

November 2006

Summary Record  
Hydrographic Services Review Panel  
August 14-15, 2006  
Anchorage, AK

Introduction – Monday, August 14, 2006

On the call of the Designated Federal Officer (DFO), Captain Steven R. Barnum, National Oceanic and Atmospheric Administration (NOAA), and after public notice in the Federal Register (Volume 71, No. 136, Page 40481 dated July 17, 2006), the Hydrographic Services Review Panel (HSRP) meeting was convened on August 14, 2006, at The Hotel Captain Cook, 4<sup>th</sup> and K Streets, Anchorage, Alaska. All voting members attended except Admiral Richard Larrabee. Admiral Richard West attended via a teleconference call. The following report summarizes the deliberations of that meeting. Documents available to and or prepared by the HSRP are available for public inspection via the web at <http://nauticalcharts.noaa.gov/ocs/hsrp/archive/library.htm> and copies can be requested by writing to the Director, Office of Coast Survey (OCS), 1315 East West Highway, SSMC3, N/CS, Silver Spring, MD 20910. A list of the HSRP members and other attendees is provided in Appendix 1.

HSRP Chair, Mr. Scott Rainey, called the meeting to order at 1:00 p.m.

Welcoming Remarks:

Captain Steve Barnum, NOAA, Designated Federal Officer, welcomed the public, introduced himself and Mr. John (Jack) H. Dunnigan, Assistant Administrator, National Ocean Service (NOS), appointed Decision Maker, and introduced other NOS non-voting HSRP members. Captain Barnum provided a brief overview of the creation of the HSRP, the Panel members' appointment terms and areas of expertise, and the National Oceanic and Atmospheric Administration (NOAA) hydrographic services on which the Panel provides the NOAA Administrator advice and recommendations.

Mr. Scott Rainey introduced the Keynote Speaker, Mr. John Rayfield, Staff Director, House Subcommittee on Coast Guard and Maritime Transportation. Mr. Rainey mentioned the influence of Mr. Rayfield on the Hydrographic Services Improvement Act and his past support of NOAA navigation services programs.

Keynote Speaker:

Mr. Rayfield commended Chairman Young for introducing the Hydrographic Services Improvement Act (HSIA). Mr. Rayfield said that the NOAA Hydrographic Survey Priorities document, progress toward a full suite of Electronic Navigational Charts (ENCs), the identification of critical survey areas, \$30 Million in contract survey funding, reauthorization of the HSIA at the current

levels; and, modernization of the NOAA hydrographic fleet and additional Fisheries Survey Vessels were all significant and necessary. He mentioned several long term issues requiring attention including: large amounts of hydrographic data collected could be used by other Federal agencies if their data sets were compatible and the applicable agencies established integrated mapping procedures; the Office of Coast Survey should look within NOAA to determine whether any coastal or ocean data collected would be useful for charting; and, data acquisition and chart production utilizing the most modern technology will ensure more timely critical area completion.

Mr. Rayfield and the Panel then discussed insufficient Congressional funding allocations for the Physical Oceanographic Real Time System (PORTS<sup>®</sup>); contract process streamlining; Harbor Maintenance Trust fund distribution; Congressional attention to NOAA programs; reauthorization language guidance for the HSIA; out-year funding for hydrographic surveys; and, the possibilities and advantages of diversified, integrated use of data collected.

#### Navigation Services Program Updates

Captain Barnum, Director, Office of Coast Survey (OCS), provided an overview of current OCS issues. They included: House and Senate funding level explanations; shortfalls of zero funding for ENC production, shoreline mapping, and the Joint Hydrographic Center; new processing procedures for hydrographic survey data; continued evaluation of Automated Underwater Vehicles (AUV) and interferometric side scan sonar; contract funding details and time charter status; ENC production and distributorship program status and Raster Nautical Chart (RNC) distributorship status; Small Waterplane Area Twin Hull (SWATH) Vessel update; Navigational Response Team (NRT) performance review and funding deficiency; Marine Debris Mapping projects; and, the planned events for the 200<sup>th</sup> Anniversary of the Coast and Geodetic Survey.

Mr. Dave Zilkoski, Director, National Geodetic Survey (NGS), provided an overview of current NGS issues. They included: House and Senate funding level explanations; shoreline mapping within the Geodesy base funding; earmarks for height modernization and leveling; shoreline mapping requirements and progress; emergency response efforts; height requirements and partnership programs for highly populated coastal areas and digital elevation modeling; funding sources, data assurance and quality control, availability, status, and various cross-cutting functions of the Global Positioning System (GPS) Continuously Operating Reference Stations (CORS); State Geodetic Coordinator/Advisors functions and responsibilities; and user requirements surveys to enhance web-based geodetic products and services offerings.

Mr. Mike Szabados, Director, Center for Operational Oceanographic Products and Services (CO-OPS) provided an overview of current CO-OPS issues. They included: House and Senate funding levels explanations; status updates on the

National Water Level Program, PORTS<sup>®</sup>, tsunami stations, and equipment replacement from damage incurred during the Gulf of Mexico hurricanes in 2005; National Current Program and recent water current requirements for the Great Lakes; updates to the tide tables for Cook Inlet; interagency cooperation between the U.S. Army Corps of Engineers (USACE) and NOAA for geodetic and tidal data standardization for levee redesign in the Gulf area; and the publication of personal perspectives about CO-OPS efforts during Hurricanes Katrina and Rita designed to educate people on the intrinsic values of NOAA operational programs.

Panel and NOAA Directors discussed the ramifications of funding shortfalls for ENC production, NRTs and PORTS<sup>®</sup> coverage; ENC download website functionality concerns; CORS real time versus hourly data collection and distribution methodology; ENC mariner training and education prerequisites; natural disasters' effects on funding allocations; flexibility within the "address survey backlog" line item funding increase to include time charter and Indefinite Deliver Indefinite Quantity (IDIQ) contract survey support; tsunami station data integration with NOAA Line Offices' metadata coordination and standardization progress; Integrated Ocean Observing System (IOOS) data interoperability protocols; Congressional earmarks, base funding, and NOAA planning processes; and possible funding avenues through state partnerships.

#### Update of HSRP Recommendations

Captain Barnum and Dave Zilkoski briefed the Panel on the status of HSRP advice and recommendations to NOAA. Captain Barnum's briefing on the NOS Charting and Mapping Contracting Policy/Expansion Strategy provided an historical overview of the Federal Register Notice process that requested feedback on NOAA's current contracting policy. The Panel's recommendations concerning utilization of in-house resources and contracting and maintaining operational core capability were incorporated into the final policy. The recommendations concerning defining and defending core capability responsibilities and resources, and vessel allocation are "works in progress." Hydrographic data collection using in-house and contract assets was determined a "NOAA major project," (a 100% requirement in the Program, Planning, Budgeting, and Execution System) and will involve monthly reporting of costs, schedules, performance data, and management approval at key decision points. NOAA concurred with the recommendations that define NOAA's hydrographic services core capability and advise NOAA to seek additional funding for contractual services to reduce the survey backlog.

The Panel's recommendations concerning a Hydrographic Survey Cost Analysis pertained to a comparison analysis of over 500 surveys going back to 1998. This analysis proved to be more time consuming and resource-laden than initially anticipated, however, an abbreviated cost analysis was proposed which lessened the geographic areas, covered data acquisition only, and included fully loaded

costs. Should funding become available, the initially proposed cost analysis will be reconsidered.

Mr. Dave Zilkoski addressed the Panel on the Integrated Ocean Observing System (IOOS) recommendations. NOAA endorses the policy to further develop and expand observing programs and other uses of IOOS, (resources permitting) and wishes to work through the Interagency Working Group on Ocean Observations (IWGOO) to address navigational needs. NOAA will also work with Ocean U.S. and applicable Regional Associations to determine regional requirements. NOAA will develop a Life Cycle Cost Estimate for maritime operations (and other IOOS societal goals) and will continue to support funding for navigationally critical services as recommended by the Panel. And, on the advice and recommendations that support NOAA as the lead coordinating agency in the development of a national IOOS development plan--NOAA provided input to the First U.S. IOOS Development Plan; NOAA's navigational systems were slated to be integrated into "the national backbone" (including system enhancements to the National Water Level Observation Network (NWLON), PORTS<sup>®</sup>, and National Data Buoy Center (NDBC) buoys); NOAA will work with other agencies to implement IOOS and will, at the direction of the Senate, develop an IOOS strategic plan.

#### Public Comments

*Captain Robert Pawlowski*, retired NOAA Corps Officer, on behalf of his position at the University of Alaska Anchorage, an adjunct Professor of hydrographic surveying and coastal management and analysis in the School of Engineering wishes to train Alaskans for the hydrographic survey industry. HSRP members John Oswald, Larry Whiting and others at the University created a one semester program in hydrographic surveying. It included input from Commander Doug Baird on NOAA hydrographic technologies but it also included geodetic control information, cost estimating, hydrographic engineering information, Brooks Act contracting procedures, IDIQ contract overviews, and information applicable to the hydrographic surveying "business." Captain Pawlowski stated that the demands for hydrographic data are varied in Alaska and he discussed important tools, terminology, availability of applicable Federal agency standards and manuals (on-line), and quality control. He also pointed out the lack of NOAA grant money for Universities offering hydrography curriculums and that he would like to build a hydrographic services laboratory with NOAA and industry support. He stressed the importance of full mission marine simulators for training and education on Electronic Chart Display and Information Systems (ECDIS) and Captain Pawlowski stated he looked forward to his upcoming meeting with NOAA Office of Coast Survey representatives to discuss current software and other field-related issues for the course.

*Ms. Jana Lage, Fugro Palagos*, represented The Hydrographic Society of America (THSOA) as the student outreach coordinator. Ms. Lage stated that in

2003, THSOA began a program to reach undergraduate students, currently in the fields of geodetics, geomatics, surveying and engineering, to educate them in the field of hydrography. This program offers complimentary attendance at THSOA bi-annual conference that includes a general overview of hydrography, interaction with corporate sponsors, and an opportunity to learn about employment opportunities with NOAA, the USACE, and the Naval Oceanographic Office (NAVO). The program sponsored three students in 2003 and ten students in 2005; THSOA plans to sponsor more students in 2007. Panel members discussed the American Congress on Surveying and Mapping certification program and agreed that there was a strong need for more University-level programs specifically to train hydrographers.

*Captain Larry Vose*, with the Southeast Alaska Pilots Association (SEAPA), thanked NOAA for the navigational products and services used by the pilots in SEAPA, to move people and cargo over the Alaska waterways. Captain Vose agreed with comments voiced earlier in the meeting about ship pilots and captains becoming dependent on new technologies but not fully educated, specifically, ENC's. He proposed that in light of the impending chart carriage regulations that the United States Coast Guard (USCG) would be mandating, the licensing process should include that training and education as well. Captain Voss briefly stated that the SEAPA had some current analysis and charting issues to discuss with the newly appointed Navigation Manager, LT. Dave Zezula, NOAA and he said that he would work through the Marine Safety Taskforce with whom NOAA participates as well.

Captain Barnum brought to the Panel's attention, a public comment submitted by Tenix LADS in response to the Federal Register Notice of Open Meeting and that copies of the paper with graphics included, were in the panel members' briefing binders and also available to the public attendees.

**NOTE:** A public comment was submitted on August 11, 2006, but was not available for distribution at the meeting. This comment was submitted by Mr. Richard Reich, P.E., LCMF and BTS Professional Services (subsidiary companies of the Ukpeagvik Inupiat Corporation, the ANCSA Village Corporation of the community of Barrow) and is based on personal observations by employees, who have worked on the North Slope for several decades. They stated that dramatic changes to the North Slope coastline, through unusual weather patterns and shrinking arctic ice pack issues, have impacted local economy and could possible raise health and safety concerns. Also, increased oil and gas exploration and international shipping amplify the need for better hydrographic data and weather predictions. Waterfront access locations, slated for development, have very shallow water and charting information is outdated or sparse. Potential groundings could be imminent without adequate charting, tide, and storm prediction information,

(To request a copy of this written Public Comment (or any written public comments from this meeting), please email: [hydroservices.panel@noaa.gov](mailto:hydroservices.panel@noaa.gov).)

### The Role of NOAA's National Geodetic Survey in Ensuring Safe Navigation

Mr. Dave Zilkoski, Director, NGS, explained that geodesy is the foundation for a major portion of the navigation community and that he'd like the Panel to provide information on how to garner more attention for geodesy-related program activities. He discussed the partnership program, CORS, stated there were almost 1000 stations and that it's a critical program for both land and ocean observing systems, a good partnership model for other programs, and useful in a variety of programs and applications including hurricane preparedness. He described the Online Positioning User Service (OPUS) as a tool that allows users to submit their GPS data files to NGS electronically and the resulting precise positions are returned to them within minutes by e-mail. He also discussed the relevance of accurate and timely height information for positioning bridges and for mariners for safe, under bridge clearances (air gap clearance), under keel clearance, and docking assistance in foggy weather. He said that accurate heights were critical in subsidence monitoring, coastal inundation, dam and levee safety, evacuation planning and coastal zone management and he provided a description of the Vertical Datum (VDatum) tool for datum transformations. He commented that GPS receivers, if placed on tide gauges, could report changes in sea levels and he mentioned that, because of unique land uplifting issues, Alaska appears to have lower sea level heights. Mr. Zilkoski talked about the importance of shoreline mapping consideration within the hydrographic survey backlog context and stated that Panel focus should be on a fully updated, final product; that interagency integration of shoreline data reporting is useful; that an NGS website provides vector-based data files for shoreline; how his office prioritizes and plans shoreline survey areas; and, the use of commercial, high-resolution satellite imagery to maximize limited, allocated, shoreline mapping resources.

Developing technology issues using GPS receivers discussed were: field tests on a USCG buoy-tender vessel in San Francisco where 10 cm positioning accuracy levels were achieved; high accuracy, all-weather docking charts that are comparable to aircraft instrument landing systems; vertical clearance for safe navigation under bridge spans; gathering real-time sea-state change data; Shallow-water Positioning System for determining underwater feature changes (e.g., damage to coral reefs and sea grasses) and damage assessment from ship groundings; and, shoreline change analyses integrated with Light Detection and Ranging (LIDAR). He also discussed vertical and horizontal control marks; Federal, State, and Academia cooperation to leverage resources for measuring land subsidence; refocus on user training to create operational expertise outside NOAA; and, web available shape files for various GIS-based applications.

Panel discussions with Mr. Zilkoski included resource prioritization, operational methodology, budget shortfalls, and possible advantages to and interest within the shipping industry for accurate (within 10 cm) positioning information. Panel discussions also included: clarification that Congress is mandating promulgating regulations for carriage of “electronic charts;” plans to produce an official, single database for NOAA chart production; liabilities incurred in creating automated docking charts; the value of the products and services provided by the National Geodetic Survey; the critical need for updated charts to realize technological advancements discussed; outcomes from the H-10 Panel studies (hydrodynamics and ship controllability studies) within the Society of Naval Architects and Marine Engineer; effects of shoreline mapping backlog on nautical charts; and, critical shoreline mapping priority area determinations.

### HSRP Special Report Discussions

The Panel and Ms. Ann Boese discussed due dates for Panel input; Federal Advisory Committee rules on public discussions on Report content; request for applicable, real life examples for credibility and significance to include in the Report; the importance, but consolidation, of the most wanted issues; and, the possible deletion of the section entitled ‘Vision for the Future.’ Discussions were also scheduled to resume the following day.

Tuesday, August 15, 2006

### Welcoming Remarks

Mr. Scott Rainey thanked the sponsors for the previous evening’s reception at Perry’s Steakhouse: John Oswald and Associates, Tenix LADS, Inc., TerraSond Ltd., Fugro Pelagos, and David Evans and Associates. He also thanked Mr. Taylor Morrison, author and illustrator of “The Coast Mappers,” a book written about the history of the Coast and Geodetic Survey, for the excellent talk, art show and book signing. Mr. Rainey mentioned that he had read Mr. Morrison’s book and shared the first paragraph with the Panel.

Captain Barnum thanked sponsors and Mr. Morrison as well and provided a brief overview of the missions and the goals of the HSRP.

### Administrative Business

Mr. Rainey requested that the Panel offer nominations for Deputy Chair to replace Ms. Helen Brohl, who had served as Deputy Chair until she resigned from the Panel to enter into Federal Government service. Discussions followed, time constraints and demands were noted as relevant issues; Mr. Skinner was nominated and after accepting the nomination, the Panel voted by show of hands. There was no opposition and Mr. Skinner was elected HSRP Deputy Chair.

### Reauthorization of the Hydrographic Services Improvement Act

Mr. Glenn Boledovitch, Chief, National Ocean Survey's Policy, Planning and Analysis Division, thanked the Panel for their input on the final ruling for NOAA's Hydrographic Services contracting policy that he discussed in August 2005 at the New Hampshire HSRP meeting. He then discussed HSIA reauthorization. He asked for comments on the HSRP's role in the reauthorization implementation; requested input on areas in which NOAA can improve in delivering the products and services enumerated within the HSIA; and, stated his desire to augment the role of these products and services within the Integrated Ocean and Coastal Mapping (IOCM) Initiative, the IOOS, and the Global Earth Observing Systems of Systems (GEOSS). He briefly summarized the discussions that he had heard from the Panel on the previous day and offered that the annual appropriations were, seemingly, the crux of the issue. He presented a time line of the Acts and Amendments that affected the HSIA and stated that in 1970, when the Coast and Geodetic Survey (C&GS) was incorporated into NOAA, along with several other programs, these hydrographic functions were slightly ignored. However, in recent years, interest has been renewed with the increase of maritime commerce and vessel sizes, new technology, major marine accidents, hydrographic survey backlog issues, and, an economic analysis done by Woods Hole Oceanographic Institute. Mr. Boledovitch reviewed: primary provisions and the amendments of the HSIA, proposed submission dates, pros and cons of three levels of engagement, and several issues for Panel consideration. He commented that this was an excellent vehicle to gain attention and respect for critical programs, and reiterated to the Panel that NOAA does not have an organic authority for some of the critical services for which it provides.

The Panel discussed multi-agency coordination, cooperation and duplication; possible deliberation issues for the newly established Committee on the Marine Transportation System (CMTS); funding levels equivalent to Program, Planning, Budgeting, and Execution Process established requirements; and, the ramifications of multi-committee jurisdiction for legislation.

### HSPR Special Report (cont'd discussions)

Mr. Rainey and Mr. Skinner discussed the consolidated Most Wanted Hydrographic Improvements list, a culmination of the previous day's discussions and deliberations. Mr. Rainey added several reference documents for validity purposes and proposed the following overall topics:

- Eliminate the Backlog of Critical Hydrographic and Shoreline Surveys;
- Expand NOAA's Rapid Response Capabilities for Emergencies;
- Expand and Fund Existing Real-time Tide, Current, Bridge Air-gap, and Water-level Observation System Capabilities;

- Conduct Full-bottom Coverage Hydrographic Surveys of all Federally-maintained Channels, Approaches, and Anchorages; and,
- Fully Disseminate Hydrographic Data and Develop Additional Products to Support Non-navigation Uses

Panel discussions followed and comments addressed: the critical need to educate the general public and Congress on the importance and relevance of NOAA's navigation products and services; the importance of addressing that hydrographic survey data is foundational to the "ping to chart" notion, the incorporation of the word "shoreline" in the eliminating backlog section; and, the value of <http://www.shippingfacts.com> to check statistics. Panel members broke into five groups and each group addressed one of the "most wanted" issues, adding references, examples, edits, and applicable technological advancements.

#### Alaska Stakeholder Panel Presentation

Mr. Rainey and Mr. Skinner welcomed the Alaska stakeholder's panel to the meeting and thanked Ms. Molly McCammon, Director, Alaska Ocean Observing System (AOOS), for her role in setting up the panel. Mr. Skinner mentioned that in other venues, he, Ms. Helen Brohl, Ms. Quintrel, and Ms. McCammon had worked together to articulate and ensure that navigation services were seen as critical elements of national, ocean observing systems.

Ms. McCammon mentioned that her workshops and outreach efforts with diverse groups of users in Alaska have resulted in requirements for: high resolution bathymetric data, tide and river gauges, high frequency radar surface current information, sea ice forecasts, shoreline mapping, interagency coordination and cooperation for modeling and observing programs, and, National Ocean Service representation on the AOOS Board of Directors. She indicated that AOOS would also like to recommend the following issues for NOAA consideration: development of a 10-year plan for enhancing Alaska's water level and current observation systems; development and testing of new equipment and technologies (including radar, LIDAR, GPS, submersible sensors, and new telemetry) taking advantage of the harsh, Alaska weather conditions; establishment of a new federal sensor and mooring staging center and commitment of Alaska State earmarked funds and equipment; and, development of a plan to address the backlog of publishing charts and data and integration of that data into the AOOS data system (already established), to allow one-stop shopping for marine data users.

Captain Jeff Pierce, President of the South West Alaska Pilots Association discussed the Association's coverage area; Liquefied Natural Gas (LNG) tanker transports to and from Nikiski; recent dredging operations; and, current and tidal predictions and up-to-date, reliable, and accurate mapping and charting information. He explained varying Alaskan water depths, pointed out tide data

errors of up to over an hour for smaller tides, and discussed the survey priority numbers assigned in the “NOAA Hydrographic Survey Plan.”

Ms. Margaret Spahn, Fisheries Biologist with the Alaska Department of Fish and Game, Division of Commercial Fisheries offered a statement of support and appreciation for: shared NOAA multibeam data for fisheries habitat mapping collected by the NOAA ships FAIRWEATHER and RAINIER; service of the staff at the NOAA offices at Sand Point; and, Electronic Navigational Chart data and raster charts available for download. Ms. Spahn mentioned her requirements for shoreline datum consistency between agencies and VDatum education; her views and requirements for bathymetric data collected by private sector contracting; her support for NOAA fleet modernization; her appreciation for work within the University of New Hampshire, Joint Hydrographic Center, to resolve survey data collection backscatter issues; her request for “bottom grabs” and applicable imagery for geologists and biologists; and, she suggested increased public involvement in the hydrographic surveying and prioritization process.

Captain Robert Pawlowski, NOAA Corps (retired), Executive Director, Alaska Fisheries Development Foundation, enumerated the area-specific challenges for fish habitats, oil and gas groups, and other industry sectors. He discussed the industry’s economic dependence on navigation safety, accurate navigation data and terrain models, and best available technology; the importance of good communication and increased bandwidth in rural Alaska; hydrographic services’ role in mitigating impending disasters; and, industry support for NOAA’s products and services and appreciation for the key role the industry plays in resource management.

Mr. Richard McMahon, Resource Group, State of Alaska, Department of Natural Resources spoke with the Panel about his Agency’s jurisdiction. He echoed the requirement for improved near shore bathymetry mapping and geodetic control education issues; requested continuity within the State Geodetic Advisory Program; and discussed the statewide mapping initiative to acquire more detailed digital elevation models and orthometric imagery. He mentioned the different survey priority areas within Alaska and discussed the necessity of a high-quality Alaska Geoid Model. He mentioned the importance of accurate surveys, controls, and data compatibility as they move into a large scale land management transfer provision. He also stated that NOAA’s data products and services were utilized by several, other-than-navigation communities and that several of the GIS-data application users’ needs could be better met with data served in open GIS protocols.

Dr. Orson Smith, Professor and Chair, Department of Civil Engineering, University of Alaska Anchorage, and retired USACE employee, discussed his background and interest in nautical charting, his role as a coastal engineering specialist, and University course requirements that lead to a Graduate Certificate

in Port and Coastal Engineering. To increase high standard surveying in Alaska, he requested additional NOAA support in hydrographic surveying course work through field experiences, internships, and participation in relevant research opportunities. Dr. Smith also expressed concern for the erosion of Alaska's coastal areas and requested Federal agency collaboration to produce Alaska Coastal Sediment Charts to improve coastal resource management.

Ms. Susan Saupe represented the Cook Inlet Regional Citizens Advisory Council. The Council is an outcome of the Oil Pollution Act of 1990 following the 1989 Exxon Valdez oil spill. Ms. Saupe also works with the Municipality of Anchorage and spoke about issues relating to oil spill preparedness, response, environmental monitoring, wind and water current studies, and improved surface models for oil spill trajectories specifically as they relate to Cook Inlet. She discussed the development of three dimensional models to handle vertical velocities found in the Inlet and she mentioned that they are interested in data collection efforts and collaboration that help improve their existing models and building tools. Some of their efforts include support of surface ocean current radar deployments, satellite drifters, current profilers and permanently mounted bottom Acoustic Doppler Current Profilers and, monthly Conductivity/Temperature/Depth (CTD) transects at Cook Inlet boundaries. Ms. Saupe offered that NOAA could improve on communication and coordination of instrument installations to afford enhanced observational data collection. She discussed the Council's involvement with the AOOS in conducting a user needs assessment and also stated that the Council co-sponsored a physical oceanography symposium in 2005 to help long term planning efforts with a variety of data collection groups. She said the need is great for enhanced tide, current, wind, weather, shoreline mapping, and sediment data, and higher resolution bathymetry.

Mr. Kevin Bruce, Deputy Director of the Port of Anchorage was unable to participate in the Stakeholder's Panel due to a schedule conflict.

HSRP discussions included appreciation for the area-specific data requirements and needs articulated by the Stakeholders, the transparency and stakeholder's perception of the process involved in the "NOAA Hydrographic Survey Plan;" the importance of a well-informed and regionally acclimated NOAA Navigation Advisor for Alaska; NOAA's track record of positive collaboration with other Federal Agencies; the benefit of the Alaska Geographic Data Committee to foster better communication within the spatial data community; modeling redundancies and better data collection and collaboration required within the Cook Inlet (addressed in the IOOS initiatives); differentiation between research models and operational models; efficacy of multipurpose sensors, platforms, and sensor technology; and, project specific standards for data collection.

Mr. Tom Skinner, HSRP Deputy Chair, requested a Stakeholders Panel be invited to participate in all future HSRP meetings.

## NOAA's Hydrographic Survey Priorities and HSRP Deliberations

Commander Doug Baird, NOAA, discussed updates to the 2004 edition of "NOAA's Hydrographic Survey Priorities." Initially the document was scheduled to be updated every two years, however, if possible, Commander Baird said it would be updated every year and it would be available digitally only, via the website (<http://nauticalcharts.noaa.gov/staff/NHSP.html>). Panel discussions included concerns about USACE survey data requirements and completion rates to depict priorities more accurately; dredging requirement surveys versus obstruction detection surveys; emergency response survey work to reopen harbors and ports following disasters; cruise line traffic safety concerns and statistics, priority level assignments and dates of past surveys; satellite imagery for shoreline (glacier) changes; and, LIDAR possibilities. Also mentioned were possible benefits of: providing the benchmark for the critical navigation areas; requirements for and progress made with full bottom coverage surveys for navigation safety; offering input through the Navigation Managers and stakeholder meetings; including statistics on obstructions found using new technologies; offering links to NOAA effort versus contractor effort for status updates; depicting resurvey area within the critical area requirements; comparing allocated funding with projected completion dates; including cost per square nautical mile (or regional mile) factors to depict shortfalls; distributing copies of this document to all Coastal Geodetic Advisors for additional support; and, posting GIS files of the maps. Commander Baird mentioned a separate tracking category created for "Emerging Critical Areas" but that the originally established 43,000 square nautical miles would remain "critical area" until completed; the ramifications of publishing dates for complete surveying of critical areas; possible scenarios that could change a survey area's category ranking; 100% requirement parameters; possible scale issues in drawing polygons; and prioritization within a specific ranking category. Captain Barnum stated the possibility of including a target date of completion for specific areas (or category ranks) and that it would be helpful to NOAA if the Panel could review the Plan yearly and provide advice and recommendations on a synchronized schedule; Commander Baird requested late spring would be most useful.

## Committee Deliberations and Work Period (HSRP Report Discussions)

The Panel commenced further work and discussions on the HSRP Special Report outline. They mentioned including: clear jargon for technical terminology; comprehensive listing of beneficiaries of accurate hydrographic services; Marine Transportation System (MTS) and hydrographic products and services descriptions; upcoming mandates for electronic navigational charts discussions; vessel grounding examples and reference section for applicable technical reports; current statistics on value and volumes of cargo moved within the MTS (see <http://www.shippingfacts.com> and <http://www.worldshippingcouncil.com>), munitions at sea issues; NOAA's all hazard emergency response capabilities and

agency cooperation during the 2005 hurricane season; statistics on recreational boating accidents; false sense of security noted with the influx of chart-reading and producing products; Panel support for new charting products (Pocket Charts, Booklet Charts, etc.); non-navigational use of real time water level data (flooding potential, evacuation route planning, oil spill trajectories, oil boom placement advice, height modernization, coastal zone management and resilient communities information, marine habitat protection, fisheries management, and offshore sediment maps); and outreach and education requirements. Panel members also discussed the possible consequences of USACE's reaction to survey work directives/discussions in federally maintained channels and availability of any cost benefit studies; homeland security survey findings; and, Oil Pollution Act of 1990 (OPA90) requirements for underkeel clearance. Ms. Boese discussed the next steps and target dates for input in order to make printing deadlines for a completed HSRP Special Report before February 1, 2007.

### Public Comment

Mr. Scott McLane, professional land surveyor in Alaska, represented McLane Consulting, Inc. Beginning in 2001, Mr. McLane stated, he has provided hydrographic survey support to NOAA contractors. He encouraged Alaska, small business participation on NOAA projects because the experience enables self-sufficiency and renders a primary consultant status. He encouraged NOAA to require Alaska Professional Land Surveyors on all future Alaska projects. This ensures responsible data acquisition and conflict resolution between data sources for several data themes, brought about by recent adoption of the National Council for Examiners of Engineering and Surveying (NCEES) Model Rules 210.25 Inclusions and Exclusions of Surveying Practice by the State of Alaska, effective August 19, 2006. And, to promote safer navigation within Alaskan waterways, Mr. McLane encouraged NOAA to adopt faster data dissemination to the user community.

Ms. Gail Morrison, Allied GIS, stated that her company had recently won a contract to maintain NOAA's ENC's. Ms. Morrison commended the NOAA employees with whom she works, stated that she has acquired knowledge from the NOAA contracting experience that she can use in other undertakings, and requested that NOAA continue to provide contracting opportunities for small, women-owned businesses. Ms. Morrison recommended a data importing and exporting standardization tool developed by USACE, Spatial Data Standards for Facility Infrastructure and Environment (SDSFIE), and she shared cost-savings advice for data collection and collaboration during survey team operations.

### New Business

Captain McGovern discussed incremental, five-foot depth dredging projects in New York. He stated that while the USACE spent many dollars on dredging,

there was no funding available for current profile studies to adjust for the changed bottom formation. He said he realized it would require interagency coordination and followup and he added that even though the dredging operation widened the turning area, the turn was more difficult because of the current dynamics. Panel members suggested he discuss the matter with the USACE because that was their focus. Captain McGovern said this should be standard operating procedure and Mr. Rainey offered that it might possibly be a recommendation that the Panel could offer for CMTS consideration. Mr. Gray suggested inviting Mr. Alex Lansburg who worked on the H-10 Panel (ship controllability consideration in designed waterways), and representatives from the USCG and the USACE to attend the next meeting in February to facilitate open dialog between the three agencies involved in U.S. channel maintenance, aids to navigation and charting mandates.

Panel members requested information about Ms. Helen Brohl's replacement and Captain Barnum reported that the new Panel member would be on board to attend the next meeting.

The Panel discussed the venue and suggested date for the next meeting. Mr. Rainey shared that February 10, 2007, was the 200<sup>th</sup> anniversary of the C&GS and, along with the HSRP Special Report and budget roll-out; it would be timely and appropriate to hold the meeting in the Washington, DC, area. They also discussed the appropriateness, benefits, and synergies of holding a Panel meeting in Norfolk, simultaneously, with The Hydrographic Society of America (THSOA).

Mr. Jack Dunnigan offered his continued support to the Panel, stated he appreciated their hard work on the HSRP Special Report and said he looked forward to their finished product. He congratulated Mr. Skinner on his designation as Deputy Chair and the Panel offered their appreciation for NOAA leadership engagement.

#### Public Meeting Adjourned

The public meeting was adjourned at 4:31 p.m. To view or download the verbatim meeting transcript, please visit:

[http://nauticalcharts.noaa.gov/ocs/hsrp/archive/minutes/aug14\\_06tran.txt](http://nauticalcharts.noaa.gov/ocs/hsrp/archive/minutes/aug14_06tran.txt) or  
[http://nauticalcharts.noaa.gov/ocs/hsrp/archive/minutes/aug15\\_06tran.txt](http://nauticalcharts.noaa.gov/ocs/hsrp/archive/minutes/aug15_06tran.txt).

## Appendix I Attendees

### Voting HSRP Members

Jon Dasler	Director of Hydrographic Services, David Evans and Associates, Inc.
Elaine L. Dickinson	Boat Owners Association of the United States (BoatU.S.)
William Gray	President, Gray Maritime Company, Maritime Advisor to INTERTANKO
Captain Sherri Hickman	Houston Pilots Association
Dr. Lewis Lapine	Chief, South Carolina Geodetic Survey
Adam McBride	Port Director, Lake Charles and Terminal District
Captain Andrew McGovern	Sandy Hook Pilot's Association
Captain Minas Myrtidis	Norwegian Cruise Line
John Oswald	President, John Oswald and Associates, LLC
Scott Rainey, HSRP Chair	Consultant
Tom Skinner	Senior Project Manager, Durand & Anastas Environmental Strategies, Inc.
Rear Admiral Richard West, USN (Ret.) (via conference call)	President and CEO, Consortium for Oceanographic Research and Education (CORE)
Larry Whiting	Hydrographer, Terra Surveys LLC

### Non-voting Members

Captain Andrew Armstrong, NOAA (Ret.)	Co-Director, NOAA/UNH Joint Hydrographic Center
Dave Zilkoski	Director, National Geodetic Survey
Michael Szabados	Director, Center for Operational Oceanographic Products and Services

### Designated Federal Officer

Captain Steven R. Barnum, NOAA	Director, Office of Coast Survey
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### HSRP Decision Maker

John H. Dunnigan	Assistant Administrator, National Ocean Service
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**Presenter/Speaker**

Mr. John Rayfield	Staff Director, Subcommittee on Coast Guard and Maritime Transportation
Mr. Glenn Boledovich	NOAA/NOS Policy, Planning and Analysis Division
Ms. Molly McCammon	Director, Alaska Ocean Observing System
Ms. Margaret Spahn	Fishery Biologist, Alaska Dept. of Fish and Game
Dr. Orson Smith	Professor and Chair, Department of Civil Engineering, University of Alaska Anchorage
Ms. Susan Saupe	Director of Science and Research (Cook Inlet Regional Citizens Advisory Council)
Captain Jeff Pierce	President, South West Alaska Pilots Association
Captain Bob Pawlowski (NOAA Ret.)	Executive Director, Alaska Fisheries Development Foundation
Mr. Richard McMahan	Resource Group, Alaska Department of Natural Resources
Mr. Mike Aslaskan	Chief, Remote Sensing Division, NGS
LCDR Douglas Baird, NOAA	Chief, Operations Branch, Hydrographic Surveys Division
Taylor Morrison	Author/Illustrator ("The Coast Mappers")

**Staff**

Steve Vogel	National Geodetic Survey
Monica Cisternelli	Center for Operational Oceanographic Products and Services
Barbara Hess	Office of Coast Survey
Virginia Dentler	Center for Operational Oceanographic Products and Services

**Others/Public**

Captain Larry Vose	Southeast Alaska Pilots Association
Ms. Jana Lage	Fugro Pelagos
Mr. Bob Richards	Fugro Pelagos
Mr. Darren Stephenson	TenixLADS, Inc.
Mr. Steve Borell	Alaska Miners Association
Mr. Tony Follett	Aero-Metric Company
Mr. Cory Hughes	Hughes & Associates
Mr. Tom Newman	Terrasond
Ms. Jeanne Frazier	Alaska Department of Natural Resources

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Ms. Heather Brandon	State of Alaska
Mr. Glenn Aronwits	WCI
Mr. Scott Ransom	City of Seward
Ms. Gail Morrison	Allied GIS Inc.