
- April 2007: Earthquake in Solomon Islands
activated by SA and IC; observed by ALOS/AVNIR-2/PULSAR

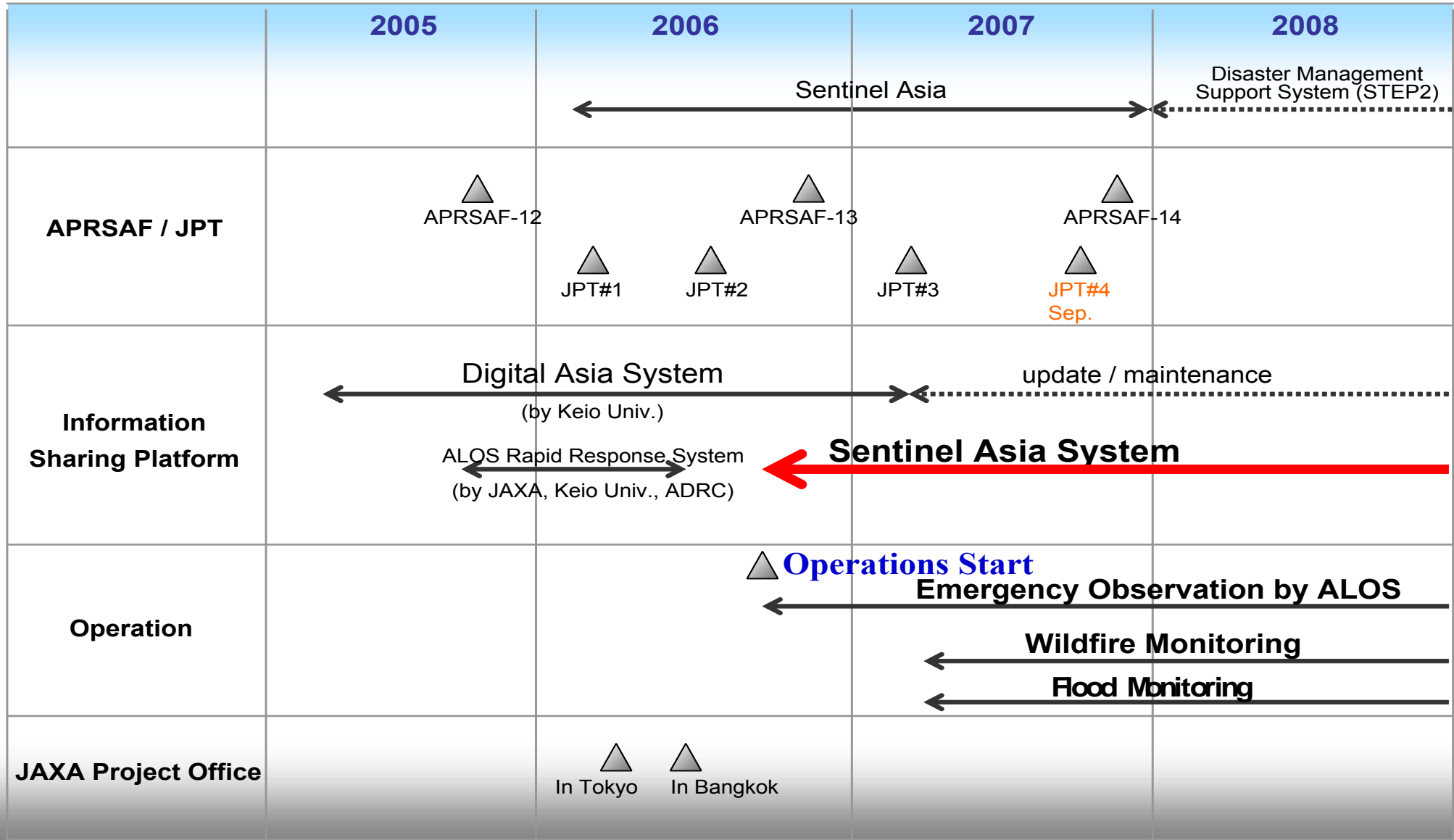


Contents

1. What's "Sentinel-Asia"?
 - 1-1. Background / Philosophy / Framework
 - 1-2. Main Activities
 - 1-3. Information to be provided
 - 1-4. How it works (Information-sharing Platform)
2. Operation History
3. Future Evolution (STEP2)
4. Summary (Relevance to GEO)



Sentinel Asia Milestones





Introduction of Web site



Sentinel Asia Web Site

Sentinel Asia
Disaster Management Support System in the Asia-Pacific Region

Recent Disasters and Emergency Observation

Wildfire Monitoring

Flood Monitoring

Capacity Building

Welcome to Sentinel Asia Web Site

Sentinel Asia is a "voluntary and best-efforts-basis initiatives" led by the [APRSAR](#) (Asia-Pacific Regional Space Agency Forum) to share disaster information in the Asia-Pacific region on the Digital Asia (Web-GIS) platform and to make the best use of earth observation satellites data for disaster management in the Asia-Pacific region.

Sentinel Asia is to initially be an internet-based, node-distributed, information distribution backbone, eventually distributing relevant satellite and in-situ spatial information on multiple hazards in the Asia-Pacific region. The system will draw on satellite derived products and imagery from all available earth observing geostationary, or low-earth orbiting satellites, including meteorological satellites that provide routine data to the region.

The system is also to be used by member countries of Sentinel Asia in the Asia-Pacific region to trigger dedicated satellite-data acquisitions through their participating and cooperating space agencies during major and minor disasters in their countries.

[[Sentinel Asia Leaflet](#) 570KB]

Copyright 2008 Japan Aerospace Exploration Agency. All Rights Reserved.

<http://dmss.tksc.jaxa.jp/sentinel/>



List of Recent Disasters provided by ADRC

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Disaster Management Support System

Lang: English

User/Pass: Login

The Latest Disaster Information

GLIDE Number:

Event: (Any)

Duration: (Any) / (Any) - (Any) / (Any)

Region/Country: (Any) / (Any)

Comment Keywords:

Existence of satellite image and photo: (Any)

Reset Search

GLIDE Number	Event	Duration	Country	Comment	Provided by
FL-2006-000155-LXA	Flood and Landslide	2006/10/31	Sri Lanka	Due to torrential rains, some parts of the country are experiencing floods and landslides. The most affected districts are Gampaha, Puttalam, Kalutara and Colombo. Around 72,000 families have been affected and 25 deaths were reported by the District and divisional authorities in the affected areas.	ADRC
TC-2006-000153-PHL	Typhoon	2006/10/30	Philippines	Typhoon Cimaron battered the northern Philippines on Monday, killing at least 10 people in a barrage of landslides and flooding, officials said.	ADRC
FL-2006-000147-MMR	Flood	2006/10/11	Myanmar	On 11 October, the worst monsoon floods in more than a decade are sweeping through Myanmar and Thailand. At least 13 people have been killed over the last few days in army-ruled Myanmar.	ADRC
FL-2006-000147-TMA	Flood	2006/10/09	Thailand	More than 32 dead in Thai floods since August 2006, reported on October 10.	ADRC
TC-2006-000144-VNM	Typhoon	2006/10/01	Viet Nam	At least 15 people in Vietnam are now known to have died as a result of Typhoon Xangsane, which buffeted central provinces over the weekend by Oct. 1, 2006.	ADRC
TC-2006-000144-PHL	Typhoon	2006/09/27	Philippines	On September 28, 2006, at least eight people have been killed and several are missing in the Philippines after Typhoon Xangsane brought fierce winds and rain.	ADRC
LS-2006-000143-PHL	Landslide	2006/09/22	Philippines	At least eight people were killed and 14 were injured when a landslide slammed into a narrow mountain road in the northern Philippines, local disaster officials said on Friday.	ADRC
TC-2006-000142-JPN	Typhoon	2006/09/17	Japan	The strong typhoon, Shanshan, to strike southwestern Japan has killed at least seven people caused tornado and flash floods.	ADRC

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

インターネット



List of Satellite Images and Digital Camera Images concerning disaster area

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Sentinel Asia Project Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Disaster Details

GLIDE Number: TC-2006-000144-YNM
Event: Typhoon
Duration: 2006/10/01
Country or District: Viet Nam

At least 15 people in Vietnam are now known to have died as a result of Typhoon Xangsane, which buffeted central provinces over the weekend (by Oct.1,2006).

Related Locations of Satellite Images and Photos

Related Recent Photos

Thumbnail	Date/Provider/Title	Comments
	2006/10/01 Vietnam News Agency Nha sap	This photo was shot at Da Nar city.
	2006/10/01 Vietnam News Agency Cay bat goc	This photo was shot at Da Nar city.
	2006/10/01 Vietnam News Agency Cot dien do	This photo was shot at Da Nar city.
	2006/10/01	

Related Satellite Images

Thumbnail	Observation Date/Provider	Satellite	Sensor	Product	Comments
	2006/10/04 03:05:00 JAXA	ALOS	PALSAR	L1.5	ALOS/PALSAR image (HH-ALPSRP036913320-H1.5_UD_img)
	2006/10/04 03:04:52 JAXA	ALOS	PALSAR	L1.5	ALOS/PALSAR image (HH-ALPSRP036913310-H1.5_UD_img)

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

インターネット



Digital camera image of disaster

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp 移動

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Photo Details

GLIDE Number:	TC-2006-000144-VNM	At least 15 people in Vietnam are now known to have died as a result of Typhoon Xangsane, which buffeted central provinces over the weekend (by Oct.1,2006).
Event:	Typhoon	
Duration:	2006/10/01	
Country or District:	Viet Nam	This photo was shot at Da Nang city.
Posted Date:	2006/10/16 14:47:16	
Photo Date:	2006/10/01 00:00:01	
Provider:	Vietnam News Agency	
Title:	Cay bat goc	
Location:	Lat: 16d 3m 1.689s N, Lon: 108d 13m 20.329s E	

Photo

[Download this Original Photo] [Back]

Copyright(C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました インターネット



Satellite image on GIS

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English Users/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Provider:	METI JAXA	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.: 15.6075/100.1778			
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)								

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thai Flood on (

Recommended Layers:

Base Map:

- GTOP030
- ETOP02
- GPW1990
- GPW1995
- GPW2000
- GPW2005
- GPW2010
- GPW2015
- GLCC

DCW(Vmap0):

Reference

- Political Boundaries
- Library Reference

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright (C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), NGA

[Download this image from FTP site] [2 screen display] [Back]

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.



Enlarged Satellite Image on GIS (Flood in Thailand)

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る - 検索 - お気に入り

アドレス(D) <http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp> 移動

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Provider:	METI JAXA	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.:	15.6075/100.1778		
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)								

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thal Flood on (

Recommended Layers:

Base Map:

- GTOP030
- ETOP02
- GPW1990
- GPW1995
- GPW2000
- GPW2005
- GPW2010
- GPW2015
- GLCC

DCW(Vmap0):

Reference

- Political Boundaries
- Library Reference

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright (C) Ministry of Economy, Trade and Industry (METI, Japan Aerospace Exploration Agency (JAXA), NGA

[Download this image from FTP site] [2 screen display] [Back]

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました インターネット



Satellite Images before and after disaster

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り 移動

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.:	15.6075/100.1778
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)						

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thai Flood on O
- ALOS/PALSAR Thai Flood on O

Recommended Layers:

Base Map:

- DEM(GTOPO30)
- DEM(ETOPO2)
- LAND COVER(GLCC)
- Population_1990(GPWv3)
- Population_1995(GPWv3)
- Population_2000(GPWv3)
- Population_2005(GPWfe)
- Population_2010(GPWfe)
- Population_2015(GPWfe)

DCW(Vmap0):

Reference

- Political Boundaries

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright (C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright (C) 2006 Japan Aerospace Exploration Agency, All rights reserved.

ページが表示されました インターネット



Satellite Image and DEM(SRTM)

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

移動 リンク

Sentinel-Asia Project
Disaster Management Support System

About DMSS | Home | Search Photo | Search Satellite Images | Help

Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.:	15.6075/100.1778
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)						

Satellite Image

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Displayed and Overlaid Data

Map Data

DCW(Vmap0):

Satellite Image (After Disaster)

PALSAR PALSAR@2006/10/12 16:03:24

Satellite Image (Before Disaster)

LANDSAT@2003/01/01 00:00

LANDSAT@2005/01/01 00:00

ALOS PALSAR@2006/05/27 16:01

Other Information

DEM

GTOP030

ETOPO2

SRTM

LAND COVER

Population

Add Other Information

Copyright(C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), ICEDS, NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright(C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました インターネット



Satellite Image and DEM

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp 移動

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.:	15.6075/100.1778
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)						

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thai Flood on O
- ALOS/PALSAR Thai Flood on O

Recommended Layers:

Base Map:

- DEM(GTOPO30)
- DEM(ETOPO2)
- LAND COVER(GLOC)
- Population 1990(GPWv3)
- Population 1995(GPWv3)
- Population 2000(GPWv3)
- Population 2005(GPWfe)
- Population 2010(GPWfe)
- Population 2015(GPWfe)

DCW(Vmap0):

Reference

- Political Boundaries

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright (C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), USGS, NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました インターネット

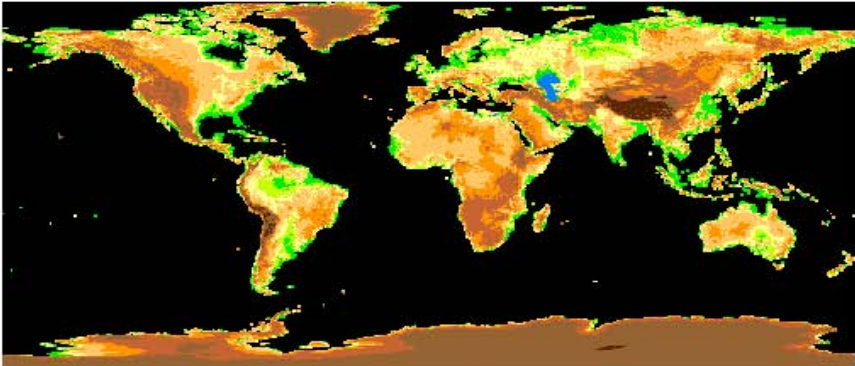


Legend of DEM Data

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

http://arrs.adrc.or.jp - Metadata Finder (detail) - Microsoft Internet Explorer

DEM(GTOPO30)



Blue	- 0	Yellow	101 - 200	Brown	1001 - 2000	Dark Brown	6001 -
Green	1 - 50	Orange	201 - 500	Dark Brown	2001 - 4000		
Light Green	51 - 100	Dark Orange	501 - 1000	Dark Brown	4001 - 6000		unit : m

language	
ISO code	eng
character set	UTF_8(004)
contact	
1 individual name	USGS
contact info	
online resource	
linkage	http://edc.usgs.gov/products/elevation/gtopo30/gtopo30.html
role	resource provider(001)
date stamp	2006-02-13
metadata standard name	JMP

ページが表示されました

インターネット

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright (C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), ICEDS, NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright (C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました

インターネット



Satellite Image and Population Density Data

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Disaster Management Support System

[About DMSS](#) | [Home](#) | [Search Photo](#) | [Search Satellite Images](#) | [Help](#)
Lang: English
User/Pass:

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Satellite:	PALSAR
Flight Direction:	Ascending	Product:	L1.5
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-H1.5GUA)		
	Sensor:	PALSAR	Observation Mode:
	Pointing Angle:	41.5	FBS-HH
	Scene Center Lat. / Lon.: 15.6075/100.1778		

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thai Flood on O
- ALOS/PALSAR Thai Flood on O

Recommended Layers:

Base Map:

- DEM(GTOPO30)
- DEM(ETOPO2)
- LAND COVER(GLCC)
- Population 1990(GPWv3)
- Population 1995(GPWv3)
- Population 2000(GPWv3)
- Population 2005(GPWfe)
- Population 2010(GPWfe)
- Population 2015(GPWfe)

DGW(Vmap0):

Reference

- Political Boundaries

[Add Layers][Redraw]

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright(C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), SEDAC, NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright(C) 2006 Japan Aerospace Exploration Agency, All rights reserved.

http://www.keio.ac.jp/index-en.html
インターネット



Satellite Image and Land Cover Data

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り 移動

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Sentinel-Asia Project
Disaster Management Support System

About DMSS Home Search Photo Search Satellite Images Help Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/12 16:03:24	Satellite:	PALSAR	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	41.5	Scene Center Lat. / Lon.:	15.6075/100.1778
Comments:	ALOS/PALSAR image (HH-ALPSRP038160290-HI.5GUA)						

Satellite Image

Legend:

User Layers:

- ALOS/PALSAR Thai Flood on O
- ALOS/PALSAR Thai Flood on O

Recommended Layers:

Base Map:

- DEM(GTOPO30)
- DEM(ETOPO2)
- LAND COVER(GLCC)
- Population 1990(GPWv3)
- Population 1995(GPWv3)
- Population 2000(GPWv3)
- Population 2005(GPWfe)
- Population 2010(GPWfe)
- Population 2015(GPWfe)

DCW(Vmap0):

Reference

- Political Boundaries

Lat: 15d 36m 27s N, Lon: 100d 10m 40.091s E

Copyright(C) Ministry of Economy, Trade and Industry (METI), Japan Aerospace Exploration Agency (JAXA), USGS, NGA

[Download this image from FTP site] [1 screen display] [Back]

Copyright(C) 2006 Japan Aerospace Exploration Agency, All rights reserved.

ページが表示されました インターネット



Comparison of different Sensor Images

Sentinel-Asia Project - Disaster Management Support System - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

戻る 検索 お気に入り

アドレス(D) http://arrs.adrc.or.jp/adrc/MyMap/adrc/index.jsp

Sentinel-Asia Project
Disaster Management Support System

About DMSS | Home | Search Photo | Search Satellite Images | Help

Lang: English User/Pass: Login

Satellite Image Details

Observation Date:	2006/10/04 03:04:44	Satellite:	ALOS	Sensor:	PALSAR	Observation Mode:	FBS-HH
Flight Direction:	Ascending	Product:	L1.5	Pointing Angle:	36.9	Scene Center Lat. / Lon.: 15.913011/108.2278	
Comments:	ALOS/PALSAR image (HH-ALPSRP036913300-H1.5_UD_img)						

Satellite Image

Legend:

User Layers:

- Landsat7/ETM+ image [snip]
- ALOS/PALSAR Vietnam Typhoon

Recommended Layers:

Base Map:

- DEM(GTOPO30)
- DEM(ETOPO2)
- LAND COVER(GLCC)
- Population 1990(GPWv3)
- Population 1995(GPWv3)
- Population 2000(GPWv3)
- Population 2005(GPWfe)
- Population 2010(GPWfe)
- Population 2015(GPWfe)

DCW(Vmap0):

Reference

- Political Bou

Lat: 15d 58m 8.444s N, Lon: 108d 8m 40.482s E

Copyright(C) 2006 Japan Aerospace Exploration Agency. All rights reserved.

ページが表示されました インターネット

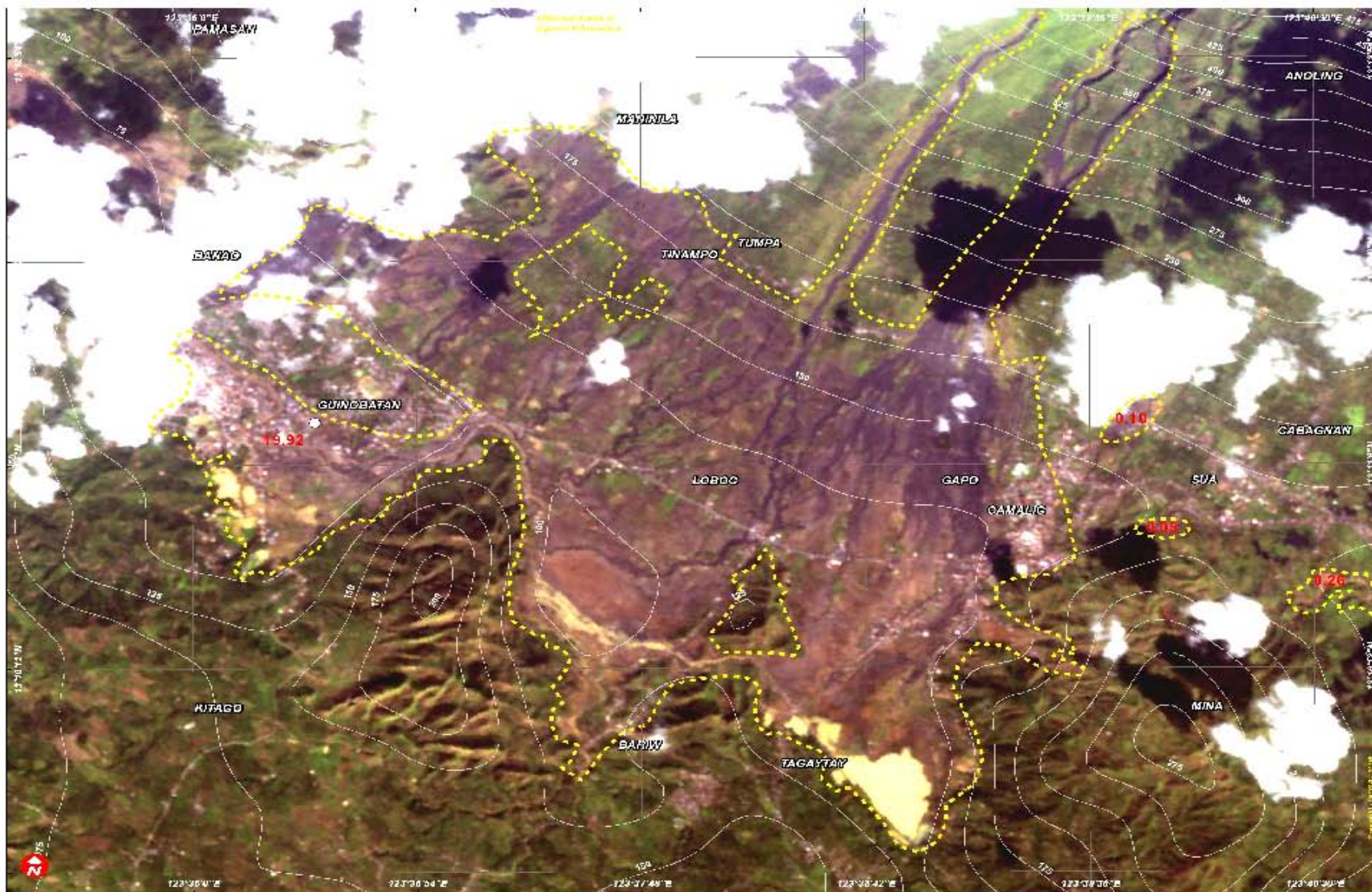
Flooding & Mudslide Damage over Guinobatan Town, Albay Province, Philippines

Satellite Identified Damage from Typhoon Durian Using ALOS Imagery Recorded on 3 December 2006

5 December 2006

Version 1.0

Guide No. TC-2006-000175-PHL



Map Information

This map illustrates the approximate areas of flooding and mudslide damage resulting from Typhoon Durian, 24 hours after the typhoon's passage. The damage identification was done using ALOS satellite imagery recorded on 3 December 2006. The ALOS imagery from 2002 onwards has not been corrected for terrain, so shadows and topographic relief may be visible. The map was produced by the United Nations Office for Disaster Prevention and Relief (UNDRP) and the United Nations Office for the Coordination of Operations (UNOCO) as part of the UNDRP's disaster response and relief program. It is intended for informational purposes only and should not be used for any other purpose without the prior approval of the United Nations Office for Disaster Prevention and Relief (UNDRP).

Map Legend

- Capital
- Town
- Province Boundary
- Flooding & Mudslide Areas
- Urban Area
- Vegetation Cover
- Major Highway
- Airfield
- Port
- Contour (20m)
- Typhoon Track
- Dr. Mission Station
- Mudslide / Flood SSI
- Summit / Flood Water

Map Scale: 1:30,000

UNOSAT
satellite imagery for all
www.unosat.org

Source Information: info@unosat.org 387
Tel: +66 75 487 4528



Sentinel Asia Web Site

Sentinel Asia
Disaster Management Support System in the Asia-Pacific Region

Recent Disasters and Emergency Observation

Wildfire Monitoring

Flood Monitoring

Capacity Building

Welcome to Sentinel Asia Web Site

Sentinel Asia is a "voluntary and best-efforts-basis initiatives" led by the [APRSAR](#) (Asia-Pacific Regional Space Agency Forum) to share disaster information in the Asia-Pacific region on the Digital Asia (Web-GIS) platform and to make the best use of earth observation satellites data for disaster management in the Asia-Pacific region.

Sentinel Asia is to initially be an internet-based, node-distributed, information distribution backbone, eventually distributing relevant satellite and in-situ spatial information on multiple hazards in the Asia-Pacific region. The system will draw on satellite derived products and imagery from all available earth observing geostationary, or low-earth orbiting satellites, including meteorological satellites that provide routine data to the region.

The system is also to be used by member countries of Sentinel Asia in the Asia-Pacific region to trigger dedicated satellite-data acquisitions through their participating and cooperating space agencies during major and minor disasters in their countries.

[[Sentinel Asia Leaflet](#) 570KB]

Copyright 2008 Japan Aerospace Exploration Agency. All Rights Reserved.

<http://dmss.tksc.jaxa.jp/sentinel/>



Wildfire Monitoring



About This Page

Display Data

Time Span (UT)

- Today
- Yesterday
- By Date (Last 3 Weeks)
- From
- To

MODIS Hotspots

- Hokkaido Univ (Japan)
- KARI (Korea)
- IIS.U-Tokyo (Japan)
- MACRES (Malaysia)
- CRISP (Singapore)
- LAPAN (Indonesia)
- COSSA/GA (Australia)
- AIT (Thailand)

Satellite Images / Date

Overlays

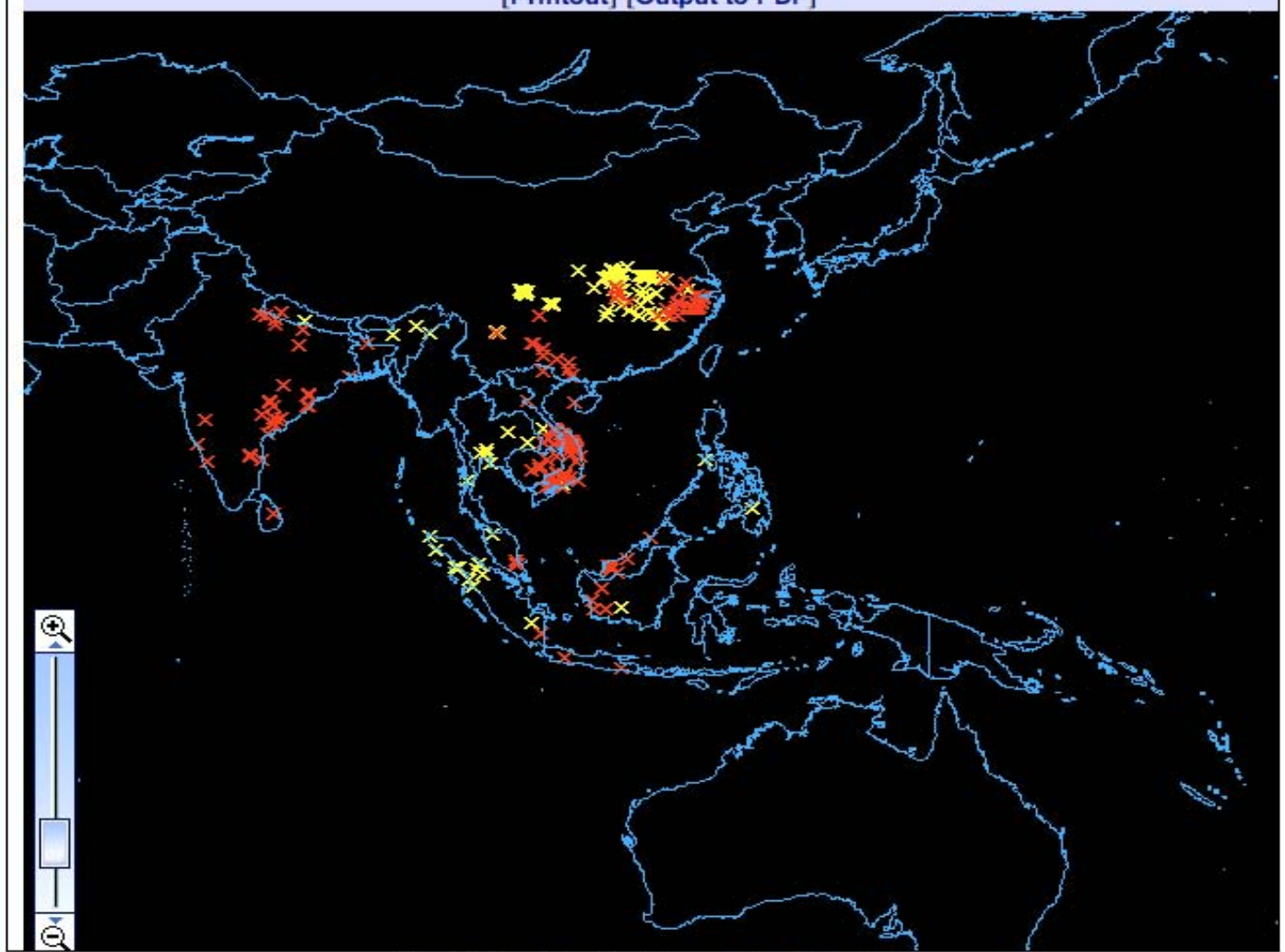
Map Data

- [+] DCW (VMap0)
- [+] GSI DM25000 (Japan only)

Other Information

- [+] Landsat
- [+] DEM
- [+] Land Cover
- [+] Population

[Printout] [Output to PDF]



Redraw

Original Data: Data Processing: Copyright: 2007. JAXA

Sentinel Asia - Wildfire Monitoring - Mozilla Firefox

ファイル(E) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

http://arrs.adrc.or.jp/adrc/MyMap/wildfire/index.jsp

Sentinel Asia Online System of Satellite Informatio... Sentinel Asia - Wildfire Monit...

WildfireMonitoring

[About This Page](#)

Display Data
Time Span (UT)
 Today
 Yesterday
 By Date (Last 3 Weeks)
From:
To:

MODIS Hotspots

- Hokkaido Univ (Japan)
- KARI (Korea)
- IIS,U-Tokyo (Japan)
- MACRES (Malaysia)
- CRISP (Singapore)
- LAPAN (Indonesia)
- COSSA/GA (Australia)
- AIT (Thailand)

Satellite Images / Date

Overlays

Map Data

- DCW (VMap0)
- Reference
- Political Boundaries
- Library Reference
- Place Name
- Boundaries
- BarrierLine Features
- Coastlines
- Depth Contours
- Political Boundaries
- Hydrography
- Aqueducts/Canals/Flu...

Redraw

完了

[Printout] [Output to PDF]

Original Data: Data Processing: Copyright: 2007. JAXA

Sentinel Asia
Disaster Management Support System in the Asia-Pacific Region



Sentinel Asia
Flood Monitoring

About This Page
 Printout
 Output to PDF

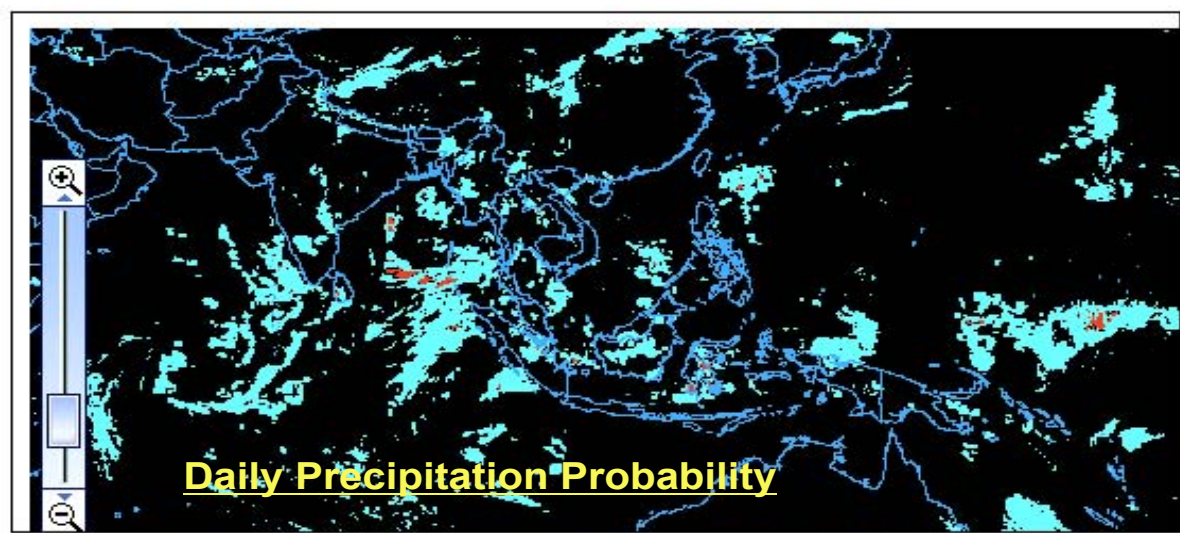
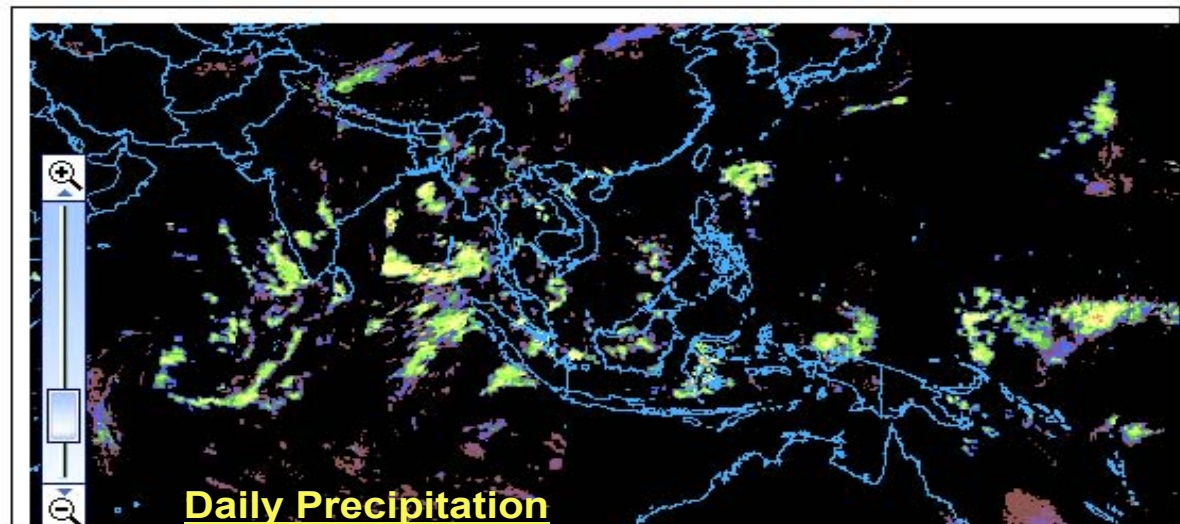
Observation Date 2007-3-13

< 2007 .3 >

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- Overlays**
- U L (Upper View/Lower View)
 - 24hr Accumulated Precipitation
 - Heavy Rain Information
- Map Data**
- [+] DCW (VMap0)
 - [+] GSI DM25000 (Japan only)
- Other Information**
- [+] Landsat
 - [+] DEM
 - [+] Land Cover
 - [+] Population

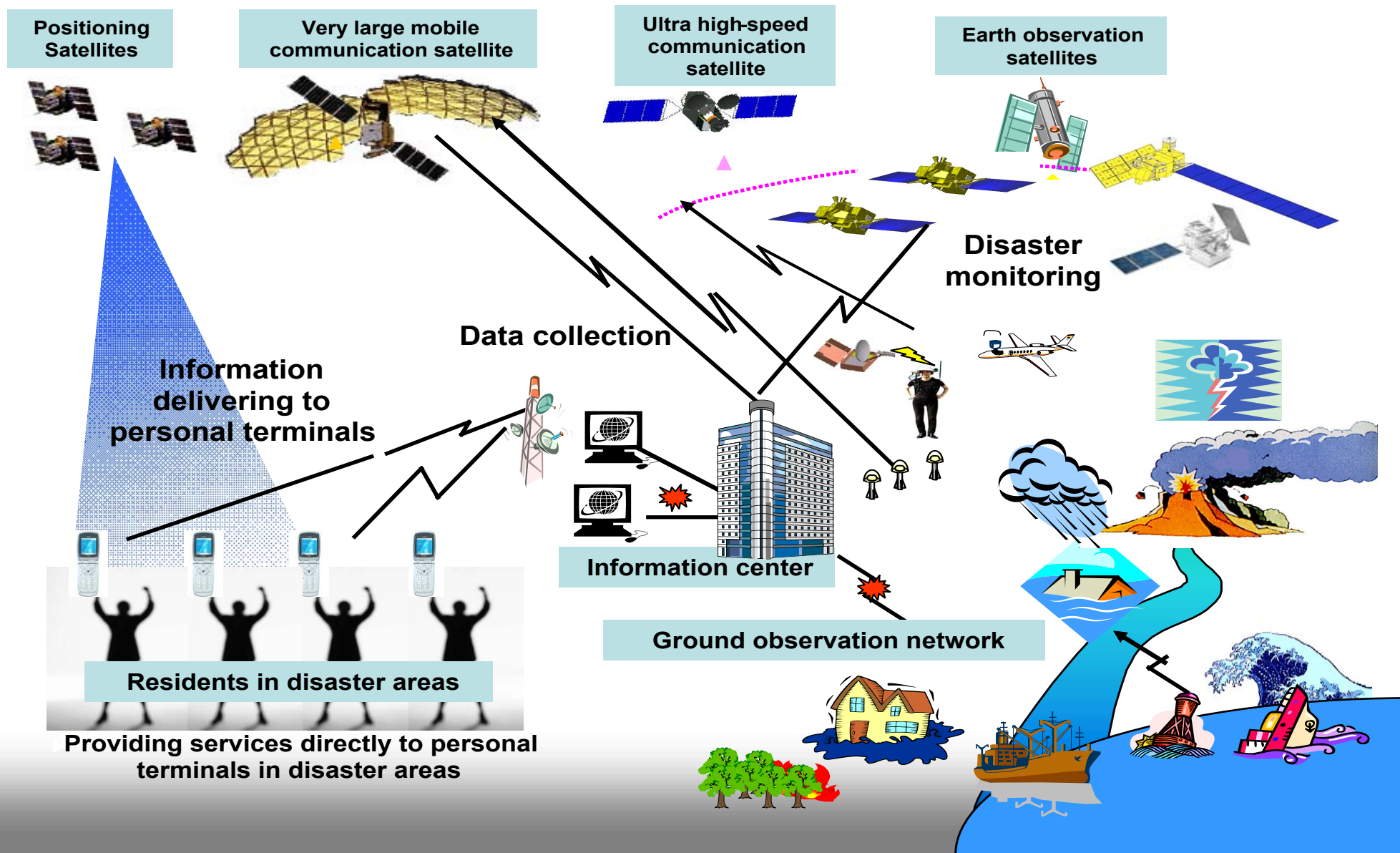
Redraw



Original Data: NASA 3B42RT Data Processing: IFNet/IDI Copyright: 2006. IFNet/IDI, NASA, JAXA



JAXA Vision of a Disaster Management Support System in the Asia-Pacific Region





Proposal to Joint Science academies for G8 2008

- We need the Digital Earth , information sharing platform for sustainability, energy efficiency and climate protection.



*Thank you for your attention.
Please visit Sentinel Asia at
<http://dmss.tksc.jaxa.jp/sentinel/>*

Japan Aerospace Exploration Agency
Space Applications and Promotion Center
Sentinel Asia Project Office
E-mail : sentinel.asia@jaxa.jp

