Progress Report to UIC, March – Aug 2010: GEOSS Air Quality Community of Practice (AQ CoP)

Rudolf Husar (Point of Contact, rhusar@wustl.edu)  
Washington University in St. Louis

Presented at  
GEOSS User Interface Committee Meeting  
Oslo, Norway, September 2, 2010
Meetings, Coordination:

Monthly telecons
Interoperability Virtual Workshops – Data Access, Metadata
AQ – GEOSS Tutorial at AWMA Xian, China May 2010, China
AQ CoP Presentation, HTAP, June 2010, Brussels
AQ Community Presentation, IGARSS, July 2010, Honolulu, HI
Meeting AQ Community Infrastructure, ESIP, July 2010, Knoxville, TN
Coordinated Participation in the GEOSS AIP-III

Collaborative website for AQ CoP

AQ CoP Participation in GEO Tasks

- US-09-01b: Development of Communities of Practice
- US-09-01a: Identifying Priority Earth Obs for AQ
- AR-09-01b: GEO Architecture Implementation Pilot (AIP)
- DA-09-02d: Atmospheric Model Evaluation Network

CoP – Supporting Projects:

HTAP Network; EPA
Atmospheric Composition Portal, NASA, DLR
US-09-01a: Identifying Priority Earth Obs for AQ
GEO AQ-CoP

Main interaction through the open, participatory website:

Air Quality Projects

- HTAP -- Task Force on Hemispheric Transport of Air Pollution
  While local and regional emissions sources are the main cause of air pollution problems worldwide, many air pollutants are transported on a hemispheric or global scale,...
- ACP -- Atmospheric Composition Portal
  The ACP Portal is being developed to provide access, tools, and contextual guidance to scientists and value-adding organizations in using remotely sensed atmospheric composition...
Air Quality Applications

- Informing the Public
- Managing Air Quality
- Air Quality Policy
- Air Quality Research

User Needs
- Real-time Data/Forecast
- Regulatory Loop
- Assessments, New Directions
- Science & Education

Offered Services
- Emission
- Surf. Obs.
- Satellite
- Atm. Model
- Population

GCI
- User Req. Registry
- Standards Registry
- Best Practices Wiki
- Clearinghouse

AQ CoP
- Connect User-Producers
Air Quality Applications

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User Needs

Data as Service Offerings
- FZ Juelich
- DataFed
- RSIG
- DLR
- Unidata
- EDC, Univ. NM
- NASA-GSFC
- Northrop Grumman

Offered Services

- Emission
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2010 AQ CoP Activities:
Share Data as Services

WCS Providers:
- FZ Juelich
- DataFed
- RSIG
- DLR
- Unidata
- EDC, Univ. NM
- NASA-GSFC
- Northrop Grumman

Activities
- **AIP-II, AIP-III AQ** – Scenario development promoted testing the share/use data as a service

- **ESIP Summer Meeting AQ** – Described projects that are currently exposing data
Air Quality Applications

Informing the Public
Managing Air Quality
Air Quality Policy
Air Quality Research

User Needs

Use of Standards
• Provide WCS sever software framework
• Harmonize ISO AQ Metadata for AQ
• GEOSS Common Rec.

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Offered Services

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Surf. Obs.
Satellite
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Population

Observing Systems
2010 AQ CoP Activities:
Promote and Support the Use of Standards

Server Software Framework for Web Coverage Service (WCS) for AQ data

Facilitated implementing standards in order to be found and accessed through GEOSS (AIP-II, AIP-III AQ Communities)

WUSStL suggested GEOSS Common Record and worked with AIP-III/SIF participants to come to consensus

Harmonizing metadata with ACP, CWIC and AQ Community records for interoperability among remotely sensed datasets
Extended GEOSS Common Record to include terms needed for AQ Community to find/access AQ data.

Interoperability workshops on WCS and ISO 19115 standards (ESIP)
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  - Best Practices Wiki
  - Standards Registry
  - Clearinghouse

Offered Services

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Best practices
- Tools & Methods
- Not well organized
Air Quality Applications

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GEOSS fatigue by participating evangelists and early adopters

No obvious benefit to and weak response by outsiders

Sustainability of AQ CoP is uncertain