IOOS, DMAC, and Interoperability

What in the World Does All This Really Mean?

PRiMO Workshop for Waves and Water Level Hazards Data Framework Development
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Data Management and Communication (DMAC)

What is DMAC?

• One of three sub-systems for IOOS
• Produced initial report with general guidelines IOOS for data management
• Next iteration of DMAC currently underway
  – New steering group
  – Expert teams
  – Interest group caucuses
• Have released “concrete guidance” to supplement original report
Where Does This Get Us?

- Must realize that DMAC efforts are largely volunteer at this point
- Funding has been primarily through Congressional direction
- DMAC offers “guidance”, but developing, implementing, and testing data management methods really happens at local and regional levels
A “Tricky” Situation

- Real work is done at discrete levels
- Need to ensure the national body (DMAC) is engaged and aware of discrete efforts – share lessons learned and avoid duplication
- A process for doing all this does not yet exist
What To Do?

- Communicate with and through Regional Associations, DMAC teams, groups, caucuses
- Collaborate with others in your region, especially existing observing systems that are sharing data
- Stay in touch – share – make yourself a nuisance so others know what you are working on
CSC Involvement

- Regional Associations
- QARTOD
- Best Practices Workshops
- OpenIOOS
- OOSTech
- COTS Partners
- Private Sector Partnerships

DATA TRANSPORT

METADATA
Salinity Data Best Practices

• Concept grew directly out of QARTOD II
• Focused specifically on one IOOS core variable
• Data quality, metadata, and transport
Salinity Data Best Practices

- Small group with dissemination to wider audience for feedback
- Process as important as the immediate results
- Should be a “portable” process for others to implement
Salinity Data Best Practices

Summary of Workshop Results

• Data quality discussion produced required and recommended criteria tests and agreement on flags
• Metadata discussion produced required and recommended elements list
• Transport discussions produced agreement to develop a “light” SOAP XML schema (working group in progress on this task)
Salinity Data Best Practices

**Process**

- Small group, 3 topical areas, 1 room
- Resulted in some confusion and too much “educating” across topical areas
- **Suggest:**
  - Stick with small group
  - Specifically defined outcome
  - Breakout rooms for each topical area
  - Reconvene in plenary to share
Salinity Data Best Practices

Next Steps

• Share results with broad IOOS community
• “Submit” to DMAC – push DMAC to develop a plan for comment, feedback, distribution, recommendation, etc…
• Improve on process
• Choose another variable and do it again
Plans for the Current Year

- Information Repository – sharing of “how tos”, cookbooks, lessons learned, ongoing projects, points of contact
- Next steps for OpenIOOS – what does the community need and how can OpenIOOS best meet those needs?
Plans Continued…

• **Data Transport Lab** – implement and test various standards and protocols for moving, sharing, exchanging data (i.e., machine-to-machine interoperability)

• **Best Practices Workshop(s)** – Build on salinity workshop and push ahead
Plans Continued…

- **Metadata Expert Team** – plans being vetted with DMAC Steering Group
- **Private Sector Partnerships** – Working with Boeing on specific data transport work in the Gulf of Mexico (results should be portable to other regions as needed/requested)
Parting Thoughts

• Lots going on – we’ve got to figure out ways to share what we are doing and the results of those efforts
• Without a specified process to communicate, we’ve all got to make the effort to share
• Work with the local groups/offices, RAs, DMAC, federal agencies as much as possible
• Don’t wait on others, but please inform them of plans and results