Annual Plan Recommendation – Annex 4:

Remote Electronic Monitoring Project Proposal

If you go on board most inshore trawlers you will find an array of electronic equipment designed to improve the fishing capability of the crew. In contrast, the amount of electronic equipment designed to monitor and manage the fishing activity is minimal.

Nationally, only commercial fishing vessels over 12 metres in overall length are required to have a Vessel Monitoring System (VMS) on board. Despite the technology within the device, currently vessels over 12 metres in overall length are only required to send a position report every two hours. In the intervening time the vessel may travel approximately six to eight nautical miles at fishing speeds and the regulators cannot track the vessel remotely during that time. The fisher is also able to obtain from the supplier when the vessel has transmitted its two hourly position. Regulators can obtain historical positional reports for every ten minute period but this is dependent on the storage capacity of the device and its ability to transmit the data back. When D&S IFCA has requested the ten minute data as part of its investigations it has not always been available.

D&S IFCA introduced a requirement for all towed gear vessels between 6.99 metres and 15.25 metres to have onboard an Inshore Vessel Monitoring System (IVMS) and requires the permit holder to transmit the positional data every ten minutes whilst in the D&S IFCA's District and every three minutes when operating inside any of the Marine Protected Areas. The over 12 metre vessels were not required to fit another device as the technology within their VMS units was already capable of transmitting data at much higher rates.

D&S IFCA has also trialled gear sensors on both trawl doors and scallop dredge towing plates in combination with the IVMS units. The project showed that sensors worked better on the trawl doors but were not able to withstand the impact from scallop fishing activity. However, it was possible to determine when gears had been shot and hauled, and to map where this had occurred. The fisher in the trial recognised that the sensors detected that he always hauled the port wire and door slightly ahead of the starboard side.

D&S IFCA is aware that CEFAS and the MMO have trialled onboard cameras on fishing vessels as part of many stock assessments projects. The use of cameras and gear sensors are already used in many fisheries around the world. Officers believe that the advancement in cameras and other devices and their affordability means that the opportunity is now here to use onboard technologies to transform the way fisheries are managed. Similar to its decision to introduce IVMS, D&S IFCA has the opportunity to lead this development.

Officers estimate that for a project of between £10,000 and £15,000 a camera trial onboard trawlers and scallopers could be undertaken. Officers have approached fishers already and received confirmation from them that they would be willing to volunteer to be part of the trial. Those fishers that are willing to take part have highlighted how the technology may improve their fishing businesses and may lead to changes in the management of fisheries that will benefit them.

The camera project would enable D&S IFCA to assess the opportunities to use technology with IVMS data and logbook or catch app data to understand, monitor and manage fisheries at levels not previously possible.