

NYS GIS State Agency Advisory Group
Meeting Report
at NYS Thruway Authority, Building 10
May 1, 2018

Welcome and Roundtable Discussion Covering Use of Drones by Agencies. The group went around the room, introduced themselves, and discussed the level of use of drones within their agencies:

- **Eric Herman – NYSTA:** NYSTA did some experimentation about 2 years ago with a consultant showing various applications for inspection of facilities, but never implemented
- **Mauricio Roma – OAG:** Not using drones, but very interested in the topic; Could possibly use for inspections and identifying trespassing issues
- **Mark Giddings – DOH:** (Nutrition) No use of these devices as of yet
- **Dennis Wischman – DEC:** Has a big drone program, with an extensive list of requirements to fly; Uses include search and rescue, emergency operations, fighting forest fires, monitoring forest health, & wildlife management; There is one permanent person doing drone work, others are borrowed as needed; Some drone pilots in DEC regions; DEC's Scott McDonnell has spearheaded the program and could discuss at a future meeting
- **Steve McGrail – Canal Corp:** (Started with CC 2 weeks ago) Trying to set up a drone project with DEC; DOT Photogrammetry Unit has software to get drone data into GIS and do manual mosaics; Canals interested in inspections of structures with 30x optical zoom drone cameras & good stabilization
- **Joe Lasch – ITS:** (Noted now in a new ITS portfolio) DPS is not currently using any drones, though utilities do use for damage assessment
- **John Marino – NYNHP:** Would coordinate with DEC – could probably use for rare species
- **Peter Lauridsen – DOS:** Coastal Division does not use, but would love to – need to present case to management; Could use for project identification and numerous coastal management issues
- **Rebecca Newell – DOS:** Also could use for potential monitoring of grants and work in progress
- **Christina Croll – OPRHP:** Parks personnel were trained by DEC—have 3 licensed with a 4th coming; Currently have 4 drones (using DJI Inspire models); Use for search and rescue, Jones Beach, SPAC, concerts, operations, law enforcement, invasive species, obtaining update imagery; State Park Police operate these; Noted that a license is required for devices over 2 pounds or used for commercial purposes; Using Pix4D software process imagery (Mauricio mentioned the OPRHP could identify melting snow/leaking methane from abandoned wells in Allegany State Park)
- **Gwen LaSelva – DOH:** Not currently using, but there may be potential
- **Tim Daly – ITS:** See notes from Dennis
- **Henry Kovacs – ITS:** (Transportation Portfolio) Not aware of use by ITS
- **Mary Susan Knauss – DOT:** Jeff Barth (Photogrammetry) is hopeful for a program soon; Has a small one for personal use
- **Anyee Fields – NYSTA:** See notes from Eric
- **Brent Kinal – DEC:** Bureau of Invasive Species has one person who's drone-certified; Brent is currently training to operate these; Uses for ecosystem health; Noted limited flight times and that many are moving to fixed-wing models to cover larger areas; Used on Prospect Mountain to identify Hemlock Woolly Adelgid presence, for PR videos, foresters, vehicle inspections for invasive species; Also using Pix4D software; Noted that there is a lot of use by State Police
- **Doug Heim – OTDA:** Would love a justification, but no current uses
- **Katherine Barnes – DEC:** (Bureau of Wildlife) Centralized program; No specific uses in Bureau yet
- **Michele Golden – DEC:** (Division of Water) Does not know of current uses; May use on current project to determine health of sea grass off Long Island

- **Ellie Deng – DEC:** See notes from Michele; Very interested in uses of drones; Would require lots of training and battery issues should be kept in mind; Landscape features need proactive studies; Could possibly use for sewer work
- **Frank Winters – ITS (GPO):** (Arrived after this discussion)

NYSDOT Secondary Asset Collection/Use of USNG naming convention. Mary Susan gave a presentation discussing the asset collection that DOT is doing with Fugro as a contractor. For this project, DOT wanted a meaningful naming convention for the assets and opted for a variant of using US National Grid (USNG) coordinates. This provides a single alphanumeric string that is stable, universal, and navigable. It uses the X and Y coordinates of the feature from the USNG, and is formatted like this: 18TVN80797206. DOT is implementing this and Mary Susan advocates adopting this as a broader standard. There is a script available to automatically populate features with these identifiers, once they have been collected. The current project will collect all assets that are identifiable from a vehicle.

iMapInvasives Updates from NY Natural Heritage. John then provided an overview of the iMapInvasives program. This is a collaborative GIS application to track invasive species, via a web-based interface, with mobile applications for data entry. Version 2 is the latest; version 3 is under development. The group is planning to leverage ArcGIS Server more in the future, which should work better with Survey123. Version 2.047 of the mobile app adds fields for more data. In the summer, watercraft inspection stewards will be using the inspection application with Survey123 and all inspectors will be able to enter data into a common platform. All data goes into DEC's ArcGIS Online instance. This will allow managers to view and edit their own data. John mentioned a few other Survey123 applications like observational assessment and treatment, and a simple aquatic survey for aquatic invasives. Version 3 will send data directly to iMapInvasives. NYNHP is working on a project to allow Collector to enter linear and polygon data, since Survey123 only works for point data. John noted that although you can use ArcGIS Online web maps offline in the mobile environment, it does not have survey functionality. NYNH will be integrating the two. John also noted that the "Spring Blitz" is coming up, and NYNH is doing training across the state, working with SUNY ESF as trainers. Finally, he noted that spatial modeling projects are underway for species protection. We expect to have demonstrations of some of these interfaces at a future meeting. Brent also mentioned that he could give a discussion comparing/contrasting ArcGIS Collector and Survey123.

Tax Parcel Program. Frank gave an overview of the status of the GIS tax parcel program. He noted that 2017 GIS Tax Parcel polygons with 2017 assessment roll data will begin to be made available on SharePoint starting this month, and that all counties except Rockland, Putnam, and Suffolk counties are available to use for state business purposes. Twenty counties share this data publicly. The GIS Program Office (GPO) is looking for examples of interesting uses for this data. If you have an example you can provide, please contact Kate Kiyanitsa at Katherine.kiyanitsa@its.ny.gov.

New/Updated Map Services from the GIS Program Office. Frank then went on to discuss new web services hosted by NYS. Some of those highlighted included NYS Place Points (locations for incorporated and unincorporated places, tribal communities and neighborhoods); NYS Tax Parcels (for publicly shareable counties); State-owned NYS Tax Parcels; NYS Tax Parcel Centroid Points; and NYS Streets.

Orthoimagery. 2017 Near-Infrared orthoimagery is now available as a web service. Frank encouraged people to access and explore this valuable dataset. Extensive cloud cover this spring delayed the 2018 flying season, but it has now started up. Frank provided a map showing the collection areas and status. LiDAR data collection is also underway in Cayuga and Oswego Counties.

ShareGIS Proof of Concept. Frank finished with a diagram and overview of the ShareGIS program. He explained how operational data is made accessible to the ShareGIS servers in both Esri (accessing geodatabase) and Boundless (accessing Post GIS) server software environments. These are available through an API gateway, which controls who is able to get to data and what they are able to access. The project is progressing well, and will be hosted in the IBM Cloud, as a proof of concept for this environment. The GPO is looking to emphasize branding as “gis.ny.gov” now, rather than “ShareGIS”.

Open Forum/Items of Note.

- Eric noted upcoming conferences this year:
 - NYS Geospatial Summit (9/26 @ Welch Allyn Lodge, Skaneateles)
 - NEARC (10/28-31, Saratoga Hilton, Saratoga Springs)

- Frank gave a quick overview of the ITS transition from Clusters to Portfolios. Three clusters were a part of the first phase, and became nine portfolios. Each Portfolio Director has one or two agencies to focus on, and some resources have been centralized. The next phase will be to do the same with the remaining clusters, resulting in about 18 portfolios; The agencies noted that they haven’t noticed much change from their perspective,

Solar Power Potential. A planned demo from the OPWDD about exploring potential for solar power for their facilities was postponed to a future meeting. Eric provide a bit of a teaser, with an overview of what the project is about, and a quick demonstration of the Google’s Project Sunroof.

The next meeting is tentatively scheduled for Thursday, September 5, 2018 from 9:30am-12:00pm at the NY State Thruway Authority Offices. If you have any ideas for topics or would like to provide a demonstration at this meeting, please let us know. Any questions or concerns about any of these issues can be sent to the Advisory Group Chair, Eric Herman at the NYS Thruway Authority (518) 471-5890, or eric.herman@thruway.ny.gov.