

# **Committee on Resources**

## **Subcommittee on Fisheries Conservation, Wildlife and Oceans**

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### **Statement**

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**Testimony of Captain Jack Sparks**  
**President**  
**Before the House Resources Committee**  
**Subcommittee on Fisheries Conservation, Wildlife and Oceans**  
**July 27, 2000**

Thank you Mr. Chairman and Members of the Subcommittee for this opportunity to appear before you today to testify on NOAA's hydrographic services. The American Pilots' Association is the national trade association of professional maritime pilots. Its membership is made up of 56 groups of state-licensed pilots, representing virtually all state pilots in the country, as well as the three groups of United States-registered pilots operating in the Great Lakes. APA members pilot over 95 percent of all ocean-going vessels moving in United States waters.

In our testimony today, the APA's would like to make three major points:

1. NOAA's hydrographic products and services are essential decision-support tools for safe navigation.
2. NOAA should retain its in-house hydrographic expertise and rapid response capability.
3. NOAA's hydrographic products and services are interrelated, and are fundamental navigation tools that other emerging technologies are dependent upon.

NOAA's hydrographic products and services--nautical charts, tide, current and weather information--are essential decision-support tools for safe navigation. Pilots use these tools to safely navigate ocean-going ships through our nation's waterways. With the evolution in ship size, there is increasingly little margin for error. The stakes are high. The risk to life, commerce and the environment is real. Trade forecasts consistently predict a doubling of waterborne commerce within the next twenty years. NOAA's hydrographic products and services are not mere conveniences. Accelerating the development and delivery of NOAA's hydrographic products and services is critical to our ability to move our country's increasing waterborne commerce safely and efficiently.

The APA commends this Subcommittee for its leadership in providing NOAA needed program authorization and for the effort you have made to encourage adequate appropriations for these important

programs. In particular, this subcommittee authored the Hydrographic Services Improvement Act of 1998 and has written several "Dear Colleague" and personal letters in support of NOAA's promote safe navigation programs.

The APA also commends NOAA and its National Ocean Service on both the manner in which the Agency has discharged its responsibilities and the results it has achieved. As an end-user of NOAA products and services, the APA has been particularly impressed with the Agency's customer-oriented approach. NOAA's National Ocean Service has demonstrated its genuine interest by incorporating stakeholders' concerns and priorities into the Agency's strategic planning process and by delivering new hydrographic products and services that are responsive to its customers' needs.

Recent improvements in hydrographic products and services have been dramatic and virtually across all product lines. The backlog of critical hydrographic surveying has been reduced from 30 years to 20 years, through the responsible use of contracting. The efficiency of chart production has evolved to near real time. The entire suite of nautical charts has been digitized in raster format. Production of Electronic Navigational Charts that use vector or smart data is also progressing, although more slowly than hoped because of inadequate appropriations. Additionally, there has been significant progress in the development of Print on Demand Charts and the delivery of chart corrections and updates via the internet. Other promising efforts include research and development on air gap sensors for bridge clearances. Additionally, I would particularly like to commend the National Ocean Service's courageous effort to continue the operation of its real-time tide and currents information system, PORTS.

NOAA's National Ocean Service has done a remarkable job in marshalling its limited resources to maintain its current products and services and to continually roll out enhancements and new products that incorporate emerging technologies. The APA believes NOAA has been able to accomplish these results because of its in-house hydrographic expertise. Additionally, in-house expertise is essential for NOAA to carryout its duty as our country's hydrographic office to provide national and international leadership in maintaining the highest hydrographic standards and to continue to provide quality assurance and liability coverage for the hydrographic data.

NOAA's in-house hydrographic expertise is equally, if not more importantly, needed in the field. The National Research Council's 1994 publication *Minding the Helm* reported, "NOAA, which produces 1,000 different nautical charts, had almost 2,000 requests for new surveys as of August 1993, some dating back to 1984, and 400 to 500 new wrecks and obstructions are reported annually for the East and Gulf coasts alone." To address this critical need, NOAA's Office of Coast Survey established a Navigation Services Division to enhance its rapid response capabilities. NOAA's enhanced rapid response capability has proven invaluable to pilots. The APA is aware of numerous examples where NOAA has drawn on its in-house expertise and resources to respond to pilots' requests for emergency hydrographic surveys. An emergency survey may be required to reopen a port following a hurricane or other severe storm, to investigate an unexplained or apparent chart discrepancy or sounding. These NOAA's field investigations have located submerged barges, wrecks, shoaling, underwater pipes, fish havens and artificial reefs in pilotage waters.

Two fundamental aspects that make NOAA's in-house service valuable and unique are communication and timeliness of results. APA's members report that communication between the pilots and NOAA hydrographers has been excellent. Communication has been maintained during the survey planning, survey acquisition, survey processing, and, if necessary, the chart revision process. NOAA's hydrographers have understood the pilots' priorities and needs and have provided immediate response to emergency survey requests.

Additionally, by using in-house resources, NOAA hydrographers are able to provide preliminary results of their investigations. As each survey progresses, NOAA hydrographers brief pilots on the results and can also provide preliminary sounding plots. When surveys stem from emergencies that may have caused unsafe conditions, these preliminary products help pilots to immediately ascertain the situation, by providing either the location of obstructions or the knowledge that the waterway is clear.

This brings me to my final point, which the APA believes will prove to be the greatest challenge and will require the most leadership. NOAA's hydrographic products and services are interrelated. They are fundamental navigation tools that other emerging technologies depend upon. To produce a nautical chart requires hydrographic surveying, mapping, shoreline data, aids to navigation and dredging update information, etc. All of these activities must be authorized and sufficiently funded. It doesn't promote safe navigation to put all your resources into surveying if you can't produce a chart. Likewise, in addition to nautical charts, mariners need accurate and timely information on tides and currents.

Earlier, I mentioned NOAA's Physical Oceanographic Real Time System or PORTS. PORTS provides real time tide and current information. As you know, Congress did not appropriate funds for PORTS in last year's budget. However, NOAA recognized the importance of PORTS to navigation safety and submitted reprogramming requests to keep the program viable through this fiscal year. Remarkably, the Agency was able to honor its existing contractual agreements and commissioned a PORTS system in Narragansett Bay earlier this summer. However, because the National Ocean Service was forced to play a zero-sum game with its limited funding, other important promote safe navigation efforts, such as the development of electronic navigation charts, suffered a loss of resources.

Most maritime nations have built or are in the process of building electronic navigation chart databases called ENC's. NOAA is responsible for providing mariners with the official ENC charting data. The U.S. attempt to build ENC's has lagged due to a lack of funding. The National Research Council, in its 1999 report, *Applying Advanced Information Systems to Ports and Waterways Management*, observed, "Electronic charts of various types are available but are only as accurate as the underlying hydrographic data, and electronic charts in the format specified by the international community are prerequisites for the use of electronic chart display and information systems (ECDIS), which have been characterized as "the best navigation advance to come along since radar was invented." *Minding the Helm* stated, "An electronic charting system is the central feature of emerging onboard navigation systems." Additionally, ENC data will be a fundamental component of the US Coast Guard's Automatic Identification System or AIS.

AIS promises to be a powerful new tool to provide improved traffic management and collision avoidance in the increasingly congested port areas. However, AIS needs a chart backdrop to display vessels and traffic information. An AIS display that uses an ENC will provide mariners with both traffic information and a powerful navigation system. NOAA has scheduled its ENC production to support AIS development and implementation by compiling the initial ENC's in ports where AIS is being evaluated. However, given projected dates for mandatory AIS carriage requirements, current ENC production is inadequate, and has the real potential of hampering the implementation of AIS. The interdependence of NOAA's products and services is complex.

Although collectively we have made significant progress, we still face tremendous challenges to meet the needs of our marine transportation system while protecting our marine resources. Perhaps more discouraging than the lack of adequate funding, is the imposition of self-inflicted wounds, such as the recently lifted moratorium on the NOAA Corps and the continuing Congressional language restricting NOAA's ability to

equip its three remaining hydrographic survey vessels with modern survey equipment.

The APA hopes that this Subcommittee will recognize the essential need for NOAA's hydrographic products and services, as well as the importance of maintaining NOAA's in-house hydrographic expertise, and will continue to provide informed leadership to authorize and encourage balanced appropriations to facilitate NOAA's efforts to promote safe navigation.

Thank you.

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