



# Japan Coast Guard produces time critical accurate large-format maritime maps to ensure safety

Protecting the seas, helping sailors and producing precise oceanographic surveys form the bedrock of the Japan Coast Guard's duties. These entail the regular production of large-format maps, some of which need to be printed without delay and without compromising quality. In order to ensure it could produce flawless prints in high volumes, the organization invested in the HP PageWide XL 8000 Printer to produce large-format, monochrome and color print at high speed.

**Industry sector:** Architecture, Engineering & GIS; Cartography

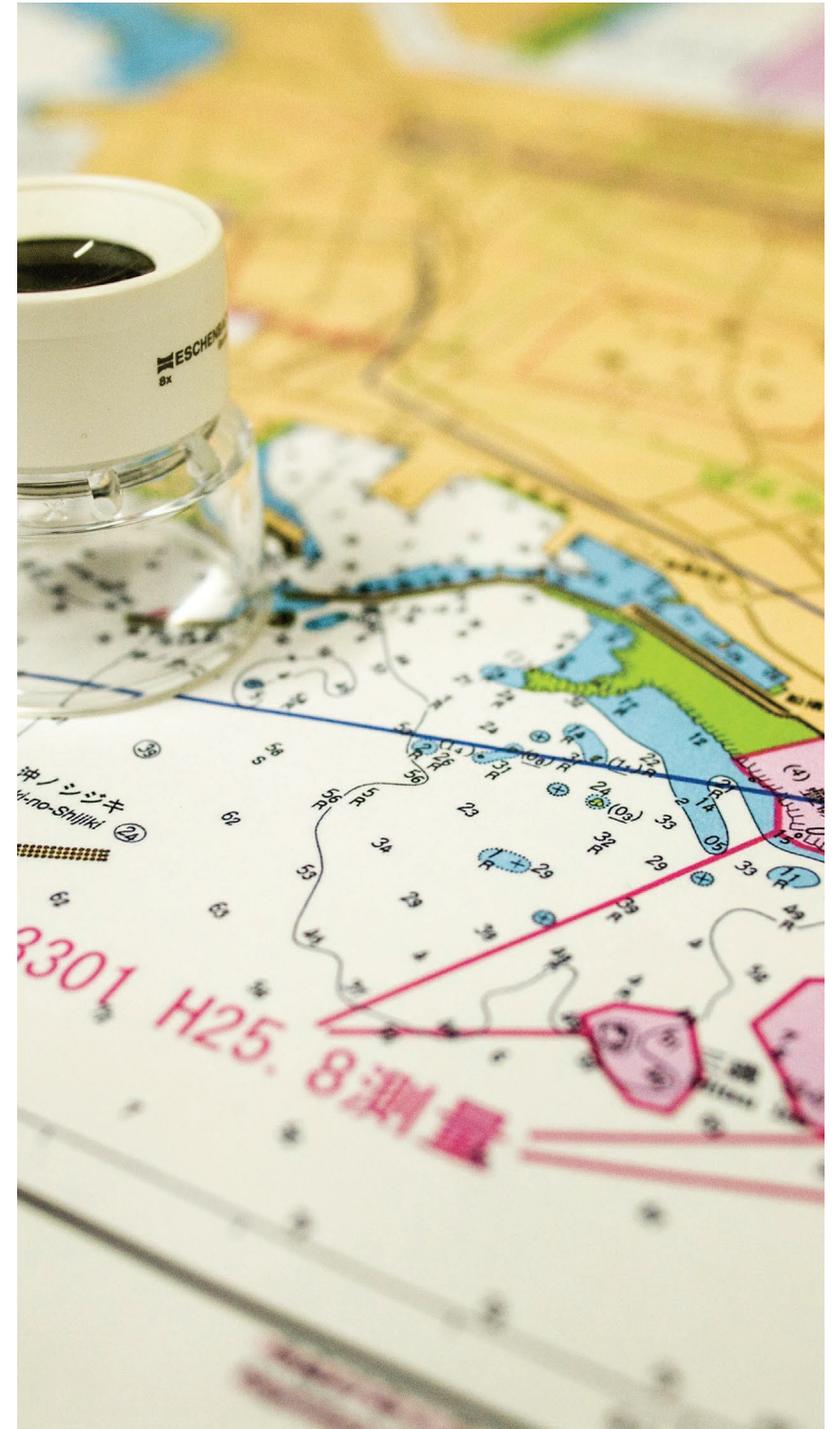
**Business name:** Japan Coast Guard

**Headquarters:** Japan, Tokyo

**Testimonial from:** Makoto Momosaki, principal cartography officer & Tomoo Fujii, senior geographical names officer, Chart and Navigational Information Division, Hydrographic and Oceanographic Department, Japan Coast Guard

**HP printer:** HP PageWide XL 8000 Printer

**Website:** [www.kaiho.mlit.go.jp/e/index\\_e.htm](http://www.kaiho.mlit.go.jp/e/index_e.htm)



## Challenge

"I installed this printer to be able to perform high-speed printing for urgent, high-volume print jobs that arise when carrying out our maritime security operations."

Makoto Momosaki, principal cartography officer, Chart and Navigational Information Division, Hydrographic and Oceanographic Department, Japan Coast Guard



## Mapping and protecting the seas

Founded in 1948, the Japan Coast Guard, formerly the Maritime Safety Agency, employs over 12,000 personnel and is tasked with the protection of the coastline of Japan. It is responsible for multiple areas, including maritime patrols, anti-piracy measures and oceanographic surveying. At the Hydrographic and Oceanographic Department, the organization surveys and observes the seas, issues nautical charts, and works toward the effective safety of ships.

"The department has huge print demands, it issues about 2,000 types of nautical charts including large-format versions," explains Momosaki. "We also revise nautical charts annually and issue corrections to the charts."

As the last line of defense in guarding the coast and in carrying out maritime security operations, the organization must also deal with urgent high-volume printing, and so needed a printer that could provide high-speed, continuous production of large maps.

"Nautical charts are used by ships operating on the seas around the world and each country is responsible for issuing charts for its own territory. Ships rely on the nautical charts for their safety so print quality is very important," adds Momosaki. "I heard that the United Kingdom Hydrographic Office had installed the HP PageWide XL 8000 Printer and thought it might be the best solution for our Hydrographic and Oceanographic Department so I decided to install it."

## Solution

"The HP PageWide XL 8000 Printer is superior because it can print 30 A1 pages per minute and is capable of printing 18 sheets of A0 per minute, so it has capabilities we require, that other printers don't have."

Tomoo Fujii, senior geographical names officer, Chart and Navigational Information Division, Hydrographic and Oceanographic Department, Japan Coast Guard



## Large-format, high capacity

The HP PageWide XL 8000 Printer is HP's fastest large-format monochrome and color printer with production cost savings of up to 50%<sup>1</sup> and the ability to produce durable technical documents with crisp lines and fine detail. This makes it perfect for printing accurate GIS maps, nautical charts and large drawings related to safety at sea at breakthrough speeds.

Based on HP Thermal Inkjet technology, HP PageWide printers are scalable to support a wide range of application and performance requirements. The HP PageWide XL Printheads also provide reliable and long-life operation, with an average 32 liters of ink per printhead lifespan.

"I installed this printer to give us the capacity for urgent, high-volume print jobs that often arise in our maritime operations," continues Momosaki. "We can now print large-format maps fast, and carry out our security operations without delay."

Japan Coast Guard also installed the HP PageWide XL High-capacity Stacker to automatically stack prints freeing up operator time. It also incorporates HP SmartStream software, which offers correct PDF management and true print previews through HP Crystal Preview Technology, making the workflow 50%<sup>2</sup> faster and removing the potential for human error.

"HP SmartStream is very easy to use because jobs can be issued without having to manually select the contents, such as a map or text," remarks Fujii. "In regard to the high-capacity stacker, the mechanism is good for receiving a high volume of printouts."

## Result

"The HP PageWide XL 8000 enables Japan Coast Guard to continue its vital work and ensure safety at sea, by producing high-quality prints at high speed. Printing jobs can be activated easily with no need to manually select size and content, and this ease-of-use helps keep costs down."

Tomoo Fujii, senior geographical names officer, Chart and Navigational Information Division, Hydrographic and Oceanographic Department, Japan Coast Guard



## High speed, low cost

Japan Coast Guard is now enjoying precise, detailed, large-format prints that can be produced quickly and cost effectively with minimal operator intervention and low ink consumption. This ensures it can address urgent security and safety needs in times of crisis.

"We are creating solid color maps but wanted to avoid using large quantities of ink," says Fujii. "This printer utilizes the characteristic of extremely random dots, making ink consumption low, so we are expecting to see it affect overall costs. The print quality is superb, when we create large maps and nautical charts, we demand printing of consistent quality from the center to the edges of the map. The HP PageWide XL 8000 Printer is different from a standard inkjet printer in that it has eight printheads in a line, and can achieve print with uniform quality from the center to the edges," comments Fujii.

The organization is improving its workflow thanks to print speeds, automatic file processing and print stacking. The reduced ink and printhead consumption and reduced print operator time has also supported cost savings.

"I am anticipating that the HP PageWide XL 8000 Printer will bring further benefits in the future, thanks to the versatility of the printer we are thinking of preparing special, thick paper suited to the printing of nautical charts, to improve quality," concludes Fujii.

<sup>1</sup>Fastest based on internal HP testing and methodology compared to alternatives for large-format printing of technical documents, GIS maps, and point-of-sale (POS) posters under \$200,000 USD as of March, 2015. Production costs savings based on comparison to a setup consisting of one monochrome LED printer and one color production printer, both under \$150,000 USD, as of April, 2015. Production costs consist of supplies and service costs, printer energy costs, and operator costs. For testing criteria, see [hp.com/go/pagewidexlclaims](http://hp.com/go/pagewidexlclaims).

<sup>2</sup>Using HP SmartStream software, job preparation and processing can be completed in 50% of the time. Conclusion based on an HP internal test measuring the time required to extract pages from a 50-page document and print them using several printers compared with using equivalent software programs.



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4AA6-8200ENW, November 2016