

MEGUG Annual Meeting
October 20, 2017
Spectacular Events Center, Bangor ME

Agenda

9:00 – 9:30 – Sign in, welcome

9:30 – 10:30 Concurrent Session

Map Design, Layout, and Publishing in Global Mapper – Jeff Hatzel, Blue Marble

A GIS is fundamentally a communication tool in which raw data is processed and analyzed to expose its inherent spatial characteristics. The visual representation of these spatial patterns often takes the form of printed or published maps. In this workshop we will explore the map layout and publishing tools that have recently been introduced into Global Mapper. We will begin by creating a simple thematic map using publicly available data. We will then insert the map into a page layout and add the necessary cartographic elements, such as a heading, legend, scale bar, etc. before generating a geospatial PDF to simulate the printing process. Finally, we will walk through the procedure for creating a multi-page map book or atlas by applying a recurring layout template for each page. Attendees wishing to follow along will be provided with a trial copy of Global Mapper along with the required data files.

Stories From Above: the Use of Drones as a Remote Sensing Tool in GIS - Susan Bickford, Wells Reserve

The highest best use for Unmanned Aircraft Systems (UAS - aka drones) is to record remotely sensed aerial data that can be used to make informed decisions about natural resource management (as well as a wealth of other areas). How many nests are on this island? Where is coastal erosion taking place? What kind of marine debris is washing up on shore and where is it located? What is the elevation change on this dune escarpment? This presentation will focus on the ways the National Estuarine Research Reserve System is integrating UAS technology as a remote sensing tool that can produce accurate timely high resolution remote sensing data that can be integrated into GIS systems to provide the best data possible for decision-makers to use. Hands on activities will include working with ortho mosaic aerial photos and DEMs that were produced from UAS aerial data. There will also be a discussion about developing a curriculum to introduce UAS into k-12 classroom and developing Community College UAS certificate programs that would "stack" with GIS certificates (share common core classes).

10:30 – 10:45 Break

10:45 – 12:00 Plenary

Maine Geospatial Institute: Panel Presentation by Matthew Bampton, Kate Beard, Anthony Guay, Tora Johnson, Cyndy Loftin, and Matthew McCourt

A group representing University of Maine System campuses has been collectively developing the concept for a Maine Geospatial institute (MGI). The core functions of the proposed Institute are: Education and Research, Information Technology Transfer and Infrastructure, and Community Outreach. The MGI will:

- Provide a statewide infrastructure for integrating geospatial education, from K-12 to post-graduate and continuing education, with geospatial research and technology development.
- Provide a technologically educated workforce able to support a growing economic sector
- Link the education and research sector to industry, facilitating technology transfer, project collaboration, and research and development partnerships.

The MGI will have a physical presence on each of the seven UMS campuses through Project Centers providing venues for research and experiential education in geospatial science through collaborative partnerships with industries, agencies, and communities.

Initial concepts for an MGI were presented at a kick – off meeting in December 2016 in Freeport, Maine. The group of faculty developing the MGI proposal will present progress on the development of the MGI to date and solicit feed-back from the community and those attending the panel session.

12:00 – 1:00 Lunch

1:00 – 1:30 Annual Meeting/Election/Posters

1:30 – 2:30 Concurrent Session

Changing the Way We Work – Using the Cityworks Mobile App – Jessica Gooch, City of Portland

The City of Portland’s Water Resources Asset Management program has recently taken the plunge to move from a completely paper-based inspection workflow to deploying a fleet of iPads that are used to collect information in the field, complete inspections and update sewer and stormwater assets. Moving an entire workforce from paper to digital has been a lesson on managing for many different types of workers as well as the importance of workflows and training. Using the Cityworks Mobile application in conjunction with Collector, inspections are now done in the field, on an iPad. Eliminating (almost) completely the need for paper forms and allowing the field workers to see the GIS assets on a web map in the field. This has greatly improved the flow of information from the field to the office.

GIS means Different Things to Different People - Steve Weed, Assessor, City of Brewer

Discussion of how the City of Brewer is using GIS as a public information tool for everything from document archives to class registrations.

Enrich Your History, Geography and Science Curriculum with Interactive Maps - Margaret S Chernosky, Maine Geographic Alliance

GeoInquiries are free, short, standards-based inquiry activities for teaching map-based content found in commonly used textbooks. Each activity is designed using a common inquiry model and can be presented quickly from a single computer and projector, or modified for students to engage with hands-on. Collections of 15 activities per topic complement your curriculum throughout the year. In this workshop, Margaret will introduce you to Geoinquiries and show you how you can modify, save and share these lessons. Please come with your laptop or tablet.

2:30 – 2:45 Break

2:45 – 3:45 Concurrent Session

Manipulating rasters in R - Dr. Manny Gimond, Colby College

The workshop will introduce attendees to raster data manipulation using the R programming environment. The four basic map algebra operations (local, focal, zonal and global) will be covered. Examples of these operations include basic algebraic operations, reclassifying of raster cells, smoothing pixel values, computing summary statistics across polygons and generating Euclidean distance rasters from points or line features. Specialized applications such as the creation of hillshades from elevation rasters, cumulative distance rasters and raster reprojection will also be covered. No R experience is required, but attendees will be expected to have R, RStudio and a select set of R packages installed on their laptops prior to the workshop. Installation instructions and the list of required packages will be posted in the weeks leading up to the Fall conference at <https://mgimond.github.io/megug2017/>.

Idea Exchange Workshop Continued: Geospatial Data Governance Policy and Practice - In this room full of experts, all attendees are asked to actively participate in discussion, ask questions and share thoughts regarding management of GIS and related policies. This workshop will continue a discussion started at the Winter meeting. A summary of the previous discussion will be presented and we will explore actual issues, concerns and questions of attendees as well as actual solutions, experiences and ideas from other attendees.

3:45 – 4:00 Election Results/Closing Remarks