



U.S. Coast and Geodetic Survey Historical Society Newsletter

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uscgsheritage.org

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Lithographic chart era ends

(Reprinted from the [NOAA Coast Survey blog](#))

Paper nautical charts hold a special spot in a sailor's heart – and in the chart table. In October, Coast Survey announced that the federal government will stop bulk lithographic printing of nautical charts. The announcement brought some understandable angst to boaters – but fear not! NOAA may be changing the chart production process but we will NOT stop the production of paper charts. We are working with private companies to make them better: printed in brighter colors and available for fast delivery to your door. Most importantly, they are up-to-date to the moment you order it. These improved paper charts are NOAA-certified print-on-demand (POD) nautical charts, created by NOAA Coast Survey cartographers.

While the lithographic paper charts will go away in 2014, anyone can order almost any printed NOAA chart any time, from the comfort of your home, office, or boat. Just bookmark nauticalcharts.noaa.gov/pod to find the NOAA-certified chart seller who will print your chart “on demand” and ship it to you.

The great lithographic chart tradition answered a country's need

For more than 150 years, the traditional paper chart that we all know and love has been printed in bulk on government printing presses, using the lithographic process. Lithographs were the latest and greatest technological achievement in the early 1850s, when Coast Survey superintendent Alexander Bache ordered Coast Survey personnel to explore the potential applications of lithography for printing maps cheaply and easily. Since the charts could be printed on cheaper and far thinner paper, lithographic copies could be folded, which was strategically important as the nation prepared for Civil War.

The new lithography helped the federal government speed the production of the thousands of charts needed for the war effort. According to contemporary reports, Coast Survey organized the “lithographing” division in 1861 “in order to aid the regular copper plate printing department in supplying speedily charts for the great demand made upon the office by the existing exigencies of the naval service, and also to afford the means of printing (under due supervision) a set of descriptive memoirs and sailing directions for the coast, for the use of the naval and military commands.”

Two lithographic presses were set up in the Coast Survey office and, according to Bache in his annual report, “an aggregate of more than two thousand copies of maps and charts were printed from them” in the first year of operation. The presses were set up, Bache says, “in order to meet the call for charts from the Naval Observatory to supply national vessels.”

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NOAA Open House

Saturday, February 15, 9 a.m. to 4 p.m.
1315 East-West Highway
Near Silver Spring Metro Station
Public parking available
Free and open to the public
Adults, bring a photo ID to enter this federal facility

Bring friends and family to this year's open house, so they can learn how NOAA takes the pulse of the planet every day, forecasts the weather, protects ocean and coastal resources, and more. Have fun at a variety of free activities, including engaging talks by NOAA experts, interactive exhibits, special tours, and hands-on activities for ages 5 and up. Meet and talk with scientists, weather forecasters, and others who work to understand our environment, protect life and property, and conserve and protect natural resources.

Visit www.noaa.gov/openhouse for details, or call 301-713-7258 for information.



Call for articles! Hydrography: It's More Than Charts

In 2005, the International Hydrographic Organization established World Hydrography Day, celebrated annually on June 21. To observe this year's World Hydrography Day, the Office of Coast Survey is calling for articles for an e-publication dedicated to this year's theme: "Hydrography: It's More Than Charts." Hydrography is the science upon which nautical charting is based, but, as this year's World Hydrography Day theme conveys, researchers and planners use hydrography in a range of activities that benefit the coastal environment and the marine economy.

The e-publication will bring the world of hydrography to non-hydrographers who don't know what they're missing! By publishing a variety of short, enlightening articles that describe the many beneficial uses of hydrographic data, we hope to inform – and inspire – policy makers, coastal planners, future hydrographers, and industries that benefit from a vital ocean economy.

This call for contributions is open to the public, to researchers, and to people at all levels of local, state, and federal government. We would love to hear from members of the U.S Coast & Geodetic Survey Historical Society. We welcome submissions of interesting, original articles discussing the use of hydrographic survey data beyond creating and updating nautical charts. We are particularly interested in case histories of creative approaches and partnerships that solved a problem. Submissions describing visionary concepts for future activities, especially with projects that strengthen smart ocean use and planning, or that contribute to the growth of the ocean economy, are also welcome.

SUBMISSION REQUIREMENTS

Please email proposals of your article, and a brief CV (no more than 100 words), to coastsurveycommunications@noaa.gov by 12 pm EST, March 2. Proposals should not exceed 250 words. Provide a synopsis of your topic, with an outline of your projected content.

Proposal deadline: MARCH 2, 2014
Notification of selection: MARCH 10
Final article due: MAY 16
Publication: JUNE 21

No later than March 10, Coast Survey will notify authors who are selected to submit full articles. Selected authors have until May 16 to submit articles up to 1,500 words. (Failure to submit articles by the deadline may result in elimination from the publication.)

Contact Dawn Forsythe at dawn.forsythe@noaa.gov, for more information about topics or suggested article format.

Lithographic era ends

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The impact that lithographic printing process had on chart production is measurable. In 1844, before lithography, Coast Survey made 169 copies of its nautical charts. By the end of the Civil War in 1865, we were churning out more than 50,000 copies annually, and by 1900 we had amped up to 100,000 copies a year. With 20th century improvements in the lithographic presses and processes, Coast Survey produced over 100 million maps and charts for the Allied Forces in World War II.

Today's digitally-produced paper chart reduces risk for maritime commerce, fishing, and recreational navigation

Coast Survey cartographers apply tens of thousands of changes to NOAA charts every year. Some changes are minor, but many are critical to safe navigation. While lithography was valuable in its day, it can take years before a new chart edition is printed with those updates. Advances in digital technology can now deliver charts that have been updated within the week.

Much of NOAA's chart information is now delivered electronically to chart display systems, as either NOAA RNC® or NOAA ENC®, but we can also harness digital images for mariners who prefer to keep a paper chart, for primary use or for backup. This digital process gives boaters ready access to updated NOAA-certified paper charts that are printed on demand.

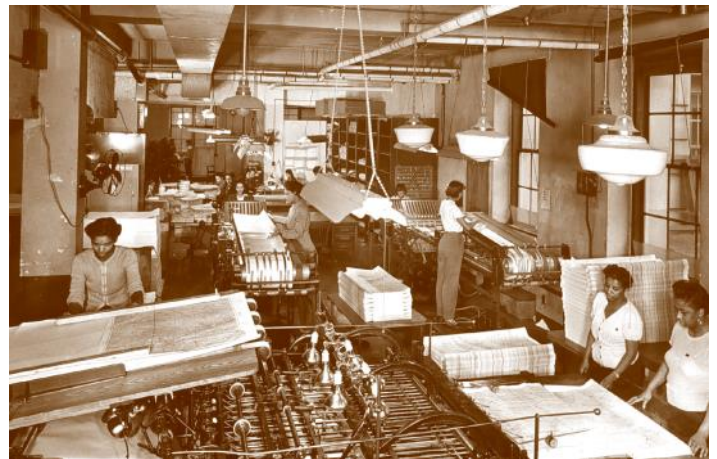
As of today, NOAA has agreements with two companies – OceanGrafix and East View Geospatial, with their local partners – to print and deliver paper print-on-demand nautical charts. We are working with two dozen other companies that have expressed an interest in becoming a NOAA-certified POD partner, and we will keep the vendor list updated at nauticalcharts.noaa.gov/pod.

NOAA-certified POD charts meet the requirements for the mandatory carriage of nautical charts.

Whether the paper charts are printed using lithographic printing presses or after transmission of digital images, Coast Survey's mission is and remains the same: to produce the nautical charts that protect life and property. That is a mission that never needs to be updated.



These C&GS Harris printing presses are from 1935.



During World War II, Coast Survey's map folding room was a busy place.

Scholarship applications available

The Executive Committee of National ACO Scholarships, Inc. has issued its annual call to high school seniors and college undergrads for applications for scholarship awards for the 2014/2015 academic year. The application is on the "Resources" page of the NOAA Officer Family Association website (www.nofaweb.org), under the heading "National ACO Scholarships, Inc." Application forms may also be obtained by contacting CAPT Dave Peterson (Ret.) at 301-921-6357 or kmpdhp@comcast.net. Send complete application packages directly to the corporation (address on the application), no later than April 15.

Your board of directors



Board members joined nearly a hundred Society members at the annual meeting and luncheon in December. Pictured, from left to right, RADM Sam DeBow (Ret.), RADM Phil Kenul (Ret.), LCDR Matt Wingate, CAPT Don Spillman (Ret.), Cheryl Oliver, David Hall, Lynne Mersfelder-Lewis, CDR George Leigh (Ret.), and CAPT Dave Peterson (Ret.).



At the annual meeting, the Society honored and thanked three members for their service.

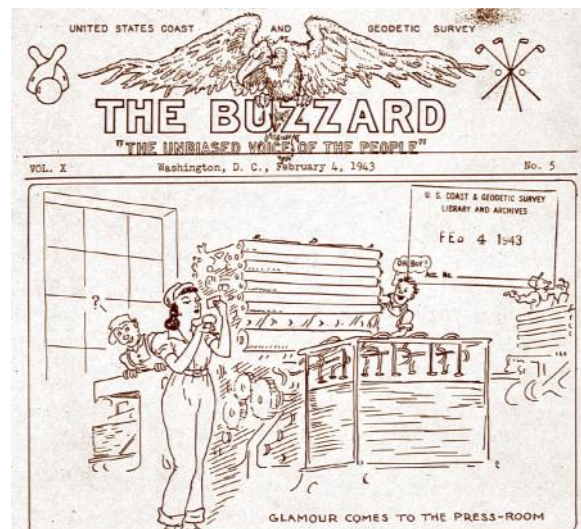
President Cheryl Olive thanked Diana Lewis, pictured far left, outgoing board member and long-standing board secretary.

Cheryl also conveyed the Society's thanks to Charlie Challstrom, pictured left, outgoing board member and long-standing president and VP of the Society.

Unable to attend the meeting was RDML Gerd Glang, who was thanked earlier for his support in encouraging membership among current NOAA employees.

GRAV-D project begins survey across the U. S.-Mexico border

NGS's Gravity for the Redefinition of the American Vertical Datum (GRAV-D) Project has received permission from the Mexican government to overfly Mexico airspace. The project requires data to be collected 150 kilometers into Canada, Mexico, and offshore. Although NGS routinely coordinates with Canada regarding overflight of their airspace, this is their first attempt to conduct a large-scale gravity survey over Mexico airspace. NGS will coordinate closely with the Mexican agency responsible for geodesy, and provide an opportunity for their scientists to join the survey, if desired. GRAV-D will create a new vertical reference system that will improve floodplain mapping and help mitigate risks for coastal communities from tsunamis, hurricanes, and storm surges. When complete, the improved elevations from GRAV-D products will provide an estimated \$4.8 billion in cost savings to the nation.



And we leave you this month with this blast from the past!