

# **Bathymetric LiDAR within the Nearshore environment**

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**Key words:** Hydrography; Laser scanning

## **SUMMARY**

Bathymetric LiDAR within the Nearshore environment

Land Information New Zealand (LINZ) is responsible for producing and maintaining authoritative nautical charts – paper and electronic - within its area of coverage stretching from Tokelau and the Cook Islands in the South West Pacific to Scott Base in the Ross Sea Dependency in Antarctica. These charts need updating for physical changes and re-survey, ensuring they meet the needs of contemporary shipping in support of the blue economy.

Bathymetric Light Detection and Ranging (LiDAR) can be co-located with topographic LiDAR to form a tool that can be utilised to survey the littoral zone, creating a seamless dataset joining land and sea. This presentation focusses on a study LINZ undertook comparing temporal bathymetric LiDAR datasets and multibeam (MBES) datasets covering the same area. The purpose was to understand how Bathymetric LiDAR can be used to help update nautical charts, and to understand the uncertainties attributed with this technology to help inform future projects.

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