

Coordination Group Meeting FGDC Business Report Update

Ken Shaffer Deputy Executive Director Federal Geographic Data Committee September 13, 2016

Background

This presentation contains general update information on FGDC business activities. A list of the other agenda topics with references to their associated materials is also included. This presentation is intended as a read-ahead with only highlights of some of these activities being presented during the meeting. Questions on the included topics or content can be posed during the FGDC Business Update during the meetings.

It is the responsibility of the attendees to review the material prior to the meeting, as per CG standard operating procedures.

The general organization of the information is:

CG Agenda Items - Items on the Coordination Group (CG) agenda with references to any read-ahead materials

FGDC Committee Meeting Summaries

FGDC Business Update - Current FGDC initiatives/activities



CG Agenda Items

FGDC Business Highlights

Contact: Ken Shaffer, FGDC OS; Read ahead: FGDC Business Highlights

Wetlands Subcommittee Report

Contact: Megan Lang, FWS; Read ahead: pending

USDA Data Management Policy Approach

Contact: Ted Payne, USDA; Read ahead: USDA Vision Strategy

USGS Topo TNM Style Template

Contact: Kristin Fishburn, USGS; Read ahead: Topo TNM Style Template Presentation

Earth Observation Services

Contact: Maryanne Sellman, GSA/FAS ; Read ahead: CIBORG and FAS S70

Geospatial Platform PMO Activities Update

Contact: Jim Irvine, Program Manager, ArdentMC Inc.; Read ahead: Geospatial Platform Report

FGDC Automated Business Process Tools - Demo

Contact: Ken Shaffer, FGDC OS; Read ahead: N/A

Status of the NSDI Strategic Plan and the NGDA Management Plan Evaluation - CG

Focus Session on NSDI – Member Discussion

Contact: John Mahoney, FGDC OS; Read Ahead: pending

Other Agency Announcements



Committee's Decisions Summary

- On August 8th, The Steering Committee in concurrence with OMB, approved the establishment of the NGDA Address Theme
 - Co- Leadership role of Address Theme by DOT and Census Bureau
 - DOT and Census will continue with pilot efforts
 - Subcommittee/Work Group will be created to support the efforts
 - Further ExCom Discussion on:
 - NAD governance model
- Official announcement to be released on FGDC website



Committee's Decision Summary

- On September 29th, FGDC will conclude the Steering Committee meeting with the 2016 Doug D. Nebert NSDI Champion of the Year Award. The award will be presented to the "Oak Ridge National Laboratory Distributed Active Archive Center" (ORNL DAAC) MODIS team. The FGDC community is invited to participate
 - Where: South Interior Auditorium
 - Attendance: Contact Lucia Foulkes to register (<u>lfoulkes@usgs.gov</u>)



Committee's Decision Summary

- The Steering Committee will vote to approve the Architecture and Technology Working Group, and the Standards Working Group charters. Votes are due on September 21, 2016.
- The Coordination Group will vote to recommend Steering Committee endorsement of the following standards:
 - INCITS/ISO 19115-1:2014[2014] and
 - INCITS/ISO 19157:2013[2014]
 - Votes are due on September 20th



CG and SC Monthly Membership Changes

- Department of Interior:
 - Tod Dabolt, DOI, is the Senior Agency Official for Geospatial Information (SAOGI) replacing Jerry Johnston
- Department of Housing and Urban Development
 - Todd McNeil has been added as the CG Member Alternate for HUD.



Steering Committee

- The FGDC Steering Committee will meet on September 29th at the South Interior Auditorium, Washington DC, from 1:00 to 3:30 p.m.
 - Agenda Topics
 - FGDC Business Activities
 - NSDI Strategic Plan Framework Dialog
 - National Address Database (NAD)
 - NGAC Meeting Summary
 - NGDA Water Oceans and Coasts Theme Report
 - Geospatial PlatformUpdate
 - USDA Data Management Policy Approach
 - Doug D. Nebert NSDI Champion of the Year Award
 - To attend the meeting, register with Lucia Foulkes (lfoulkes@usgs.gov)



An Executive Committee meeting will be held on Thursday, September 22nd, to obtain input on the NSDI Strategic Framework.



Sept 27-28 NGAC Meeting

- National Conservation Training Center, Shepherdstown, WV
- Registration required contact Lucia Foulkes by Sept. 20 to register

✤Agenda Topics:

- Leadership Dialogue
- FGDC Report
- NSDI Strategic Planning/Transition Planning
- Emerging Technologies
- Policy Framework
- Standards Coordination
- Landsat
- Public Comment Period



NGAC Emerging Technologies Subcommittee

- Membership: Doug Richardson (chair), Sarah Battersby (vice-chair), Pat Cummens, Matt Gentile, Jack Hild, Jeff Lovin, Rebecca Moore, Carl Reed, Gary Thompson, Jason Warzinik, May Yuan
- ✤ <u>Task</u>: Provide perspectives and advice on how new technologies will impact the geospatial community or change the way we do business. Describe how these new technologies and changes might be reflected in the NSDI strategic plan framework.
- ✤ <u>Status</u>:
 - Initial outline of paper developed prior to June NGAC meeting
 - Emerging Technologies spotlight sessions at June & Sept NGAC meetings
 - Revised draft paper to be distributed to NGAC prior to Sept NGAC meeting
 - Final paper to be completed prior to December NGAC meeting



NGAC Policy Framework Subcommittee

- Membership: Tony Spicci (chair), Molly Vogt (vice-chair), David Alexander, Bert Granberg, Kevin Pomfret, Laxmi Ramasubramanian, Amber Reynolds, David Wyatt
- Task: Provide perspectives and advice on how OMB Circular A-16 and the FGDC policy framework might be updated to reflect changes in technology, organizational capabilities, partnerships, and the evolution of the geospatial community.
- ✤ <u>Status</u>:
 - Subcommittee has compiled initial set of comments on current version of Circular A-16.
 - Consolidated draft paper to be distributed to NGAC prior to Sept NGAC meeting
 - Goal is to adopt paper in principle at Sept NGAC meeting, pending minor edits



NGAC Standards Coordination Subcommittee

- Membership: Carl Reed (chair), Gen. William Reddel (vice-chair), Talbot Brooks, Xavier Irias, Harvey Thorleifson, Frank Harjo
- Task: Provide advice on greater adoption and utilization of standards resulting in enhanced interoperability of geospatial data, services, and systems. Provide recommendations on collaboration with voluntary standards organizations to enhance the implementation and uptake of endorsed standards.
- ✤ <u>Status</u>:
 - Subcommittee has developed initial outline and case study example
 - Revised draft paper to be distributed to NGAC prior to Sept NGAC meeting.
 - Final paper to be completed prior to December NGAC meeting



NGAC Landsat Advisory Group

- Membership: Joanne Gabrynowicz (chair), Frank Avila (vice-chair), Roger Mitchell, Rebecca Moore, (additional non-NGAC members)
- Task: The specific 2016 Landsat-related issues for consideration by the NGAC will be jointly discussed and refined by the USGS program office and the LAG.
- ✤ <u>Status</u>:
 - LAG has held initial meetings & developed work group assignments. Revised guidance being finalized
 - LAG to provide status report at Sept NGAC meeting
 - LAG responses to study questions to be developed by March 2017.



Coordination Group Meeting Dates

✤ 2016 CG Meeting Calendar available on FGDC website

- October 11, 2016 Rachel Carson Room, DOI
- November 8, 2016
- December 13 , 2016



Contact: Lucia Foulkes, FGDC OS, lfoulkes@usgs.gov

FGDC Business Update

2014 GAO Engagement NGDA Management Plan Activities FGDC Leaders Forum FGDC Standards Update



2014 GAO Engagement – Actions Status

2015 GAO report FGDC actions (3 remaining)

Correct search function on Geospatial Platform and monitor regularly

- Status: Technical, and catalog record content improvements: on-going
- Regular collection of Geospatial Platform performance measures with reports to Steering Committee
 - Status: Metrics and dashboards being designed and developed
 - Includes service performance, NDGA Lifecycle assessments, portfolio
- Create address data theme and associated subcommittees and working groups to further a national address database

Status:

- The Steering Committee approved the Creation of the Address Data Theme on August 8th.
- Co- Leadership role of Address Data Theme by DOT and Census Bureau
- DOT and Census will continue with pilot efforts
- Subcommittee in initial creation stage, conduit for federal requirements
- Further ExCom Discussion on the NAD governance model





National Geospatial Data Asset (NGDA) Management Plan

Jen Carlino FGDC OS September 13, 2016

NGDA Management Plan - Current Activities

- NGDA Collaboration Community (NCC) released
 - Internal collaboration space for NGDA members
 - https://cms.geoplatform.gov/ncc/
- 2015 NGDA Lifecycle Maturity Assessment Report
 - Additional review underway with FGDC staff
 - Anticipate Fall completion
- NGDA MP Evaluation Project
 - In progress with anticipated Fall completion
- Address Theme
 - Approved by Steering Committee on August 8, 2016
 - Identifying Theme Leads



NGDA Management Plan - Current Activities

Theme Strategic Plans

✤ 13 Complete, 2 In progress, 1 Pending

Theme Name	Status	Date	Link
Biodiversity and Ecosystems Theme	Completed	8/15/2016	<u>Link</u>
Cadastre Theme*	Completed	6/30/2016	Link
Climate and Weather Theme	Completed	6/30/2016	<u>Link</u>
Cultural Resources Theme	Completed	6/30/2016	Link
Elevation Theme*	Extension	9/30/2016	
Geodetic Control Theme*	Completed	2/16/2016	Link
Geology Theme	Completed	6/30/2016	Link
Governmental Units Theme*	Completed	6/30/2016	Link
Imagery Theme*	Completed	7/19/2016	Link
Land Use Land Cover Theme	Completed	6/30/2016	Link
Real Property Theme	Pending		
Soils Theme	Extension	9/30/2016	
Transportation Theme*	Completed	8/17/2015	Link
Utilities Theme	Completed	7/12/2016	Link
Water Inland Theme*	Completed	6/30/2016	Link
Water Oceans and Coasts Theme*	Completed	8/16/2016	Link
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* Indicates A–16 Framework Theme



Theme Implementation Plans

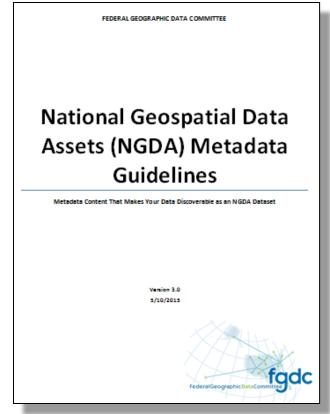
- The Steering Committee Supports:
 - Action to create Theme Implementation Plans (TIP)
 - Based on Theme Strategic Plans
- Develop draft TIP template and content in review
- September Finalize TIP Template
- Dec. 31, 2016 Complete Framework Theme TIPs
- Other Themes will develop TIPs as part of next NSDI Strategic Plan

Theme Name	Theme Name
Biodiversity and Ecosystems Theme	Imagery Theme*
Cadastre Theme*	Land Use Land Cover Theme
Climate and Weather Theme	Real Property Theme
Cultural Resources Theme	Soils Theme
Elevation Theme*	Transportation Theme*
Geodetic Control Theme*	Utilities Theme
Geology Theme	Water Inland Theme*
Governmental Units Theme*	Water Oceans and Coasts Theme*
* Indicates A–16 Framework Theme	



NGDA Web Services and Metadata Project

- Providing reliable web services with quality metadata for all NGDA Datasets to improve the GeoPlatform.gov experience by end of 2016
- Updated NGDA Metadata Guidelines
 - Geospatial Web Services and Data Download Content Tags
 - CSDGM
 - ISO
 - Project Open Data/JSON
- Working with agencies to update metadata (e.g. meetings, email)
- GeoPlatform team can assist with establishing web services



NGDA Inventory Updates

- Executive Theme Champion Changes
 - Tod Dabolt, DOI named Executive Theme Champion and co-Executive Theme Champion for Biodiversity and Ecosystems, Cadastre, Geology, Imagery, Land Use-Land Cover, Utilities, and Water-Inland; previous ETC Jerry Johnston leaving DOI as of Sept. 9, 2016
 - Shep Smith, Rear Admiral, NOAA: co-Executive Theme Champion for Elevation; previous ETC Rear Admiral Gerd Glang retired
 - New Address Theme co-Executive Theme Champions: Tim Trainor, DOC, Census Bureau and Richard McKinney, DOT



NGDA Inventory Updates

Theme Lead Changes

- John Cullen, USGS (jcullen@usgs.gov): Acting co-Theme Lead for Imagery
- Address Theme coleads will be designated soon
- Neil Dominy, USDA (neil.dominy@ne.usda.gov): Soils Theme Lead starting Sept. 6
- Raquel Hunt now Raquel Wright, continues as Transportation Theme Lead
- BIA assigns Steven Mesa (steven.mesa@bia.gov) as agency NGDA coordinator



NGDA Inventory Updates

Dataset Manager Changes

NGDA Dataset	New Dataset Manager	Previous Dataset Manager
Geostationary Operational Environmental Satellite (GOES) Imager Data	Christina Lief, NOAA christina.lief@noaa.gov	Nancy Ritchey, NOAA
High-Resolution Sea Surface Temperature (SST) Analysis Products	Christina Lief, NOAA christina.lief@noaa.gov	Nancy Ritchey, NOAA
NEXRAD (NEXt-Generation RADar) Products	Christina Lief, NOAA christina.lief@noaa.gov	Nancy Ritchey, NOAA
Polar Operational Environmental Satellite (POES) Radiometer Data	Christina Lief, NOAA christina.lief@noaa.gov	Nancy Ritchey, NOAA
Outer Continental Shelf Block Aliquots	Josh, Wadlington, BOEM josh.wadlington@boem.gov	Stephen Creed, BOEM
Outer Continental Shelf Active Renewable Energy Leases	Josh, Wadlington, BOEM josh.wadlington@boem.gov	Stephen Creed, BOEM



Points of Contact

What	Who
NGDA Activities	Jen Carlino, jcarlino@usgs.gov; NGDA Team, ngdateam@fgdc.gov
Geoplatform.gov – Login registration and NGDA A-16 Theme Community and NGDA Collaboration Community pages	Jen Carlino (Federal Sponsor), jcarlino@usgs.gov; GeoPlatform Service Desk, servicedesk@geoplatform.gov
Geoplatform.gov – Theme Community pages	Managed by Theme Leads Support - GeoPlatform Service Desk, <u>servicedesk@geoplatform.gov</u>



Additional Slides



NGDA Management Plan Activities- Coordination Group Tasks (page 1 of 2)

- ✤ As the plan progresses additional tasks may be added.
- Table does not include tasks where the CG is only providing a support role to the task.

Action from the NGDA Management Plan	Tasks	Responsibility	Task Status
Action 1A.1: Develop a Process for Selecting and Maintaining Executive NGDA Theme Champions, NGDA Theme Leads, and NGDA Dataset Managers	Review process to replace/update Theme Lead Agency, Executive Theme Champions, Theme Leads, Dataset Managers	Coordination Group	Complete 10/3/14
Action 1B.3:Develop an Approval Process for Nomination/Removal of NGDA Datasets within the A–16 NGDA Portfolio	Coordination Group approval vote	Coordination Group	Complete 3/30/15
Action 1D.1: Develop NGDA Dataset Maturity Annual Assessment Survey and Tool	Coordination Group approval vote	Coordination Group	Complete 12/22/14
Action 1D.2: Develop NGDA Dataset Report Template and Tool	Coordination Group review and comment - LMA reports (Dataset and Theme Summary) and Dashboard	Coordination Group	Complete 11/20/15
Action 1D.3: Develop NGDA Theme Administrative Maturity Assessment Survey and Tool	Coordination Group review and comment, work with Theme Leads to discuss comments if needed	Coordination Group	Not started
	Coordination Group approval vote	Coordination Group	Not started
Action 1D.4: Develop Support Theme Strategic Plan Template and Tool	Coordination Group review template draft	Coordination Group	Complete 4/10/15
	Coordination Group approval vote of Theme Strategic Plan	Coordination Group	Complete 7/24/15
	Coordination Group support development of Theme Implementation Plan Template	Coordination Group	Due 9/15/16



NGDA Management Plan Activities- Coordination Group Tasks (page 2 of 2)

- As the plan progresses additional tasks may be added.
- Table does not include tasks where the CG is only providing a support role to the task.

Action from the NGDA Management Plan	Tasks	Responsibility	Task Status
Action 1D.5: Develop Annual Theme Report Template and Tool	Coordination Group review and comment on Theme Summary Report which is a first prototype of the Annual NGDA Theme Report	Coordination Group	Complete 11/20/15
	Coordination Group review and comment	Coordination Group	Complete 2/1/16
Action 1D.6: Develop NGDA Services/Applications Investment Report Template, Tool, and Report	Coordination Group approval vote	Coordination Group	Not started
Action 1D.7: Develop NGDA Portfolio Summary Report Template and Tool	Coordination Group review and comment	Coordination Group	Not started
Action 1E.1: Review/Revise the Definition of Geospatial Investment and Budget Reporting Codes	Request for information, links, docs related the authorizing legislation language that may provide definitions related to geospatial activities	Coordination Group	Complete 6/5/15
Strategic Plan	Coordination Group support development of Theme Strategic Plans	Coordination Group	Due June 30 13 of 16 complete 9/13/2016
	Coordination Group support development of Theme Implementation Plans	Coordination Group	Framework themes due 12/31/16



FGDC Leaders Forum

- FGDC hosted a National Spatial Data Infrastructure (NSDI) Leaders Forum on July 26, 2016 in Washington DC. The purpose of the meeting was to gather input from leaders of key geospatial organizations on the development of the NSDI strategic framework.
- FGDC Secretariat shared meeting notes with meeting participants.
- FGDC will follow up with other groups through virtual focus groups and interviews.





Geospatial standards

As presented to the FGDC Coordination Group on September 13, 2016

Julie Binder Maitra FGDC Standards Coordinator FGDC OS

Topics

- FGDC Coordination Group (CG) ballots
 - INCITS/ISO 19115-1:2014[2014] and INCITS/ISO 19157:2013[2014]
 - Draft revised FGDC Standards WG charter
- OGC metadata and catalog services
- INCITS L1 and ISO/TC 211
- Standards update
- Standards related events
- Questions and contact information



CG approval of INCITS/ISO standards

At its May 25, 2016 meeting, the FGDC Standards WG recommended the following standards for FGDC endorsement:

- INCITS/ISO 19115-1:2014[2014] Geographic information Metadata
 Part 1: Fundamentals
- INCITS/ISO 19157:2013[2014] Geographic information Data quality
- The CG ballots are due September 20, 2016.



CG approval of draft revised SWG charter

- The CG ballot to approve the draft revised SWG charter closed on July 29, 2016.
- Voting results
 - Yes: 11
 - No: 0
 - No Response: 18



OGC metadata and catalog services

- OGC announced publication of OGC Catalogue Services (CAT) Standard version 3.0 and CAT 3.0 HTTP Protocol Binding Standard. This is the first time that OGC has released a standard with an implementation test and implementations (pycsw and Esri Geoportal Server).
- The OGC ballot to update OGC Abstract Specification Topic 11: Metadata from ISO 19115:2003, Geographic information – Metadata to ISO 19115-1:2014, Geographic information – Metadata – Part 1: Fundamentals closed September 3.



INCITS L1 and ISO TC 211

- Glenn Guempel of USGS is the new INCITS Technical Committee L1 chair.
- Sweden now serves as ISO Technical Committee 211 Secretariat. Norway relinquished the ISO TC 211 Secretariat



Standards Update

FGDC OS seeks input from the CG and any of their agency staff working with standards. Please provide responses to Julie Binder Maitra, <u>imaitra@usgs.gov</u>

Questions:

- Is your agency aware of the standards update resource?
- Has your agency downloaded it?
- How have you used it?
- Do you have suggestions for improving its use/effectiveness?



Standards Related Events

Year	Month	Date(s)	Event	Location
2016	August	08/09	CG	
		08/10	ISO Metadata Implementation Forum	webinar
		08/11	GWG Geospatial Web Services Focus Group	Chantilly, VA
	September	09/13	CG	
		09/14	FGDC Metadata WG	
		09/19-09/23	OGC #OGCOrlando16	Orlando, FL
		09/26-09/30	INSPIRE Conference 2016	Barcelona, Spain
		09/30	INCITS L1/U.S. TAG	
	October	10/11	CG	
		10/13	<u>FedGeoDay</u>	Washington, DC
	November	11/08	CG	
		11/11	INCITS L1/U.S. TAG	
		11/28-12/02	GSDI 15th World Conference	Taipei, Taiwan
		11/28-12/02	ISO TC 211 Plenary and meetings	Redlands, CA
	December	12/04-12/08	OGC #OGC16tcTaichung	Taichung, Taiwan
		12/13	CG	
2017	March	03/20-03/24	OGC #OGC17tcDelft	Delft, The Netherlands
	June	06/26-06/30	OGC #OGC17stjohns	St. John's, Newfoundland, Canada



Questions and contact information

Julie Binder Maitra FGDC Standards Coordinator Phone: 703-648-4627 Email: jmaitra@usgs.gov

Web: www.fgdc.gov/standards

Linked in .

Profile: <u>https://www.linkedin.com/in/juliebindermaitra</u>

FGDC Standards WG: https://www.linkedin.com/groups/8243676



Back-up slides



INCITS/ISO 19115-1:2014[2014]

- Defines the schema for describing geographic information and services with metadata. It provides information about identification, extent, quality, spatial and temporal aspects, content, spatial reference, portrayal, distribution, and other properties of digital geographic data and services.
- Reference:

http://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO+19 115-1%3a2014%5b2014%5d

• ISO 19115:2003 and CSDGM will be retained as FGDC-endorsed standards for legacy purposes



INCITS/ISO 19157:2013[2014]

- Establishes principles for describing quality of geographic data; defines components; specifies components and content structure of a register for data quality measures; describes general procedures for evaluating data quality; and defines data quality measures for evaluating and reporting data quality.
- Applies to data producers who provide quality information to assess how well a data set conforms to its product specification and data users who determine whether specific geographic data are of sufficient quality for their particular application.
- Does **not** define minimum acceptable levels of quality for geographic data.



INCITS/ISO 19157:2013[2014]

• Reference:

http://webstore.ansi.org/RecordDetail.aspx?sku=INCITS%2fISO+19 157%3a2013%5b2014%5d

 ISO/TS 19138:2006, Geographic data – data quality measures will be withdrawn as an FGDC-endorsed standard.



CG approval of draft revised SWG charter

- The latest FGDC Standards WG charter, which is published at <u>http://www.fgdc.gov/standards/organization/FGDC-</u> <u>SWG/SWG_Charter.pdf</u>, dates back to the 1990s.
- Much of the content is still relevant, and is carried over to the draft revised FGDC Standards WG charter
- The draft revised charter:
 - cites more recent authorities;
 - contains a bibliography of works cited; and
 - references initiatives such as the Geospatial Platform, NSDI Strategic Plan and the National Geospatial Data Asset (NGDA) management plan



OGC[®] Catalogue Services support publishing and searching metadata records for geospatial data, services, and other information and discovery and binding to registered information resources.

OGC[®] Catalogue Services 3.0 - General Model (12-168r6) describes the common architecture and specifies interfaces between clients and catalogue services through abstract models.

Catalogue Services 3.0 aligns better than the FGDC-endorsed CAT 2.0.2 with other OGC standards; provides a developerfriendly OpenSearch Geo API; supports querying on temporal extents; and improves distributed search.



OGC Catalogue Services (CAT) Standard version 3.0 -HTTP Protocol Binding

OGC[®] CAT 3.0 - HTTP Protocol Binding specifies the HTTP profile of CAT 3.0 and mapping the abstract model interface to the HTTP protocol binding.

In HTTP protocol binding, operation requests and responses are sent between clients and servers using HTTP GET and/or HTTP POST. KVP (key-value pair) is suitable for use with HTTP GET, while XML is suitable for use with HTTP POST.

OGC[®] CAT 3.0 - HTTP Protocol Binding defines operations to:

- get a service description document for the catalogue (*GetCapabilities*);
- query the service about the kinds of data available (*GetDomain*);
- retrieve records (GetRecordById and GetRecords); and
- add, modify and remove records from the catalogue service (*Transaction, Harvest, UnHarvest*).



OGC references fundamental ISO Standards in its Standards Baseline. ISO 19115:2003, Geographic information – Metadata, served as OGC Abstract Specification Topic 11, Metadata.

Numerous organizations now mandate use of ISO 19115-1:2014, Geographic information – Part 1: Fundamentals.

The OGC ballot to update Abstract Specification Topic 11 -Metadata from ISO 19115:2003 to ISO 19115-1:2014 closed on September 3.



Standards Update

- The benefit and use of the standards tracking workbook is being evaluated
- The standards tracking workbook (Excel) has been maintained since February 2011. The March 2016 version is available at <u>https://www.fgdc.gov/standards/monthlyStandardsUpdate/2016-03/2016-03-standards-update.xlsx/view</u>
- The standards tracking workbook covers over 300 standards from FGDC, INCITS Technical Committee L1, ISO Technical Committee 211, OGC, and other standardization activities.
- There is a worksheet for each year, and within each worksheet, there are columns to track standards over the months.
- The effort is very time-intensive, due to the amount of information reviewed, collected, and corroborated.



Other items of interest

- Geospatial data formats
 - The Library of Congress provides descriptions of various geospatial data formats: see <u>http://www.digitalpreservation.gov/formats/fdd/gis_fdd.s</u> <u>html</u>. Not all are open data formats.
 - The European Data Portal recommends publishing geospatial data in open data formats like GeoJSON and KML. These formats can easily be imported into/exported from mapping tools like Open Street Map and CartoDB. See

https://www.europeandataportal.eu/elearning/en/modul e9/#/id/co-01



Other items of interest

- RDA metadata standards directory
 - The Research Data Alliance (RDA) has a metadata standards directory on GitHub. See <u>http://rd-</u> <u>alliance.github.io/metadata-directory/standards/</u>.
 - The directory lists both the FGDC Content Standard for Digital Geospatial Metadata and ISO 19115.
 - FGDC members might be interested in reviewing the directory for metadata standards that apply to their domains.



Questions and contact information

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FGDC Standards WG: https://www.linkedin.com/groups/8243676



Questions???

