

J. ANTHONY CAVELL, PLS, CFEDS

December 16, 2015

Rear Admiral Gerd F. Glang, NOAA
Director
NOS, Office of Coast Survey
Silver Spring, MD 20910-3282

Re: NOAA products and services

Dear Admiral Glang:

It was my privilege to address the NOAA Hydrographic Services Review Panel this September past. Thank you. I think it important to repay those who provide public services that affect our experiences and professional practices with accurate information about how their products are received and used.

In my comments I included reference to those services frequently used as well as some suggestions of how some of them might be improved. Services identified as valuable (with some suggestions for improvement) are,

- **Marine weather forecasts**
 - Web page viewed to plan survey activities & for warning of bad weather.
- **National Hurricane Center**
 - Used to track tropical storms and hurricanes that may impact survey site.
- **CO-OPS Tides and Predicted Tides**
 - Control station to correct depth and final water level corrector applied to depth data.
- **Hydro Hot List**
 - Viewed daily during survey operations to ensure control stations are operational
- **Office of Coast Survey**
 - Raster and ENC charts for use during surveys & for comparison to final survey data.
 - Search & download previous survey data for the area, information on wrecks/obstructions
 - Hydrographic specifications, deliverables, Field Procedures, hydro. survey priorities.
- **OPUS/CORS**
 - To process static data; quite handy as it is usually a quick turnaround.
 - Linking the CORS that we require for processing the static GNSS data.
 - Would like to get status updates (maintenance, poor quality, &c.) of sites.
 - Utility in which would recommend CORS likely give the best results.
- **NOAA Marine Forecast**
 - Typically, any offshore work is scheduled around this forecast, so its accuracy is critical.
 - A more detailed marine weather forecast for scheduling offshore survey work desirable.
- **NOAA Tides and Currents**
 - Typically used as a check on tide levels.
 - Establish more tide gauges in the Gulf Coast as there seems to be gaps.
 - Tide gauges are most valuable when they have the NAVD/MLW/MLLW conversions listed.
- **NOAA Marine Charts**
 - Used occasionally in navigation software when traveling in unfamiliar areas to avoid shallow water & underwater obstructions.
 - Used in the Mississippi a lot to ensure travel in the maintained channel.
- **NOAA/NGS Datasheets**
 - One always looks for benchmark data when surveying.
 - Datasheets for gravity stations should be as easily available as others
 - Historical values assigned to survey marks should be easily available.

In a field as broad as surveying it is understood that one cannot be experiencing all aspects of the field. So, at the risk of overlooking some items, here are some of my personal observations. The government has put too low a priority on scientific and technical/professional aspects of its administration. It seems those programs with common, simple to understand paybacks have the advantage over significant one that seem to have a delayed or difficult to understand ROI. This admits for too few resources for agencies such as NGS/NOAA, NOS/NOAA and BLM to give three examples. It is like the homeowner who diligently paints his house and washes the windows without observing the foundation is crumbling.

- NGS' progress with the GRAV-D program is snagged due to aircraft induced noise and resources are too few to supplement with ground truth data.
- NOS have pitifully meager resources to fulfill obligations in the artic and few enough to meet previously existing obligations.
- BLM (not your agency I know) isn't able to fulfill the government's obligations to Public Lands administration in Alaska
- BLM are seeking help with administrating the CFedS program (a program of BLM & BIA).

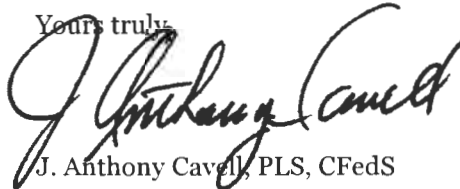
At the LSU Center for Geoinformatics (C4G) & Louisiana Spatial Reference Center (LSRC), where I work, we are trying to study the local gravity potentials around the state and eventually along the Gulf Coast. Finding "standard" information about solid Earth tides and reckoning of time for calculating the tides is possible through in depth searches of academic texts but would be so much more valuable if catalogued centrally. Finding the standard procedures, values and algorithms in one place would amplify the value of that data immensely.

Another thought that just came to mind would be if some of the equipment necessary for fine physical geodetic observations that NOAA possesses but often out of the reach financially for institutions such as ours, might be borrowed for research purposes when not in use internally by authorized Spatial Reference Centers or other qualified agencies.

Per your recommendation at the meeting, I have made greater use of the NGS & CO-OPS tide functionality, VDatum &c. While I still find some of it a little clumsy and difficult to commit to memory how to use it, the information provided is very valuable and useful. Much of my clumsiness is due to a lack of concentration because of other distractions, I am sure

If I can ever be of service please don't hesitate to call.

Yours truly,



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Happy
Holiday



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