

ASPRS NSRS Modernization Working Group

ASPRS - Photogrammetric Applications Division (PAD)

WG meeting at Geoweeek February 17, 2026

Agenda

1. Introduction and Welcome remarks.
2. Goals of the Working Group.
3. A word from the NGS Director, Dr. Marian Westley
4. ASPRS Activities in Preparing for the Modernized NSRS
5. Appointment of a secretary/notes taker and communications officer.
6. Summary of NGS advancements in the NSRS modernization program.
7. Gathering suggestions for topics and projects for the Working Group.
8. Any other business.

Objective of the Working Group

- To inform the industry about the upcoming NSRS updates being introduced by NGS, expected to be completed by 2025.
- To conduct regular public meetings designed to increase awareness about the new datum and the impact of transitioning existing or legacy data to it in 2025.
- To provide educational materials, training, and information concerning the upcoming NSRS modifications.
- To encourage software developers to adopt these changes in a timely manner.

NSRS Related Sessions During Geoweeek 2026

1. 2/17/2026 8:30 AM - 9:30 AM - Bluebird 2E

NSRS Modernization Program ASPRS WG meeting

2. 2/17/2026 2:00 PM - 3:30 PM - Bluebird Ballroom 1A

NSRS Modernization – The Latest Technical Updates

3. 2/17/2026 4:30 PM - 5:30 PM - Bluebird Ballroom 3E

Preparing to Put the Modernized National Spatial Reference System into Practice -
Bluebird Ballroom 3E (ASPRS)

4. 2/18/2026 10:30 AM - 12:00 PM - Bluebird Ballroom 2A

NSRS Modernization and Professional Societies Roundtable

ASPRS Activities in Preparing for the Modernized NSRS

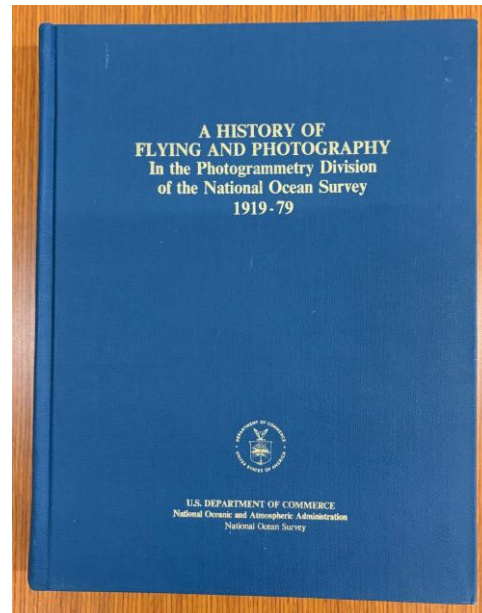
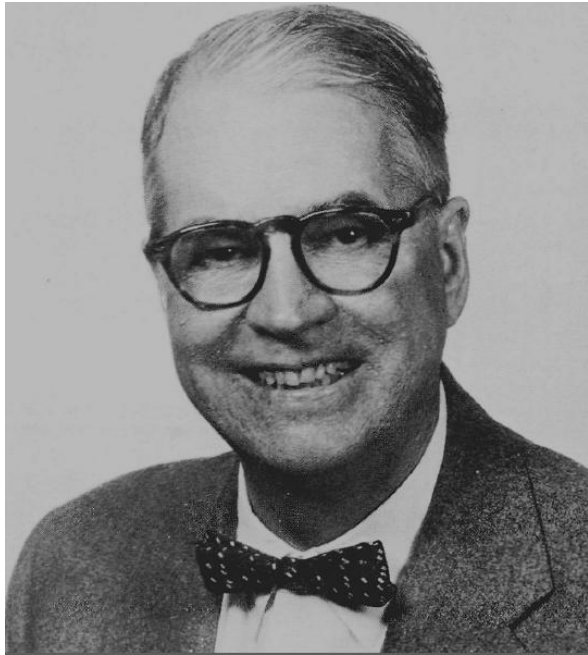
Christopher Parrish and Qassim Abdullah, ASPRS NSRS Modernization Working Group
NGS-FGCS Meeting
1/21/2026

Intro to ASPRS



- **American Society for Photogrammetry and Remote Sensing**

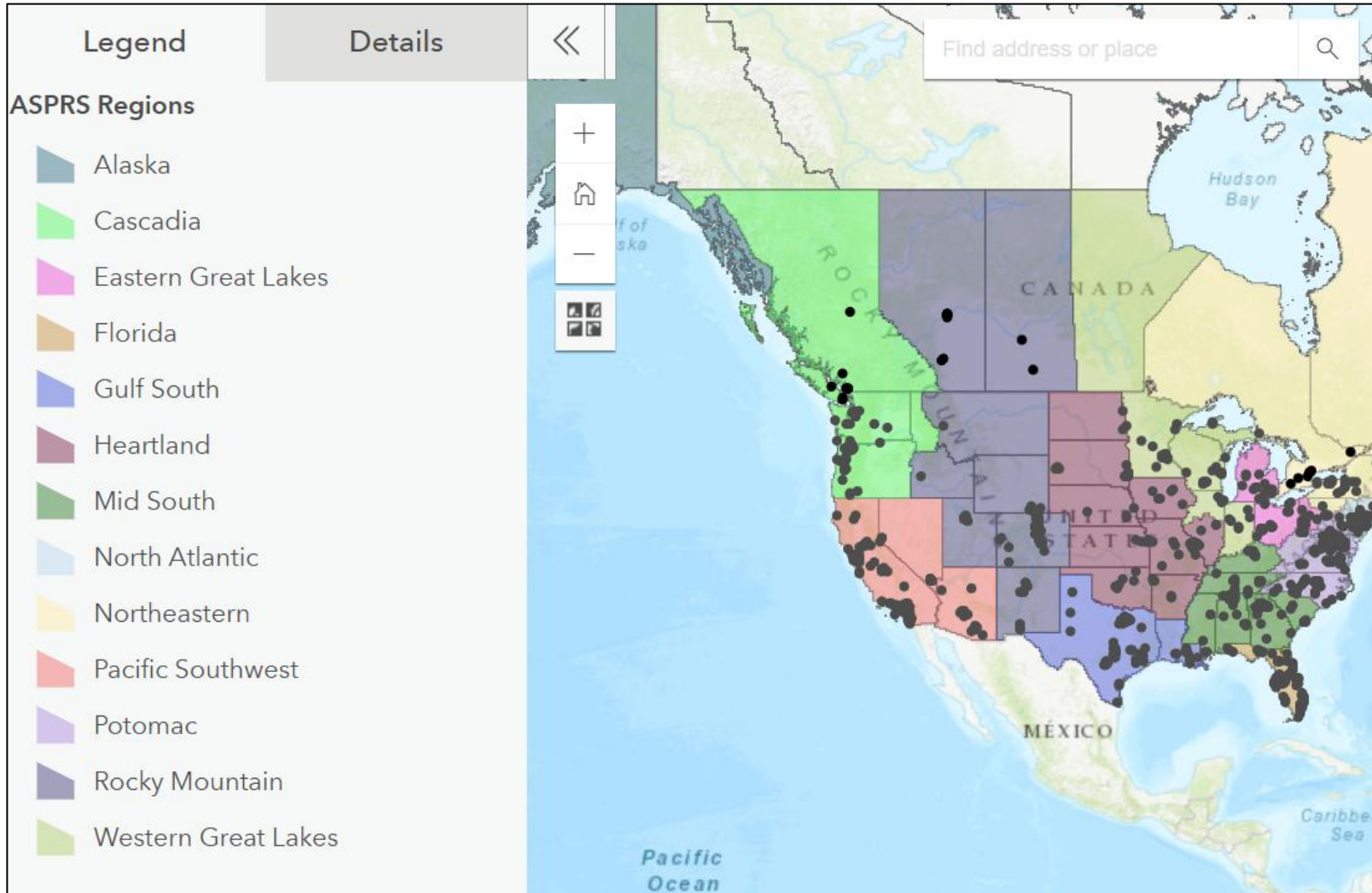
- The Imaging and Geospatial Information Society
- Founded in 1934
- Active representation from Government, Academia, and Industry
- Mission
 - Promote the ethical applications of photogrammetry, remote sensing, geographic information systems (GIS) and supporting technologies
 - Advance the understanding of geospatial sciences
 - Expand public awareness of the profession



Side Note on ASPRS Foundation

- Formed by **LT O.S. Reading**, Officer in Charge of Aerial Photography in the U.S. Coast and Geodetic Survey
 - USC&GS aerial photography group (later Photogrammetry Division) was predecessor of what is currently the Remote Sensing Division of the National Geodetic Survey
 - A small group met in LT Reading's home on **July 29, 1934** to discuss whether there was sufficient interest in forming the American Society of Photogrammetry
 - Determined that there were enough people working in aerial mapping to support monthly meetings
 - "Perhaps 5 or 10 would join a national society and pay dues sufficient to support a publication of a modest sort" (Smith, 1981)

ASPRS Regions



- 13 Regions
- Provide networking opportunities within geographic location
- Host regional and local events
- Establish and support Student Chapters

Divisions, Committees, and Councils

- **Where the technical works gets done!**

Councils

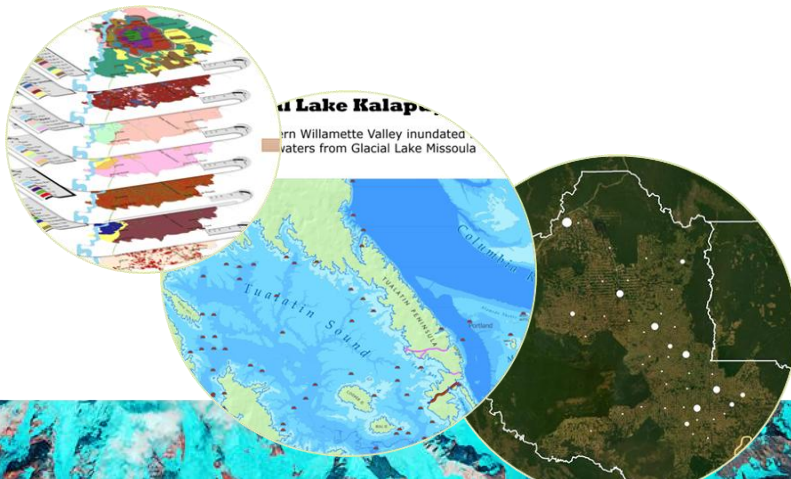
- Committee Chairs
- Early-Career Professionals
- Region Officers
- Sustaining Members
- Student Advisory
- Technical Divisions

Committees

- Audit
- Governance
- Awards and Scholarships
- Education & Professional Development
- Evaluation for Certification
- Events
- Publications
- Standards

Divisions

- GIS
- Lidar
- Photogrammetric Applications
- Primary Data Acquisition
- Professional Practice
- Remote Sensing Applications
- UAS



ASPRS Activities

- **Standards**
 - *ASPRS Positional Accuracy Standards for Digital Geospatial Data*
 - LAS file format specification
 - ASPRS Guidelines for Procurement of Geospatial Mapping Products and Services
- **Certification**
- **Education**
 - On-Demand Webinars
 - Student Mentoring Program
 - Awards & Scholarships
 - Career Resources
 - Mentorship
- **Events**
 - Regional and National conferences and workshops
- **10-Year Industry Forecasts**



NSRS Modernization WG

- Working group of the ASPRS Standards Committee
- Qassim Abdullah is WG Chair
- Objectives
 - Keep industry informed about coming changes in the NSRS
 - Organize regular public meetings to increase awareness about new reference frames and new geopotential datum
 - Exchange education materials, training, and info regarding NSRS2022
 - Encourage geospatial software developers to adopt changes as soon as possible



MEET THE LEADERSHIP



[Benjamin Wilkinson](#)
University of Florida



[Hank Theiss](#)
University of Arkansas



[Qassim Abdullah](#)
Woolpert, Inc.
Working Group Chair



[Christopher Parrish](#)
Oregon State University
Assistant Division Director



[Linda Foster](#)
Esri
Assistant Division Director



ASPRS NSRS Modernization WG activities

- *PE&RS* highlight article that includes recommendations for industry (service providers, hardware and software manufacturers, etc.) to prepare for modernization
- NSRS modernization case studies
- Crowdsourced NSRS modernization success stories
- Meetings at Geo Week (past 2 years + upcoming February 2026 Geo Week in Denver)
- Online discussion board
- Dissemination of NSRS modernization info



Proposed Membership Questionnaire

- *ASPRS NSRS2022 Implementation Survey*
 - Basic demographics
 - Software used
 - GIS, Trajectory, Lidar, Photogrammetry, Survey, Enterprise Database, Other...
 - Geospatial data holdings
 - Processing workflows
 - Level of preparation for NSRS Modernization
 - Ex: Plans for transforming, readjusting or recollecting existing geospatial data holdings
 - Correspondence with software manufacturers
- Currently draft
 - Will need approval from ASPRS Board to disseminate
 - Feedback welcome

Additional Questions for Geospatial Software Developers

- What geospatial file formats does your software read/write, and will those file formats support time-dependent coordinates?
 - Ex: GeoTiff, .img, .geojson, .gml, .osm, .dlg, .sid, .las, .laz, .h5, custom, ...
- Are CRS defined by EPSG codes?
- Do you use the GDAL/OGR libraries?
- Do you support coordinate transformations internally?

- I work for a mid-sized geospatial services firm
- We have contracts and subcontracts from Federal mapping agencies, state geospatial agencies, and state DOTs to collect lidar and imagery and supply geospatial data products, such as orthos, point clouds, and contours
- Our contract wording re CRS currently looks like this:

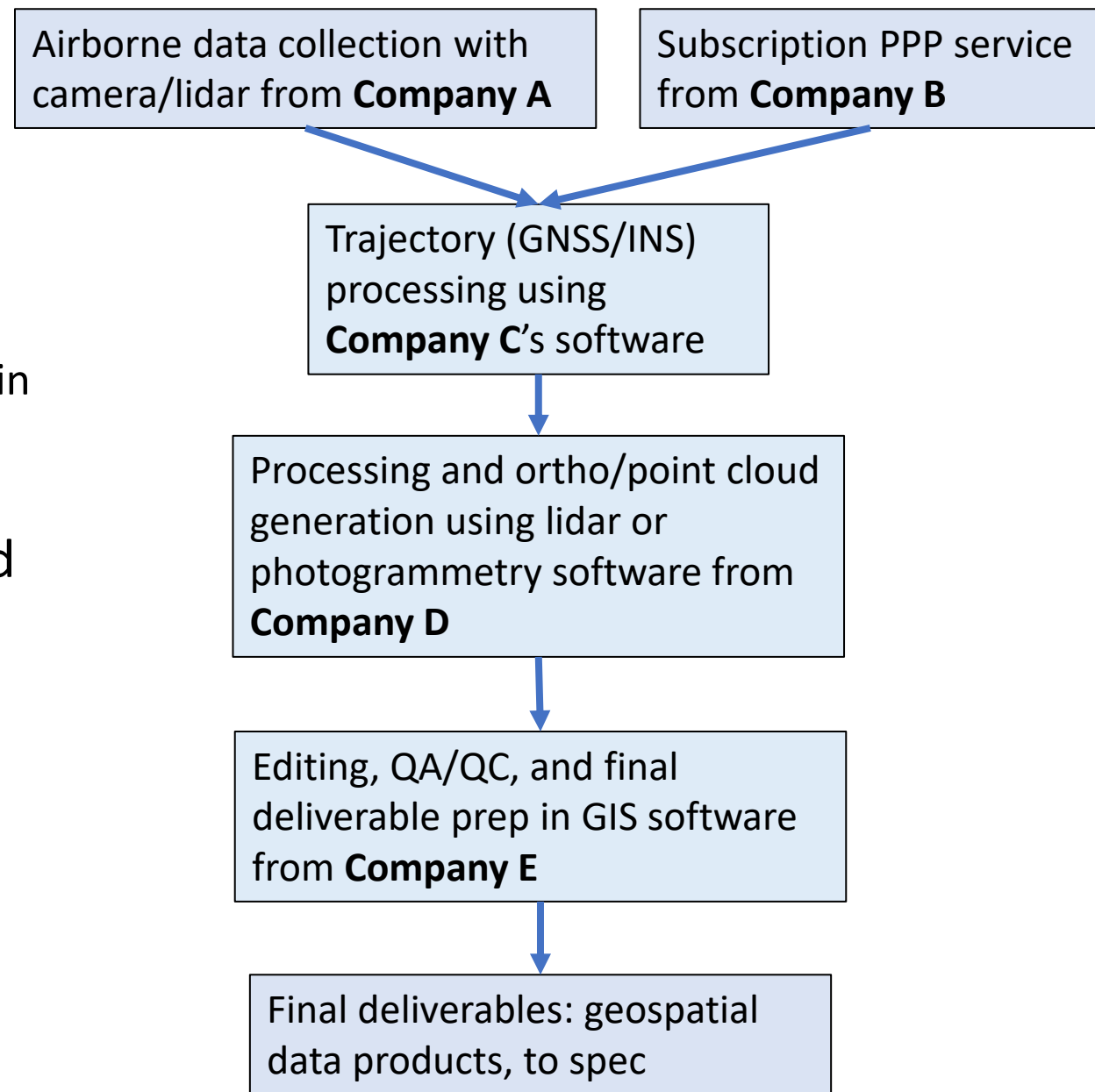
All deliverables shall be referenced to NAD 83(2011) epoch 2010.0, and projected in SPCS83, Zone LA S, with units of U.S. survey feet. Heights shall be referenced to NAVD88 using GEOID18.

- Is this what we should expect for the new contract/task order wording, and if so, when might we anticipate these changes? Any other changes to be anticipating (e.g., RECs, SECs)?

All deliverables shall be referenced to NATRF2022 at epoch 2026.0, and projected in SPC2022, Zone 221002, with units of international feet. Heights shall be referenced to NAPGD2022 using GEOID2022.

Anecdotal Question (cont'd)

- My workflow looks like this
 - With tight profit margins, anything that breaks in this workflow resulting in down time could be very costly
- How will I know if Companies A, B, C, D, and E will be ready to support the modernized NSRS at the time that we'll have to start responding to RFPs with the new CRS language?
- Are these companies already working on this, or should I be contacting them?



Other anecdotal examples of questions from members

- My agency maintains nearly an exabyte of existing lidar data referenced to the current NSRS. How long will it take to transform using our existing hardware resources?
- We have data that, in the past, has been mandated (by legislation) to be referenced to NAD27 and NGVD29. How should we update it to the modernized NSRS, given that it's not even referenced to the current (soon to be superseded) NSRS?
- Others...

Questions and Requested Support from NGS and FGCS for ASPRS NSRS Modernization WG

- Info that will help us in responding to our members' questions
 - Timelines, even if uncertain or subject to change (e.g., when will modernized NSRS be presented to New Datums presented to FGCS for approval?)
 - Specific wording we should use in responding to members' questions, when applicable
- Types of feedback that you would like from our members
 - E.g., input on questions in proposed membership questionnaire
- Anything that will help facilitate the two-way flow of information between NGS, FGCS and our members