

Case Study

Royal National Lifeboat Institution



BENEFITS

- Crew call-out time reduced
- Complete system now under RNLB control
- Better information on vessels in distress available to crew
- Automatic integrity checks on paging
- Multi-way access to paging system via telephone, PMR or data (PC)
- Private radio system for secure communication
- Lifeboat station facilities controlled through pager system
- 24-hour monitoring and testing by Arqiva
- Prompt fault detection/repair

Business issue

Since 1824, the Royal National Lifeboat Institution (RNLI) has provided a lifeboat service – currently from 223 lifeboat stations around the coast of the UK and the Republic of Ireland. For the past 15 years, the charity had been calling out its volunteer crews and launch teams using various types of commercial and private paging systems.

The Coastguard would request a launch and the RNLI station manager would make an appropriate response. In some cases there were inevitable delays while the RNLI called the Coastguard to ask for the relevant crew to be paged, and a degree of uncertainty because there was no direct feedback to indicate that a successful paging call had been made. “Obviously, call-out time is critical,” says Cecil Clark, the RNLI’s Staff Officer Operations responsible for communications, based at their headquarters in Poole. “But we had no way of knowing if the call had worked until the crew began arriving at the boathouse. Another weakness was that the crew often had only a bare outline of the rescue they were attempting, sometimes provided after they had launched the boat.”

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Cecil Clarke, RNLI Staff Officer Operations

Special requirements

Moving for the first time to its own, wholly owned system, the RNLI took the opportunity to set out its specific needs. “We differ from other emergency services in that our crews are all volunteers, and have to be contacted in a variety of workplaces,” Cecil Clark explains. “Although there may only be six crew members onboard, say, an all-weather lifeboat, it takes many more to launch and recover the boat. Our pager systems extend to over 6,000 people in total. Also, no standard system was likely to suit us. Almost every lifeboat station presents a different technical problem depending upon the type of station and geographical position, perhaps even located at the bottom of a cliff.”

A partnership approach

Having decided what was needed and gone out to tender with a number of established telecoms providers, the RNLI chose Arqiva. "We were impressed with Arqiva's professional approach," says Cecil Clark. "Arqiva has a good track record in bespoke radio systems, but the team also asked the right questions to find out exactly what we wanted, and then presented a very acceptable design."

The contract was awarded in two phases. The first was a pilot system involving the installation of five selected stations, all having different technical configurations.

We wanted to get feedback from crews - we respect their views and some valuable ideas came out of this iterative process with Arqiva. For example, one request was the ability to switch on boat station access lighting, through the paging system – enhancing safety when the crew arrives. This is particularly useful at stations with difficult access and where external sodium lighting is used to facilitate boarding the boat.

The second phase of the contract was awarded to provide the full system roll-out to all 223 lifeboat stations. This meant consolidation of the system design from the pilot phase, propagation planning, site surveys, installation and operational training.

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The right equipment for the task

Call-out is now immediate because digital paging is under RNLI control – saving valuable rescue time. "The system allows us great flexibility," says Cecil Clark. "Previously, we could only alert our crews using telephone to other paging facilities. Now we have direct access to our own system either by telephone, through our private mobile radio (PMR), or via a PC link in a matter of seconds."

An important innovation is a data link that allows the Coastguard to send information about the casualty direct to a printer in the boathouse. The information also appears on an electronic scrolling board for the crew to read while putting on their protective gear. This advance information means they can be better prepared for the task ahead and take the right equipment. Another valuable facility available to the



Arqiva has built up considerable expertise through its work with more than 75% of the UK's emergency services.

RNLI for the first time is a secure (scrambled) PMR radio system. Integrated with the pager system, it provides a voice link between the RNLI Launch Authorities and boats officers, lifeboats and Coastguard.

Value added facilities

Valuable additional facilities are to be provided as part of the system. For example, advice of lifeboat launches is to be made to the RNLI's website, enabling those people interested to see launches displayed on a UK/Ireland map. It will also be possible to keep crew members informed of their lifeboat's launches when they are away from their local area. The new system will be able to provide automatic Short Message Service (SMS) advice to their personal mobile phones.

A huge boost in confidence

A major advantage of the new paging system is the automatic integrity check that confirms the transmission of crew alerts - providing an important assurance and avoiding the possible need to phone around for people to help with a beach launch, for example. "The knowledge that the paging has been successful is marvelous for us," says Cecil Clark. "But equally important is our huge boost in confidence from knowing that the system is fully monitored. Arqiva's Customer Service Centre at Emley Moor monitors it around the clock, runs an operational check every day, and is committed to respond to problems within two hours and effect a fix within 24 hours. Before, we would often only know there was a fault at the time of a call-out; the worst possible time to learn of a problem - and it could sometimes take days to repair." In case of power problems with remote or hill-top sites, the installations in the lifeboat stations are designed to work on their own if necessary, using an uninterruptible power supply.



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