

For distribution at the ESIP Federation Workshop
FIRST STEPS TO DESIGN, TEST AND IMPLEMENT A SYSTEM FOR SEAMLESS
COUPLING OF DATA AND INFORMATION BETWEEN THE WMO/GEO SDS-WAS
AND THE GEOSS GEOPortal and GEONETCast
Thursday July 9, 2009
Santa Barbara, California
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PARTNERING ANOTHER OBSERVATION "SYSTEM" (SDS-WAS)
WITH
THE "SYSTEM OF SYSTEMS" (GEOSS)

WHY? Avoid unnecessary duplication of effort. Improve investment efficiencies. Make greater use of infrastructure. Expand access to and use of space-based observations. Accelerate information and technology transfer. Broaden base of collaborators. Realize immediate imprint on Societal Benefit.

MISSIONS

I. ESIP FEDERATION

From Carol Meyer in a March 12, 2009 e-mail:

As many of you know, the ESIP Federation has Observer status within the Group on Earth Observations (GEO). GEO is an international coordinating body that is driving toward building a Global Earth Observation System of Systems (GEOSS). The vision of GEOSS is to use earth observations in ways that the global society benefits. The expected Societal Benefits of GEOSS include:

- Reducing loss of life and property from natural and human-induced disasters;
- Understanding environmental factors affecting human health and well-being,
- Improving the management of energy resources,
- Understanding, assessing, predicting, mitigating, and adapting to climate variability and change,
- Improving water resource management through better understanding of the water cycle,
- Improving weather information, forecasting and warning,
- Improving the management and protection of terrestrial, coastal and marine ecosystems,
- Supporting sustainable agriculture and combating desertification, and
- Understanding, monitoring and conserving biodiversity.

The ESIP Federation and many of its partners are involved with GEO activities in a variety of ways. One way that each of you may become involved is through reviewing the candidate portal prototypes for GEOSS. The portals continually evolve so if you have already submitted a review and some time has passed, you are encouraged to see the progress that has been made. To view the portals, visit http://earthobservations.org/gci_gp.shtml. All feedback can be submitted online using a form on the portals page.

II. GEO

From the 2009-2011 Work Plan, Mar 2009

Task Number: HE-09-02a

Task Title: Aerosol Impacts on Health and Environment: Research, Monitoring and Prediction

Overarching Task: Monitoring and Prediction Systems for Health

Area: HEALTH

Related Community of Practice: Air Quality & Health and Atmospheric Chemistry

Relevant Committee: TBD

Related Targets: (to be included in 2009)

Task Definition (as given in the 2009-2011 Work Plan):

Facilitate research and development activities that lead to the delivery of new services related to monitoring of the atmospheric cycles of various aerosols and their improved forecast in operational numerical models of the atmosphere. The proposed approach is consistent with GEO goals and philosophy and seen to combine observations and a variety of diverse research and modelling effort into a system of systems. The key activities include: (1) Reducing risks due to aerosol influences on health and public safety and assess aerosol effects on marine and terrestrial ecosystems. (2) Supporting the WMO international initiative - the Sand and Dust Storm Warning Advisory and Alert System (SDS-WAS) in developing dust storm warning system and assessments. (3) Assessing links between dust and human health. (4) Reviewing current developments in modeling and observation of bioaerosol transport/deposition. (5) Increasing present understanding of impacts of the atmospheric deposition of dust (iron, phosphorus) to the ecosystem.

III. WMO/GEO Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS)

Airborne dust affects social, economic and environmental systems and influences weather and climate. The serious consequences have encouraged more than 40 nations to recommend action by the World Meteorological Organization to develop a better understanding of dust storms, the mechanisms for dust entrainment and dispersion in the atmosphere, and a world-wide system to detect, monitor and predict them. An Implementation Plan for an International Sand and Dust Storm Warning Advisory and Assessment System is under review. The Plan calls for research, observations, and advisories to support national weather services and other potential users worldwide. A federated system of regional centres form the core of the new SDS-WAS, providing several nodes for state of the science information on current conditions for sand and dust storms around the globe. A proposal for a Pan-American Centre is under construction, needing a plan for data assembly and distribution.