As a useful tool for their work, seafarers are better able to make informed decisions as to how to manoeuvre their vessels. To fully benefit from such a system, the data transmitted must be accurate and operators must understand the system. With this in mind, my colleague Neil Ellis and I, as part of the work of the Lloyd’s Register Educational Trust Research Unit (LRETRU), have been monitoring the use of AIS since its introduction. Specifically, we undertook research at a vessel traffic services (VTS) station on three separate occasions in 2004, 2005 and 2007. The VTS station monitors ships passing through the adjacent waters and operates a mandatory ship reporting system. Much of the information the ships pass to the VTS by VHF radio is also transmitted by AIS. By comparing the two sets of information we were able to assess the accuracy of the information transmitted by AIS. What we found in 2004 was that approximately 10 per cent of errors in the data being transmitted were errors in their AIS data. The majority of the errors were in the destination and draught data. As this information is entered by the ship’s officer at the beginning of each voyage, it appeared that officers were either not used to entering the information correctly or didn’t know how to use the system correctly.

When talking to the operators in the VTS centre at that time, we were told that many ships’ officers seemed unable to correct the information when told of an error. This further suggested that the problem was down to a lack of training. Indeed, in talking to crews, we have often heard that they received no training for AIS, and that this is not uncommon when new equipment is fitted. A study being undertaken by LRETRU is currently examining this wide issue of training and documented.

Having monitored the system over time, we have seen an improvement in the accuracy of the data transmitted, with approximately four per cent of ships transmitting incorrect information in 2007. Furthermore the VTS operators report that ships’ officers are now much more responsive when an error is detected. This suggests that crew members are becoming more familiar with the interface with the ships and hence they see from AIS that the ship they will now indicate their error. This information is being used.

Having spent many years at sea as a navigator, I remember that calling up the shore-side authorities is always slightly stressful. There was the worry that they wouldn’t understand me or I wouldn’t understand them. In an emergency situation this can become even more stressful. There was the worry that calling up the shore-side authorities meant that there would be a delay of several minutes before the person you will most probably speak to. Others deal with telephone calls from the public and emergency calls concerning such matters as the sightings of distress flares or a dog falling off the cliffs.

As well as dealing with routine matters, we are constantly updating their knowledge of the planning of search and rescue operations. If a real incident occurs there are the people who co-ordinate operations. Perhaps most importantly, my strongest impression was of a group of people committed to the safety of shipping on several occasions when taking photos of ships. Some of the operators had spent time on board different ships and talked about it excitedly. Within the control centre there are normally around 14 ships operators on watch. They sit in different positions in the control room and take on the different roles during their 12-hour shifts, moving around the control room and taking on the people in the other end of the VHF are friends looking out for your safety, and wish them well!

The Lloyd’s Register Educational Trust is an independent charity wholly funded by the Lloyd’s Register Group. Its principal purpose is to support education, science, engineering and technology education and research, aiming to ensure worldwide for the benefit of all. It also funds projects that promote the safety of life and property at sea, on land and in the air.