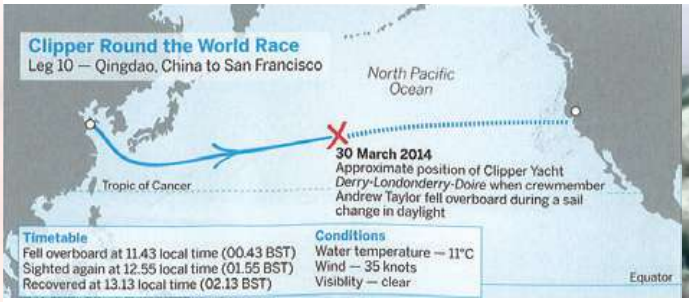
CASE STUDY

mcmurdo
SEAS OF SOLUTIONS BRAND

Localised Rescue Capability Proven in the Clipper Round the World Yacht Race



Andrew's Rescue

McMurdo SmartFind AIS MOB device allows Derry ~ Londonderry ~ Doire team to locate and rescue missing crew member 3000 miles off US coast.

The now infamous image of Andrew Taylor adrift in the Pacific Ocean, his amazing survival against the odds for over 90 minutes and the astonishing rescue by his fellow crew mates has adorned the front pages of the yachting press the world over. Another impact has been the speculation over the type of device Andrew used and how it helped facilitate his ultimate rescue, here we explain how AIS MOB works and the benefits it opens to the ocean going community.

The Incident

The 70 foot racing yacht Derry~Londonderry~Doire, taking part in the 9th Clipper Round the World Yacht Race, was performing a sail change on the foredeck in 30 plus knots of wind and large seas when one of the crew, Andrew Taylor, was swept overboard. Only the fourth MOB incident in the races 18 years, Clipper Race director Justin Taylor explained: "In these conditions a man overboard is swept away from the boat very quickly and visual contact can be lost in the swell'.

Andrew Taylor meeting S10 designer Ben Connor

Crew Reaction

For the Clipper Race crews, sea safety is fundamental and all crew members complete extensive training; including sea survival, which incorporates highly detailed instruction and practice of the MOB procedure. Unlike previous incidents, the extreme weather conditions, the limits of external help (due to their isolated location 3000 miles off the San Francisco coast) and the distance Andrew drifted from the mother vessel pushed the odds of this highly drilled crew operating a sucessful recovery.

The Solution

After over 40 minutes in the water and having watched his crew mates navigate away from his location in their search sweep, Andrew activated his manual SmartFind S10 AIS MOB device which immediately flashed his position on the Derry~Londonderry~Doire's navigation plotter screen. By providing a real time GPS position the AIS device allowed the skipper to identifty that Andrews drift speed was considerable more than estimated in the initial search pattens and allowed the crew to locate him and start their recovery procedures. Andrew and his team put his survival down to a few key elements: the Clipper Race's in-depth MOB training and drills, Andrew's Henri Lloyd dry suit and Ocean Safety Lifejacket and the Smartfind AIS MOB real time GPS plotter information facilitating his retrieval.

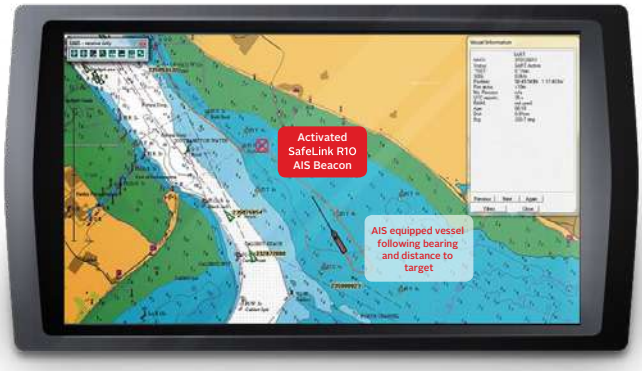
How it works

An MOB incident results in activation of AIS MOB device (either manually or semi-automatically if fitted to a compatible life vest), which in turn transmit a localised locating signal on maritime VHF frequencies to a range of 4 miles (appx). The signal is displayed on AIS enabled plotter screens on vessels within the broadcast radius. The AIS message content includes the unit ID number, GPS position fix data and a simple text message, to highlight the MOB incident and provide all the information required to support a localised rescue. In a heavy sea with the AIS device close to the sea surface, wave swell can block the transmissions. This is overcome via information being repeated every 2 seconds ensuring some transmissions will coincide with the survivor being on a wave crest, allowing "line-of –site" path for message relay . The vessel will get a range and bearing to the exact location which is updated, in real time to recover the drifting MOB.

"We had our man overboard position marked on the chart which gives us a point to start searching from and we start going through the motions, trying to estimate where he might have drifted to with the wind and current. We started searching but I mean a needle in a haystack doesn't even describe what we were looking for."

Sean McCartner

Skipper Yachts & Yachting July 2014



"My MOB training and equipment kept me alive but my AIS saved my life"

Andrew Taylor

Rescued crew member of the Derry~Londonderry~Doire

History

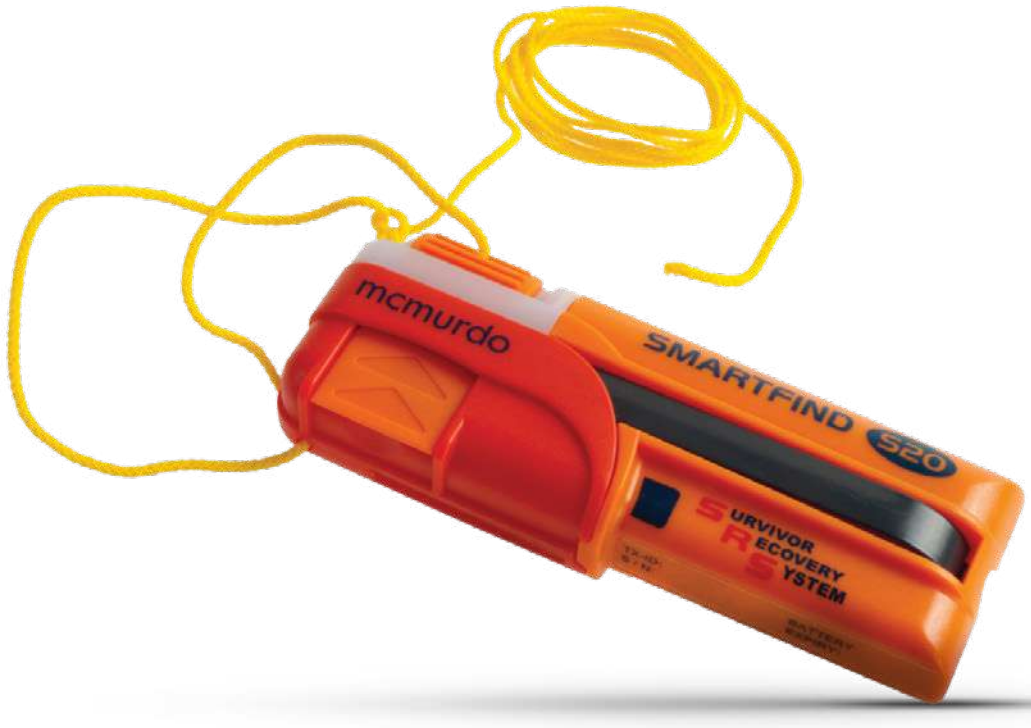
Developed at Seas Of Solutions' UK facility, the AIS MOB device was originally developed for the Volvo Ocean Race, in conjunction with their safety partners, it has been adopted by numerous racing crews since.

Why is Wider AIS Adoption Important?

AIS (Automatic Identification System) has been one of the most important innovations in navigation since the introduction of GPS. It is one of the fastest-growing segments of the electronic navigation business in recent years, with at least 170 countries mandating its use. Providing a tool for improved safety and collision avoidance, AIS is currently mandated on all commercial vessels over 300 tonnes and the EU Fishing mandate for AIS states that EU Fishing vessels will gradually need to be equipped with Class A AIS. With this wide spread adoption of AIS technology its application via AIS MOB devices, as a complementary solution to existing 406 frequency beacons in the COSPAS SARSAT Search and Rescue ecosystem, also grows. By offering an effective localised rescue solution that aids vessels in the vicinity to identify, track and recover an individual involved in a man overboard incident.

What is the Clipper Round the World Yacht Race

The Clipper Round The World Yacht Race was conceived in 1995 by Sir Robin Knox-Johnston and together with William Ward, founded Clipper Ventures, a company that would run the race. The event gives paying amateur crew members the chance to sail around the world. The organizers own a fleet of identical yachts, and provide qualified skippers to lead each team. Crew can either sign up for the whole race, or one or more legs.



SEAS OF SOLUTIONS
netwave kannad marine mcmurdo

www.seasofsolutions.com
sales@seasofsolutions.com

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