



Federal Geographic Data Committee Standards Update April 2011

Julie Binder Maitra, JMaitra@fgdc.gov, 703-648-4627

FGDC

Cultural Resources Spatial Data Standard

- The standard will be used to create, maintain, and distribute cultural resource spatial data. It will ensure that geospatial data are linked to attribute databases that describe each cultural resource.
- Information about this standard may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/cultural-resources/cultural-resources-home>.
- A work group teleconference is scheduled for April 26.
- Individual task groups will hold their own conference calls as needed.
- The work group's work plan outlines that there will be a basic framework for the data transfer standard by the end of calendar year 2011.
- The work group plans to have a working draft by April 2012.
- Contact: Deidre McCarthy, Deidre_McCarthy@nps.gov, 202-354-2141

Shoreline Data Content Standard

- This standard is intended to enhance the shoreline framework by providing technical guidance on shoreline semantics, data structures, and their relationships to builders and users of shoreline data.
- Information about the standard may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/shoreline-data-content/index.html>.
- A final draft *might* be resubmitted to the FGDC in summer 2010.
- No other updates to report for the April CG meeting.
- Contact: Doug Graham, Doug.Graham@noaa.gov, 301-713-2675 x170

United States Thoroughfare, Landmark, and Postal Address Data Standard

- This standard specifies data content, data classification, data quality, and data exchange in XML for street addresses and landmark addresses and points of postal delivery.
- Information about the standard may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/street-address/index.html>.
- The Address Standards Working Group is working on the final proofreading and formatting of the PDF for publication as an FGDC-endorsed standard.
- Spatial Focus, Inc. was awarded a CAP grant to design data exchange and data quality tools. A kickoff meeting for the CAP project was held Tuesday, March 15.
- Contact: Martha Wells, mwells@spatialfocus.com, 205-616-0205

Coastal and Marine Ecological Classification Standard (CMECS)

- NatureServe was awarded a CAP grant to address public and peer review comments, solve technical issues that arise from the comments, and revise the CMECS standard to reflect the suggestions made during the public review process. A kickoff meeting for the CAP project was held Thursday, March 17.
- A final draft is planned for December 2011.
- Contact: Mark Finkbeiner, mark.finkbeiner@noaa.gov, 843-740-1264

Federal Buildings and Facilities Geospatial Data Content Standard

- There are no updates since the February 2011 standards update to report.
- Information about this standard may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/FederalBldgsFacilities/index>.
- Contact Sandra Downie, sandra.downie@gsa.gov

Federal Trails Data Standard (FTDS)

- The functional scope of the standard includes the definition of a core set of trail data attributes, corresponding values, and definitions.
- Information about this standard on the FGDC web site may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/trail-data-standard/trail-data-standards>.
- The FTDS team completed final review and adjudication of public and FGDC comments.
- A final draft was released for SWG review.
- An FGDC/SWG teleconference is scheduled for Thursday, April 21, 1-3 PM to consider recommendation of the final draft FTDS for FGDC endorsement. The FTDS team is prepared to discuss public review comments, comment adjudication, and the final draft for recommendation for FGDC endorsement.
 - Call-in instructions: Conference Dial-in Number: (218) 862-1001, Participant Access Code: 453045#
- Contact: David Duran, David_Duran@nps.gov, (303) 969-2176.

National Wetland Classification Standard maintenance and revision

- A working draft is currently under review by Wetland Classification Maintenance Work Group members.
- The Wetland Classification Maintenance Work Group developed topic papers in support of docket public comment review process. Topics address a CMECS/Wetland Standard reference guide and special modifiers guide.
- The Wetland Classification Maintenance Work Group met in February and March 2011 to discuss the draft standard.
- Presentations about the standard were given at the Society of Wetland Scientists joint regional meeting in Reston, VA, March 8, 2011 and the State/Tribal/Federal Wetland Coordination Meeting in Shepherdstown, WV, March 22 – 24, 2011.
- Information about this standard may be found at <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/maintenance-review-wetlands-classification-std/index>.

- Contact Bill Wilen, Bill_Wilen@fws.gov 703 358-2278

INCITS Technical Committee L1, Geographic information systems

A meeting of L1/U.S. TAG was held April 1.

North American Profiles

- Further work on the project to develop a North American Profile of ISO 19110, Geographic information - Methodology for Feature Cataloguing is pending advancement of the ISO 19115-1 and ISO 19110 Amendment projects.
- There is interest in revising the North American Profile of ISO 19115:2003, Geographic information - Metadata, given that ISO 19115 is being revised. The North American Profile of ISO 19115:2003 is an FGDC-endorsed standard.

ISO/IEC 13249-3 SQL/MM Part 3: Spatial SQL/MM

- L1 voted on a change proposal to add support for curve types in harmony with GML and proposed revisions to OGC Simple Features and ISO 19107:2003, Geographic information – Spatial schema.
 - Voting results: 9 in favor, 3 abstain, 0 negative votes, 2 not voting. FGDC, Census, USGS, and NGA voted all in favor of the position.
- L1 voted to approve a change proposal to add support for linear referencing to ISO/IEC 13249-3, consistent with ISO FDIS 19148:2010, *Geographic information — Linear referencing* (Also available as *OpenGIS® Abstract Specification Topic 19 – Linear referencing*, 2010).
 - Voting results: 9 in favor, 3 abstain, 0 negative votes, 2 not voting. FGDC, Census, USGS, and NGA voted all in favor of the position.

ISO/Committee Draft (CD) 19101-1 Geographic information – Reference model — Part 1: Fundamentals (reference no. n 3070)

- L1 ballot to abstain on advancing this standard to DIS closed 2011-04-02. The position to abstain was based on the grounds that INCITS L1 did not have adequate review of the standard. Voting results: 9 in favor of the position to abstain, 1 against (on the grounds that 19101-1 provides the fundamental reference model upon which all ISO/TC 211 standards are based), 4 not voting.
- FGDC agencies voting in favor of position to abstain: FGDC, USGS, Census, NGA.
- “This standard defines the reference model for standardization in the field of geographic information.”
- ISO/CD 19101-1 updates ISO 19101:2002 for “the role of semantics and how the new technologies such as the Web and many emerging ways of accessing it and the Semantic Web can support interoperability in the field of geographic information.”
- While ISO 19101:2002 is **not** an FGDC-endorsed standard, ISO 19109:2005, which is an FGDC-endorsed standard, builds on the domain reference model of ISO 19101. ISO 19109:2005 is also mandated in the DISR.

ISO 19107:2003 Geographic information – Spatial schema

- ISO Technical Committee (TC) 211, Geographic information/Geomatics, has issued a call for a new work item proposal to revise ISO 19107:2003.
- ISO 19107:2003 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19108:2002 Geographic information – Temporal schema

- ISO TC 211 has issued a call for a new work item proposal to revise ISO 19108:2002.
- ISO 19108 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19109 Geographic information - Rules for application schema (Revision of ISO 19109:2005)

- At the 2011-04-01 meeting, L1/U.S. TAG members (including FGDC, USGS, Census, and NGA) voted to recommend approval of a New Work Item Proposal (NWIP) to revise ISO 19109:2005.
- This standard defines “rules for creating and documenting application schemas, including principles for the definition of features.”
- ISO 19109:2005 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19110:2005 Geographic information – Methodology for feature cataloguing, Amendment 1

- Amendment 1 provides XML schemas that are “meant to enhance interoperability by providing a common specification for describing, validating, and exchanging feature catalogue information.”
- L1/U.S. TAG will vote on a recommendation on approval as an International Standard and on a recommendation for adoption as an American National Standard.
- ISO 19110:2005 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19112:2003 Geographic information – Spatial referencing by geographic identifiers

- ISO TC 211 has issued a call for a new work item proposal to revise ISO 19112:2003.
- ISO 19112:2003 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO/CD 19115-1 Geographic information – Metadata – Part 1: Fundamentals (n 3071)

- At its 2011-04-01 meeting, L1/U.S. TAG voted to recommend advancing ISO/CD 19115-1 to Draft International Standard (DIS) status, with comment. FGDC, USGS, Census, and NGA supported the position.
- The FGDC submitted comments from NOAA on ISO/CD 19115-1. TASC and NGA also submitted comments.
- This standard defines “the schema required for describing information and services. It provides information about the identification, the extent, the quality, the spatial and temporal schema, spatial reference, and distribution of digital data.”
- This edition will cancel and replace ISO 19115:2003, Geographic information – Metadata.

- ISO 19115:2003 is among the 64 external standards endorsed by the FGDC. It is also mandated in the DISR.

ISO DIS 19117 Geographic information — Portrayal (revision of ISO 19117:2005)

- A vote to recommend ISO DIS 19117 for publication as an International Standard (IS) closed 2010-03-07. L1 position was to recommend publication of ISO DIS 19117 as an International Standard. The vote passed: 9 yes, 1 abstain, 0 no, 4 not voting. FGDC agencies voting in favor of position: FGDC, Census, USGS, NGA.
- Experts recommended delaying adoption of ISO 19117 as an American National Standard, as harmonization issues with the OpenGIS® Symbology Encoding Implementation (SE) Standard and the Styled Layer Descriptor (SLD) profile of the Web Map Service Implementation Standard need to be resolved.
 - OpenGIS® Symbology Encoding Implementation Standard, version 1.1.0 is an FGDC-endorsed standard. It is also mandated in the DISR.
 - Styled Layer Descriptor profile of the Web Map Service Implementation Specification, version 1.1.0 is an FGDC-endorsed standard. It is also mandated in the DISR.
- Refer to January 2011 FGDC Business Report for information on DIS 19117.

ISO 19119 Geographic information - Services (Revision of ISO 19119:2005)

- At the 2011-04-01 meeting, L1/U.S. TAG members (including FGDC, USGS, Census, and NGA) voted to recommend approval of a New Work Item Proposal (NWIP) to revise ISO 19119:2005.
- This standard will cancel and replace ISO 19119:2005.
- This standard provides a “framework for developers to create software that enables users to access and process geographic data from a variety of sources across a generic computing interface within an open information technology environment.”
- ISO 19119:2005 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19123:2005 Geographic information – Schema for coverage geometry and functions

- ISO TC 211 has issued a call for a new work item proposal to revise ISO 19123:2005.
- ISO 19123:2005 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO 19133:2005, Geographic information - Location-based services - Tracking and navigation

- ISO TC 211 has issued a call for a new work item proposal to revise ISO 19133:2005.
- ISO 19133:2005 is an FGDC-endorsed standard (it is not a DISR standard).

ISO 19135-1 Geographic information – Procedures for item registration – Part 1 (Revision of ISO 19135:2005)

- ISO 19135:2005 is being revised to ensure that the XML encoding in ISO 19135-2 is compliant with the conceptual models in ISO 19135.
- ISO 19135:2005 is an FGDC-endorsed standard. It is also mandated in the DISR.

ISO/Draft Technical Specification (DTS) 19135-2 Geographic information – Procedures for item registration — Part 2: XML Schema Implementation

- L1 ballot on publication as Technical Specification closed 2011-03-30. L1 position was to approve. Voting results: 12 yes, 0 no, 0 abstain, 2 not voting. FGDC agencies voting in favor of position: FGDC, USGS, Census, NGA.
- L1/U.S. TAG will vote on adoption of ISO 19135-2 as an American National Standard after ISO 19135-2 is published as a Technical Specification.
- “This document defines an XML encoding for the storage and exchange of registers and register items compliant with ISO 19135:2005, Geographic information – Procedures for item registration. This encoding conforms to the rules described in ISO 19139:2007, Geographic Information – Metadata – XML Schema Implementation.”
- Both ISO 19135:2005 and ISO 19139:2007 are FGDC-endorsed standards. They are both mandated in the DISR.

ISO Draft International Standard (DIS) 19144-2 Geographic information — Classification systems — Part 2: Land Cover Meta Language (LCML)

- An INCITS L1/U.S. TAG ballot closed 2010-03-01. The L1 position was to recommend ISO/DIS 19144-2 for publication as an International Standard. Voting results: 10 in favor, 1 abstain, no negative votes, 3 not voting. FGDC, Census, USGS, and NGA voted in favor of the position.
- At its 2011-04-01 meeting, L1/U.S. TAG voted to recommend adoption of ISO 19144-2 as an American National Standard, based on recommendation by USGS subject matter experts. FGDC, Census, USGS, and NGA all voted to recommend adoption of ISO 19144-2 as an American National Standard.
- Refer to January 2011 FGDC Business Report for information about ISO 19144-2.

ISO 19145, Geographic information - Registry of representations of geographic point location (n 3083)

- “This International Standard specifies the process for establishing, maintaining and publishing registers of representation of geographic point location in compliance with ISO 19135.”
- At the 2011-04-01 meeting, L1/U.S. TAG members (including FGDC, Census, USGS, and NGA) voted to approve a change of scope to specify XML implementation of the required XML extension to ISO/TS 19135-2 for the implementation of a register of geographic point location representations.

ISO DIS 19152, Geographic information — Land Administration Domain Model (LADM)

- At the 2011-04-01 meeting, L1/U.S. TAG members (including FGDC, USGS, Census, and NGA) voted to recommend publication of ISO 19152 as an International Standard, based on consensus within ISO Technical Committee 211.
- The focus of this standard is on “that part of land administration that is interested in rights, responsibilities and restrictions affecting land (or water), and the geometrical (geospatial) components thereof.”

- At its 2011-04-01 meeting, L1/U.S. TAG (including FGDC, USGS, Census, and NGA) voted **against** adopting ISO 19152 as an American National Standard, based on the recommendation of the co-chair of the FGDC Cadastral Data Subcommittee, who noted that:
 - The relationship between the Land Administration Standard and the FGDC Cadastral Data Content Standard has not been examined and/or documented (although the FGDC Cadastral Data Content Standard was submitted as input into development of ISO 19152).
 - The benefits and advantages for adopting and implementing the ISO Land Administration Standard have not been identified. In addition, the costs associated with replacing the FGDC Cadastral Data Content Standard have not been evaluated. Without a strong benefit cost ratio for replacing the existing US standard, Federal, state, and local government agencies would not be able to justify the change. This is especially true as government agencies face record budget deficits and strive to maintain existing programs.
 - A compelling business case for US federal, state and local government agencies to adopt the ISO standard has not been identified or documented.

ISO DIS 19155, Geographic information – Place identifier (PI) architecture

- “This International Standard specifies an architecture that defines a reference model with an encoding method for an identifier of a place.” The concept of place may include “places” in the virtual world, such as URIs.
- INCITS issued a call for L1 position and vote on suitability for publication as an International Standard.

ISO/CD 19157, Geographic information – Data quality (n 3086)

- “This International Standard establishes the principles for describing the quality of geographic data.”
- At the 2011-04-01 meeting, L1/U.S. TAG voted to recommend advancing ISO 19157 to DIS. FGDC, Census, USGS, and NGA voted in favor of the position.
- This standard is related to ISO/TS 19138:2006, Geographic information -- Data quality measures, which is an FGDC-endorsed standard. ISO/TS 19138:2006 is also mandated in the DISR.

ISO/DTS 19158, Geographic information – Quality assurance of data supply (n 3084)

- INCITS issued a request to L1 for ballot and comment concerning publication of ISO/DTS 19158 as a Technical Specification.
- “The framework defined in ISO 19158 enables a customer to satisfy itself that its suppliers, both internal and external, are capable of delivering geographic information to the required quality.”

ISO 19159, Geographic information — Calibration and validation of remote sensing imagery sensors and data

- The project team for ISO 19159 met at USGS EROS Data Center in March.
- A working draft has been prepared.

ISO 19160, Geographic information – Addressing

- The objective of this study project is to “review existing address standards in order to identify international addressing standardization requirements and to make recommendations on how these should be developed.”
- The U.S. Thoroughfare, Landmark, and Postal Address Data Standard was one of the standards that was reviewed.
- At the 2011-02-08 FGDC Coordination Group meeting. Randy Fusaro announced the request for comments on ISO 19160. No comments were received.

The next L1/U.S. TAG meeting is scheduled for May 18.

ISO TC 211 plenary and associated meetings are scheduled for May 23-27, in Delft, The Netherlands. USGS, Census, and NGA are sending people to represent the U.S. at the ISO TC 211 meetings and plenary.

Contact Julie Maitra, FGDC representative to INCITS L1, jmaitra@fgdc.gov, (703) 648-4627 or your agency representative to INCITS L1. INCITS L1 Chair: Liping Di, Ph.D, ldi@gmu.edu

Open Geospatial Consortium

- The Open Geospatial Consortium (OGC®) seeks public comment on the candidate OGC Open GeoSMS Standard - Core. Comments are due 2011-04-24. See <http://www.opengeospatial.org/standards/requests/76> for more information about the standard and submitting comments on the standard.
- OGC formed the OGC WaterML 2.0 Standards Working Group. WaterML 2.0 is a candidate OGC encoding standard for the representation of in-situ hydrological observations data. USGS and NOAA are members of the OGC WaterML 2.0 Standards Working Group. For more information, see <http://www.opengeospatial.org/pressroom/pressreleases/1359>.
- The Open Standards Consortium for Real Estate (OSCRE) is working together with OGC organizations to “promote the interoperable use of Web based geospatial technologies in real estate and property management.” For more information, see <http://www.opengeospatial.org/pressroom/pressreleases/1361>.
- The kickoff meeting for OWS-8 was held March 9-11, 2011 at GMU. Technology provider participants will develop and test interoperability solutions in the areas of observation fusion, geosynchronization, cross-community interoperability and aviation information management and delivery. Federal agencies sponsoring OWS-8 are the U.S. Army Geospatial Center (AGC), Federal Aviation Administration (FAA), USGS, NASA, and NGA. For more information, see the April 2011 OGC newsletter.
- Sensor Planning Service (SPS) Interface Standard 2.0 Earth Observation Satellite Tasking Extension standard has been approved as an OGC standard. The SPS 2.0 Earth Observation Satellite Tasking Extension Standard specifies extensions to the OGC Sensor Planning Service (SPS) 2.0 Interface Standard. See <http://www.opengeospatial.org/pressroom/pressreleases/1365> for more information.
 - OpenGIS® Sensor Planning Service Implementation Specification, version 1.0.0 is an FGDC-endorsed standard. It is also mandated in the DISR.

- OGC and the Special Interest Group (SIG) 3D signed an MOU to cooperate in standards development and promotion of standards for the exchange and visualization of 3D geospatial content using Web-based technologies. SIG 3D members defined the first version of CityGML, a comprehensive open data model framework and XML-based encoding standard for the storage and exchange of virtual 3D urban models, which is now an OGC standard.
- The next OGC TC/PC meetings are scheduled for June 12-17 in Taiwan.
- Subscribe to OGC news feeds and the OGC newsletter for current information about OGC activities.

Geospatial-Intelligence Standards Working Group (GWG)

- Next GWG polling session (voting members only) is scheduled for May 25.
- The Change Request (CR) package for voting is expected to be released around April 25. The FGDC will circulate the CR package for review in advance of the GWG polling session.
- Focus Group meetings are scheduled for May 24.
- The GWG plenary will be held May 26, 8:30 am-4:30 pm at the USGS Auditorium. All are welcome to attend.

FGDC/GWG process alignment

- Task team meetings were held March 14 and March 24.
- FGDC participation on GWG Focus Groups is key to the success of FGDC GWG process integration.
- Responsibilities of FGDC representatives on GWG Focus Groups:
 - Participate in GWG Focus Group meetings.
 - Review standards under consideration by the GWG Focus Group.
 - Assess applicability of standards to FGDC business areas.
 - Identify other FGDC agencies that should be interested in a standard under GWG Focus Group consideration.
 - Recommend FGDC voting positions on Change Requests.
 - Communicate Focus Group standards activities to FGDC member agencies.
- USGS has nominated people to participate in several GWG Focus Groups.
- The FGDC will identify additional standards in the DISR for consideration for FGDC endorsement: this is intended as a process of "catch-up" until the FGDC can align its process with the GWG/DISR standards process.

Contact Julie Maitra, FGDC representative to GWG, jmaitra@fgdc.gov, (703) 648-4627.