



Survey & GIS Summit

November 3-5, 2021

Virtual

Co-hosted by NSPS & URISA

Free for NSPS and URISA Members;
\$25 for Nonmembers

<https://surveygissummit.com/>

Agenda

All Times are Eastern Daylight Time

Wednesday, November 3, 2021
12:00-5:00 PM Eastern

12:00-12:15 PM:

Welcome

- *Tim Burch, PLS, SPACECO, Inc., Rosemont, IL – NSPS President-Elect*
- *Brent Jones, PE, PLS, Esri, Vienna, VA – URISA President*

12:15 – 1:00 PM:

Keynote– We’re in This Together – *Jan Van Sickle, PhD, PLS, Lecturer – University of Colorado at Denver, Principal Engineer – HERE Technologies, Boulder, CO*

We are in this together. Let’s not waste any time debating who is in the catbird seat. Both surveyors and GIS professionals have plenty of mountains to climb. We’ll get to the top a helluva lot faster if we stop arguing about who’s leading. Our software, our tools, even the scope of our work is expanding so fast all of us need to focus on learning as much as possible, as quickly as possible. The sophistication of this stuff is mind-boggling. Dynamic reference frames and epochs, DevOps, SLAM, UAS data, Mobile Mapping, NATRF just to mention a few. We can contribute to all of them, but we first need to know more about them than we do, a lot more. As the Red Queen said in Alice in Wonderland, “... it takes all the running you can do, to keep in the same place.” So, let’s help each other do that because we are in this together.

1:00 – 1:50 PM

Session 1 – The National Spatial Reference System: a shared resource for surveying and GIS

The National Spatial Reference System (NSRS) is the common foundation shared by both surveying and GIS. NOAA’s National Geodetic Survey (NGS) defines, maintains, and provides access to the NSRS, which serves as the basis for civilian surveying and mapping in the United States. This presentation gives an overview of existing NGS products and services, and how they will change as part of NSRS Modernization. For both the existing and future NSRS, the goal of NGS is the same: to best meet the diverse positioning needs of the entire U.S. geospatial community. That goal includes both surveyors and GIS professionals, who together are finding the middle ground of their professions and collaborating more than ever before.

- *Brian Shaw, Rocky Mountain Regional Advisor, NOAA's National Geodetic Survey (NGS), Boulder, CO*
- *Michael L. Dennis, PhD, PE, RLS, Geodesist, NOAA's National Geodetic Survey (NGS), Sedona, AZ*

2:00 – 2:50 PM

Session 2 – Surveying and GIS Panel

Surveyors and GIS professionals share tools, markets, clients, and a lot more. There are many commonalities with services that surveyors and GIS professionals offer, but there are many differences as well. Bring your questions for this expert panel of both professional land surveyors and practicing GIS professionals.

- *Tim Burch, PLS, SPACECO, Inc., Rosemont, IL – NSPS President-Elect*
- *Linda M. Foster, PLS GISP, Ferber Engineering, Rapid City, SD*
- *Brent Jones, PE, PLS, Esri, Vienna, VA – URISA President*
- *Tripp Corbin, MCP, GISP, Davey Resource Group, Dacula, GA*

3:00 – 3:50 PM

Session 3 – Cadastral Surveying and GIS

New survey technology in GIS delivers opportunities for surveyors to deliver more services. It also enables GIS professionals to leverage survey methodologies to manage cadastral data more efficiently and accurately. This session will highlight how the PLSS is managed in GIS and how a county surveyor is improving managing survey data in GIS.

- *Preston Dowell, PLS, Deputy County Surveyor, St Louis County MN*
- *Lucas Beauchamp, PLS, Bureau of Land Management, Reno, NV*

4:00 – 4:50 PM

Session 4 – Transportation GIS and Surveying

The transportation industry has a long history of using GIS for environmental and route planning, managing data, and communicating with stakeholders. GIS helps surveyors throughout the entire infrastructure lifecycle from planning to digital twin (asbuilt) surveying. Attend this session and see how surveyors are using GIS in transportation.

- *Richard Kleinmann, PLS, Ayres Associates, Waukesha, WI*
- *Linda M. Foster, PLS GISP, Ferber Engineering, Rapid City, SD*

Thursday, November 4, 2021
12:00-5:00 PM Eastern

12:00-12:50 PM:

Networking for Young Professionals

Join us for an informal meet-and-greet to connect with peers, pros, companies, and organizations. Expand your network, get connected, and maybe have a little fun!

- *Sid Pandey, Dewberry, Fairfax, VA – URISA's Vanguard Cabinet*
- *Denver Winchester, PS, Crafton Tull and Associates, Yukon, OK – YSN (NSPS)*
- *Caroline Sampa, Esri, Charlotte, NC (Esri YPN)*
- *Shannon Fries, Esri, Redlands, CA (Esri YPN)*

1:00-1:50 PM:

Keynote – GIS is a Common Language – *Nancy von Meyer, PLS, GISP, PE, PhD, Fairview Industries, Pendleton, SC*

GIS is a Common Language: Measurement and evidence have been the domain of the Land Surveyor since its earliest days. Land surveyors establish or recover on the ground physical evidence of title and ownership. Parcel mapping is a compilation and aggregation that serves as an index to other information. GIS serves both efforts. It can be used to support field collection of measurements, reduce and compile measurements, and apply analysis such as least squares analysis to estimate the quality of measurements and control. GIS is also vital to parcel mapping. It provides the workflows and tools to extract from and link to record information and compile and aggregate record information into a single view. GIS is the common ground. It is automated geography that provides a common language to bridge the gap between parcel-by-parcel evidence-based land surveys and jurisdiction-wide parcel mapping. Rather than carving out separate roles or setting up barriers to use, land surveyors and parcel mappers need to leverage the common language of geography, as expressed in GIS, to improve the quality and efficiency of both. We will explore some ways land surveyors and parcel mappers, as well as other allied professions, can increase cooperation to achieve more efficiency and greater accuracy.

2:00 – 2:50 PM

Session 5 – Panel – Update on National Initiatives

There's a lot going on in the federal government with surveying and GIS. Get the news straight from the source with leaders from BLM, USFS, NGS, USACE, USGS and others. Bring your questions and get insights into where the government is now and the plans for the future.

- *Dominica Van Koten, PLS, Chief Cadastral Surveyor, Bureau of Land Management, Washington, DC*
- *Tim Varner, IT Specialist, Bureau of Land Management, Wasilla, AK*
- *Chris McDonald, Public Land Survey System (PLSS) Dataset Program Manager at Bureau of Land Management, Salt Lake City, UT*
- *Nathan Price, PLS, Chief Land Surveyor, USDA Forest Service, Washington, DC*
- *Nancy Blyer, USACE, Geospatial Community of Practice Lead, Washington, DC*

3:00 – 3:50 PM

Session 6 – Integration of Survey, GIS & BIM in Infrastructure Projects in the UK: the where, what, and when

This presentation will showcase examples of the integration of Survey, GIS and BIM data, systems, and processes during the design and construction phases of some of the current infrastructure rail and road projects in the UK. As well as highlighting the successes and challenges of integration and collaboration amongst the teams, the presentation will address some of the challenges that lie ahead, such as integration of information for handover and maintenance, as well as working towards the digital twin.

- *Dr. Anita Soni, Deputy Head of BIM, Skanska Infrastructure, United Kingdom*

4:00 – 4:50 PM

Closing Keynote: Call to Action, Q&A

- *Tim Burch, PLS, SPACECO, Inc., Rosemont, IL – NSPS President-Elect*

5:00 – 6:00 PM

Networking Reception

After absorbing a lot of information during the Summit, reconvene with your fellow attendees, speakers, and NSPS and URISA leadership to discuss and connect. Grab your favorite beverage and a snack and turn your cameras on!

Friday, November 5, 2021

11:00 AM – 3:00 PM

Sponsor Session – Esri

Surveying and GIS – Parcel Fabric

GIS is a vibrant and growing industry. Surveyors can apply their skills, tools and knowledge to enter new areas of practice, fulfill new deliverable requirements, and better manage their own operations. GIS is not a desktop application but an entire location platform, geospatial infrastructure – desktop, mobile, server, cloud with data, applications, developer tools, industry templates, and a lot more. This workshop will deliver a detailed presentation on creating and managing parcels leveraging surveying methodologies. This workshop will provide details on the ArcGIS Parcel Fabric and how surveyors can benefit. Topics include migrating parcel data and how to perform record driven and quality-driven workflows, least squares adjustment, ground to grid, and more. This workshop will be a series of presentations and demonstrations.

Presenters: Dan Stone, Esri and Tim Hodson, Esri

If you wish to attend this workshop, you must register separately via this link: <https://register.gotowebinar.com/register/2549351168362113805>