

Coastal Intelligence Break-out Session Summary:

1. NOAA Navigation Services has many core competencies that are critical for Coastal Intelligence and Coastal Resiliency. Data collected for safety of navigation, improving datum, ... are already used for a wide variety of other uses.
2. In the May 2014 NOS Priorities Road Map, OCS and IOOS were noted as leads on advancing the C1 Coastal Intelligence priority with support from other offices.
 - a. NOS RoadMap is a guide for advancing National Ocean Service priorities over the next 3-5 years (2014-2019)
 - b. Note that much of what Navigation Services does routinely is not emphasized in NOS RoadMap. (e.g. Safety of navigation, GravD, Arctic surveying...)
 - i. Does this take away from core activities? Yes
 - ii. Should the NOS RoadMap better reflect core activities? Yes
3. Priority C1: Meet the need for expanded commerce in busy ports through enhanced and integrated decision support tools.
 - a. Maximize access to highly trafficked and increasingly space-constrained ports by providing ship managers with up-to-the-minute information to maintain reliable safety margins.
 - i. Action C1.1.1 (LA/LB), C 1.1.2 (Integrate NOAA Data), and C1.1.3 (Develop Integrated Product). The **Precision Navigation** product was demonstrated during the April 2015 HSRP meeting and progress on this project was encouraging. Another one to two years of development and system validation are expected.
 - ii. Action C1.1.4 Evaluate Product. Provide training to users solicit feedback on satisfaction of use for the purpose intended, and improve products as needed. Consider repeating the process in other ports positioning themselves for post-Panamax expansion.
 1. Adm. Glang posed the question. How should we choose the next location(s) for Precision Navigation installations. (Dr. Callendar's Question #6).
 - i. Panel reply. Evaluate the USCG Ports and Waterways Safety Assessment (PAWSA) methodology as a starting point.
(<http://www.navcen.uscg.gov/?pageName=pawsaMain>).

Waterway Risk Model					
Vessel Conditions	Traffic Conditions	Navigational Conditions	Waterway Conditions	Immediate Consequences	Subsequent Consequences
Deep Draft Vessel Quality	Volume of Commercial Traffic	Winds	Visibility Impediments	Personnel Injuries	Health and Safety
Shallow Draft Vessel Quality	Volume of Small Craft Traffic	Water Movement	Dimensions	Petroleum Discharge	Environmental
Commercial Fishing Vessel Quality	Traffic Mix	Visibility Restrictions	Bottom Type	Hazardous Materials Release	Aquatic Resources
Small Craft Quality	Congestion	Obstructions	Configuration	Mobility	Economic

4.

- b. Evaluate USACE cost-benefit analysis.
- c. Other factors that are not in the PAWSA model
 - i. Who is willing/ready to partner?
 - ii. Who needs it most? Places at most risk? (Port expansion?)
 - iii. Where is it easiest to install?
 - iv. Timing – recent incidents/disasters. Seasonal?
 - v. What does existing infrastructure look like? Are observations and models, and high resolution bathymetry available?
 - vi. Economic impacts
- c. How to market the product?
 - i. Need to develop new marketing model for Precision Navigation. Look at Grav-D and how it has been/is being implemented.
 - ii. Working group notes that the PORTS marketing model has not been a successful one.
 - iii. If a commercial entity opts to buy this capability using only private funds,
 - i. Can/should/must the data be available to the public?

ii. Can the commercial entity sell the data?

5. Priority C2: Coastal communities will use a decision support system for a local to regional predictions of total water level and its impacts in 3 to 5 geographies (CO-Ops lead) (Break-out session did not have time to consider this question in detail.)
 - a. C 2.1.1 Inundation benchmarks. Establish “Coastal Inundation Benchmarks” in 3-5 communities and associated tool kit to apply protocols in additional communities...
 - b. C 2.1.2 Total Water Levels
 - c. C 2.1.3 Products for Inundation.
6. Priority C3: Local communities use warnings of ecological hazards to take actions which manage natural resources and protect human health. (Break-out session did not have time to consider this question in detail.)
 - a. C 3.1.1 HAB forecasts
 - b. C 3.1.2 Improve ecological forecasts
 - c. C 3.1.3 Disseminate HAB forecasts
 - d. C 3.1.4 Forecast resolution.
(Topic for discussion: How does NOS deal with accepting and validating external models and provide outreach to local communities?)

Note: Further work to answer Dr. Callendar’s 6 questions was assigned to HSRP Coastal Intelligence and Resilience temporary working group. No additional work plan was formulated for Coastal Intelligence break-out group, *per se*.