

Commercial fishing is increasingly becoming imbued with networked digital information as fishing vessels share critical data in real time transmitted via marine electronics—with even small inshore boats equipped to map the seabed.

WHILE THE ‘Internet of Things’ has in fact been around for years in advanced industries in various countries, many people imagine that concept to only represent some fancy vision of the future of technology. They’re in for a surprise—at least as far as concerns the Faroe Islands, where the IoT is rapidly becoming part and parcel of commercial fishing.

Thus Tórshavn-based marine electronics specialists Vikmar have built a network of data-transmitting equipment installed on their client vessels.

Effectively those vessels share on a constant, ongoing basis a variety of critical oceanic and other fishing-related data constantly recorded on the underside of the hull, on the command bridge and elsewhere on board the ships and seamlessly processed and transmitted to receivers on the other client vessels—importantly, in real time.

“We’re talking about highly relevant data for fishing vessels, such as water depths, surface and undersea temperatures, tides and currents, seawater salinity levels and more,” Vikmar managing owner Jan Hammer Egholm noted.

Saving effort, time and money while increasing efficiencies and improving productivity is indeed a promising and compelling value proposition for many. In other words, for commercial fishing boats to affordably stay up to speed on key items of operationally relevant information, the utility of Vikmar’s data-sharing arrangement can hardly be overstated. Here the power of the IoT comes



MARIA OLSEN

Vikmar managing owner Jan Hammer Egholm on board the Vikmar eXplorer.

FISHING FOR INFORMATION

to the fore through a fully automated and perpetual process of peer-to-peer sharing that delivers fresh data twenty-four hours a day, seven days a week.

MAPPING DETAILS

Since its founding in 2001, Vikmar has placed heavy emphasis on improving internet connectivity at sea, so much so that its Viknet satellite services have paved the way to allow Faroese fishermen to hear Faroese radio and view Faroese television without using internet bandwidth. Vikmar also made it possible to use Faroese-registered telephones at sea, allowing crew members to phone anyone at standard landline rates; later

it also became possible for them to use their own GSM phones at sea. Technologies utilized by Vikmar to offer services, some of which can be found at Fishin.fo, include combinations of sonar, satellite communications, various sensors, and IP communication systems.

“We decided early on to lay the foundation for a truly viable solution that would bring substantial savings for our clients,” Mr. Egholm said. “The idea is based on all vessels sharing updated marine data on a perpetual basis. Mind you, these are live data delivered in real time, which is very different from subscribing to some service that will provide you with data updated perhaps once every 24

hours. All fishermen know that weather conditions, currents and temperatures can change with very short notice. Being aware of those changes can be crucial for the success of fishing in any location at sea. After all, you want to avoid wasting resources by steaming to some area only to find out that conditions there have changed a couple of hours ago and won’t be favorable for the next couple of days or even weeks.”

Meanwhile today’s wide access to marine electronics means that even smaller boats used mainly for inshore fishing, and most leisure boats as well, are equipped with advanced communication, navigation and fish finder technology.

“Practically every vessel registered in the Faroes has modern electronics installed, including GPS, sonar and chart-plotters,” Mr. Egholm added. “Using standard equipment, any of these boats can, for example, map out the ocean floor topography and features.”

As for the nature of the seabed around the Faroe Islands, including along the shorelines, having a decent knowledge and understanding of it can be a matter of life and death. Traditionally, every inshore fisherman worth his salt would be acutely aware of anything of significance—for one, the success of the fishing, and two, safety from potentially life-threatening dangers related



Bridge top of a modern, large trawler.

to weather, waves, currents and skerries. Such skills, however, are hard to find nowadays, as modern technology has made it convenient to get instant access to essentially all basic information of relevance for a fishing trip. That presupposes, however, that such information is current—something which, unfortunately, cannot always be taken for granted. For example, sea maps are not always updated with the latest information.

“Having access to accurate and updated sea maps should be considered fundamentally critical for every vessel from a safety point of view,” Mr. Egholm said. “After all, parts of the coastal waters around the Faroe Islands can be extremely dangerous under the wrong conditions.”

To demonstrate some of their products in real life situations, the Vikmar eXplorer comes in handy. Packed with marine electronics, the boat is frequently taken for trips with prospective clients who are shown in detail how some of the equipment works, whether for small boats or large ships.

“We also use the boat for testing and developing equipment in liaison with suppliers we represent. One example is the SeapiX multibeam sonar, which maps fish schools as well as bottom topography and also reads the seabed hardness signature—highly important for sustainable fishing.” []

Tending to the Vikmar eXplorer at the new West Harbour marina in Tórshavn.

