

Global Earth Observation System of Systems – GEOSS

Towards a Common Infrastructure ?

Dr. Alexia C. Massacand
amassacand@geosec.org



(1) GLOBAL

GEOSS Infrastructure



**GEOSS
Common
Infrastructure**

**GEONETCast
Dissemination System**

**GEOSS
Registration
Service (CSR)**

EO Vocabulary

**Standards and
Interoperability
Registry**

Clearinghouse

**Service
Monitoring**

**Best
Practices
Wiki**

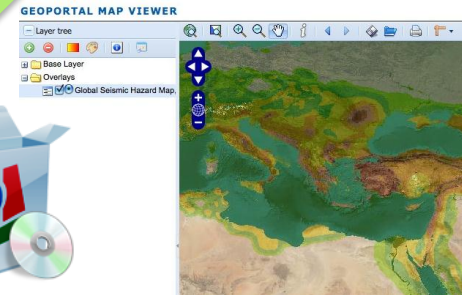
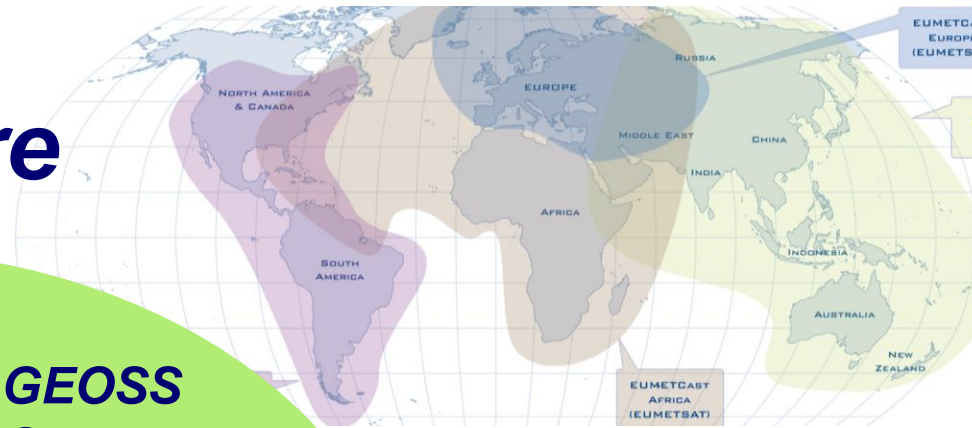
**DataCORE
Brokered Search:
EuroGEOSS,
GENESI**

EO Data

Services
Catalog, Access,
Processing

**Inventory
Access**

Applications
Web and PC



(2) CROSS-CUTTING

THE GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS



<http://www.earthobservations.org>

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GEO 2012-2015 WORK PLAN

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ID-04	Building a User-Driven GEOSS.....
ID-05	Catalyzing Resources for GEOSS Implementation

3 INFORMATION FOR SOCIETAL BENEFITS

SB-01	Oceans and Society: Blue Planet
SB-02	Global Land Cover.....
SB-03	Global Forest Observation
SB-04	Global Urban Observation and Information
SB-05	Impact Assessment of Human Activities

DISASTERS

DI-01	Informing Risk Management and Disaster Reduction
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HEALTH

HE-01	Tools and Information for Health Decision-Making.....
HE-02	Tracking Pollutants.....

ENERGY

EN-01	Energy and Geo-Resources Management.....
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CLIMATE

CL-01	Climate Information for Adaptation.....
CL-02	Global Carbon Observation and Analysis

WATER

WA-01	Integrated Water Information (incl. Floods and Droughts).....
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WEATHER

WE-01	High-Impact Weather Prediction and Information
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ECOSYSTEMS

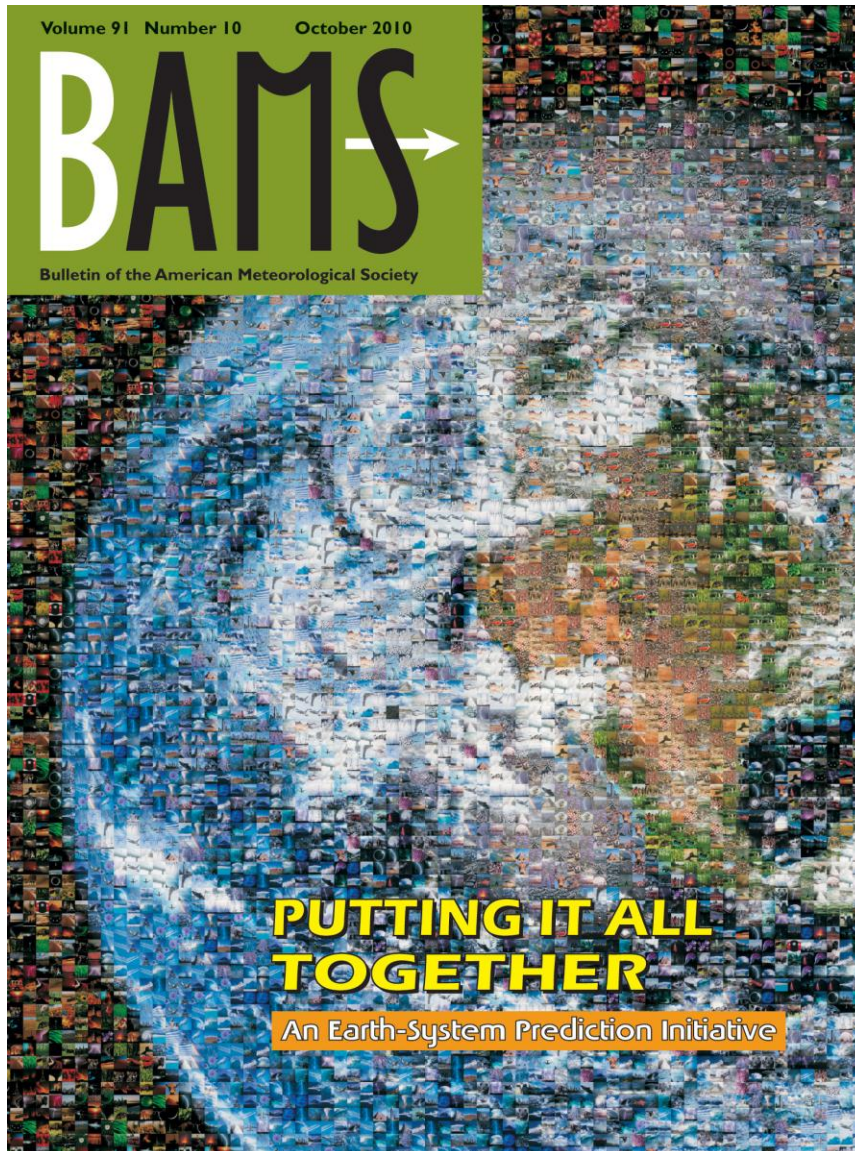
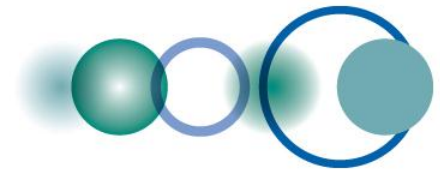
EC-01	Global Ecosystem Monitoring.....
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AGRICULTURE

AG-01	Global Agricultural Monitoring and Early Warning
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BIODIVERSITY

BI-01	Global Biodiversity Observation (GEO BON).....
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International interdisciplinary efforts for improved prediction, use, and value of weather, climate, and Earth system information

Key Research Infrastructure

High-Performance Computing (HPC) for high-res assimilation/analysis (integrating air-ocean-land-ice observations); and high-res ensemble (probabilistic) predictions

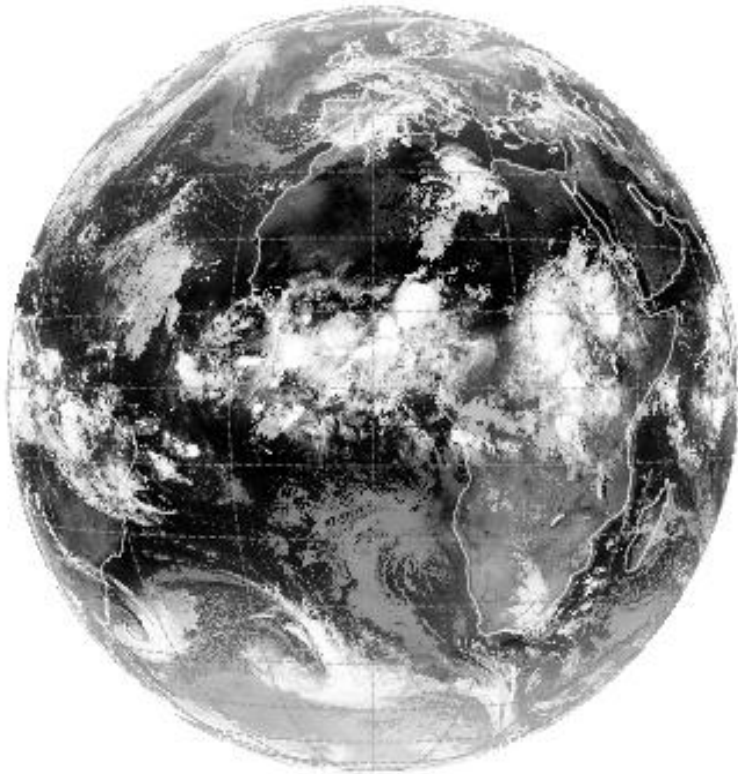


Weather Prediction (T1279, ~15 km) Compared with Satellite Observations

(courtesy of ECMWF)

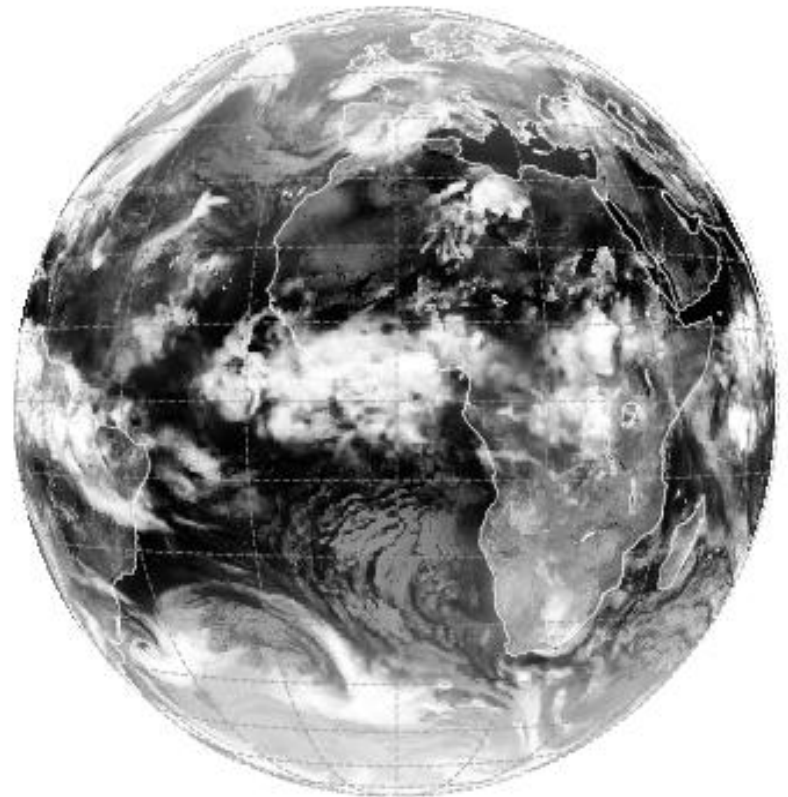
Satellite Observations

Meteosat 9 IR10.8 20080525 0 UTC



Numerical Forecast

ECMWF Fc 20080525 00 UTC+0h:





<http://www.earthobservations.org>