

Size and Height are Relative but could Eagles Dare?



With important upcoming events for our profession, Gordon Johnston reflects on the global market for spatial data, height reference frames (both personal and established) and a novel potential survey platform.

I'll take this opportunity to declare my interest in the coastal and offshore sectors of our profession, an area which is growing in importance with an increasing awareness across the media and the public of the potential benefits and opportunities that responsible sustainable development of our seas could offer. The terms Blue Economy, Blue Growth and Blue Horizon all link to this strategic concept of beneficial development of our seas.

To gauge how this sector is faring, with the conflicting impact of depressed oil & gas prices against new technologies and automated systems, I shall be visiting Oceanology International at Excel, London in March, see www.oceanologyinternational.com/. Around the world the offshore oil sector's cities are being hit hard as reductions in capital expenditure and operational projects take their toll on people's lives. Such events are important as it's the innovation, flexibility and diversity in this important geospatial sector that insulates us from the worst effects of these cyclical downturns.

Whilst the marine sector is experiencing some really rough patches, it is clear that many land-based activities continue to evolve and expand. One such is automation – a constant theme in the collection, processing, analysis and management of spatial data. Automation leads to robotics so it was with some interest that I read news of trained eagles being assessed as possible protectors of our privacy and security by using them to grab or disrupt Remotely Piloted Airborne Systems (RPAS or to many simply, drones). Whilst almost every TV channel's news programme regularly manages to include footage from drones, there is increasing concern about their regulation and use in congested areas. Perhaps the alternative is to use the eagles as a platform for surveys.

I have numerous colleagues with divided opinions to quantify the size of the geospatial market. So I suppose it shouldn't come as a surprise to find that a study in the US has found that the assessment of a hill's size, steepness, difficulty of climb or height is subject to the individual's personal condition and fitness. Larger people appear to see and judge something as larger than a small person would. This may be an outdoor phenomena as I'm not convinced it holds true indoors where my cousin (2.03m or 6ft 8inches) has to duck when entering every room and complains about small beds. So things are often relative and subjective when it comes to height... as are many other measurements. This is why for consistency and repeatability it is important to adopt and maintain standards.

Talking of height... vertical things are on the up! Sorry, that was a bit too obvious but it is a topic that appears, after many years, to be getting a broader and more engaged audience with some serious groups generating new guidelines and actively promoting its relevance. The Vertical Offshore Reference Frame (VORF) was developed in the UK to assist in resolving the vertical dimension. Across the North Sea, the EU's BLAST project provides "harmonized" data across the land and sea interface, with the main challenge being the vertical. Elsewhere, NOAA has the VDatum online tool and Australia has the AusGeoid09 model. These initiatives are important but it would be beneficial if users could rely upon a consistent and standard approach to how these models are described, accessed and supplied. The importance of standards and good practice guidance for professional users is key. Look out for work being completed by the IOGP (International Oil & Gas Producers) Geomatics division to assist users interested in this dimension.

As this edition of GW goes to press the third of ESA's Sentinel satellites has been launched. With three land and ocean observation satellites, providing high quality hyper-spectral data, the opportunities to use and benefit from these initiatives is tremendous, especially considering the data is free for most users.

Looking ahead there are numerous upcoming events to promote and raise awareness of our profession to the wider community. In early May (2-6) FIG holds its annual Working Week, this year in Christchurch New Zealand where a devastating earthquake challenged many who live and work there. The FIG community is a strong one and overseas visitors will be able to experience for themselves the impact and resolve to restore the city to its former glory. FIG's theme of "Recovery from Disaster" emphasises the critical importance of spatial data to the planning and sustainable management of community spaces, be that in urban, rural or coastal marine areas. See: www.fig.net/fig2016

Later in May (24-25) is GEO Business in London, a showcase for the geospatial industries and profession, which is again set to break records. It offers the chance to hear experts present the latest developments and to meet and network with companies and fellow professionals. See: <http://geobusinessshow.com>

This article was published in Geomatics World March/April 2016