CEOS Water Portal

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JAXA/Mission Operations System Office
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Concept of Water Portal

- CEOS Water Portal is ;
  - To Provide “Easy to Access” service to users
  - To provide access to a whole variety of hydrological data and water relevant data scattered over the world
  - The Portal is aimed to become a system that supports data integration.

- Multiple types of data are available such as;
  - In-situ data
  - Satellite data
  - Model output data

Goal of Water Portal

Data centers

- In-situ hydrological data (CEOP)
- In-situ hydrological data (AWCI)
- MODEL output （CEOP）
- FLUX data （FLUXNET）
- Satellite data (CEOP, AWCI)
- Satellite data (NASA)
- Precipitation (NOAA/GPCC)
- ...

Water Portal (JAXA)

Acquire Data, Usecase easily

Wide Range of Users

River administrators etc.

DEM Data

Input

Model Calculation (eg) WEB-DHM

Input

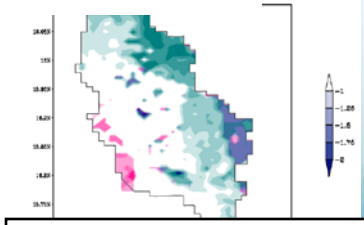
Scientists

Encourage communication within/across communities

Analysis

Model output Data

Results



e.g.
Agricultural drought
Hydrological drought
Metrological drought

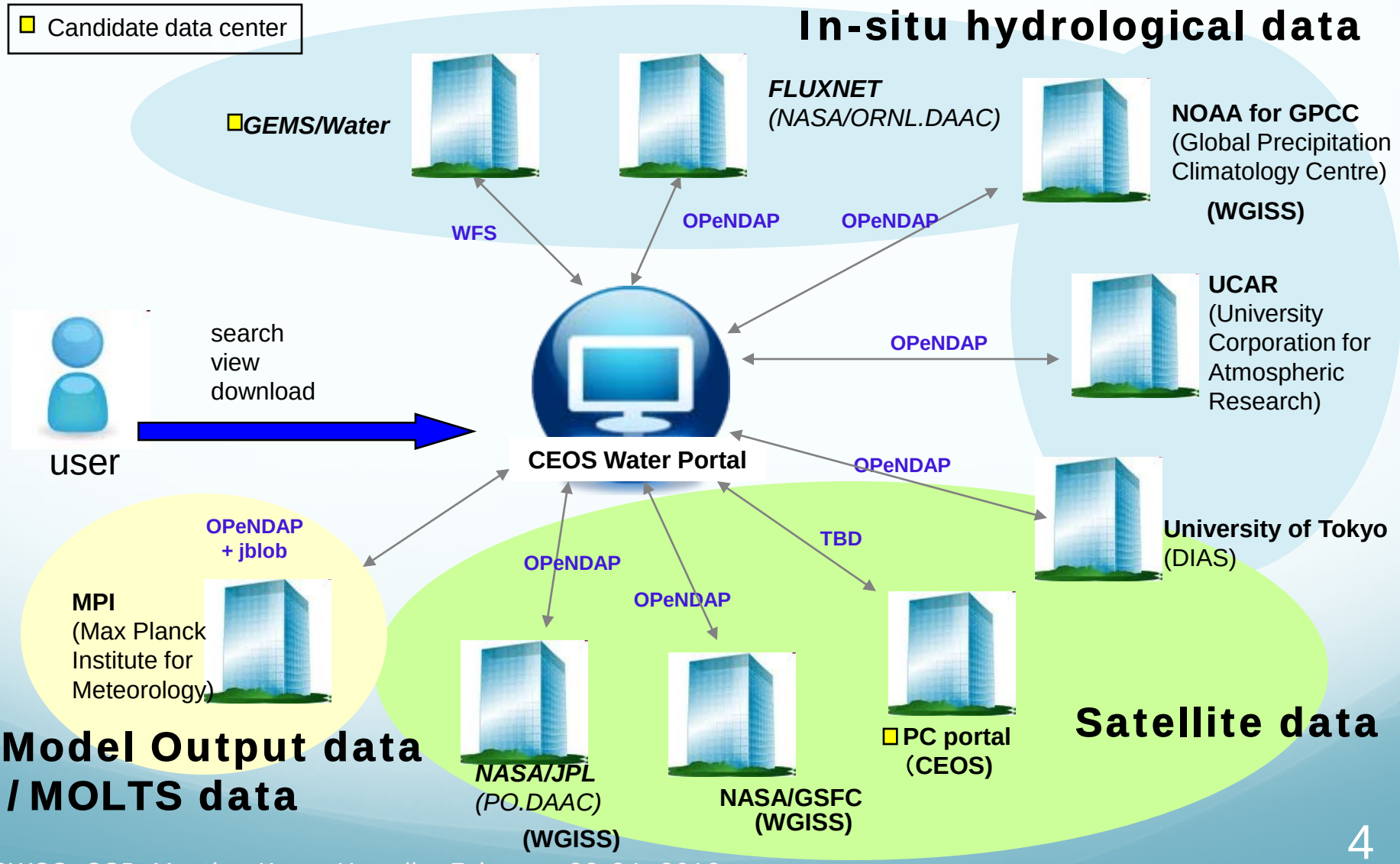
Acquire input data for model easily

Feedback as a usecase

Features of Water Portal

Support of Data Integration	(1) Data Archive Centers in remote locations are connected using standard data access protocol (2) Single user interface to get the various type of data (in-situ, satellite, and model output)
Functions to facilitate Easy Access	(1) Different types of search features : Category and Map (2) Selected by time range, variable and station (3) View data (gif image) (4) Download data (NetCDF, ascii, GRIB (only Model output))
Registration of Use Case	(1) Users can register their research results (use cases) obtained by using data via our portal, which then becomes available for other users to reference at their data search on the portal.

Data Partners



List of data partners/variables(1/2)

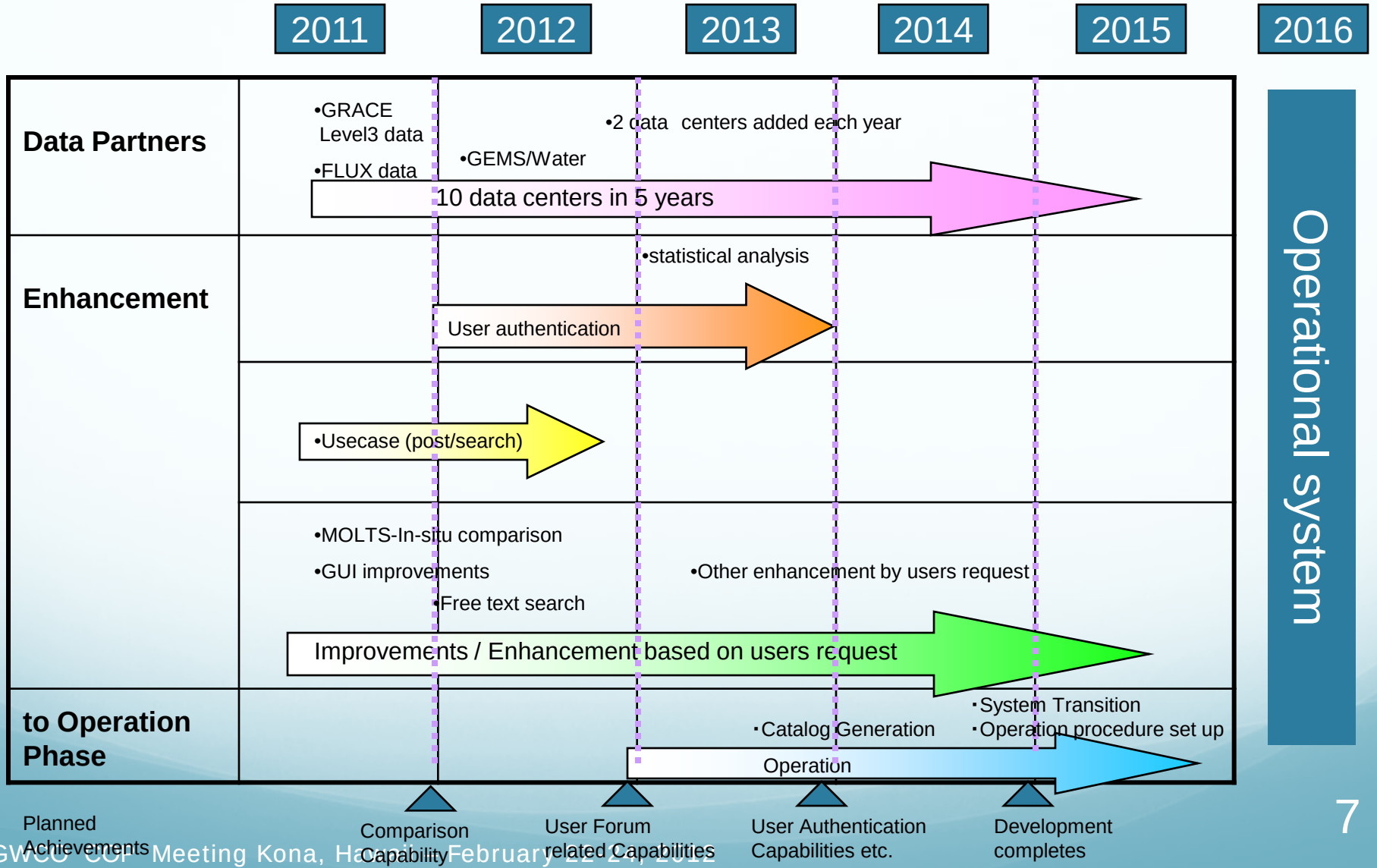
Data Partners	Data Types	Variables	Server Locations
CEOP	Satellite	PR, TMI, AMSR, AMSR-E, MODIS,GLI, SSMI, VISSR	University of Tokyo (Japan)
	Model (MOLTS)	surface pressure, skin temperature, precipitation amount in hour, brightness temperature surface, specific humidity, u-component of wind, v-component of wind, etc	MPI (Germany)
	Model(Gridded)	Air pressure, surface air pressure, air temperature, precipitation rate, snowfall amount, etc	MPI (Germany)
	In-situ	Surface Meteorological and Radiation Data Set Flux Data Set Soil Temperature and Soil Moisture Data Set Meteorological Tower Data Set	UCAR (USA)
AWCI	Model(MOLTS)	surface pressure, skin temperature, precipitation amount in hour, brightness temperature surface, specific humidity, u-component of wind, v-component of wind, etc	MPI (Germany)
	In-situ	Precipitation amount, River discharge, River water level, etc	University of Tokyo (Japan)
NASA	Satellite	Airs level 3 data	NASA (GSFC)
NOAA (GPCC)	In-situ	Precipitation data	NOAA (USA)

List of data partners/variables(2/2)

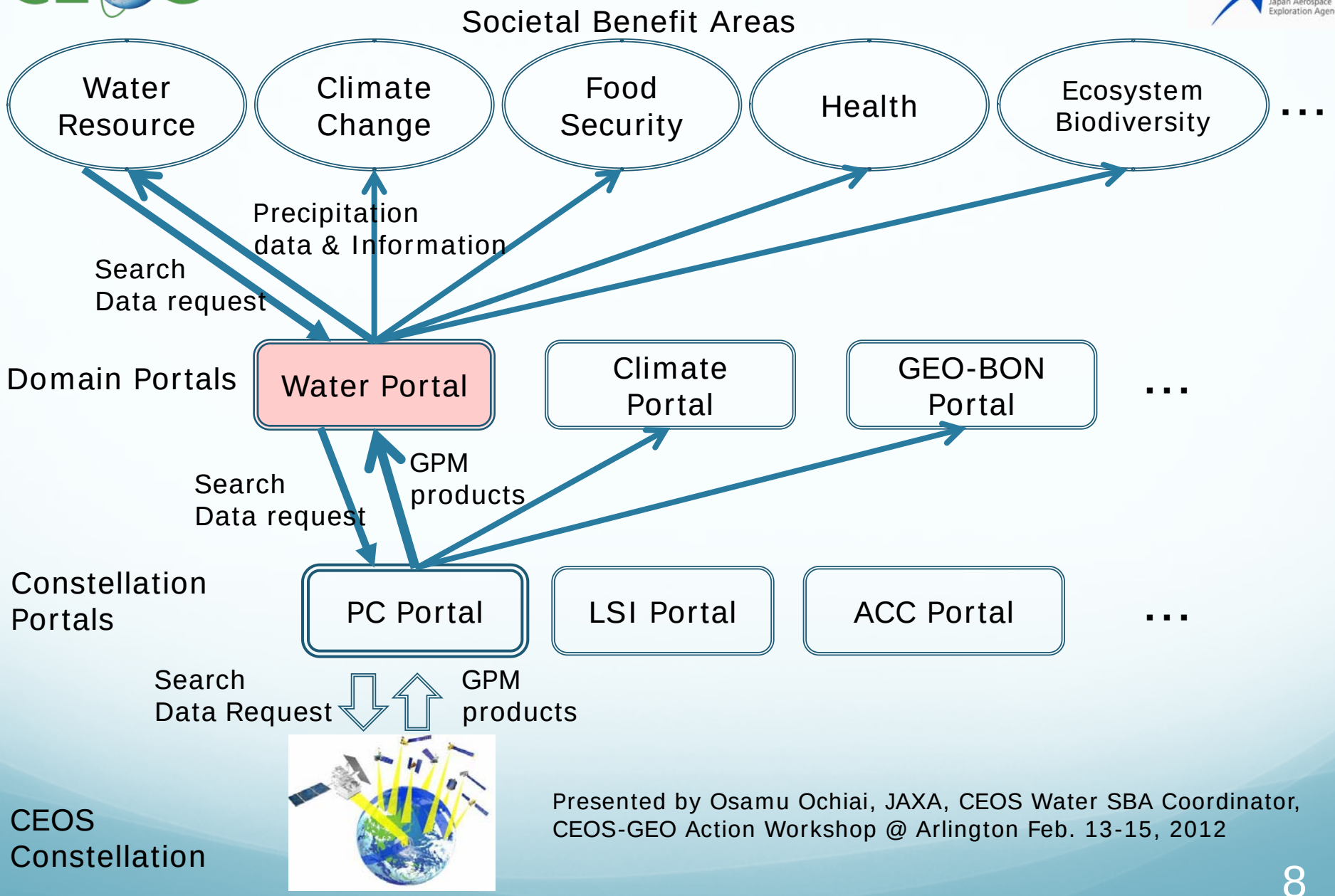
Data Partners	Data Types	Variables	Server Locations
NASA	Satellite	GRACE Level 3	NASA/JPL(PO.DAAC)
NASA (FLUXNET)	In-situ	FLUX data Fluxes of carbon dioxide, water vapor, and energy exchange, etc	NASA (ORNL DAAC)
GEMS/Water (Planned)	In-situ	Instantaneous Discharge , Dissolved Oxygen , Temperature, etc	GMES/Water (CANADA)
PC portal (Planned)	Satellite	Precipitation data	CEOS（JAXA ,NASA）

We are planning to add 2 data centers per each year

Milestone


2011
2012
2013
2014
2015
2016
Data Partners
•GRACE Level3 data
•FLUX data
•GEMS/Water
•2 data centers added each year
10 data centers in 5 years
Enhancement
•statistical analysis
User authentication
•Usecase (post/search)
•MOLTS-In-situ comparison
•GUI improvements
•Free text search
•Other enhancement by users request
Improvements / Enhancement based on users request
to Operation Phase
・Catalog Generation
・System Transition
・Operation procedure set up
Operation
Operational system
Planned Achievements
Comparison Capability
User Forum related Capabilities
User Authentication Capabilities etc.
Development completes

Synoptic View: Water Portal and Precipitation Constellation Portal



Presented by Osamu Ochiai, JAXA, CEOS Water SBA Coordinator, CEOS-GEO Action Workshop @ Arlington Feb. 13-15, 2012

Our web site & Contact us

CEOS water portal is available at :

http://waterportal.ceos.org/

Contact :

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We would like to request IGWCO members to consider the possibility of collaboration with this portal.