

# Hydrographic Risk Assessment for Maritime Safety

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## ABSTRACT

FIG Pacific Small Island Developing States Symposium ABSTRACT: Hydrographic Risk Assessment for Maritime Safety Mr Adam Greenland National Hydrographer Land Information New Zealand (LINZ) New Zealand Hydrographic Authority (NZHA) <http://www.linz.govt.nz/hydro> [agreenland@linz.govt.nz](mailto:agreenland@linz.govt.nz) Maritime safety is a major concern in the SW Pacific. In recent years there has been a significant growth in large cruise-vessel visits to the region that are navigating in poorly charted areas. Many official charts do not meet the contemporary safety or operational needs of shipping in the Pacific as ENC's for ECDIS are based on inaccurate and inadequate paper charts that have not been maintained or re-schemed. New Zealand has recently developed a prototype hydrography risk assessment methodology to assist decision makers prioritise areas for hydrographic survey. The results of the risk assessment highlight areas of comparative risk which allow government officials, with the support of regional charting authorities, to come to a conclusion about the nature and scope of chart improvements. The methodology was implemented in the Vanuatu proof of concept pilot study. The Vanuatu risk assessment results have been published and widely distributed. The prioritisation process is risk based, transparent against set criteria, systematic and uniformly applied. It is a robust and data driven methodology using actual S-AIS vessel position information for the identification of shipping routes at high risk. Furthermore, the risk model has been implemented using GIS which allows visualisation of complex data for presentation to decision makers. Hydrography is a critical enabler of maritime safety and the risk assessment, being evidence based, is in effect, a knowledge base to support maritime safety. The results highlighted other areas of concern where expertise and assistance is required to ensure full compliance with international conventions and build in-country capability and capacity. The methodology is supported and endorsed by international technical and regulatory organisations and donor funders. Further risk assessment are planned for the SW Pacific region including, the Cook Islands, Tonga, Solomon Islands and Kiribati.

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