

There is No Turning Back the Tide



This month we are focussed on the water, seas and oceans. Offshore surveying, Hydrography and the various associated survey disciplines in this sector have generally benefitted greatly from technology in recent decades to the point it is almost unrecognizable from even just 30-40 years ago.

The analogue single beam echo sounders developed after the wars (especially World War Two), were coupled with sonar systems that would sweep and scan the seabed. Advances in signalling technologies, transducer manufacturing and processing power all enabled the introduction of multibeam sonar systems into commercial and civil survey projects. The improvements continue to this day with even greater signalling and processing power.

At the same time, improvements to the understanding of Geodesy via the use of artificial satellites, gave added opportunity to position almost anywhere on the globe at previously impractical levels of accuracy. Initially, with the TRANSIT system and then of course GPS and the plethora of GNSS options, our adoption of all things satellite has been really staggering.

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These systems and tools are beneficial of course, but as yet, have not replaced the surveyor entirely. However, technology does not stand still and this year at Ocean Business down in Southampton you will have the opportunity to see and network with many companies and groups who are busy developing the next generation of offshore and Hydrographic survey solutions. Robotics, unmanned vessels, multi-sensor integrated solutions, and image and data processing will all be present topics at the event in the hope to bring to life the dark undersea world in virtually real-time.

Back around 1955, several enterprising surveyors got together as realised the potential of seabed development and that it would require positive planning and management for a sustainable future. The objective was to harmonize the coastal and offshore areas with respect to planning and management.

Operation Canute

Interest in what was termed Operation Canute was briefly re-ignited when RICS Chartered Surveyor Norman Humphris related the story of Operation Canute from its informal mid 50's beginning, through to the 1964 formal start, and on until its main plan was published in the *Hydrographic Journal* in 1978 when its marine planning elements were expedited by the Amoco-Cadiz incident. Thereafter, the work continued up until the UN Convention on the Law of the Sea conference in 1982 that saw the milestone resolution adopted.

Operation Canute played a role in educating and raising awareness. Various suggestions it made demonstrated the diversity and potential of the offshore sector (the concept of a ship-based marine "Black Box", a global series of charts, and positioning systems (ENCs)), so attractive for the insurance industry; a rather unusual link from underwater diving experiences to medical benefits with gas and pressure therapies. The seas and oceans are largely still unexplored and still relatively underdeveloped such that new challenges, solutions, technologies and benefits are yet to be discovered.

Passion Can Help Solve Problems

The inspiration, devotion and passion to create and deliver new concepts to solve problems and bring solutions to the sector should not be under-estimated. Ocean Business and the associated Ocean Survey conference aim to provide you with some insight and understanding of the current trends and capabilities of our industry and how these might develop. Of course, it is you the reader who will influence and ultimately decide on the success or failure of some of the systems and technologies.

Back in the 1970s, the idea that hydrographic surveyors might spend long periods of time underwater living at their place of work seemed both necessary and fantastic. Happily, technology has come to our aid and enabled us to avoid this scenario. Whether you consider the current trend in robotics, unmanned vehicles and vessels a threat or an opportunity, I recommend you visit and determine for yourself what potential there is for us as surveyors, data managers and custodians of the geospatial datasets of our coasts, seas and oceans.

This article was published in Geomatics World March/April 2019