

**Sub-task Number:** AR-09-02b

**Sub-task Title:** WIS

**Overarching Task:** Interoperable Systems for GEOSS

**Area:** ARCHITECTURE

**Relevant Committee:** ADC

**Related Targets:** (to be included in 2009)

**Sub-task Definition** (as given in the 2009-2011 Work Plan):

Upgrade and demonstrate the WMO Information System (WIS) as one operational exemplar of the GEOSS architecture implementation process providing improvements for multiple societal benefit areas. Extend and further improve the existing WMO Global Telecommunications System (GTS) services to ensure time and operational-critical exchange of weather, water, climate and hydro-meteorological disaster data, warnings and products in response to identified user requirements. Implement procedures and mechanisms to provide to all national and international programmes and user communities data discovery and access services, including metadata compliant with relevant international standards. Improve connectivity and access to environmental information among WMO's Member Countries, and interoperability through registration in the relevant GEOSS registers – to facilitate timely decision making and exploitation of WMO's rich information base.

**Leads** (GEO Member or PO, Entity carrying out the work, Contact: e-mail):

WMO (OBS/WIS), Point of Contact: David Thomas, DThomas@wmo.int

**Motivation/Background** (Why should this Task or sub-task be implemented? What relevance to society? What is the state of the art? 3-5 lines)

**Outputs** (e.g. products and services which result from the activities of the Task/sub-task; outlined in the form of deliverables with timelines)

Planned:

Produced (current status):

**Activities** (operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Planned:

Progress (current status):

[Note: Updates on outputs and activities will be formally provided twice a year, according to the GEO schedule for 2009]

**Resources** (indication of resources – e.g. financial, human – contributed by GEO Members or Participating Organizations to produce outputs)

**Architecture and Data Component**

1) Please briefly describe any task-related Earth observation resources (data set, system, website/portal) and any related Web Service interfaces that are contributed to GEOSS. State whether these items are or will be registered with the GEOSS Component and Service Registry for access via the GEO Web Portals, and whether any associated standards or other interoperability arrangements will be registered in the Standards and Interoperability Registry.

2) Please also describe what data and information your activity/system needs that you would request to be accessible through the GEOSS Common Infrastructure.

**Capacity Building Component**

(capacity building is defined to include the development of capacity related to: (i) Infrastructure and technology transfer (Hardware, Software and other technology required to develop, access and use EO); (ii) Individuals (education and training of individuals to be aware of, access, use and develop EO) and (iii) Institutions – building policies, programs & organizational structures to enhance the value of EO data and products).

1) In accordance with the above definition does this Task have a capacity-building component? If so, please provide a short description of this component including a description of end users.

2) Have any additional CB needs for this Task been identified? Please provide a short description.

**User Engagement Component**

(please briefly describe to what extent end users are engaged in this Task and influence the nature of the outputs produced)

**Science and Technology (S&T) Component**

1) Please briefly describe the elements of scientific research or technological development contained in this Task.

2) In relation to the S&T component(s) of this task, please describe gaps, priorities, continuity needs, barriers, scientific expertise and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01)

**Members and POs' Contributions to Outputs and Activities above:**

(Input is optional. This section gives the chance to Members and POs to provide more details (3-5 lines) on their individual activities, making a clear connection with the Outputs and Activities outlined above).

**USA**

NASA: Upgrade and demonstrate the WMO Information System (WIS) as one operational exemplar of the GEOSS architecture implementation process providing improvements for multiple societal benefit areas. Lead the task; work with modelers to develop and communicate the concept; facilitate participation of modelers and gradual growth of the web.

**CEOS**

NASA Northrop Grumman: ACC Portal: Identify requirements and implement a prototype ACC portal for evaluation and eventual use by the ACC, GEOSS and other AC user communities..

NOAA: AVHRR-based system, indices and data products (global assessment of vegetation health, vegetation and temperature conditions, drought, fire risk, land cover and climate-related vegetation tendencies) are used operationally and globally for early drought detection, monitoring drought development, intensity and impacts on agriculture, forestry, environment, land cover, human health (vector borne diseases), invasive species (locust).

*Participation (Table to be filled in 2009):*

Type	Member or PO	Representing	Contact Name	EmailAddress
Lead(PoC)	WMO	OBS/WIS	David Thomas	DThomas@wmo.int
Contributor	CEOS	NASA Northrop Grumman	Stefan Falke	Stefan.Falke@ngc.com
Contributor	CEOS	NOAA	Felix Kogan	Felix.Kogan@noaa.gov
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