Case Study Maritime



Guernsey Harbours' highly integrated Zetron DCS-5020 Digital Console System offers advanced functionality that is improving the efficiency and effectiveness of Guernsey's busy operations.

When it comes to communication systems, there's nothing that inspires loyalty like reliability and high-level performance. That's because communications systems are often the central command-and-control point for mission-critical operations that must perform without fail, day and night, 365 days a year. So it means a great deal when a system actually delivers the reliability these conditions require.

Such was recently the case at Guernsey Harbours. Because their existing Zetron console system had provided many years of reliable service, when the time came to update their equipment, they decided to obtain and install a new system from Zetron. And they have not been disappointed. Ever since it was installed early this year, their new DCS-5020 Digital Console System has not only been providing the reliability Guernsey Harbours requires, but it also includes current technology and expanded functionality that have improved the efficiency and effectiveness of their operations.

Guernsey Harbours

One of the Channel Islands, Guernsey is located just off the coast of Normandy, 70 miles from England and 30 miles from France. The island is 24 square miles and has a population of about 62,000.



'A challenging marine environment'

Guernsey Harbours is a busy place. Its staff works with the coastguard to manage marine traffic in the approaches to Guernsey, as well as its ports at St. Peter Port and St. Sampson's Harbour. Up to 2,000 pleasure craft per day move through the area. And each year, commercial shipping moves some 500,000 passengers and many thousands of tons of freight through the area as well.

In addition to managing marine traffic, Guernsey Harbours also controls remote harbour closing lights and fog horns that warn shipping of hazards around the coastline. If a marine emergency occurs, Guernsey Harbours is responsible for coordinating search-and-rescue efforts by sea and air.

"Guernsey is a challenging marine environment," says harbour master, Captain Peter Gill. "It has been the scene of a number of shipping tragedies over the years. Not only do we manage thousands of regular to-and-fro shipping movements, but we lie adjacent to the busiest shipping lane in the world, and we are also a major destination for cruise liners."

Time for an update

Captain Gill explains why the decision was recently made to update Guernsey's communications system, and why they selected Zetron's DCS-5020 for the project: "Our original Zetron system helped us cope well with our workload," he says. "But technology moves on, and we were aware that a current-generation system would enable us to work smarter and more efficiently. After 12 years with our previous Zetron system, we had no doubts about which vendor and solution we wanted."

That solution would include three positions of Zetron's DCS-5020 Digital Console System installed at two locations.

About the DCS-5020

The DCS-5020 is deployed widely throughout the world to control mission-critical operations for public safety agencies, and energy, transportation, and utilities companies. Designed for small to medium-sized communication control rooms, the DCS-5020 is able to integrate telephony with digital and analog radio. It supports combinations of up to 30 resources, including up to 16 screen-based operator consoles. The system's distributed processing provides the flexibility, scalability, robustness and resiliency 24/7 operations like those at Guernsey Harbours require.

Radio and Electronic Services

Zetron partner, Radio and Electronic Services, performed the system implementation at Guernsey. Located in St. Peter Port, Radio and Electronic Services has been in business for over 25 years, selling, installing, and servicing marine electronic and radio communication equipment to customers throughout the Channel Islands.

'Swap-over' from old to new

Radio and Electronic Services implemented Guernsey Harbours' system in a phased "swap-over" from the old equipment to the new system during the winter of 2010 and 2011. This included installing two DCS-5020 consoles in the St. Peter Port office. A third console was also installed in the pier head control room and linked by fiber optics.

The installation required Radio and Electronic Services to integrate the new system with legacy equipment, including Guernsey Harbours' ICOM marine VHF and UHF radio, a public phone network, private phone circuits, and an existing Zetron telemetry system Guernsey uses to control and monitor remote operations. The installation also involved customizing the screen displays to suit each operator's individual preferences. This was done through the DCS-5020's programmable user interface.

Passing the 'acid test'

The implementation was completed and the new system was commissioned in early 2011. According to Captain Gill, its functionality and flexibility have already improved Guernsey Harbours' operations in a number of significant ways.

"With the new system, Radio and Electronic Services was able to consolidate more information than ever before onto our touchscreens," he says. "This gives our staff finger-tip control over all of our radio, telephony, and remote systems from one place. Our remote harbour lights and fog horns are also controllable in the same way. And if the operators need to move away from their consoles to another area, they can use the touchscreens to turn on remote monitoring. Live radio and telephone audio is then relayed to them over loudspeakers."

"The new Zetron system has enabled us to implement many of the lessons we have learned about how to operate most effectively," Captain Gill continues. "The acid test of the system was its performance during Guernsey's busy summer season. It showed us that, as far as the DCS-5020 system is concerned, we got it right. It has certainly enhanced our ability to provide attentive and efficient 24/7 service."

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