End-to-End Marine and Coastal Data Management and Decision Support

e-newsletter Spring 2014

Spring seems to have arrived after the stormy winter which has caused such widespread damage and disruption in UK coastal areas. The UN IPCC stated last week that such events will become more common, so the need to manage and monitor coastal assets has never been more important. OceanWise, along with its partners can provide a range of services that will assist in mitigating risk associated with such events.

GLOBAL PORT MARINE OPERATIONS
9th International Harbour Masters Congress
26–30 May 2014 | Bruges – Ghent, Belgium

OceanWise will be exhibiting at the 9th International Harbour Masters Congress in Bruges from 26-30 May. The biennial IHMA Congress includes a conference offering a range of professional papers and an industry exhibition as well as the opportunity for harbour masters, other maritime professionals and industry representatives to meet and share good practice, information and innovation. Come and visit us on Stand No.13. Further details of the event can be found at www.globalportoperations.com

TeamSurf and OceanWise on BBC South Today and Website!

The BBC has recently filmed the work Teamsurv is undertaking to collect bathymetry data and how OceanWise will potentially use this resultant data to improve its Seabed Digital Elevation Model (DEM). The video piece is now online at http://www.bbc.co.uk/news/technology-26231350.

Large parts of the seas around the UK have not been surveyed for over a century which means that knowledge and understanding of the seabed is somewhat lacking. Teamsurv is now using a floatilla of small work and sailing boats around the UK coast to collect up-to-date information about what lies beneath the surface. By providing a small data logger onboard these vessels, Teamsurv can collect and collate the tracks taken, build up a more detailed bathymetric picture and make the captured data available to other organisations to use, share and adapt

OceanWise is working with Teamsurv to assess whether its "crowd sourced" data can reliably contribute to Marine Themes DEM. Data from modern hydrographic surveys undertaken to a professional standard will always be preferred but is not always available. However, for some areas only chart derived data exists, often at a very small scale. Crowd sourced data, along with satellite derived bathymetry (SDB), has the potential to improve on this situation relatively quickly and inexpensively.

OceanWise attends UK Harbour Masters Spring Seminar

OceanWise attended the UK Harbour Masters spring seminar in Edinburgh on 19th March. Held at the George Hotel, it was attended by over 120 UKHMA members. The topics of the day included interesting and informative presentations by MCGA on the Re-organisation of the SAR service in the UK; Safe Practices in Docks and Dangerous Substances in Harbours by the Health & Safety Executive; Safe Use of Biocides by the Environment Agency and an update on the Forth Replacement Crossing by Forth Ports and Forth Crossing Bridge Constructors. It proved to be an excellent forum for discussion and networking with existing OceanWise Port customers but also to engage with those considering improving the way they manage port operational and geo-spatial data.

From our Distributors…

Find Mapping Ltd has completed an online vessel tracking/security monitoring application for a major private maritime security company. This application features OceanWise's global overview charts and detailed charts for key areas of interest such as Red Sea, Malacca Straits and West Africa. The chart data images were converted into a Tile Mapping Service for incorporation into the web application allowing charts to be viewable via mobile applications such as i-pad, i-phone and android,. This development underlines MarineFIND's commitment to innovative marine data delivery services and provision of integrated solutions and is the first such application for OceanWise data.

Channel Island Partner **Digimap** runs a network of 5 AIS receivers covering the whole of the Channel Islands and have been using the OceanWise charts to plot every shipping movement over a period of 1 month in the winter and 1 month in the summer. With over 1 million position updates recorded each day, this was quite a task.

Upcoming Events

OceanWise will be attending the following forthcoming events:

Geospatial Intelligence for Maritime Operations, London: 24th June
www.geospatialportoperations.com

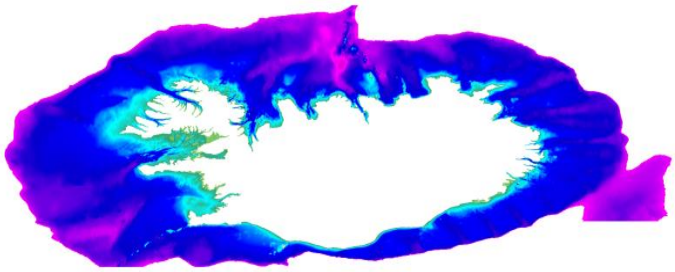
British Cartographic Society Annual Symposium, Marwell Conference Centre, Winchester: 25th-26th June
www.cartography.org.uk/symposium

OceanWise registered on Achilles UVDB

On the invitation of Peel Ports Group, OceanWise has successfully registered with Achilles and is now part of the Utility Vendor Database (UVDB). The UVDB is the pre-qualification, assessment and procurement tool used by 80 buying organisations to source suppliers. Achilles UVDB enables OceanWise access to tenders from numerous other utility sector organisations, including Manchester Airports Group, Canal and River Trust, EDF, E-On, National Grid, RWE Npower, Scottish Power, SSE, United Utilities, and Wales and West Utilities, some of whom are already OceanWise customers.

Iceland and Falkland Islands Seabed DEM

OceanWise has extended its Marine Themes Seabed Digital Elevation Model (DEM) to Iceland (see image) and the Falkland Islands in response to customer demand. The DEMs are based largest scale official chart derived depth contours and soundings, with the inclusion of both single and multi-beam hydrographic survey data where this is available. A



1 arc ' DEM of Iceland

height attributed coastline provides greater accuracy near shore whilst OceanWise's advanced gridding technique avoids the creation of large flat triangles and provides for a more natural shaped seabed. The DEMs will be used for site and route selection studies by consultants working for the offshore energy industry.

Land-Sea Data-Interoperability now a high priority for United Nations

At its 3rd meeting in July 2013, held in Cambridge, UK, the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), discussed an intra-governmental submission stating the urgency of integrating land and marine geospatial information and the critical importance of this in facilitating planning and management of coastal areas and waters in a seamless, interoperable and holistic way. Developing land-sea seamless data using a standardized, coordinated and inclusive approach will stimulate data sharing and promote best practice, including the development of pilot projects. As Expert Contributors to the IHO MSDI Working Group, responsible for providing the IHO response to this initiative, OceanWise will play a full role in bring this requirement to fruition.

Satellite Derived Bathymetry

Developments in the resolution of objects we can now obtain from Earth Observations means that it is now possible to obtain seabed depths and characterisation from satellite derived data suitable for mapping and charting. OceanWise is working with partners to test out the use of such data in areas where there is a lack of any or reliable source bathymetric information. Precision in the order of +/- 5% in depths between 0-10m and +/- 2m in horizontal position is now possible. OceanWise is confident that this technology will soon provide an additional cost effective solution in shallow waters where sensor penetration is good and will be testing it in Summer 2014 to ascertain how it might be used it as a legitimate source of mapping data in its Marine Themes Elevation product.

Images courtesy of EC BALIST project

OceanWise completes Wash Ports Tidal Monitoring System

OceanWise has completed the installation of a Tidal and Meteorological Monitoring, Telemetry and Display System (TMMTDS) to the ports of Boston, King's Lynn Conservancy Board and Nene Ports. The TMMTDS includes three water level and weather monitoring stations in the estuary, plus a data feed from a monitoring station operated by the Environment Agency. Water level monitoring equipment for the project is being supplied by Valeport using the VRS20 radar sensor, and Gill Instruments weather sensors. GSM telemetry equipment provided by OceanWise provides bi-directional control of the outstations.

Official IMO Adopted Areas now in Marine Themes

OceanWise continues to improve Marine Themes by replacing chart derived data with definitive datasets from bona fide sources wherever possible. These datasets are generally more up to date and accurate than data whose source is often the original paper chart. The latest dataset to benefit from this approach includes Traffic Separation Schemes (TSS), Particularly Sensitive Sea Areas (PSSA) and other Areas adopted by the International Maritime Organisation (IMO). These datasets are captured from approved IMO documentation and converted into GIS compatible formats under licence. The dataset is normally updated within 5 working days of proposed new or amended areas being published and are therefore available as soon as they are adopted.

OceanWise Web Map Service of Official IMO Adopted Areas

OceanWise is incorporating these IMO adopted areas into its leading digital marine mapping product, Marine Themes, and has launched an OGC compliant Web Map Service. The IMO Areas WMS (see image) contains worldwide data and can be read directly into most desktop and web based Geographic Information Systems (GIS). It is ideal for organisations, including progressive Hydrographic Offices, wishing to access definitive source data rather than legacy data that has been captured from paper charts. For more information on Marine Themes or the IMO Areas WMS, including a trial, please contact us.