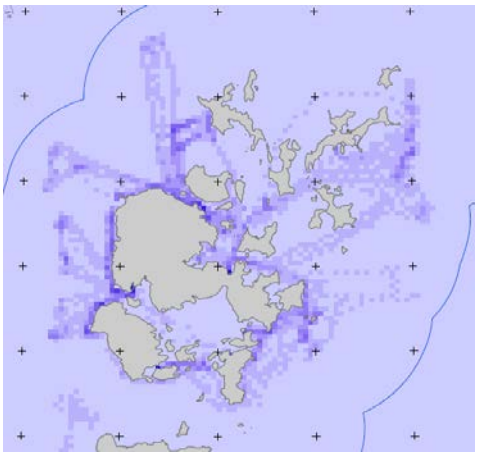
iVMS – Why would you do it?

Tracking fishing patterns. – The Succorfish System is ground-breaking in that it allows fishermen to see their information free of charge. Whilst none of the information will be new to the fishermen, seeing the patterns of fishing over a season or a number of years can be insightful. In addition for owners maybe not be the skipper at sea it allows them to view the fishing activity of the vessels on a daily basis.

Access to fishing grounds – Almost 12% of the world's inshore waters have been designated as MPA's of one form or another. In Scotland this figure currently stands at almost 20%. Many of these areas have features which require protection by law from fishing activity. In its crudest sense this means that the areas must be closed to certain or all fishing activity. The truth is many of these areas contain only pockets of the feature requiring protection and with sufficient monitoring the remaining areas can be opened to fishing activity; The Succorfish iVMS systems give the managers the assurances to adopt such an approach.



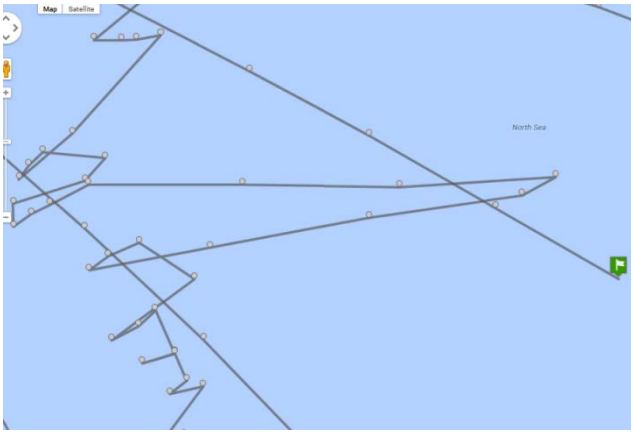
Inshore fisheries Management– Inshore fishing has suffered from bad or a complete lack of management for many years. In many ways this can be apportioned to the sectors invisibility and the complete lack of understanding that the managing authorities hold. It is imperative that the sector raises its profile and understanding amongst managers and this can only be achieved by sharing information about the fishing operation such as; vessel movements, fishing effort, catch rates and economic costs. iVMS can capture this information in an automated and secure manner.

Marine Planning –Fishing communities are finding themselves increasingly squeezed for space and this trend will continue into the future. Processes are being put in place to manage this competition for space and many of the other stakeholders maintain a strong position as their activities are well defined and restricted to specific area e.g. aggregate extraction or aquaculture. Unfortunately fishing activity has a much wider spread and lacks this fine definition. The fishing industry needs to mark out its territory much more clearly so that planners can account for these when they come to sharing out the marine resource. iVMS is an excellent tool for capturing this data and presenting it in broad terms so as not to identify particular fishing grounds. iVMS has been used successfully by local fleets in UK and Ireland to negotiate better solutions for the fishing industry in each of these cases against the challenges created by new marine users. The Scottish Government have targets to increase the aquaculture industry production by 30%, while the renewable energy sector is projected to account for 100% of Scotland's energy by 2020, both targets will have significant implications for marine planning

E-logs and remote data collection–International and national legislation increasingly requires fishermen to report their catch in real time. For many small vessels this can be daunting and very expensive. This expense can be better managed by utilising existing technology rather than buying new technology. iVMS can be used as a communications hub on board a fishing vessel and can send

and receive data in a cost effective manner. The system based on the mobile phone network is cost effective and using cutting edge antenna technology can generally give good coverage out to 12 miles and up to 24 miles off shore at certain times. These systems can also support tools such as email and in 2014 Succorfish will introduce a new affordable depth and temperature sensor. This sensor when fixed to fishing gear will record depth and temperature at pre-set intervals and this information will be available to the skipper to overlay on the web interface along with position, date and time and any other information gather by that vessel.

Gear conflict – In fisheries there have been many reports of fishermen losing their static gear to mobile fishing. Clearly this is a significant hardship for the static fishermen involved, but equally it can lead to false allegations and matters from time to time can get out of hand. Vessels with iVMS on board can clearly show where they have been fishing and when. Monitoring this system can clearly show when static gear has been shot and the vessel responsible for any damage caused. Employing iVMS in this way also leads to a much quicker and amicable resolution to the problem and possibly complete avoidance of the issue through better adherence to rules or agreements.



Vessel & Crew safety – Fishing is one of the most dangerous occupation anywhere in the world, with 60,000 estimated to die each year. Numerous steps have been taken to improve the safety and wellbeing of fishermen however, the industry remains a very dangerous place. iVMS can help reduce the risks and aid in a recovery situation. Firstly the system can be monitored by friends and family and clearly shows where a vessel is at any given time. In addition in the event of a disaster the system can be used to identify the last known position and thus can be of huge help to the rescue services. The Succorfish iVMS system also has built in SOS capabilities and these can be directed to any given e-mail or smsaddress . Users can also set up geo-fences around specific areas and if the vessel were to enter of leave these areas, notification can be sent. This facility can be very useful in the case of moorings etc. Finally the Succorfish SC2 system can be used to notify the vessel owner when the on-board batteries run low and in future other remote monitoring will be added.

Seafood Provenance & Traceability – As customers' expectations increase so too does the demand on suppliers to provide more information on where they catch their fish and provide assurances that they have done so in a sustainable manner. iVMS addresses these issues and can provide an important contribution in any fisheries MSC certification application. For some buyers knowing

exactly where a fish or box of fish was caught may be very important and this information can be easily provided via the secure online Graphical User Interface software. Providing such information can clearly show that a particular vessel has nothing to hide and result in the catch from that vessel becoming more attractive to the buyer.

Comments from fishermen who have used the system.

Nick Prust – Chairman of the South West Inshore Fishermen's Association.

"The Succorfish iVMS technology answers all the questions and gives the fishing industry a tool to fight back against the green lobby. In Lyme Bay it has allowed my members to gain access to ground that were previously closed and build up a track record to defend our position. The beauty of the Succorfish system is that the fishermen get access to their own data at no extra cost and this brings safety and other benefits too."

Jimmy Buchan – Skipper of the Amity

I have used the Succorfish, not because I am legally required to, but because the data from the system helps me market my catch and in this day and age I need to have something which stands me out from the other supplier in the market. The Succorfish system allows me to show exactly where the prawns were caught. This open approach demonstrates that I have nothing to hide and makes my catch more attractive than some of my competitors.

Aubrey Bainfield – Skipper of the Delta Dawn

The use of technology to monitor and control fisheries is the future. A robust and tamper proof system such as Succorfish creates a level playing field and that is exactly what every honest fisherman wants to see. Succorfish also give me access to my data and I'm free to use this in any way I chose. This puts me in a much stronger position and allows me to put my case forward when it comes to other industries or sectors wanting to take over my fishing grounds.