Frequently Asked Questions

What is the project about?

The purpose of the project is to fit and test innovative monitoring and communication systems on 300 Scottish West coast inshore fishing vessels. Whilst this technology is already in use around the UK, this project is designed to demonstrate the value of the technology to the inshore fishing industry whilst assessing the Automatic Identification System (AIS)*[1] communication capability on the West coast of Scotland, where the utility of the AIS system is known to vary. AIS is a free, publicly accessible VHS radio-wave based service which provides information on the location and track of vessels at sea. In addition to being a safety device, AIS data provided by fishing vessels can help to support and improve fisheries management.

Through a process of open competition, Succorfish M2M (http://www.succorfish.com) has been appointed to supply and fit their SC2 systems to selected inshore fishing vessels (at no cost) for the purposes of this project. Participating vessels will have the option to keep the SC2 system which is worth approximately £1000, once the project ends on 1st August 2015.

What will my responsibilities entail?

If you are interested in participating in the project, all you need to do is to supply your contact details and the vessel identification number to one of the contact points noted at the end of this document. If you are then selected to participate in the project, you will be contacted by Succorfish and an SC2 device will be fitted to your vessel. You will be expected to have the device operating on your vessel throughout the course of the project which will end on 1st August 2015.

What does the SC2 system do?

The SC2 device has a built-in GPS receiver which is accurate to 2 meters. At 1 to 2 minute intervals the device will report the vessels; position, course and speed over AIS The data will be sent using the AIS (Automatic Information System) This data is saved on the Succorfish servers and is accessible via the web based software system. The data can then interrogated and presented on a chart view. In addition, real time positions and plots of AIS data can be publicly viewed online using a range of freely available software. The SC2 systems will also have additional communication capabilities which may well benefit fishermen, particularly in relation to safety. These capabilities will be discussed in more detail with vessels selected to take part in the project, but they do not form part of the project.

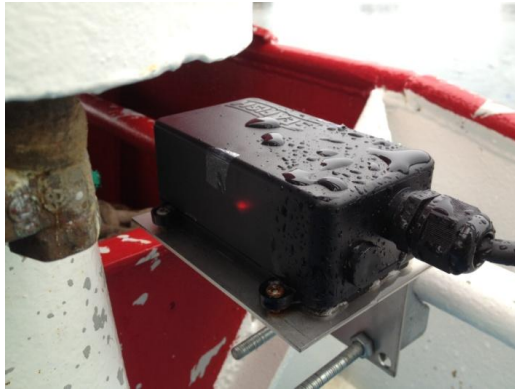[1]Automatic Identification System, which is a exclusively safety VHF channel

Figure 1. SC2 device fitted to a vessel (dimensions 116 x 66 x 43 mm)

What happens if the system goes out of communication range
When out of AIS range the device will report as normal but if it is not picked up by an onshore base station the data will be lost, users will see gaps in the vessels plot when viewing this data.

What will happen on my boat?
If you sign up to having a SC2 system fitted on your vessel you will be contacted by a Succorfish engineer and a convenient data and time for the installation will be arranged. The SC2 system will be fitted to a permanent regulated power supply on the vessel. The device will be located in a prominent position with a clear line of sight of the sky. The installation will be performed by Succorfish engineers and take between 1 and 2 hours. At the end of the project you will be given the option to keep the device or to have Succorfish engineers remove it from your vessel.

What will it cost me?
The system is fully paid for by this European Fisheries Fund project. There will be no additional costs to the vessel during the lifetime of the project. If you decide to keep the device beyond the lifetime of the project, all liability for the cost of maintaining, operating the system will reside with the vessel owner/operator. Should you decide to continue to use the data storage and visualisation facility offered by Succorfish the ongoing cost the vessel owner would average £10 per month but this will depend on usage and if any additional services are added to the system such as Gear in Gear out RFID sensors, e-mail client, depth and temperature sensors for example. Alternatively, the unit could continue to operate free of charge by simply using publicly available online AIS software.

How much power will the system use on my vessel?
This system is a very low power consumption system. The power consumption will vary slightly depending on its application but on average will use 1Ah / day. For vessels which have no permanent on-board power supply a solar panel system will be installed but this system has not been tested as yet and its performance is as yet unknown.

What happens if the system stops working?
The most frequent cause of system failure is the lack of a regulated power supply. If the device has a regulated power supply but fails to transmit Succorfish will repair / replace the unit under warranty within 12 months of fitting. Beyond this period the vessel owner will be responsible for the upkeep of the system. Skippers will be able to check the system as it has a red internal light indicating power. In addition, the Succorfish Graphical User Interface (GUI) software system has a Watchdog

function which will automatically email skippers when the system has stopped reporting for a defined period of time.

Will the system interfere with any of my other electronic systems?
The SC2 device will not interfere with any on-board systems when installed.

Who will see the data?
The device will report the vessels data over AIS and this data will be publically available on AIS tracking sites such as Marine Traffic. This service is free. During the course of the project, the data will also be stored on a Succorfish server. You will be able to access your stored data and visualise it in various formats using Succorfish software. At the end of the project, the data will become the property of Marine Scotland.

Will the data be used to prosecute a vessel?
The data will be collected to inform better management of fisheries for inshore fisheries in Scotland. There is no intention to use the data for compliance purposes. Is the responsibility of each vessel to comply with all relevant legislation. Under the terms of the EFF funding for this project, Marine Scotland will own the data produced by the project, but will respect the confidentiality of any commercially sensitive information that they have access to as a result of the project.

How do I get to see my data?
After the system is installed on the vessel and the Activation Form completed by the engineer, you will be email by Succorfish with details of your unique Username and Password and a tutorial on how to use the online software.
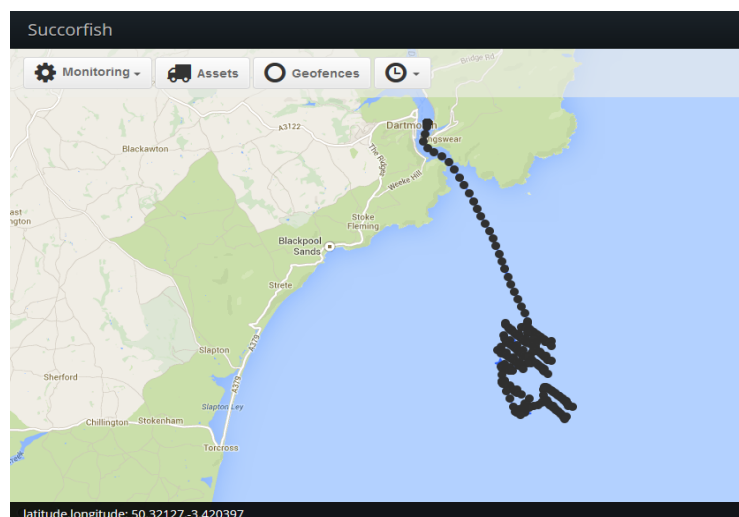

Figure 2. Example of a plot generated by a potting vessel

What happens when the project ends?
The Project will end on 1st of August 2015. From this time the vessel may take full ownership of the SC2 system and responsibility for its maintenance. If required, a Succorfish engineer will remove the device within a specified period after the end of the project. It will not be compulsory for the vessel to operate the system beyond this date.

Other Questions:

Can the skippers control the SC2 system when their vessel is in operation, i.e. can skippers turn the SC2 system on and off at will? Is there any way to override the SC2 system?
The SC2 is designed to be tamperproof and cannot be turned off and on at will. If the power is removed the internal back up battery will continue to power the system for 48 hours or more.

How much would the SC2 system normally cost a skipper to purchase and install if they are not selected to participate in the EFF project, but decided that they would like the technology at a later stage?
The System which Succorfish will be supplying would cost in the region to £1000 when fitted.

What happens if a SC2 device is stolen? Will skippers be able to locate it if it is reinstalled on another boat?
If powered up, the device would report its location and allow the police to recover it.

What happens if the vessel loses power? Does it store the data that has not yet been uploaded, or is this lost?
When the SC2 loses power it will continue to operate for about 48 hours. Over this period no data will be lost but when the internal battery is exhausted the device will stop working.

What happens if the boat sinks? Will the SC2 system still work if it is recovered from the vessel (how waterproof is it)?
The system is IP67 rated so it is certified to immersion for 1 hour in 1 meter of water.

Do you or Marine Scotland foresee that high-resolution vessel monitoring systems such as Succorfish SC2 will become a legal requirement for inshore fishing vessels in the future?
The project will help inform the discussion around this question. In England and Wales inshore vessel monitoring systems (iVMS) are now a legal requirement in some fisheries and its adoption is expanding.

Presumable the creel tracking tags (the yellow ones shown in iTV news) are not included in this EFF pilot project. But what would the tags cost the fishermen to purchase should they want to use them in combination with the black box?
The RFID tags are not included in this project but are easily added to the system supplied, but under separate agreement with Succorfish. If a fisherman or group of fishermen wanted to test the technology the hardware will cost £150 for the reader and between £1 and £3 for the tags. The RFID data cannot be transmitted over AIS due to the data not having a safety feature and the data cost would be around £10 month.