United States Country Report
to the
South West Pacific Hydrographic Commission

March 2009
Port Moresby, Papua New Guinea

National Report
UNITED STATES OF AMERICA

1. Hydrographic Office

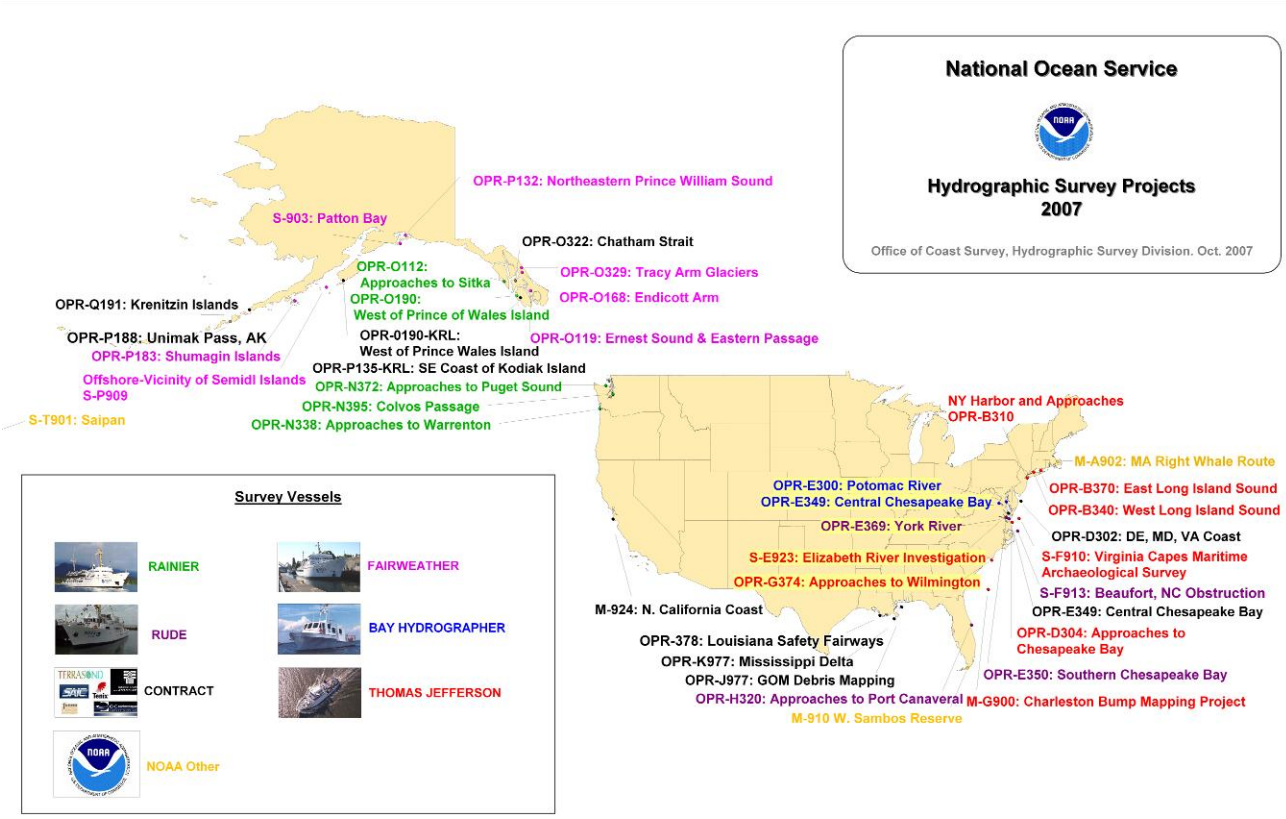
1.1 National Oceanic and Atmospheric Administration (NOAA)
NOAA's Office of Coast Survey is responsible for conducting hydrographic surveys and to produce the nation's nautical charts and ensure safe navigation in the U.S. Exclusive Economic Zone, an area of 3.4 million square nautical miles.

1.2 Naval Oceanographic Office (NAVOCEANO) is responsible for conducting hydrographic surveys outside the U.S. Exclusive Economic Zone in support of U.S. Navy and Department of Defense requirements. NAVOCEANO also includes the Fleet Survey Team (FST) which is responsible for hydrographic surveys in direct support of military operations. NAVOCEANO and FST both conduct cooperative survey programs with other nations.

1.3 National Geospatial-Intelligence Agency (NGA) is responsible for producing nautical charts in areas of interest to the U.S. Navy and Department of Defense.

2. Surveys:

2.1 National Oceanic and Atmospheric Administration Domestic Survey Update



3. New charts & updates:

3.1 The following table provides the status of domestic chart products for the United States:

Paper	RNCs	ENCs
1020	1020	685

Up-to-date information about the U.S. ENC program as well as the U.S. raster chart program can be found at: http://www.nauticalcharts.noaa.gov. Distribution of both RNCs and ENCs is via the Internet with no charge to the users. ENC Revision or "ER" files are posted on the web for download. The United States is striving to provide these updates on a weekly basis to be on par with the raster product.

3.2 The Digital Nautical Chart (DNC®) is a vector based digital product produced by NGA that is designed to provide the mariner with an up-to-date seamless database of the world. DNC® portrays selected significant navigational features in a format suitable for computerized navigation and Geographic Information System (GIS) applications, such as, mission planning, command and control, and situational awareness. DNC® is compiled in NGAs 1996 Vector Product Format (VPF) and consists of 29 geographic regions providing a complete worldwide footprint containing over 5,000 charts of varying scales. The DNC® contains four library categories based on scale and purpose of the source charts including Harbor (15' X 15'), Approach (30' X 30'), Coastal and General (3 deg X 3 deg) charts.

4. New publications and updates:

The United States Coast Pilot consists of a series of nautical books that cover a variety of information important to navigators of coastal and intracoastal waters and the Great Lakes. Issued in nine volumes, they contain supplemental information that is difficult to portray on a nautical chart. Coast Pilot is available for no charge on the Internet at: http://www.nauticalcharts.noaa.gov/nsd/coastpilot.htm

Publication	Region	Publication Date
Coast Pilot 1	Covers the coasts of Maine, New Hampshire, and part of Massachusetts, from West Quoddy Head in Maine to Provincetown in Massachusetts. Major ports are at Portsmouth, NH and Boston MA.	38th Edition, 2008
Coast Pilot 2	Covers the Atlantic coast from Cape Cod to Sandy Hook, embracing part of the Massachusetts coast and all of the coasts of Rhode Island, Connecticut, and New York.	38th Edition, 2009
Coast Pilot 3	Covers the Atlantic coast from Sandy Hook to Cape Henry, including the New Jersey Coast, Delaware Bay, Philadelphia, the Delaware - Maryland - Virginia coast, and the Chesapeake Bay.	42nd Edition, 2009
Coast Pilot 4	Covers the Atlantic coast of the United States from Cape Henry to Key West.	40th Edition, 2008

Publication	Region	Publication Date
Coast Pilot 5	Covers the Gulf of Mexico coast of the United States from Key West, FL., to the Rio Grande. This area is generally low and mostly sandy, presenting no marked natural features to the mariner approaching from seaward. Coast Pilot 5 also covers Puerto Rico and the Virgin Islands.	36th Edition, 2008
Coast Pilot 6	Covers the Great Lakes system, including Lakes Ontario, Erie, Huron, Michigan, and Superior, their connecting waters, and the St. Lawrence River. With the opening of the St. Lawrence Seaway, the system provides access by ocean going deep-draft vessels to the great industrial and agricultural heartland of the North American continent.	39th Edition, 2009
Coast Pilot 7	Covers the rugged United States coast of California, Oregon and Washington, between Mexico on the south and Canada's British Columbia on the north. Coast Pilot 7 also includes Hawaii and other United States territories in the South Pacific.	41th Edition, 2009
Coast Pilot 8	Covers the panhandle section of Alaska between the south boundary and Cape Spencer. In this volume, general ocean coastline is only 250 nautical miles, but tidal shoreline totals 11,085 miles.	30th Edition, 2008
Coast Pilot 9	Deals with the Pacific and Arctic coasts of Alaska from Cape Spencer to the Beaufort Sea. General ocean coastline totals 5,520 nautical miles, and tidal shoreline totals 18,377 miles.	26th Edition, 2008

5. MSI

5.1 In support of the Global Maritime Distress and Safety System (GMDSS), Broadcast Warnings are promulgated by the Worldwide Navigational Warnings Service (WWNWS) to provide rapid dissemination of information critical to navigation and the safety of life at sea. NGA issues four types of Navigational Warnings - NAVAREA IV, HYDROLANT, NAVAREA XII, and HYDROPAC. Maritime Safety Information (AMSI) Warnings are issued for the Arctic region not covered by HYDROLANT and HYDROPAC messages. Special Warnings and MARAD Advisories are issued infrequently and contain information about potential hazards caused by the global political climate.

6. S-55 Update in progress.

7. Capacity Building

7.1 Training Opportunities available in the United States

Institution and Point of Contact	Training Opportunity	Training Details
Florida Institute of Technology Graduate Admissions 1-800-944-4348 Fax: 1-407-723-9468	Master of Science in Hydrographic Engineering	(More Information)
NOAA Office of Coast Survey Navigation Services Division Meg Danley 301-713-2770 Fax: 301-713-4019 meg.danley@noaa.gov	Hydrographic field experience specifically related to emergency response and post-hurricane surveys	(More Information)
NOAA National Geodetic Survey NGS Workshop Program David R. Doyle 301-713-3178 Fax: 301-713-4327 Dave.Doyle@noaa.gov	NGS conducts workshops throughout the United States, involving the cooperation of professional societies, universities, and international, Federal, state, and local organizations. NGS also develops new workshops upon request, provided it has the necessary resources and the material is within NGS' mission.	(More Information)
University of New Hampshire Center for Coastal & Ocean Mapping Joint Hydrographic Center Abby Archila 603-862-3433 Fax: 603-862-0839	Graduate Program in Ocean Mapping [Category A Certified Program]	(More Information)

Institution and Point of Contact	Training Opportunity	Training Details
U.S. Navy Naval Oceanographic Office Michael P. Jeffries 228-688-5659 Fax: 228-688-4124 michael.p.jeffries@navy.mil	International Hydrographic Management and Engineering Program (IHMEP) [Category B Certified Program]	(More Information)
U.S. Navy Naval Oceanographic Office Michael P. Jeffries 228-688-5659 Fax: 228-688-4124 michael.p.jeffries@navy.mil	International Hydrographic Science Applications Program (IHSAP) [Category A Certified Program]	(More Information)
U.S. Navy Naval Oceanographic Office Michael P. Jeffries 228-688-5659 Fax: 228-688-4124 michael.p.jeffries@navy.mil	Mobile Training Team (NMTT) Tailored Maritime Geospatial Training	(More Information)

7.2 Status of the Gulf of Honduras Project.

As part of a capacity building task group within the MesoAmerican-Caribbean Sea Hydrographic Commission, the United States is working closely with Belize, Guatemala and Honduras on a pilot project aimed at improving capacity-building of coastal state hydrographic offices in a defined area in the Gulf of Honduras. In 2000, Belize, Guatemala, Honduras, the Central American Maritime Transport Commission (COCATRAM), and the Central American Commission for Environment and Development (CCAD) officially approached the Inter-American Development Bank (IADB) with a request to finance the preparation of a tri-national project that would provide marine environmental protection along with sustainable economic development in the Gulf of Honduras. The project partners recognized the need to focus on marine transport issues as a way to protect marine ecosystems and related maritime-based economies in the Gulf, and, as such—with support from the IADB and the Global Environmental Facility (GEF) —the project partners developed the *Environmental Protection and Maritime Transport Pollution Control in the Gulf of Honduras* Project. Enhancing Navigational Safety in Shipping Lanes is one of four components of the project. The Project's overall regional objective is to reverse the degradation of the

coastal and marine ecosystems within the Gulf of Honduras by enhancing the prevention and control of maritime transport–related pollution in major ports and navigation lanes in the Gulf, improving navigational safety to avoid groundings and spills in the Gulf, and reducing land-based sources of pollution draining into the Gulf. For the Enhancing Navigational Safety in Shipping Lanes component of the project, the three objectives are to: improve regional planning and coordination, improve national institutional capacity and obtain the technical support and equipment to complete three demonstration projects. A second objective is to work for Particularly Sensitive Sea Areas (PSSA) designation for a section of the project area. In 2008, Belize, Guatemala, and Honduras received hydrographic survey equipment. In February of 2009, individuals from these countries will receive basic hydrographic training at NOAA's Atlantic Hydrographic Branch located in Norfolk, VA. This training, along with in-situ training provided by the Office of Coast Survey (OCS) and the U. S. Navy, will lead to basic hydrographic surveys that are essential for updated nautical charts and PSSA designation.

7.3 International collaboration. NAVOCEANO personnel work with foreign countries to install hydrographic equipment aboard host-country boats of opportunity and conduct collaborative surveys under formal agreements, which allow capacity building, an exchange of hydrographic knowledge, and the sharing of data and products. Twenty Five countries have entered into collaborative agreements with NAVOCEANO.

8. Oceanographic activities

8.1 General

NOAA's Center for Operational Oceanographic Products and Services collects, analyzes and distributes historical and real-time observations and predictions of water levels, coastal currents and other meteorological and oceanographic data. This is part of an integrated National Ocean Service program supporting safe maritime zone management, engineering and surveying communities. The Center manages the National Water Level Observation Program and the national network of Physical Oceanographic Real-Time Systems in major U.S. harbors. It conducts its programs through university, industry, Federal and Sate partnerships as appropriate.

NAVOCEANO provides tailored ocean modeled products on local, regional and global scales. Products include 3D circulation models (featuring variable resolution to one-half kilometer); forecasts of salinity, currents, tides and temperatures; gridded sets of wave parameters; and conductivity, temperature and depth data.

8.2 GEBCO/IBC. The United States participates on the IOC-IHO Guiding Committee for GEBCO and hosts the IHO Data Centre for Digital Bathymetry at NOAA's National Geophysical Data Center. The United States actively participates in the International Bathymetric Chart of the Arctic Ocean, the International Bathymetric Chart of the Caribbean Sea & Gulf of Mexico, and the International Bathymetric Chart of the Southern Ocean

8.3 Tide Gage Network. NOAA's Center for Operational Oceanographic Products and Services maintains the domestic tide gauge system for the United States.

9. Other activities

IHO Committees and Working Groups with U.S. Participation	U.S. Chair	Comments
FIG/IHO/ICA International Advisory Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers		
Advisory Board on the Law of the Sea		
Capacity Building Committee (CBC)		
IHO Committee on the Hydrographic Dictionary (S-32)	X	Currently dormant.
Committee on Hydrographic Requirements for Information Systems		
Digital Information Portrayal Working Group	X	
Chart Standardization and Paper Chart Working Group		
Data Quality Working Group	X	
Standardization of Nautical Publications Working Group		
Transfer Standard Maintenance and Application Development Working Group		
Hydrography and Cartography in Inland Waters Working Group		
Marine Spatial Data Infrastructure Working Group		
Commission on Promulgation of Radio Navigational Warnings	X	
Finance Committee		
General Bathymetric Chart of Oceans (Guiding Committee)		
GEBCO Sub-Committee on Digital Bathymetry		
GEBCO Sub-Committee on Undersea Feature Names		
IHO-IEC Harmonizing Group on Marine Information Overlays		
IHO Legal Advisory Committee		
IHO Working Group on Staff Regulations		
IHO Standards for Hydrographic Surveys		Work completed, no future meetings planned.
IHO Strategic Plan Working Group		
Tidal Committee	X	
World-wide Electronic Navigational Chart Database		

10. Conclusions: The United States of America runs a robust, hydrographic program geared to ensure Safety of Navigation in not only U.S. waters, but in support of global commerce around the world. Capacity building with our partner nations is a key component of the U.S. hydrographic mission. Safety of Navigation is a key component of the global economy and is a critical responsibility of all modern states.