

South Pacific Hydrography

In April this year I represented the South West Pacific Hydrographic Commission (SWPHC) at the eleventh meeting of the Pacific Islands Maritime Association and the first Meeting of Pacific Ministers of Transport. During the discussions I was reminded of the unique challenges the South Pacific Ocean has for hydrographers.

A relatively small number of ships transit about 16% of the earth's surface, some 41,500,000 square kilometres of this falling within the boundaries of the SWPHC. Distances of 2,000 to 3,000 kilometres between the ports of the region are common. The South has a few sub-Antarctic Islands buffeted by the Roaring Forties, and the North has many hundreds of equatorial islands. Some people live in these most remote of the world's habitats and shipping sustains their very existence.

The importance of good navigational charts has always been recognised by governments throughout the region. IHO Publication S-55 shows that approximately 40% of all areas shallower than 200 metres, and 10% of areas deeper than 200 metres have been surveyed. Small and medium charts are available for 90% to 100% of the sea. Electronic Navigational Charts lag behind, but Australia, Papua New Guinea, the French Territories and New Zealand are in production.

Despite strenuous efforts, many islands still lack good charts of harbours and approaches, and this does hinder their economic growth by limiting the flow of goods and people. The diligent hydrographer encounters an interesting "Catch-22" when providing new charts showing the safe passages. Often these encourage large cruise ships to visit pristine areas that are largely untouched by civilisation. There is an impact on local communities, their way of life and port infrastructure. A special experience can stimulate more visits, and then even more charting is required for the greater volumes of traffic.

Global warming is a very real threat for the people of low-lying islands. The number of reliable tide-gauges that can be accessed by National Hydrographic

Authorities is limited and data may be several years old and inconsistent. There is scope for regional hydrographers to work with scientists to improve the sharing and use of each other's tidal observations. A basic level of regional co-operation could produce better outcomes for both navigation and future planning.

I recently looked at the numbers of qualified hydrographers in SWPHC countries. There are 31 Category-A surveyors, 59 Category-B, and 42 cartographers; the majority of these are in Australia, a few in French Polynesia, New Zealand, Fiji and Tonga. Many countries have no qualified experts at all. The Capacity Building Committee of the IHO is very conscious of the need for more skilled people and is working with the SWPHC to find solutions. An interesting proposal put to me is that of multi-skilling young Pacific Islanders to undertake basic hydrographic tasks in conjunction with other environmentally related roles, like climate monitoring. This could provide the basis of a stimulating career and help keep young science graduates and technicians in their home countries.

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