

ESIP Federation Meeting
Water Management Cluster Breakout
Washington, DC
January 9, 2008

Attendees: Tim Owen (NOAA/NCDC); Will Pozzi (WaterNet); Lola Olsen (GCMD); Jeff Arnfield (NOAA/NCDC); Debbie Belvedere (CREW); James Wilson (JMU); Carol Meyer (ESIP); Wolfgang Grunberg (University of Arizona); John Townshend (University of Maryland); Matt Heavner; Holly Hartmann (University of Arizona, RISA); Bill Teng (NASA GSFC); Chuck Hutchinson (University of Arizona); Dick Wertz (ESIP Federation); Dave Clark (NOAA NGDC); Tommy Jasmin (University of Wisconsin); Verne Kaupp (University of Missouri); Lucien Cox (NASA); Annette Schloss (UNH); Phil Yang (NASA GIO/GMU); Brand Niemann (EPA); Danielle Forsyth (Thetus); Keith Ingram (University of Florida/SECC RISA); Vic Delnore (NASA Langley); Don Sullivan (NASA Ames); John Bates (NOAA NCDC); Steve Young (EPA); Steve Kempler (NASA GSFC); George Percivall (OGC); Montira Pongsiri (EPA); Jianping Mao (GCMD)

Tim Owen provided an overview of the session, describing the intersection of many potential players in this domain:

- Computing Systems Data
- Information Resources
- Networking
- Digitally-Enabled Sensors
- Instruments
- Virtual Organizations
- Observatories

Given the breadth of disciplines, there is a need to have an interoperable suite of software services and tools.

This afternoon's session's objectives:

- Ontological Development (user requirements for products, services, and data discovery tools)
- Climate Cluster formation (building on water management, air quality and carbon cycle cluster work)

Key Questions:

- What is your participation in water management activities
- What data sources and technologies do you use?
- What are the key products and services that you now use?
- What products and services would you like to see developed?

NIDIS Is a US GEO Near-Term Opportunity
www.drought.gov

Why Drought?

- Increase in incidence of drought during last 30 years
- Increase in temperatures, combined with growing population and unsustainable use of water

Build a Global Drought Early Warning System

Leveraging partnerships and experience in US to advance GEO NTO

Will Pozzi

Items to focus on:

- Link users to available technology
- How climate change impacts drought process
- Need new technologies/set of tools: high resolution landscape forecasting system; and drought forecasting system; season-interannual forecasting system
- Transfer to agriculture; water resource managers; public health personnel
- Cross-cutting focuses

Lola Olsen, GCMD

- Changed topic key word from hydrosphere to terrestrial hydrosphere
- Created portals (some for CREW)
- Environmental Advisories (hydrological advisories subtopic)
- Pamela Whitney (House Science and Technology Committee)
- Topic/Term/Variable 1/Variable 2/Variable 3 and Detailed Variable

Brand Niemann, EPA

- Semantic Interoperability Community of Practice
- Participated in Shenandoah Valley Science Symposium (Oct. 15-16, 2007)
- Working on Water Cycle Drought Ontology with Will Pozzi
- <http://colab.cim3.net/cgi-bin/wiki.pl?WaterCycleOntology>

Paradigm Shift Recommendations – chapter in an online book

- Put Data and Metadata Back Together
- 3 key parts:
 - Decision Makers
 - Indicators and Assessments
 - Knowledge Representation/Knowledgebases
- Search across knowledgebases
- Use best sources of data
- Build in Web 2.0, 3.0 forms

- Work with OMB Federal Enterprise Architecture to include water indicators and assessments
- Build a Puget Sound Knowledgebase

How do we leverage our skill/capabilities to create a Climate Cluster?

Climate is a unifying, cross-cutting concept that all of the ESIP Federation's active clusters are part of

Time is a limiting factor during the meetings – workshop linking RISA/ESIP/local decision makers would be a good idea

- Need help understanding science v. stakeholder languages
- Stakeholder needs change over time
- What other conferences/workshops can we tap into where stakeholders (users/scientists) gather (e.g. NCSE)

Look at water quality, water availability, communities (tribal, industrial, urban)
What policy questions are being promoted by the agencies?

Need to make science understandable to the policymakers

- Need the translation function/broker role – need to overcome the language barrier

Keep your eye on the end user

Southeast drought as a case study

The Georgia story wasn't told – can we help tell the story

e.g. Atlanta was very low on water before it became news

Georgia actually had a good water management plan BUT it didn't work because they didn't have good monitoring capability

Georgia's state climatologist was issuing press releases but they didn't get the attention they deserved

Use web services, web map services to link data and information to provide tools to users

NIDIS trying to identify case studies highlighting drought events across the country

Working to do a workshop in Atlanta in the spring

WM Cluster will become engaged in this workshop

NOAA National Climate Service might open up opportunities

Develop lower level partnerships

RISAs are meeting in March in Chapel Hill, NC – March 4-7, 2008

Climate Prediction Applications Workshop

Pitch a workshop session to link users/stakeholders to data providers/tool developers

Need to brand the information – credibility is key

a common metric for the severity of the problem

How to enable the community to use data to make more accurate forecasts of coming drought events

Need to exploit drought.gov as an information delivery tool

Educating policymakers on LT solutions to a problem (need to get their attention)

How Do We Move Toward a Climate Cluster?

1. Try to get on agenda for CPASW in Chapel Hill, NC this year (March 2008) to engage RISA-ESIP stakeholders
 - i. Make Science Understandable to policymakers
 - ii. Communication/Branding of science information – how to exploit NIDIS's capability
2. Identify a case study (e.g. Southeast drought; or several areas; Las Vegas) – this will allow partners to leverage tools/develop tools/technologies
3. NIDIS focused session at ESIP Federation summer meeting – invite RISAs to participate
4. Outreach to state climatologists
5. Participate in NOAA Workshop in Atlanta in Spring 2008

How to move ahead – telecons; email; next ESIP Federation meeting (Tim, Will and Carol will coordinate)

Contact RISAs – Diana Perfect (copy Holly Hartmann)