

Friday, October 30th 1:00pm – 2:30pm

Sessions are listed in alphabetical order by title

Connecting Geospatial Education with Industry and Government: A New York Experience

Andrew Mendola, Pictometry; Heather Pierce, Monroe College

Hundreds of 4-H Youth are learning the science and technology of GPS, GIS and Remote sensing. Cornell Cooperative Extension partnerships with Pictometry and NASA provide educators and youth with fresh tools and current applications. Youth learn STEM concepts, career possibilities, and insight into connections between education and applying problem solving skills to make a difference.

Monroe Community College is building a geospatial career pipeline between high schools, our GIST (Geospatial Information Science and Technology) Certificate program, 'Get the GIST,' and the geospatial workforce. With support from the National Science Foundation Advanced Technological Education program, seven high schools, GIS Scholars and the regional geospatial industry (Pictometry International, GIS-SIG, Monroe County GIS, City of Rochester GIS, Lighttower Fiber Networks), we are preparing students for entry level geospatial positions as well as opportunities to transfer to four year universities.

SUNY Brockport is working to map septic fields in watersheds across the state and is sharing their results with County and State Departments of Health.

MEETING ROOM: Hudson Ballroom

Counting Every Street Tree in NYC: From Participatory Mapping to Inventory Management

Jacqueline Lu, NYC Parks & Recreation

Twice over the past two decades, NYC Parks has worked with dedicated volunteers to inventory street trees to advance urban forestry management in NYC through better data. TreesCount! 2015 is NYC Parks' third decadal initiative to map every street tree in the city in partnership with local neighborhood and civic organizations across the five boroughs. Data is collected using an innovative mapping method developed by a local non-profit, TreeKIT, and a responsive web platform created by Azavea to support the collaborative execution of the Street Tree Census. The collected data is being integrated into NYC's GIS-based Forestry Management System used to manage 311 requests and work orders for the City's trees. By incorporating the publicly collected inventory into the system, the new street tree map will be kept up to date through daily operations as trees are planted and removed. As a result, Parks will have a high-quality, up-to-date asset inventory with which to plan forestry operations and support volunteer tree care efforts. This project shows how through geospatial technology and user centered design, municipalities can work with the public and civic organizations to collect high quality spatial data that supports city operations and urban forest management.

MEETING ROOM: Old Kelsey's

G-MAP: The Port Authority of NY & NJ's Goods Movement Action Program and Regional Truck Route Geodatabase

Danielle Hartman, CH2M; Ahmed Ismail, Port Authority of NY & NJ

A presentation by The Port Authority of NY & NJ and Halcrow/CH2M on the multi-agency Goods Movement Action Program (G-MAP) and the development of a Regional Truck Route geodatabase. The presentation includes an overview of the goals and planned actions of G-MAP, a joint initiative of the Port Authority, the NYS Department of Transportation, and the NJ Department of Transportation. The G-MAP vision is to support and enhance the metropolitan region's position as a global center through strategic goods movement initiatives.

One of the G-MAP Early Actions is the development of a Regional Truck Route geodatabase. This geodatabase consolidates and standardizes information on designated truck routes into a seamless regional map, and is intended to reduce jurisdictional data gaps and to increase availability of data that may enhance the productivity and safety of the region's freight network for its users. The geodatabase was developed from existing GIS data, text-based regulatory documents, and graphical map layouts. The beta release is draft data from April 2015. The final version will incorporate regulatory updates and additional details, and be made available to freight network users, information service providers, application developers, and related agencies.

MEETING ROOM: Chambers

Low Cost GPS Accuracy Improvements for Mobile Data Collection

Michael Naughton, Town of Huntington

I have been employed by the Town of Huntington since 1984. I have been using GIS products since 1996. Recently I have been doing mobile testing of ESRI's ArcPad and Collector with various products to determine the best combination of hardware and software that would enable accurate mobile data collection while keeping costs down.

I have used the following for testing purposes: Trimble Geo XH, Trimble Nomad, Samsung S5 Smartphone, iPad, ESRI Collector, ArcPad, ArcGIS Online, ArcGIS Pro, ArcGIS Desktop, ArcGIS Server, Google Maps, Google Streetview, and New York State GIS Clearinghouse.

Using the above products I have done various mobile data collection tests to determine the most effective method of collecting accurate data and my presentation will expose my findings verbally and visually.

I have come to a few conclusions that I would like to share with conference attendees. I believe that anyone involved in mobile data collection would benefit from my presentation.

MEETING ROOM: Old Kelsey's

SeeClickFix: Location Based NonEmergency Reporting in Albany

Andrew Johnston, SeeClickFix; Sarah Kemppf, City of Albany

SeeClickFix is a communications platform for citizens to report nonemergency issues, and governments to track, manage, and reply, which ultimately improves communities through transparency and cooperation. Nonemergency issues or service requests are geotagged with a description and photo. With Sarah Kampf from the City of Albany I will take you through some great New York examples of how location based reporting can have a significant impact on a city and where the data collected can take you. Let us show you how SeeClickFix, powered by GIS, empowers communities and promotes collaboration.

MEETING ROOM: Old Kelsey's

The City of Rochester's Enterprise GIS Transformation

Michael Ross, City of Rochester

In 2013, the City of Rochester embarked on an Enterprise GIS Transformation Project. The City, working with Esri Professional Services, completed a complete re-design of the City's GIS program. This included aspects of GIS governance, system architecture design, geodatabase design, COTS application implementation, and ongoing technical support. In addition to reviewing the project, this presentation will update the audience on additional progress we've made. We'll discuss our current system architecture, including database, server, cloud, and mobile components. We'll also talk about how adoption of the ArcGIS platform has enabled a lean application development methodology, and we'll take a tour of the City's growing catalog of web and mobile applications.

MEETING ROOM: Hudson Ballroom

The Role of GIS in 9-1-1

Jason Baum, NYS ITS - GIS Program Office; Gerald Engstrom Jr., New York State Police

This presentation will provide an overview of 9-1-1 technology as well as how GIS works in present E9-1-1 and future Next Generation (NG9-1-1) systems. There will also be an overview of the GIS Program Office's program to build consistent, statewide, standards-based GIS emergency responder boundary layers for use with NG9-1-1 and how local governments should be involved in this effort.

Currently, GIS has a supporting role in E911 systems. Most Computer Aided Dispatch (CAD) systems used in 911 centers have a map screen which uses GIS to map the location of calls. E9-1-1 also depends on address and street data flat files (MSAG and ALI) for locating calls which may be derived using GIS.

Technology has advanced rapidly, changing the way most of us communicate. The old copper landline telephone system is rapidly giving way to a new multi-device IP based system. NG9-1-1 is being planned at the national level in order to take advantage of these changes and GIS is essential to its functionality. In NG9-1-1, GIS will be used to direct emergency calls to the correct 9-1-1 center and determine the correct police, fire and EMS jurisdiction to respond.

MEETING ROOM: Chambers

Using a Fishnet to Catch Crime Hot Spots

Paula Cutrone, Onondaga Crime Analysis Center

Crime Analysts use GIS to map crimes, detect hot spots of activity, and analyze those hot spots. The Onondaga Crime Analysis Center (OCAC) uses traditional spatial density but has also adopted a grid method for identifying hot spots. OCAC established a 'fishnet', or grid, over 500 feet by 500 feet (250,000 square feet) sections of Syracuse. Crimes are geo-located to a point in the City and then counted as they lie within the individual grids. This form of choropleth hot spot analysis, in conjunction with a traditional spatial density (heat map), has allowed Analysts to refine the identification of hot spots and make more accurate recommendations for deployment. This presentation will demonstrate step-by-step how crime points are joined to the grids, how to symbolize the data, and provide ideas for further analyzing the hot spots.

MEETING ROOM: Chambers

What's in a Name? Unique Asset Identification using USNG Coordinates"

Elisabetta DeGironimo, Mohawk Valley Water Authority

During a recent GIS data model redesign, the Mohawk Valley Water Authority updated their asset identifiers to be meaningful/logical unique asset names based on the United States National Grid (USNG) referencing system.

The USNG is a seamless, standardized, consistent grid referencing system. Its use is supported by FEMA and emergency response organizations. It uses a UTM grid and truncated eastings and northings to easily locate an area or position. It is an ideal system to create map grids and to name assets.

The MVWA uniquely named all of its GIS features using their USNG coordinates. A typical full USNG coordinate can uniquely locate a 1-meter area. The USNG can be extended to provide unique locations to the decimeter level for valve features. This presentation will show the model builder and python expressions used to uniquely name the assets and highlight the opportunities and challenges with using the USNG system for asset identification.

The Mohawk Valley Water Authority (MVWA), based in Utica, delivers potable water to over 125,000 residents in Central New York.

MEETING ROOM: Hudson Ballroom