

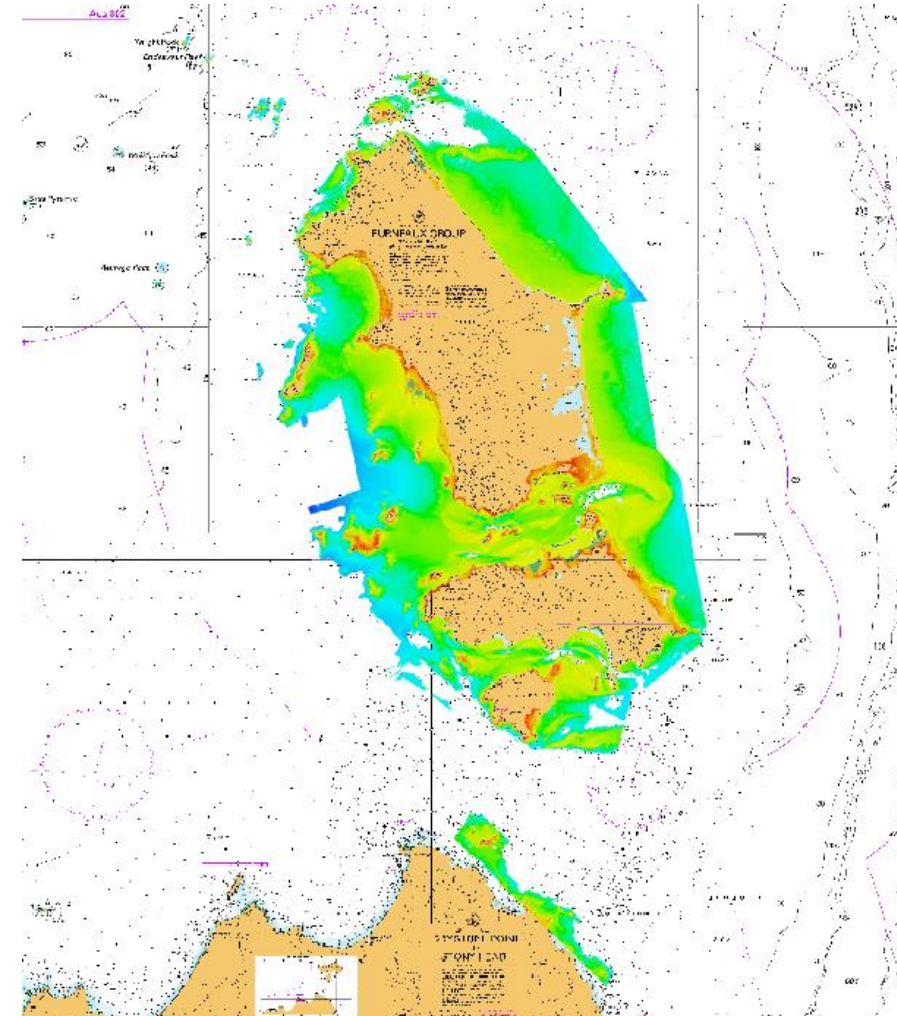
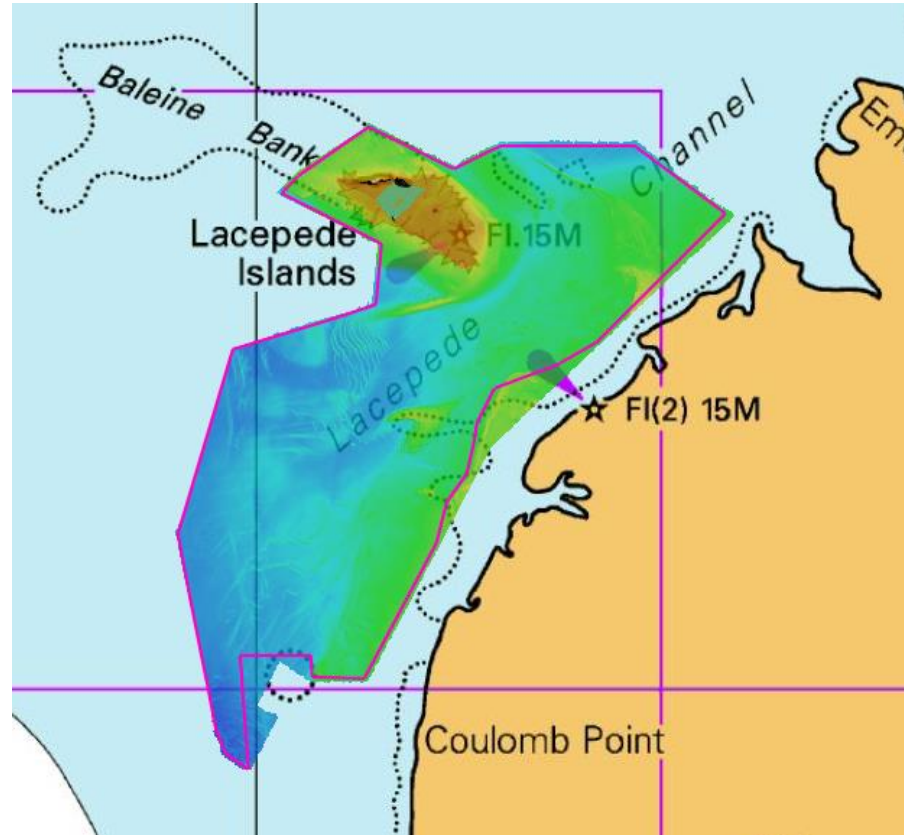
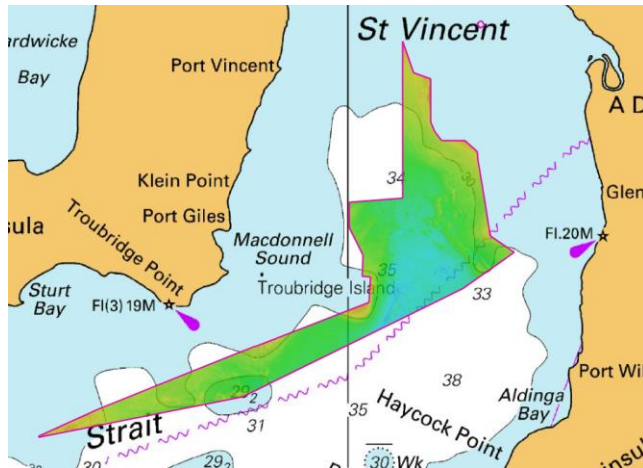
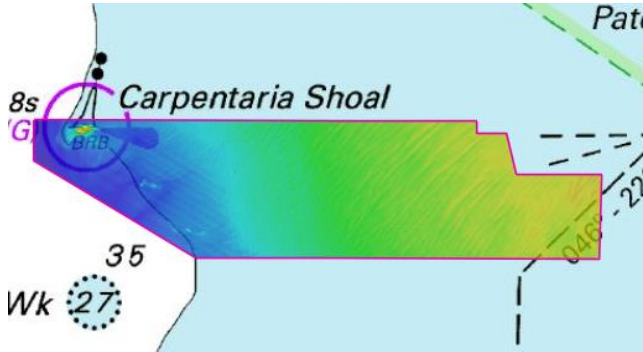


South West Pacific Update

February 2023



Hydrographic Industry Partnership Programme



Fiji Navy and AHO Survey Support



Position Magazine (August/September 2022)



Fugro, PNG's NMSA improve sea navigation safety

Working with Papua New Guinea's National Maritime Safety Authority (NMSA) and with funding from the Asia Development Bank (ADB), Fugro has completed a hydrographic survey to determine a safe channel through the Star Reef Passage. The work is a key initiative contributing to Papua New Guinea's sustainable economic development and will be used to support updated nautical charting and improved coastal zone management.

Fugro's LADS HD+ Airborne Lidar Bathymetry system was deployed along with a team of surveyors from both the

company and the NMSA. The data was collected safely and with minimal environmental impact on the sensitive reef environment and local marine activity, and is now set to be used to update nautical charts.

Paul M. Unas, the CEO of NMSA, said he is pleased with the successful outcome of the Star Reefs Passage Survey and reaffirmed NMSA's Commitment to ensuring that PNG's navigable waterways are adequately surveyed to IHO specifications and that nautical charts are updated for the safety of navigation.

Key Stats 2017/2018

28 Locations

19,604 kms MBES

2,681 kms ALB

550 SVP's acquired

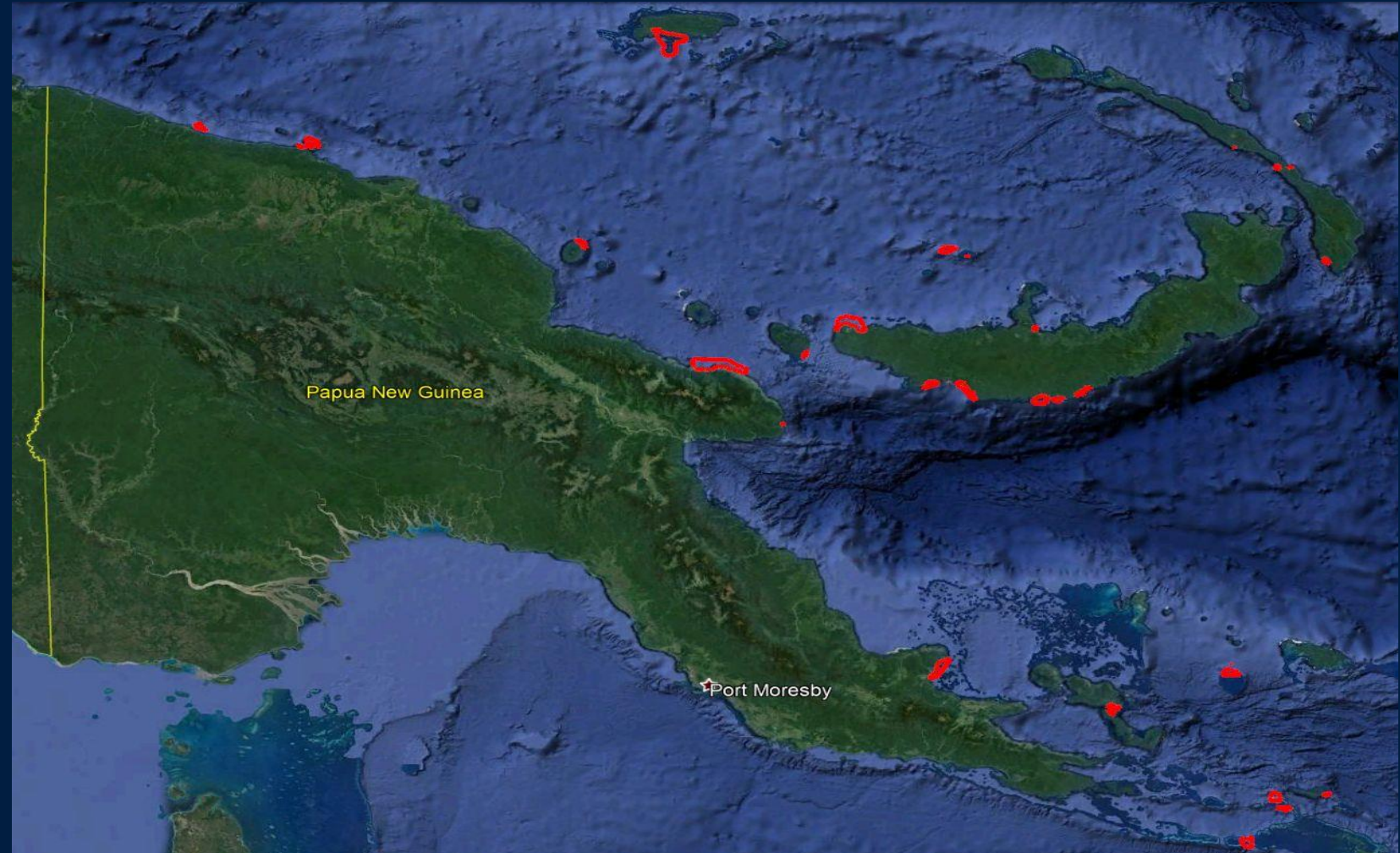
320 secchi disk observations

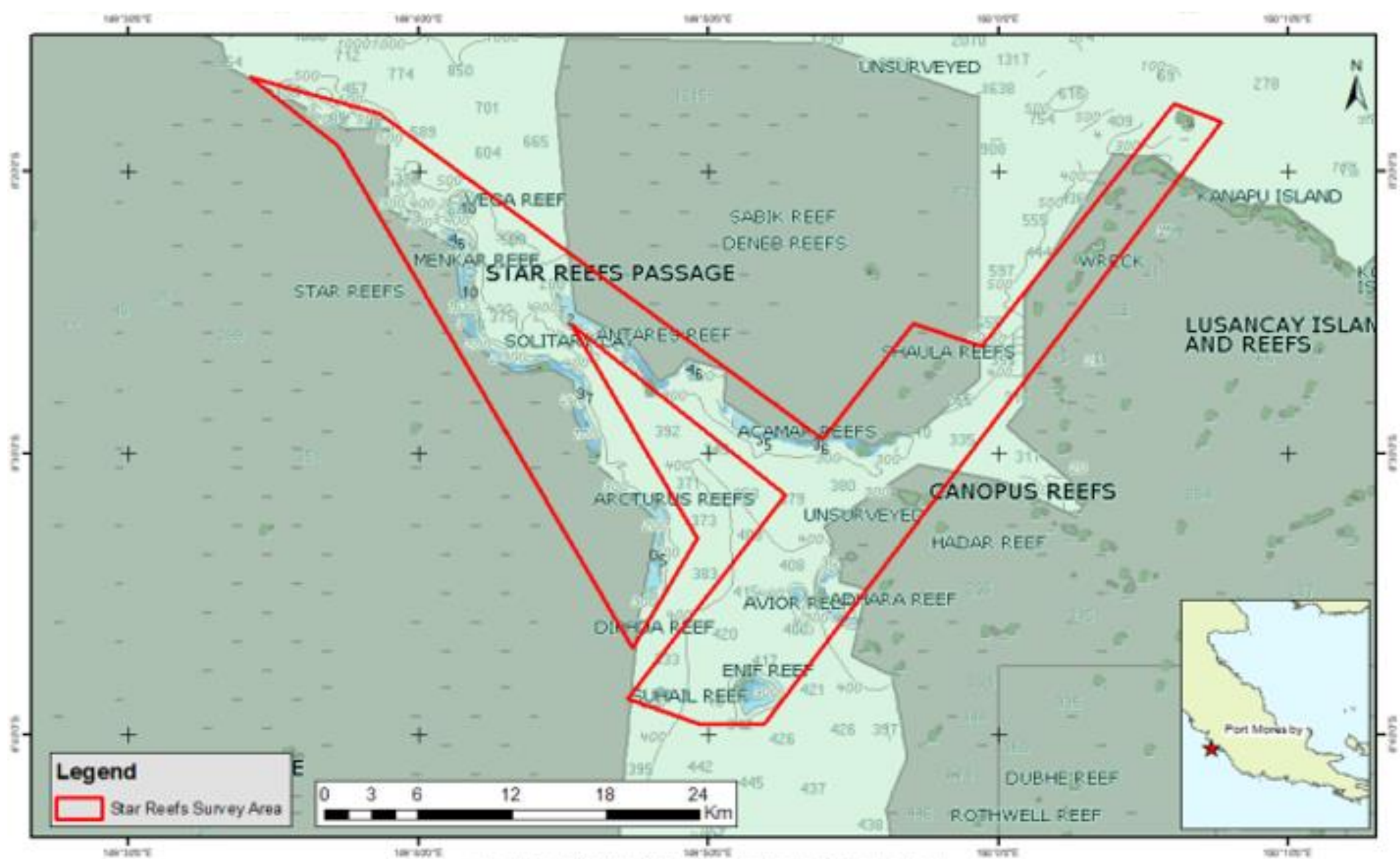
188 grab samples

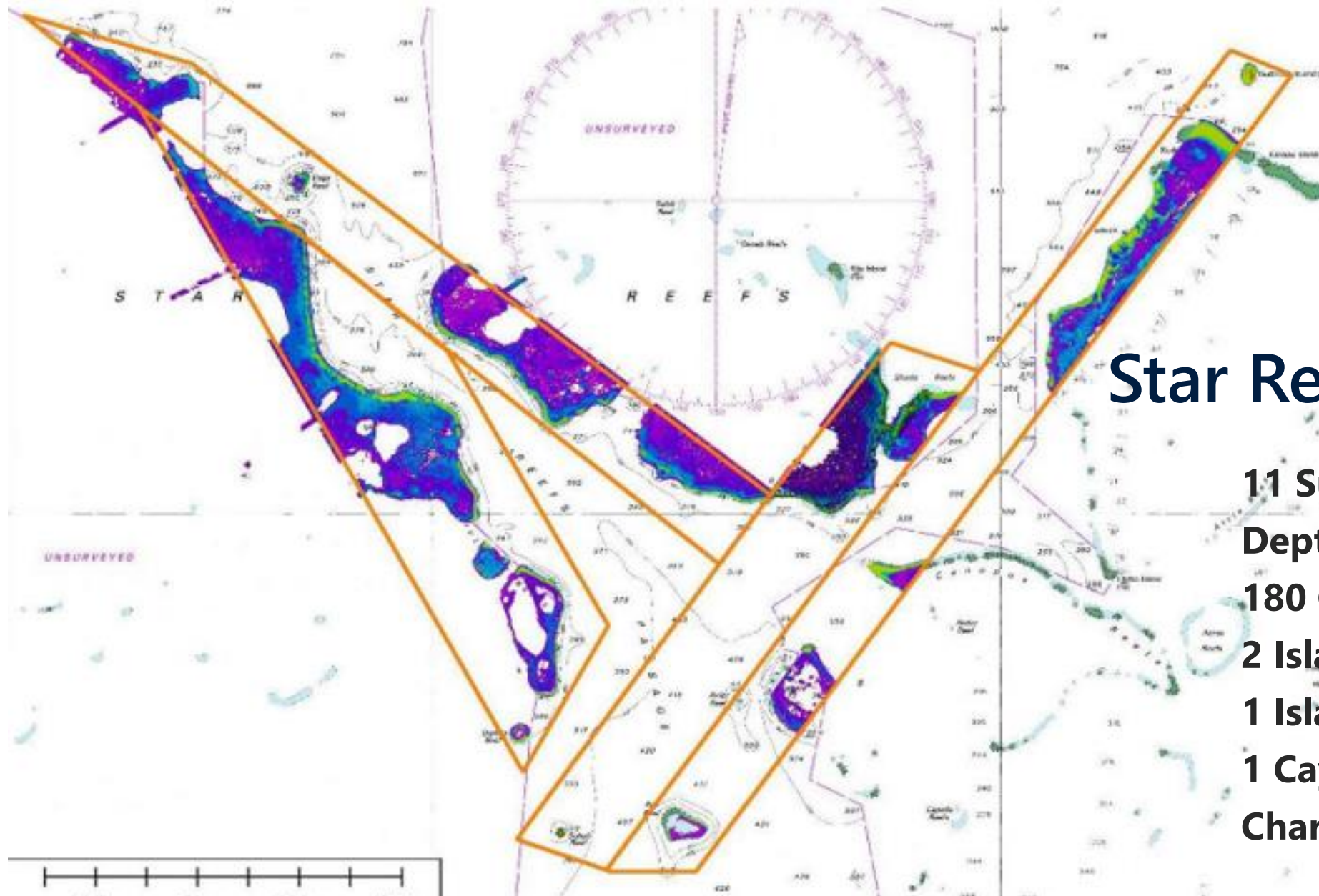
65 Hydrographic Notes

1134 Chart Comparisons

Coastline determined by ALB or
satellite imagery







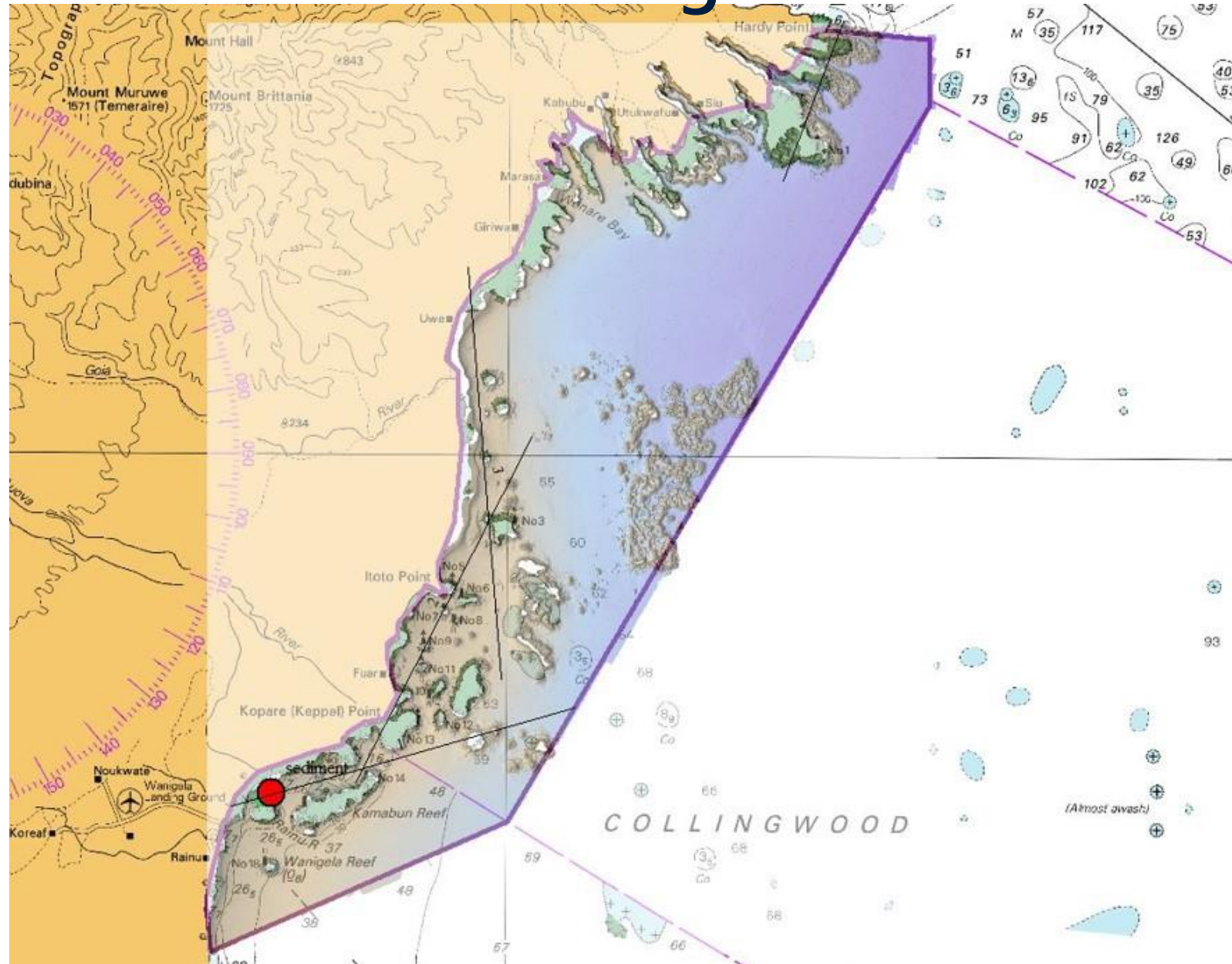
Collingwood Bay – Multibeam Coverage 2018

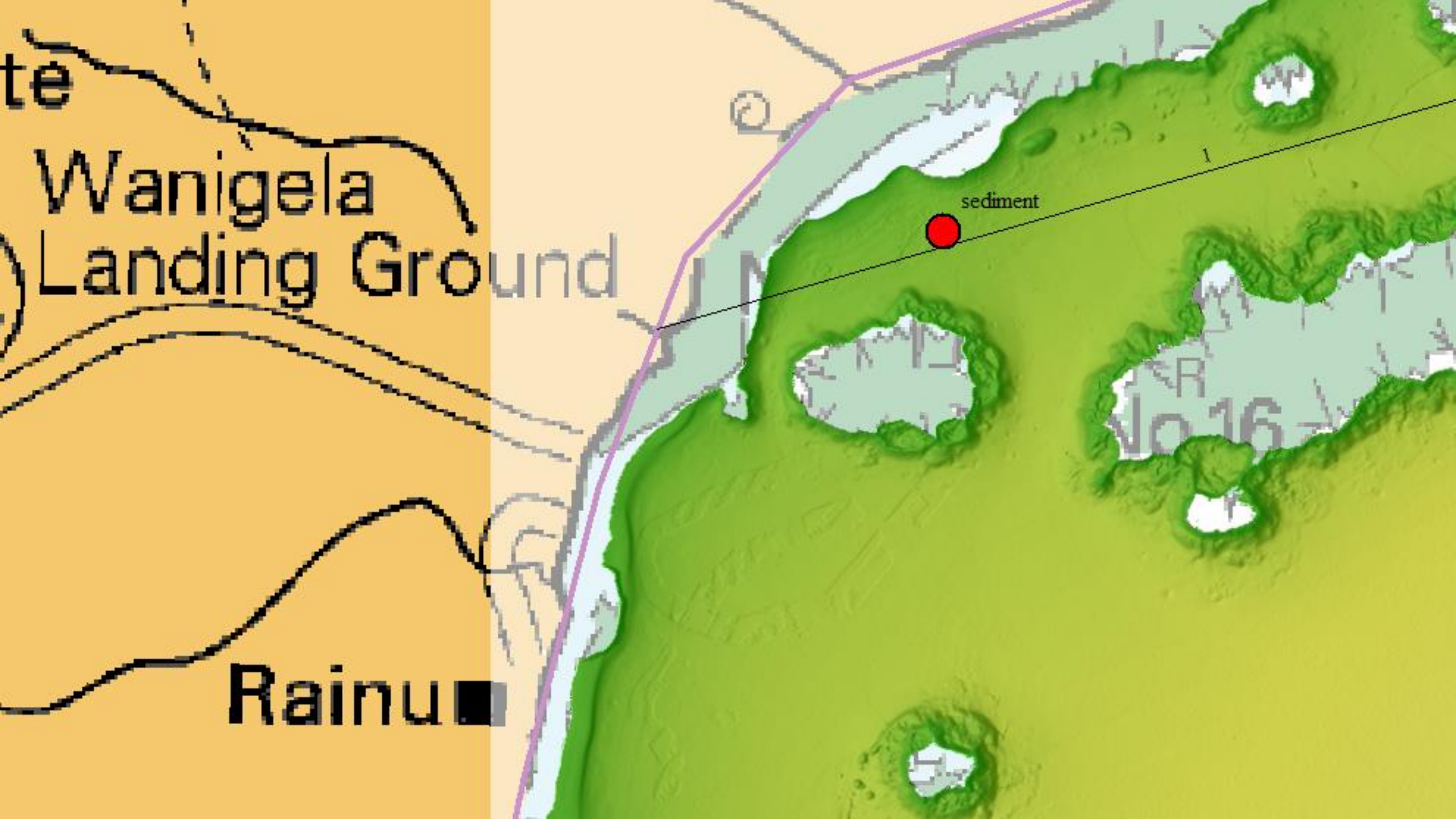
Benchmark lines flown over existing multibeam data

ALB data (2022) agreed well with MB data (2018)

4 lines flown to identify suitable comparison benchmark areas

End of benchmark line #1 shows sediment build up – red dot





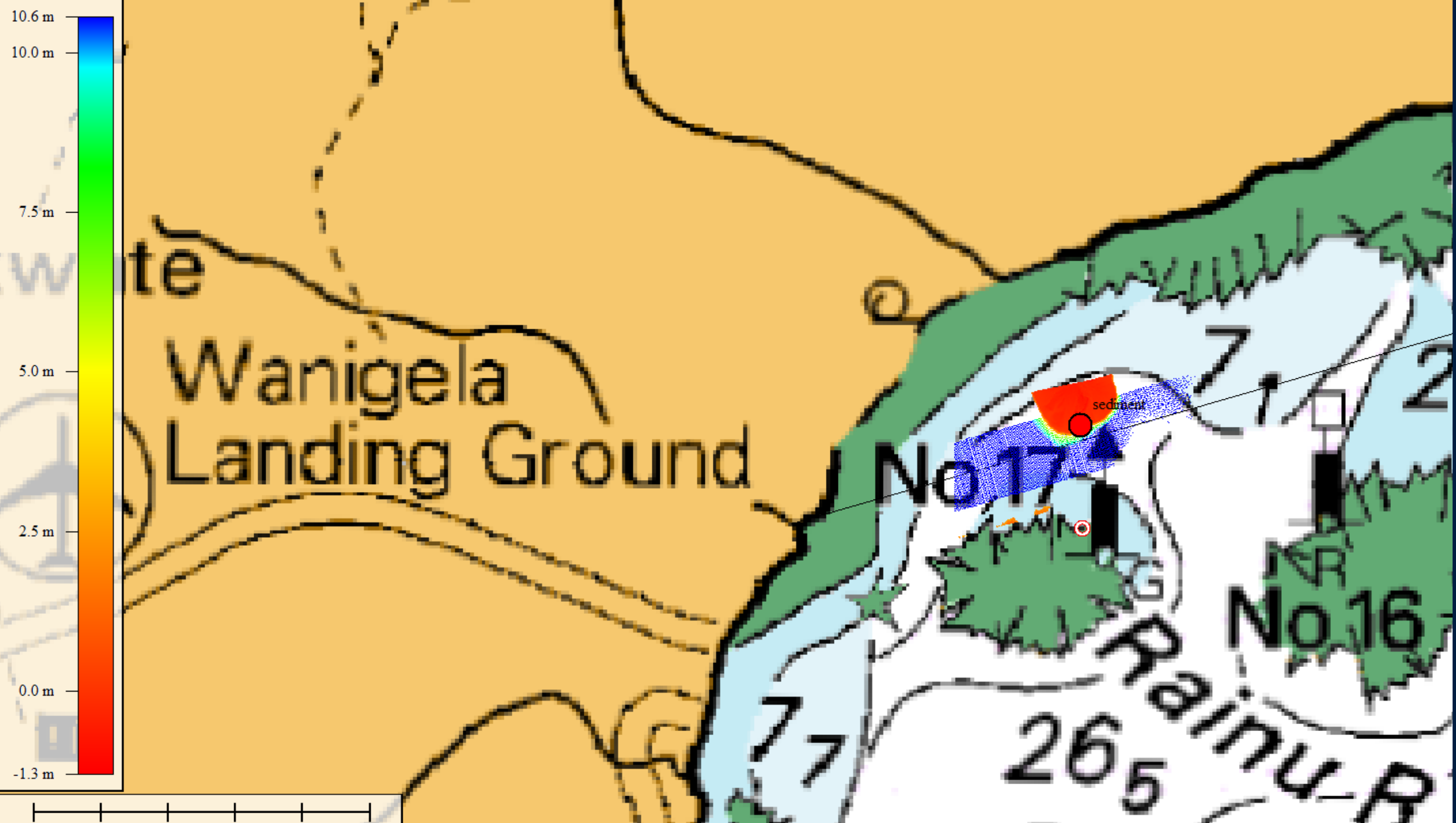
te

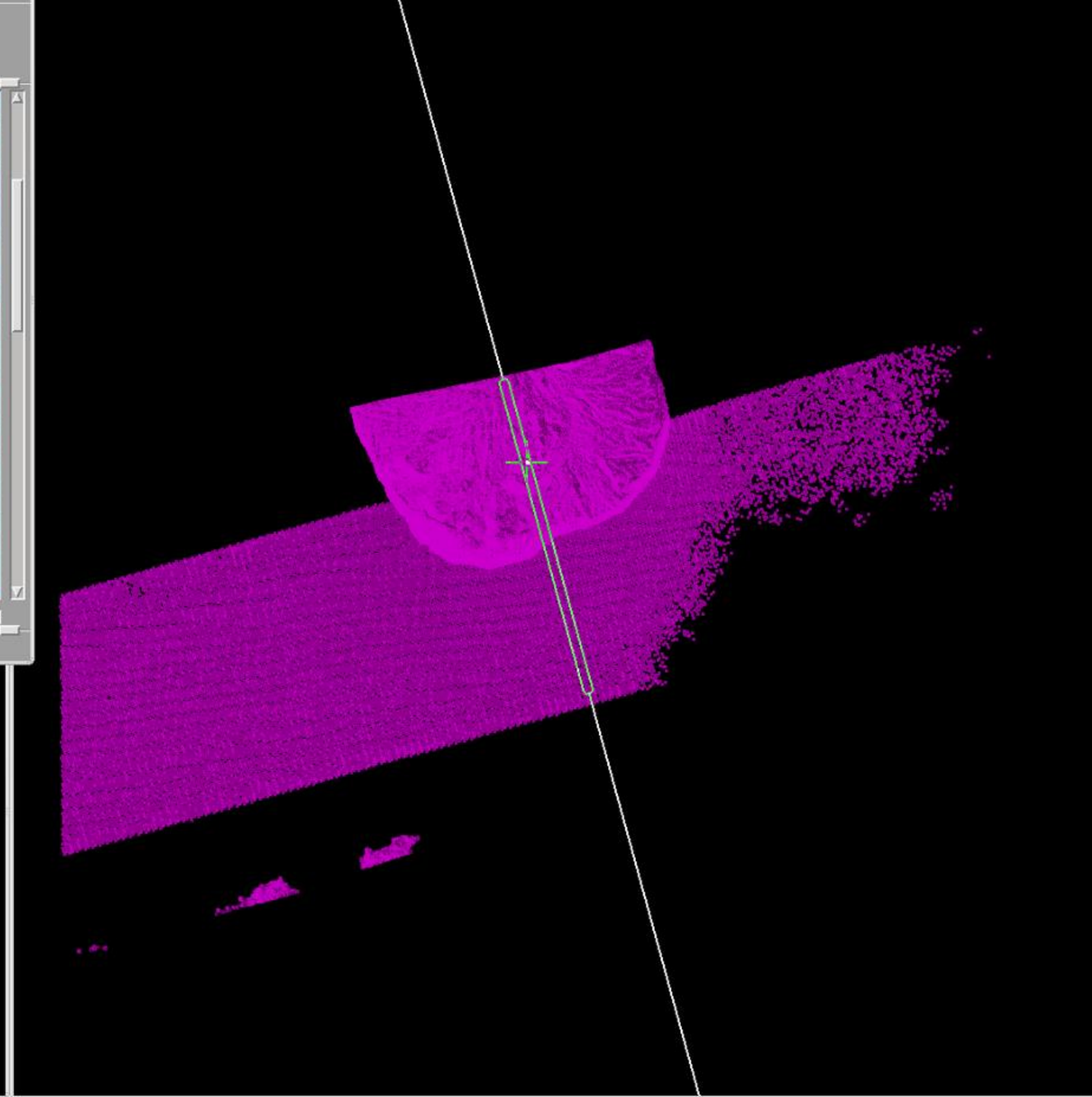
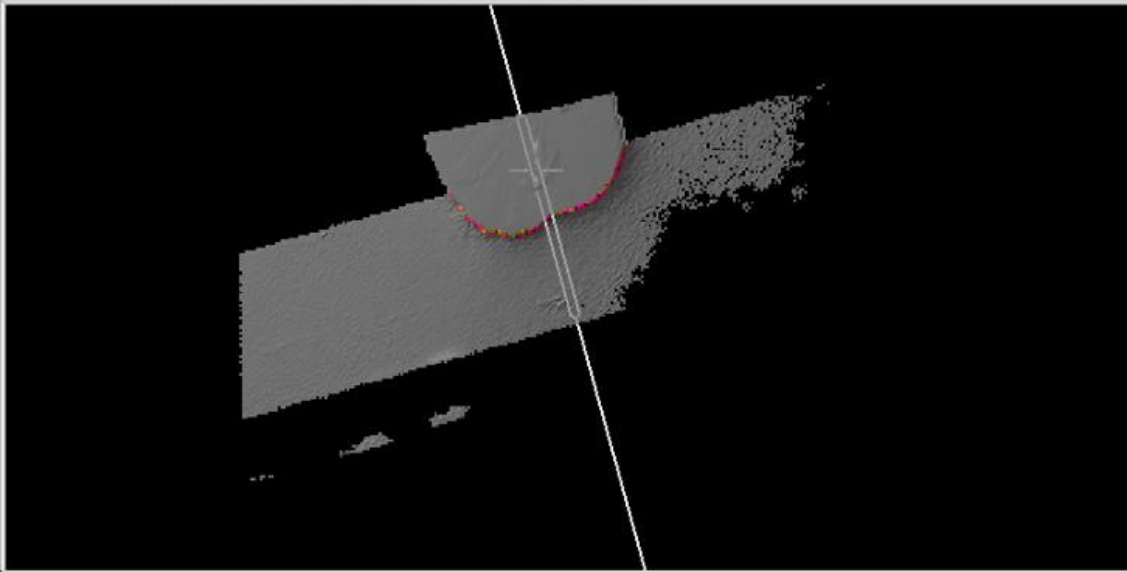
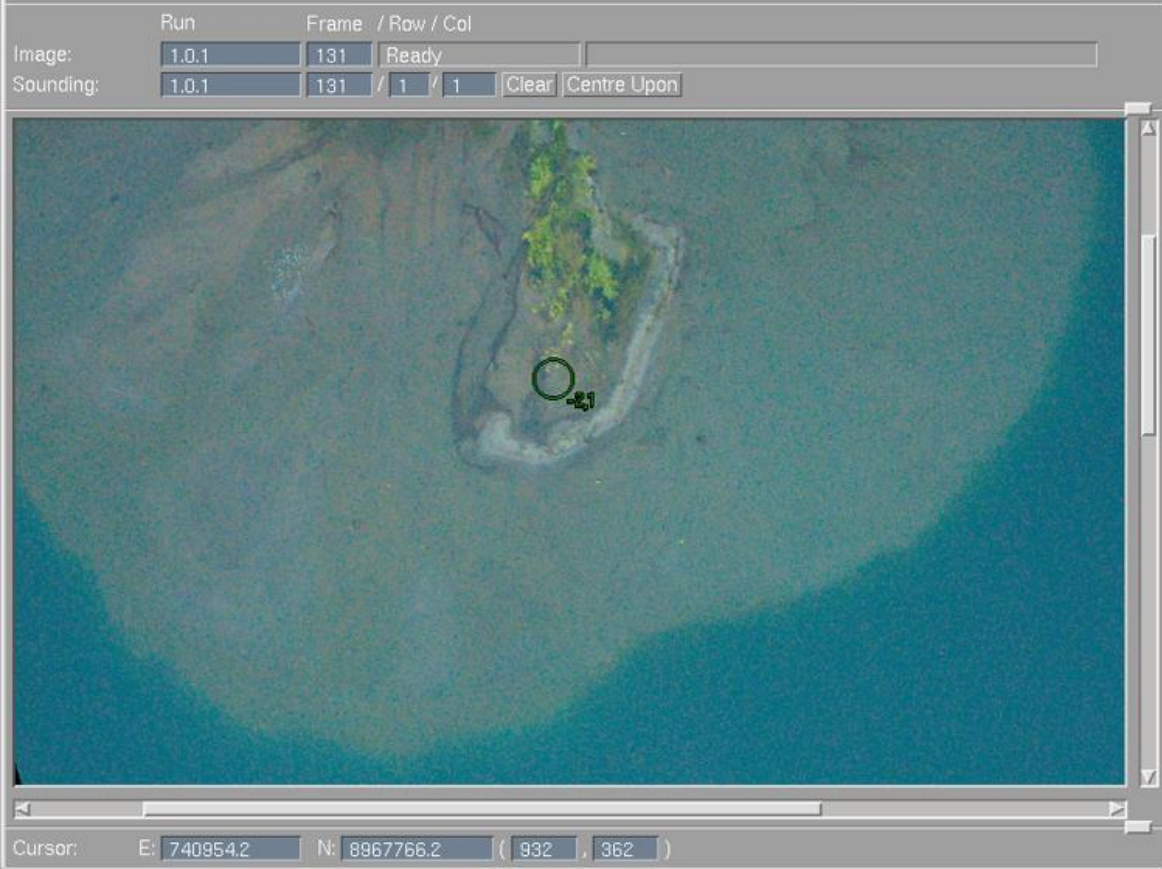
Wanigela
Landing Ground

Rainu ■

sediment

16



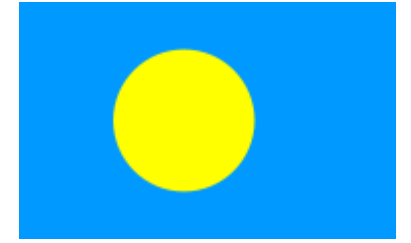








Palau



Koror to Cairns 3000km



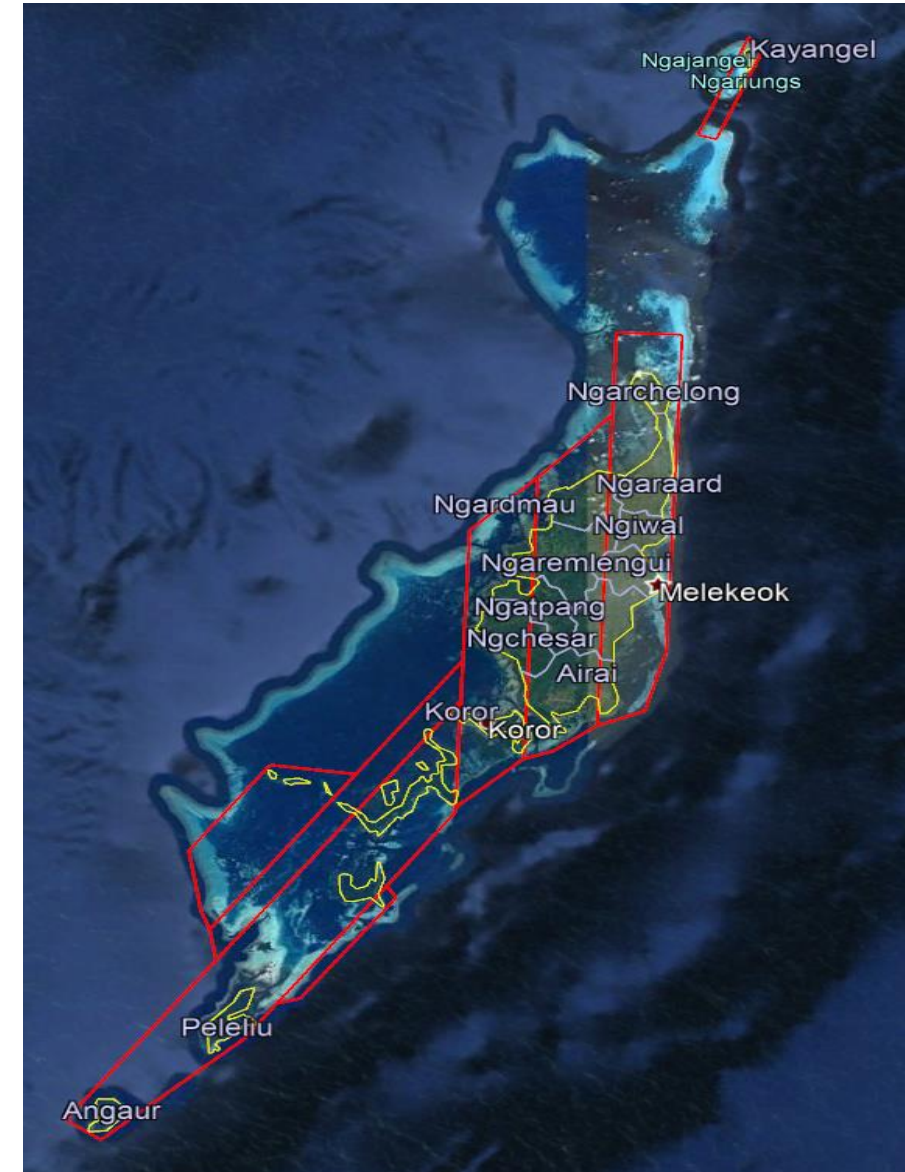
Koror



Client Requirement

Topographic lidar covering 416km² of areas of Palau including the near shore to 50m depths up to 200m from the shoreline.

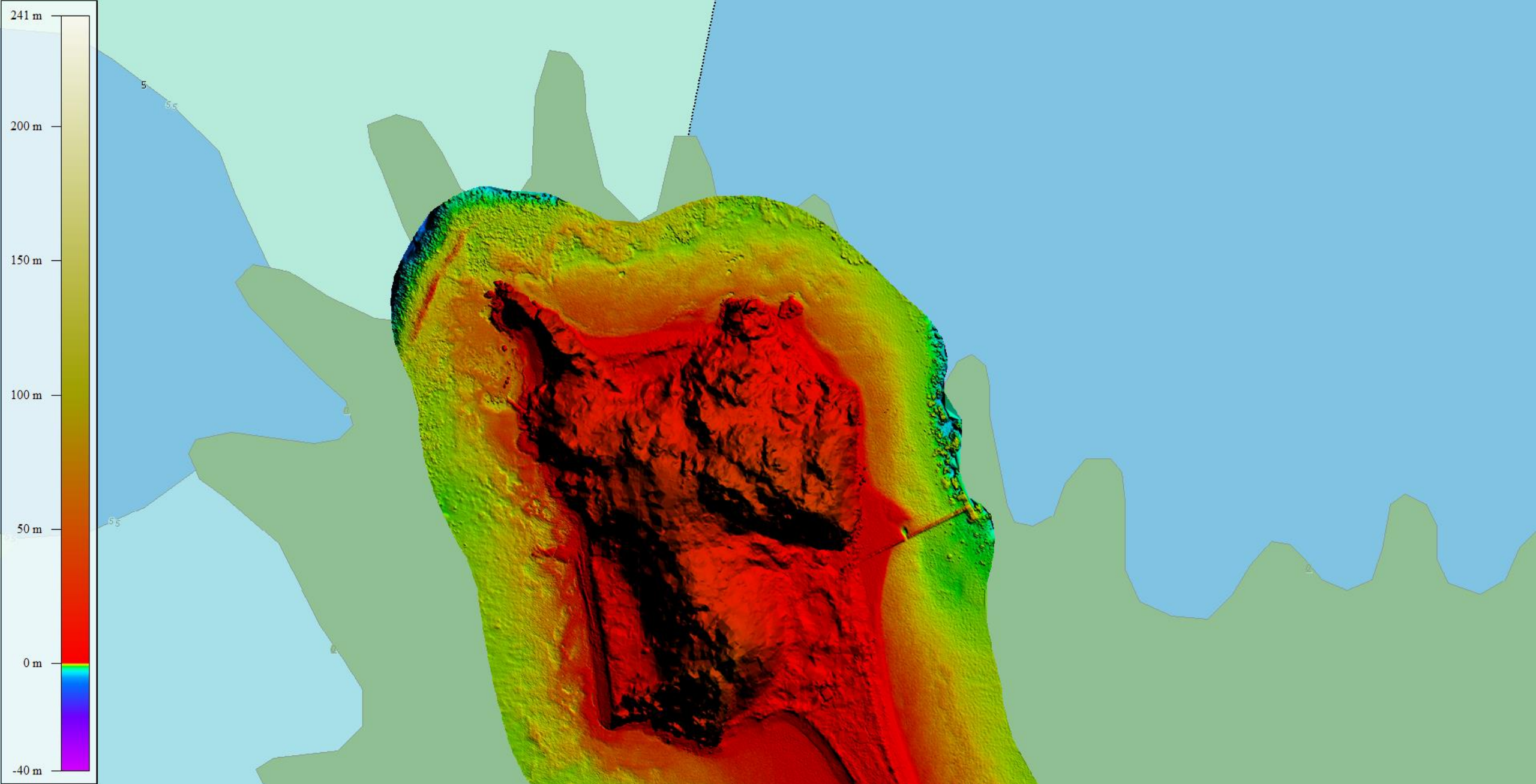
- Standards based on "U.S. Geological Survey National Geospatial Program Lidar Base Specification; Version 2.1"
- QL 2Lidar 2 pts/m²
- RGB Imagery
- Horizontal Datum: WGS84
- Vertical Datum: Mean Sea Level

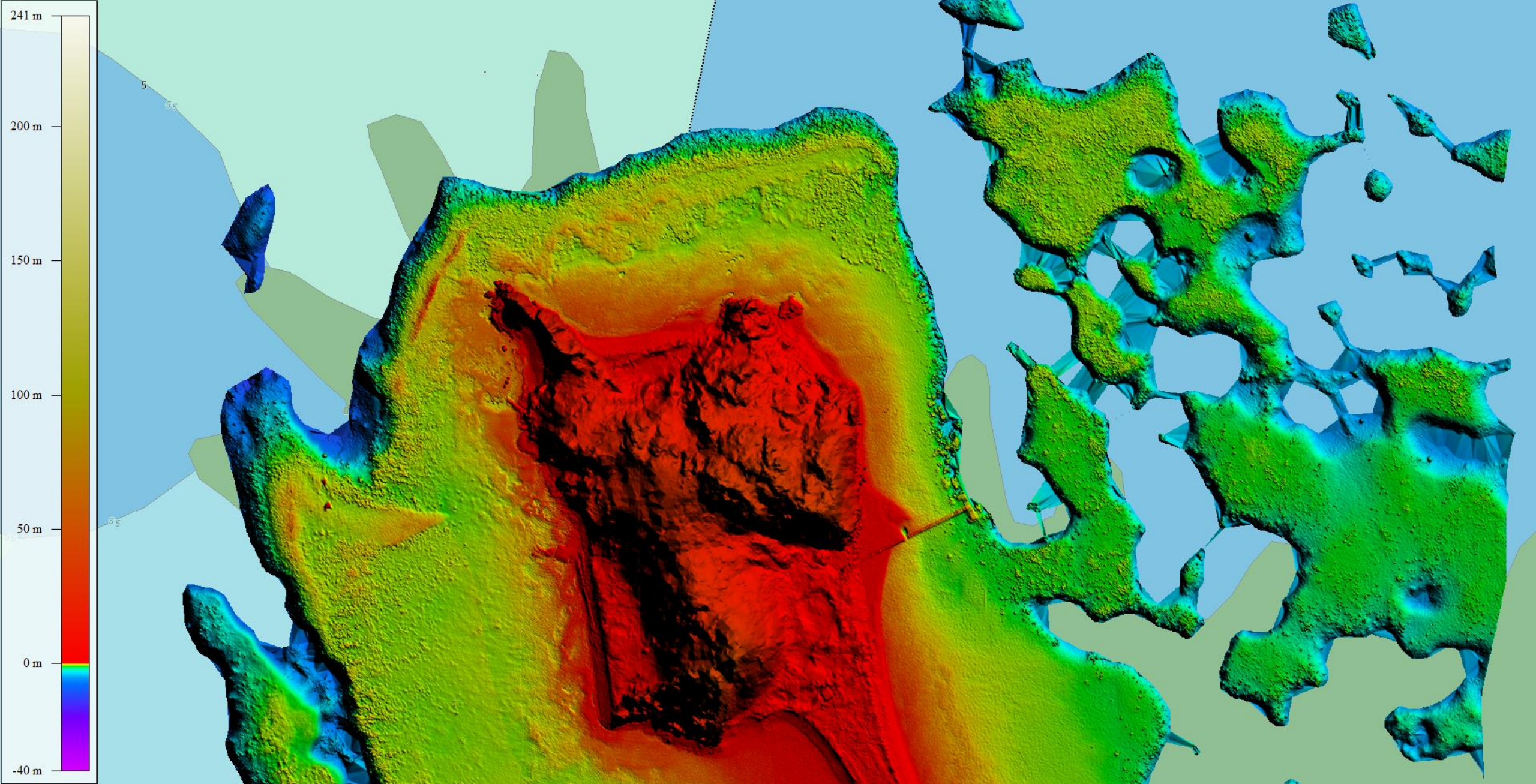


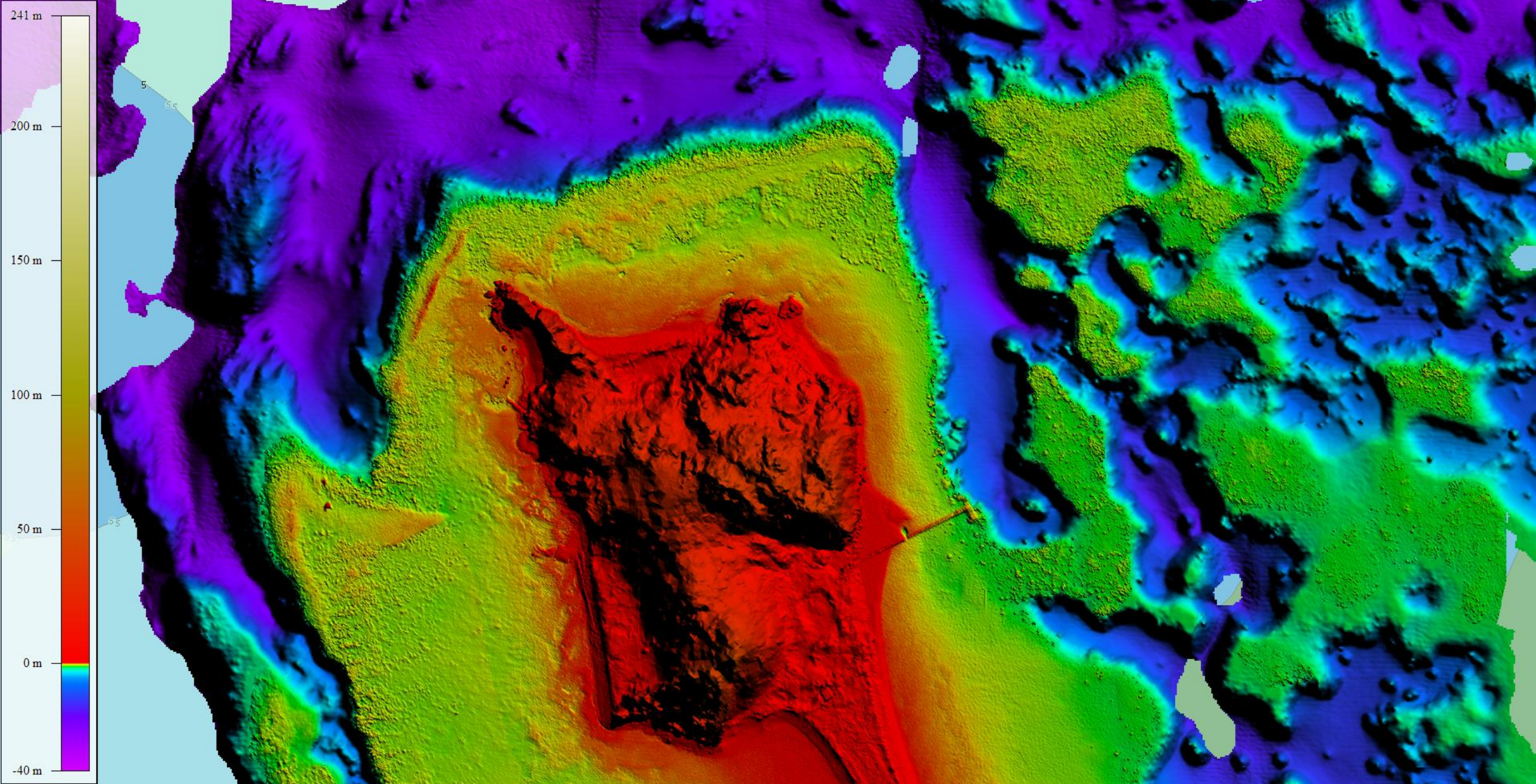
Partnerships and Capacity Building











Ocean Decade of Ocean Science for Sustainable Development



Dr. Vladimir Ryabinin
Executive Secretary, IOC UNESCO

Mark Heine
CEO, Fugro



One full-time Fugro expert seconded to IOC,
based in UNESCO headquarters in Paris, France

#OceanScience

2.36 MILLION KM²

of in-transit bathymetric data
contributed to Seabed 2030

fugro

