

Standards and Protocols Working Group

Michael Jones, Google
Richard Marciano, UCSD
Marie Colton, NOAA/NOS

Jose Acache, GEOSS
Sean Collins, Surfline
Andrew Dixon, SIO
Simon Evans, ESRI
Dave Russell, USAF
Karen Stocks, CIO
Julie Thomas, SIO
Melanie Zascher, UCSD





Introductory conversation

- Stds/QC from data acquisition through software development, products, data distribution and archive
- GEOSS architecture team influences existing efforts, eg., IOOS Data Management and Communications, for data management compliance
- Existing standards setting efforts need to be utilized to minimize duplication
 - Accommodate or adapt the ratified standards and standard setting bodies for national or international level operational activities
 - Data format conversion processes must be identified
- Need ease of use for input as well as extraction to encourage data providers to contribute data.
- End user must be factored in at the beginning
 - Tactical (imagery and Web) : real-time, accurate, accessible products require flexible, facile standards
 - Strategic (prognostic): global or national data products and services require ongoing standards process and consistency
- Roles and Responsibilities of Academia/Public/Private Sector vary depending on usage



Questions/Answers

- Q: How should data and info from GEOSS be managed and disseminated?
- A:
 - Start with (inter)national initiatives that are considering scalable cyberinfrastructure.
 - Address barriers to full and open data exchange
 - Consider and promote common collaborative architectures, etc., but not particular standards
 - Develop integrating elements such as portals, translators and middleware that utilize existing elements such as Global Change Master Directory, Geospatial OneStop
 - Develop a common portal architecture to include all elements. Distribution is virtual



Questions/Answers

- Q: How do we minimize standards and protocols?
- A:
 - Build from existing groups and standards.
Develop new material when no existing standard can be found
 - Consider data independently of today's usage context so that standard is not over-constrained



Questions/Answers

- Q: How should standards be set and enforced?
- A:
 - Reward contributors to GEOSS data system
 - Develop and publish appropriate recognized standards that are recognized as high quality and appropriate to community
 - Utilize existing bodies such as FGDC
 - Workshops, best practices, consensus to develop candidate standards
 - Determine whether standard is appropriate to GEOSS (and associated other) architectures through technical team supporting Project Offices.



Questions/Answers

- Q: Who is responsible for quality and cal/val?
- A:
 - Initial calibration and data quality is the responsibility of those contributing data. However, subsequent “ingest” activities must have second order QA activity to flag gross errors and outliers. Iterate findings/fixes with providers.
 - Must include the data uncertainty with the data in order to convey risk
- Validation of data and metadata must be included



Questions/Answers

- Q: What role do scientific workflows have in GEOSS?
- A:
 - GEOSS should provide linkages to “toolkits” that allow users to operate on data



Questions/Answers

- Q: Security – what is required and how can adequate security be implemented?
- A:
 - Prevention of malicious attacks
 - Limiting access
 - Adopt industry-wide best practice solutions first in a phased approach, beginning with “open” data sources first



Summary

- GEOSS advocates for consistent standards that support ease of use and applicability
- GEOSS facilitates discussions among sectors to address roles and responsibilities, depending on particular applications
- GEOSS supports ongoing standards setting efforts within each community or discipline and facilitates (inter)national consensus building
- GEOSS supports quality control/assurance activities from data acquisition, through processing, to product, to archive
- GEOSS provides linkages to standards and toolkits that encourage data compliance and consistency of use across communities