

Editorial

Maps can make the invisible visible – particularly relevant for hydrographic surveyors and geophysicists, who cannot see what they are surveying with the naked eye.

Recall the curiosity at seeing the hyperbola-shaped curves when taking depths from a deep-sea echosounder and how they would look down below: was the hyperbola a 'feature' either on starboard or port side? How far was it from the track? Thanks to computer processing power and new sensors such as MBES, SAS techniques and UUVs, we are now able to survey and map in 'detail'.

Besides the difficulty in interpreting depth measurements of the sea bottom, imagine the complexity of seeing what is underneath the sea floor. And, again, making the invisible visible and turning data into information: thanks to computer techniques, seismic data can be screened, evaluated and interpreted, and, for example, 3D visualisation can be used to allow us – with a pair of goggles – to virtually walk through the subsurface. The oil and gas industry is now using 4D to squeeze more out of existing reservoirs. 4D mapping employs similar techniques to 3D mapping, using surveys over time to monitor movements of gas and fluid underground. Where surveys with 'traditional' streamers require enhanced acquisition technologies to achieve required repeatability, another technique acquires repeatable 4D by a network of buried cables around the platform, which will bypass the uncertainty of positioning the seismic cables. In some way related to seismics are the developments to detect, e.g. hydrocarbons by electromagnetic methods.

These are just a few examples of progress in the seismic-related hydrographic field and, as companies get bigger due to take-overs, mergers, etc., and can afford to do more on specific R&D, more progress can be expected in our industry. And if a company wants to keep (or improve on) its position, a continuous effort is needed. Interesting times are ahead with the rapid advance of technology.

NB: On hyperbolae: when the deep scattering layer was first observed at WHOI, Captain Alexander of the RV *Yamacraw* noted that the hundred/thousands of small hyperbolae looked like "acres and acres of tits". This phenomenon is now more modestly referred to as 'Alexander's Acres'.

To conclude, here are some changes to the Hydro International team:

Donald Hussong retired some time ago from his company Fugro Seafloor Surveys. As he is no longer active in the hydrographic field, he has stepped down as a member of our Editorial Advisory Board (EAB). We were sorry to see him go. We thank Donald for his contributions and advice as EAB member and we are convinced he will react spontaneously if he has something on his mind.

After 6 years, I am stepping down as Editor-in-chief and I take great pleasure in introducing Roosmarijn Haring to you as my successor. I can look back with satisfaction at the good contact I had with the whole range of our hydrographic family, from surveyors, manufacturers and scientists to national hydrographers, and, not forgetting, our authors. A special thanks to my colleagues in the editorial board, EAB members and regional correspondents. It was fun and interesting, e.g. being able to follow all the technical developments. I wish Roosmarijn the same enjoyment I had in this job and ask you to give her the same support you gave me.

Enjoy your read, and thanks for the good wishes and compliments I have already received. It has been my pleasure.