Editorial

There is quite a difference between land surveyors (topographers) and those who survey at sea. Topographers can generally gather their information by direct observation and measurement, whereas hydrographic surveyors have a much less straightforward approach because their subject cannot be seen directly as a whole, and more subjective and interpretive methods have to be used, for example, drawing depth contours in a sand-wave area based on single-beam soundings or making bottom-texture charts from side-scan sonar recordings. Geophysicists and geologists have it even harder to determine the exact location of the subsurface structures given that their work is more targeted at a 3D world from which they cannot even directly see the top (because they want to map beneath the seafloor). What hydrographers and marine geologists have in common is that they have to map all their findings before they can have insight in the whole. In contrast, topographers can normally see the panorama first before they start to reconstruct it in a map form. Luckily, new technologies are helping hydrographers and geologists. Multi-beam echosounding solves the problem of the depth contours, and new sub-bottom profiling techniques and other acoustic methods such as Synthetic Aperture Sonar (SAS), 3D Chirp and advanced GIS data fusion techniques makes things much easier. In this light, I would like to draw your attention to the article, 3D High-resolution Sub-bottom Profiling (see page 6). Systems such as this, together with current computing power, make it possible to achieve three-dimensional imaging of the subsurface.

It is important for a profession to have a continuous influx of well-educated staff â€“ one of the reasons why we regularly pay attention to this topic: in this issue, in the interview with Victor Abbott of Plymouth University on Education and Training.

Education and training cannot be done without proper educational appliances. Therefore, I bring to your attention the Manual on Hydrography (publication M-13) published by the International Hydrographic Bureau (IHB). This manual is available from the website www.iho.shom.fr. We as surveyors are grateful to IHB for making this manual free for download, and for serving their mission and our profession. The introduction of the manual states that the IHB aims to maintain the publication with the assistance of readers and member states. Supporting the policy of IHB to make this manual freely available, I encourage readers, educational institutions and manufacturers to help to keep this manual as updated and complete as possible.

On the subject of free appliances, Hurricane Katrina in the USA showed the importance of GIS and charting capabilities. The geospatial industry assisted very well in response to this hurricane by loaning or donating equipment and licenses to both government agencies and volunteer organisations. See www.gismonitor.com for more information and for an example accessible to all see http://arcweb.esri.com/sc/hurricane_viewer/index.html and look in â€˜Map Typeâ€™.

We welcome Lt. Cdr. Ayodeji Olugbode of the Nigerian Navy Hydrographic Office as our new regional correspondent in (West) Africa.

Another change in the Hydro International team, though carrying few implications for us, represents a big step for Adam Greenland, chairman of FIG Commission IV â€˜Hydrographyâ€™. Adam is leaving the Port of London Authority (PLA) to work as senior hydrographic survey advisor to Land Information New Zealand (LINZ). He retains his place on our Editorial Advisory Board.