

DMT '11 Presentations and Attendees

Twenty oral and eighteen poster presentations were given, supplemented by Discussion Sessions. These are listed below; please also see <http://ngmdb.usgs.gov/Info/dmt/DMT11presentations.html> for presentations and posters available for download. The meeting was attended by 77 technical experts from 30 agencies, universities, and private companies, including representatives from 19 State geological surveys; the list of attendees is provided below.

Oral Presentations

[listed in order of presentation]

Building the “National Archive” of geologic maps – A progress report on the National Geologic Map Database (NGMDB)

By David R. Soller and Nancy R. Stamm (U.S. Geological Survey)

Challenges in developing three-dimensional geological models at the Kentucky Geological Survey

By William M. Andrews, Jr. (Kentucky Geological Survey)

The Washington State Geologic Interactive Map Portal – A Demonstration

By Anne Olson (Washington State Geological Survey)

Geologic Map Production in NCGMP Databases

By Ryan Clark (Arizona Geological Survey)

Utilizing the NCGMP09 data model in student mapping projects: Advancing the techniques of tomorrow’s geologic mappers

By Andrew L. Wunderlich (University of Tennessee – Knoxville)

The National Map and the Geologic Community of Use

By Kent Brown (Utah State Geological Survey), Michael Cooley and Dave Greenlee (U.S. Geological Survey), James Barrett (Enterprise Planning Solutions LLC), and Gregory Allord (U.S. Geological Survey)

Scanning and Georeferencing USGS Historical Topographic Quadrangles

By Gregory Allord (U.S. Geological Survey)

Improving access to the NGMDB’s archive of georeferenced geologic maps, via Esri’s Image Server

By Christopher P. Garrity, David R. Soller, Mark E. Reidy, Robert S. Wardwell, Justine E. Takacs, and S. Blake Wingfield (U.S. Geological Survey)

Community Maps – Implications for the Geologic Community

By Larry Batten (Esri, Inc.)

Publishing Surficial Geologic Maps of Delaware

By Lillian T. Wang (Delaware Geological Survey)

NPS GRI Development of Digital Geologic Data for use in Google Earth

By Stephanie O’Meara and Jim Chappell (Colorado State University and the National Park Service)

Automation of Google Earth KML Creation and Display of Geologic Data in ArcGIS

By Heather Stanton, Jim Chappell, and Stephanie O’Meara (Colorado State University and the National Park Service)

LiDAR (High Resolution Digital Elevation Data) Acquisition in Virginia

By John Scrivani (Virginia Geographic Information Network (VGIN), Virginia Information Technology Agencies (VITA))

Mapping with Lidar Based DEMs – a Geologist’s New Tool

By Thomas G. Whitfield (Pennsylvania Geological Survey)

Confessions of an EDMAP faculty

By Christopher M Bailey (College of William & Mary)

A collaborative prototype multi-level digital geologic map of Virginia using Google Earth

By Owen P. Shufeldt and Steven J. Whitmeyer (James Madison University), and Christopher M. Bailey (College of William & Mary)

Global Data Access for Mining (GDAm) Showcase – A Collaboration Tool Using your Geologic Map Data

By Willy Lynch (Esri)

The Alaska state map; creation of draft units description through the map database

By Frederic H. Wilson and Chad P. Hults (U.S. Geological Survey)

The Nevada Digital Dirt Mapping Experiment: Post-Mortem and Prospects for a Better Approach to Collaborative Geologic Map Development

By Kyle House (U.S. Geological Survey)

Tricks and Tips for Creating a Layered Geo-Enabled Adobe PDF Map

By John Bocan (West Virginia Geological and Economic Survey)

Discussion Sessions

At each DMT meeting, several informal Discussion Sessions are conducted. Some sessions facilitate information exchange on a general topic, such as digital cartography, whereas other sessions are more focused, for example on a proposed plan for standards development. The title and subject of three DMT'11 Discussion Sessions are given below.

(1) “Emerging standards for database design and data exchange – what is appropriate for your agency, your data, and the users of your data?”

Topic Summary – We all collect, manage, or distribute geologic map data. Our work may be facilitated or hindered by geologic map database and data exchange standards and guidelines, which have been under development for many years. The future of our data was discussed – how we create and manage our data. Some organizations have a well-developed and fully functional data model schema and an established workflow. Other agencies are just considering how to develop a data and workflow standard. This discussion focused on the various agency’s specific requirements and mission and whether a database design seemed appropriate at this time.

Moderated by Loudon Stanford (Idaho Geological Survey)

(2) “The FGDC Geologic Map Symbolization Standard – What are the next steps?”

Topic Summary – Collaboration between Esri, FGDC, and the NGMDB has resulted in release and subsequent update of a subset of the FGDC symbols, created as Cartographic Representations for use in ArcGIS. Revisions to the Standard, and updates to the Arc implementation, are being considered by the FGDC. In this session, comments and guidance were requested, specifically: (1) whether Arc styles or Cartographic Representations are preferred, or if both are needed now and in the near future, but for different purposes; (2) who can volunteer to help build, or evaluate, the current Esri set and any new symbols created; and (3) the procedure and schedule for revising the Standard, mostly by adding new symbols. Advice from the DMT meeting and elsewhere will be considered in a FGDC plan to be developed in the future. Session moderated by Dave Soller (FGDC, USGS)

(3) “Cartographic Design & Map Production”

Topic Summary – An informal session on map design and preparation techniques, and publication (traditional and Web). This session offered a mix of short, informal presentations and general discussion on topics raised by the attendees. Two presentations were given by Kent Brown (Utah Geological Survey):

- Raster Blending Techniques and Multi-Image Mashups for GIS
- Creating Slope-Enhanced Shaded Relief Base Maps

Session moderated by Kent Brown (Utah Geological Survey) and Dave Soller (USGS).

Poster Presentations

[listed alphabetically by author]

Final Results from 2010 Digital Field Mapping Technology Survey

By Jennifer E. Athey (Alaska Division of Geological & Geophysical Surveys)

What a Relief! New views on Virginia’s physiography

By Christopher M. Bailey and Molly Cox (College of William & Mary)

Tools and Techniques for 3D Visualization of Boreholes and Cross Sections in ArcScene

By Jennifer Carrell (Illinois State Geological Survey)

Inventory Mapping and Characterization of Landslides Using LiDAR: Kenton and Campbell Counties, Kentucky

By Matt Crawford (Kentucky Geological Survey)

Replacing the USGS topographic quadrangle – basemap alternatives for geologic maps

By Jane Johnshoy Domier and Donald E. Luman (Illinois State Geological Survey)

Virginia’s Contributions to the National Geothermal Data System

By Chelsea M. Feeney (Virginia Division of Geology and Mineral Resources)

Improving access to the National Geologic Map Database’s archive of georeferenced geologic maps, via Esri Image Server

By Christopher P. Garrity, David R. Soller, Mark E. Reidy, Robert S. Wardwell, Justine E. Takacs, and S. Blake Wingfield (U.S. Geological Survey)

Using High-Resolution Digital Terrain Models to Improve Bedrock and Surficial Geologic Mapping in Virginia

By Amy K. Gilmer and Matthew Heller (Virginia Division of Geology and Mineral Resources)

Things You Used to Hate About Map Layout in Arc Have Changed: Attractive and Complete Maps Are Possible in ArcGIS!

By Sarah E. Gooding, Paula J. Hunt, and Philip A. Dinterman (West Virginia Geological and Economic Survey)

Using the Magellan MobileMapper 6 and ArcPad 10 in the Field

By Paula J. Hunt and Philip A. Dinterman (West Virginia Geological and Economic Survey)

The Placitas 7 1/2" Quadrangle, Pitkin County, Colorado – A 3D Geology Map Example Using Esri ArcGIS10
By Willy Lynch (Esri)

Colorado State University / National Park Service
James Chappell
Stephanie O'Meara
Heather Stanton
Trista Thornberry-Ehrlich

Geology and History of an 19th and early 20th Century Industrial Complex:

The Nuttall Mine and Nuttallburg, WV

By Gayle H. McColloch, Jr., and Jane S. McColloch (West Virginia Geological and Economic Survey)

Delaware Geological Survey
Lillian Wang

West Virginia Mine Pool Atlas – A Work in Progress

By Jane S. McColloch, Richard D. Binns, Jr., Bascombe M. Blake, Jr., and Gayle H. McColloch, Jr. (West Virginia Geological and Economic Survey)

Esri, Inc.
Larry Batten
Willy Lynch

Mapping Abandoned Mine Using Imagery and Lidar from the Ohio Statewide Imagery Program

By James McDonald (Ohio Geological Survey)

Idaho Geological Survey
Loudon Stanford

AASG Geothermal Data: State Data in the National Geothermal Data System

By Steve Richard, Ryan Clark, and Lee Allison (Arizona Geological Survey)

Illinois State Geological Survey
Jennifer Carrell
Jane Domier

Laying the Foundation for a Dynamic Geologic Map of Virginia

By Hannah Shepherd and Amy K. Gilmer (Virginia Division of Geology and Mineral Resources) and Daniel Kestner (Virginia Division of Mined Land Reclamation)

James Madison University
Owen Shufeldt
Steve Whitmeyer

The National Geologic Map Database project

By David R. Soller and Nancy R. Stamm (U.S. Geological Survey)

Kansas Geological Survey
John Dunham

Acquisition and Processing Workflow for Geologic Map Images in the National Geologic Map Database (NGMDB) Map Catalog

By Rob Wardwell, David R. Soller, and Christopher P. Garrity (U.S. Geological Survey)

Kentucky Geological Survey
William Andrews

List of Workshop Attendees

[Grouped by affiliation]

Alaska Division of Geological and Geophysical Surveys

Jennifer Athey
James Weakland

Montana Bureau of Mines and Geology
Katie McDonald

Arizona Geological Survey

Ryan Clark
Stephen Richard

Natural Resources Canada-Geological Survey of Canada
Vic Dohar
David Everett
Dan Kerr

College of William & Mary

Chuck Bailey
Karen Berquist
Rachel Martin

Nevada Bureau of Mines and Geology
Jennifer Mauldin
Matthew Richardson

New Hampshire Geological Survey
Rick Chormann

New Mexico Bureau of Geology and Mineral Resources
J. Michael Timmons

Ohio Geological Survey
James McDonald

Pennsylvania Geological Survey
Thomas Whitfield

Pennsylvania State University
Jay Parrish

8 Digital Mapping Techniques '11–12

South Carolina Geological Survey

Erin Koch

U.S. Department of Agriculture

Jerry Bernard

U.S. Geological Survey

Greg Allord

Michael Cooley

Allen Crider

Mary DiGiacomo-Cohen

Joseph East

Chris Garrity

Ralph Haugerud

Kyle House

Linda Jacobsen

Linda Masonic

Gary Nobles

Randall Orndorff

Lydia Quintana

Mark Reidy

Steve Schindler

David Soller

Nancy Stamm

Will Stettner

Rob Wardwell

Frederic Wilson

University of Alabama

Douglas Behm

University of Tennessee

Andrew Wunderlich

Utah Geological Survey

Kent Brown

Virginia Division of Geology and Mineral Resources

Rick Berquist

Elizabeth Campbell

Lorrie Coiner

Chelsea Feeney

Dennis Feeney

Amy Gilmer

Matt Heller

Hannah Shepherd

David Spears

Virginia Information Technologies Agency

Scrivani, John

Washington State Department of Natural Resources

Anne Olson

West Virginia Geological and Economic Survey

John Bocan

Philip Dinterman

Sarah Gooding

Paula Hunt

Gayle McColloch

Jane McColloch

Wyoming State Geological Survey

Suzanne Luhr

Fred McLaughlin

Phyllis Ranz