

Editorial



As use of the oceans has changed, hydrography has struggled to keep its definition up to date. The lead paper in this issue starts by identifying this matter of definition and notes that the IHO now uses a definition that reflects a broader application than previously. In the government arena the role of the hydrographer has been continually broadening from that of providing navigational information in the form of charts and navigational publications to the environmental concerns of today. Internationally the first driver towards this broadening of hydrography was the GEBCO (General Bathymetric Chart of the Oceans), originated by Prince Albert I of Monaco at the start of the last century. The requirement for these bathymetric interpretations came from the scientific community and this pressure eventually led to major refinement of the products to reflect more accurately the views of scientists and their needs for environmental data. Throughout the second half of the last century marine geophysics began to assume increasing importance and in several countries the work was carried out side by side with hydrography. Nevertheless, the government hydrographic community remained ambivalent on the priority it should give to navigation or scientific requirements.

As it is clear in some papers in this issue, bastions of present hydrographic practice are now being broken down. These include the fact that hydrographic offices have used a low water datum for depths while land mappers have used a mean sea level. This has resulted in a discontinuity at the land/sea interface. Given the great importance of the coastal zone, solutions to develop common reference datums are being developed. Another bastion has been the insistence that bathymetric interpretation for navigation needs has always favoured the shallower depth, sometimes obscuring geomorphological features. Dense data sets and a more objective interpretation are changing this practice. Standards for depth measurement have been defined in the S 44 publication of the International Hydrographic Organisation but these standards have been developed with navigation primarily in mind. It is pointed out in this issue that such a leaning towards navigation does not always satisfy the requirements now defined by the Law of the Sea.

It is evident that the navigator will remain the most important customer of the government hydrographer in the foreseeable future and this has now been firmly legislated in the amendments to the SOLAS Convention. However much more attention should be given to a broader range of environmental issues and much more emphasis should be given both to scientific interpretation and requirements. The need to network the numerous sources of marine environmental data, which includes bathymetry, has now been recognised in several countries and a paper on how such geospatial data may be networked is also to be found in this issue.- yet another indication of the changing world of the hydrographer.

Adam J. Kerr, Editor