National Spatial Reference System (NSRS) Modernization Industry Workshop
May 7 - 8, 2018

Discussion Topics

A. CORS
   a. Foundation CORS
       i. Will they be IGS stations?
   b. Density for intra-frame velocity model
       i. Can it be done without geodynamic modeling? If yes, how?
   c. Future directions of partner maintained CORS
   d. When is Repro2 coming out?

B. Real time networks
   a. NGS validation. Work still ongoing…
   b. What should / can be the NGS role with respect to RTNs (see more below)
       i. There are huge opportunities, and there are emerging technologies (e.g. autonomous vehicles)

C. Standards (e.g., real time or other)
   a. NGS or federal (e.g. FGCS)
   b. NGS/industry joint standards?
       i. Previous guidelines were written with industry; this was viewed positively
   c. Follow-on to RTN guidelines
   d. Look to other models (Australia, cadastral)

D. File formats
   a. XML or GML for all surveying files (GNSS, leveling, total station)
   b. find a current format that is as close as possible.
   c. Submit to EPSG (ISO only for geodetic)

E. Education (e.g. grid to ground or other)
   a. Professional surveyors, state societies, certification boards
   b. Vendors teaching to use/understand inputs/outputs
   c. NGS teaching options
       i. teach the teachers (Corbin next year?)
       ii. promote education videos / webinars in every surveying
   d. Everyone needs to use more consistent nomenclature, NGS and industry

F. Tools and Web
   a. Consolidation of tools and API is right direction!
   b. Clear documentation and versioning
   c. Advertise and promote new changes
   d. Test datasets (share alpha parameters; test update pipeline)

Closing Summary

G. We heard that you're looking for **consistency**.
  a. Grid and data formats,
  b. common programing language,
  c. use of APIs.
  d. While there is not always a perfect format, we need to pick one and lead the way. Still, do not create something new but leverage something that already exists.

H. We hear you want **more information and faster.**
  a. Industry is ready for more information and to make changes, but lead time is needed.
  b. ***Provide alpha*** programs, products, parameters, etc ***to test asap.***
  c. Provide test datasets asap; this will allow industry to test their products and tools.

I. Critical products:
  a. 4 plate (Euler pole?) parameters,
  b. prototype for horizontal datum, specifically the Intraframe Velocity Model
  c. Blueprint for 2022, Part 3
  d. prototype datasheets