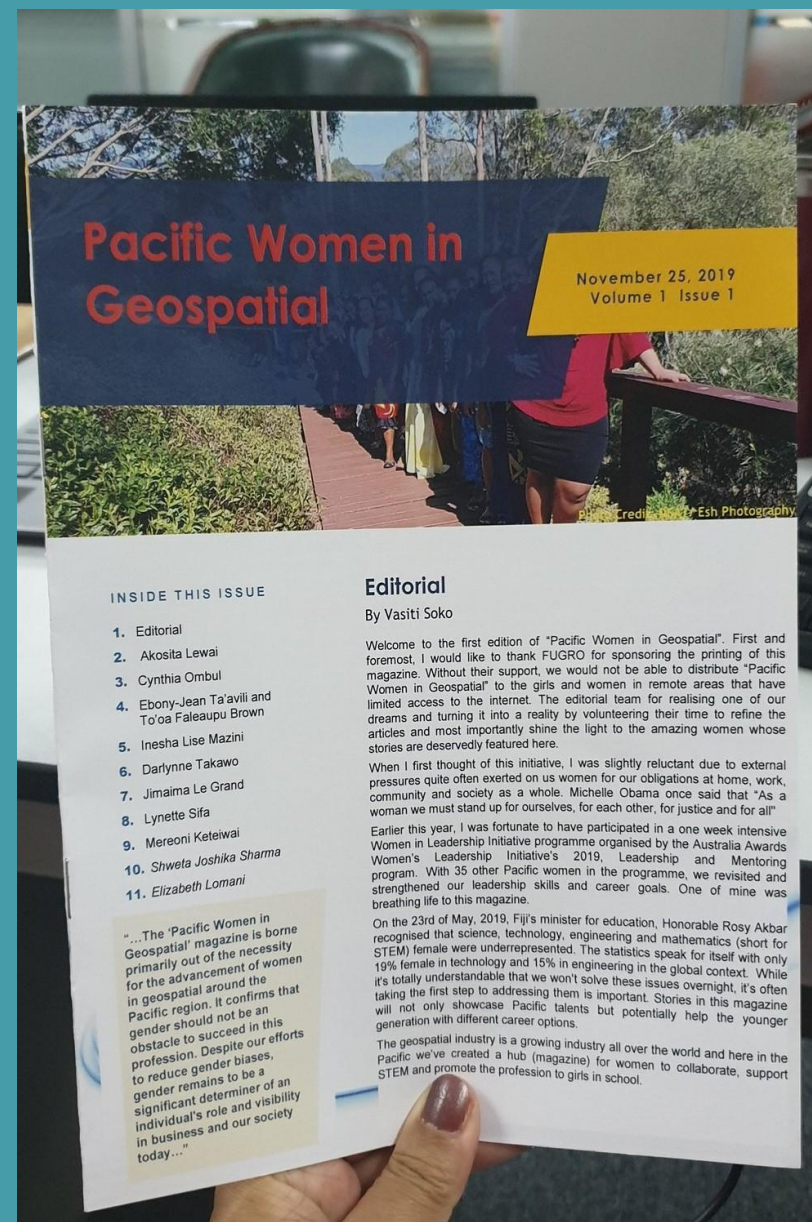




South West Pacific Hydrographic Commission
Wollongong 12-14 February 2020



Regional Highlights

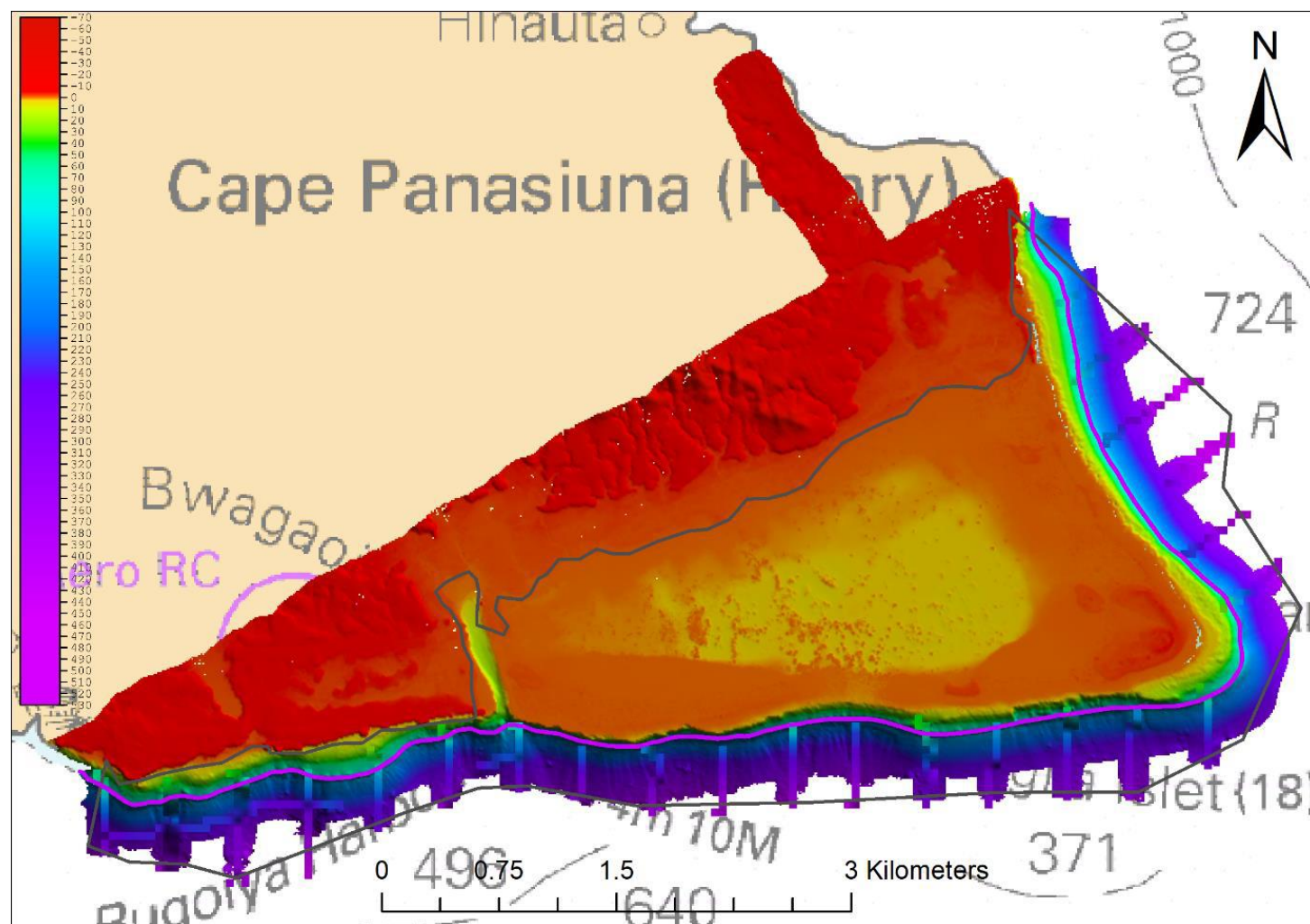


<https://pacific-data.sprep.org/dataset/pacific-women-geospatial-magazine>

Papua New Guinea 2017-2019

MBES and ALB survey of 30 locations in Papua New Guinea

- Client: **PNG, National Maritime Safety Authority (NMSA) with Asian Development Bank funding.**
- Objective: To conduct hydrographic surveys throughout the north and east of Papua New Guinea for charting purposes and to promote coastal trade, tourism and development.
- System: LADS HD and Riegl VQ-820-G Kongsberg MBES suite
- Over 20,000 linear KM's of MBES data combined with 27 ALB Flights

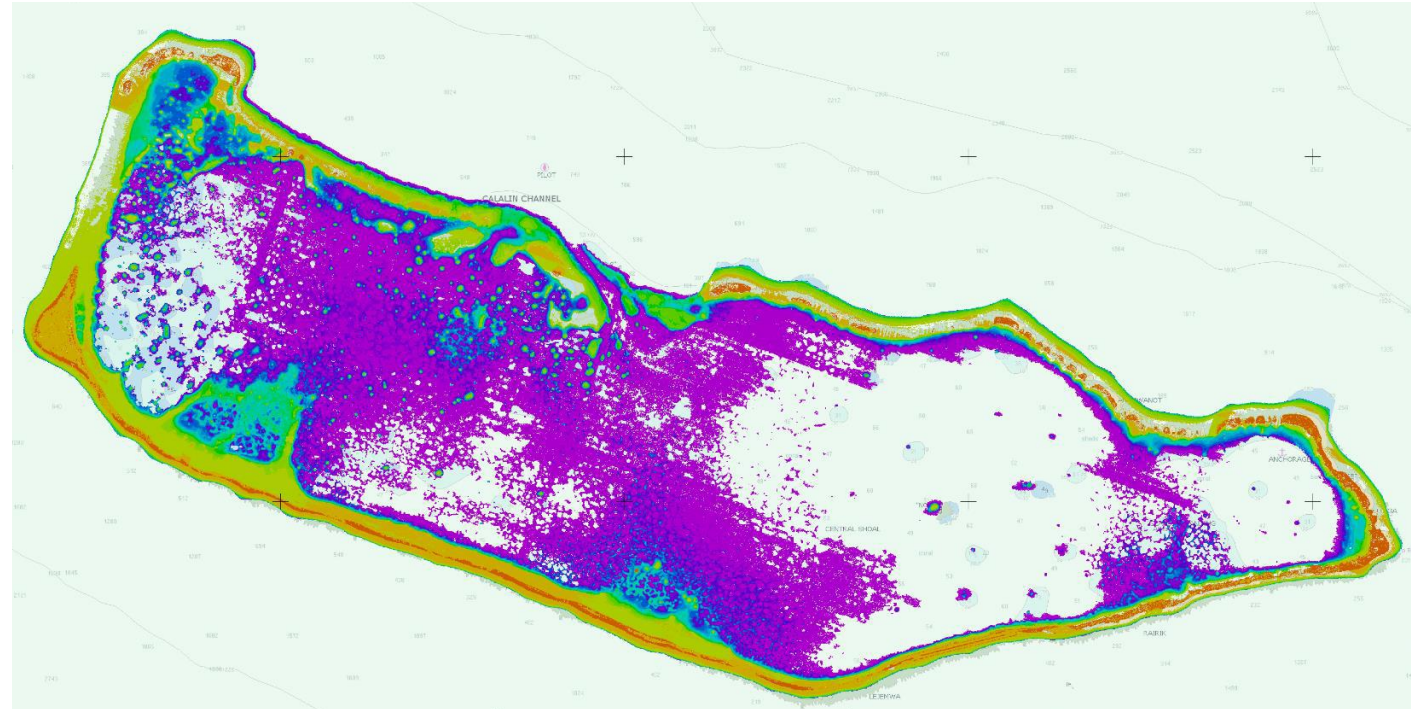


Misima Island IHO Order 1a and Order 2 ALB, MBES and SBES coverage with 100 m contour (purple) and contracted survey area (black)

Marshall Islands 2019

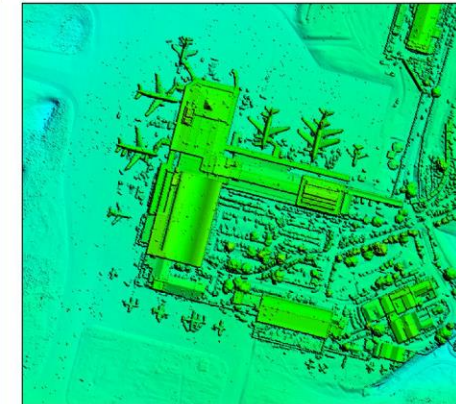
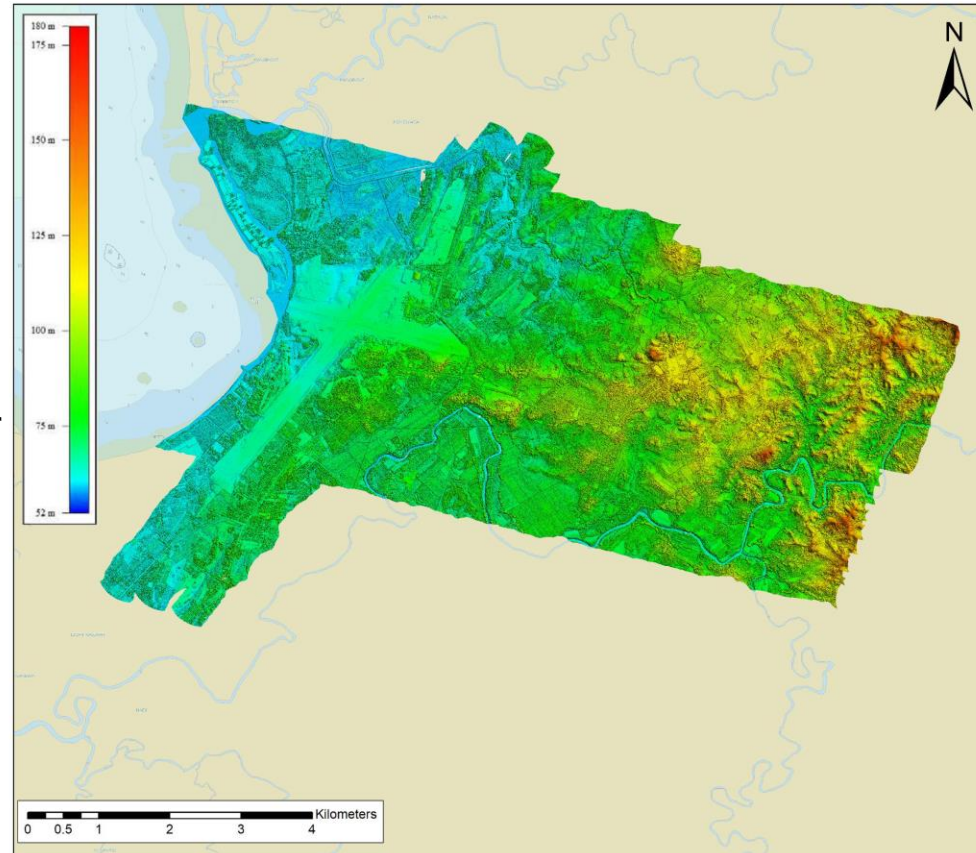
ALB survey of the Marshall Islands for coastal resilience efforts.

- Client: **Pacific Community (SPC)**
- Acquisition Period: 14 June to 27 June 2019.
- 9 flights total
- Objective: Acquire ALB data over Majuro Atoll and Eybe Island, Marshall Islands to help future proof coastal areas and communities.
- System: LADS HD and Riegl VQ-820-G



Fiji Airport 2019

- ALB survey
- Client: **Airports Fiji**
- Acquisition Period: 6 May to 9 June 2019..
- Objective: Acquire topo data over Nadi Airport, for future upgrade planning.
- System: Riegl VQ-820-G



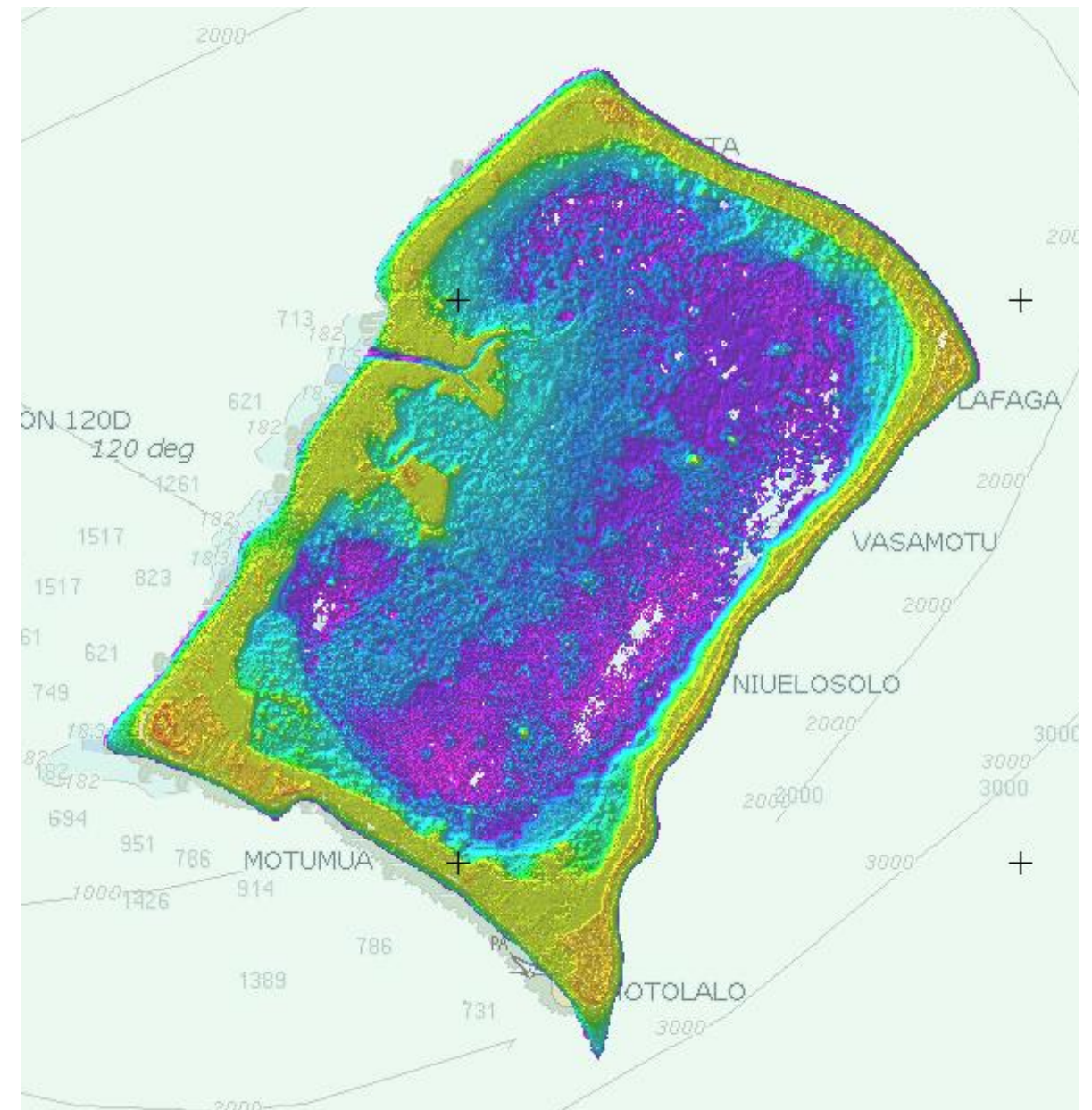
Nadi Airport Terminal at scale 1:5000



Votualevu township at scale 1:3000

Tuvalu 2019

- ALB survey of 9 atolls for the nation of Tuvalu
- Client: **United Nations Development Program**
Acquisition Period: 14 May to 9 June 2019.
- Objective: Acquire ridge to reef ALB data over 9 Tuvalu Atolls to manage the threat of ongoing sea level rise and changing incidence of severe tropical storms. Tuvalu's small low-lying islands are being subject to enhanced exposure to wave over topping events and the incidence of marine flooding and inundation due to climate change and sea level rise.
- Coverage: 500 Square Kilometers.
- System: LADS HD and Rieggl VQ-820-G



Nukufetau, Tuvalu



GREEN
CLIMATE
FUND



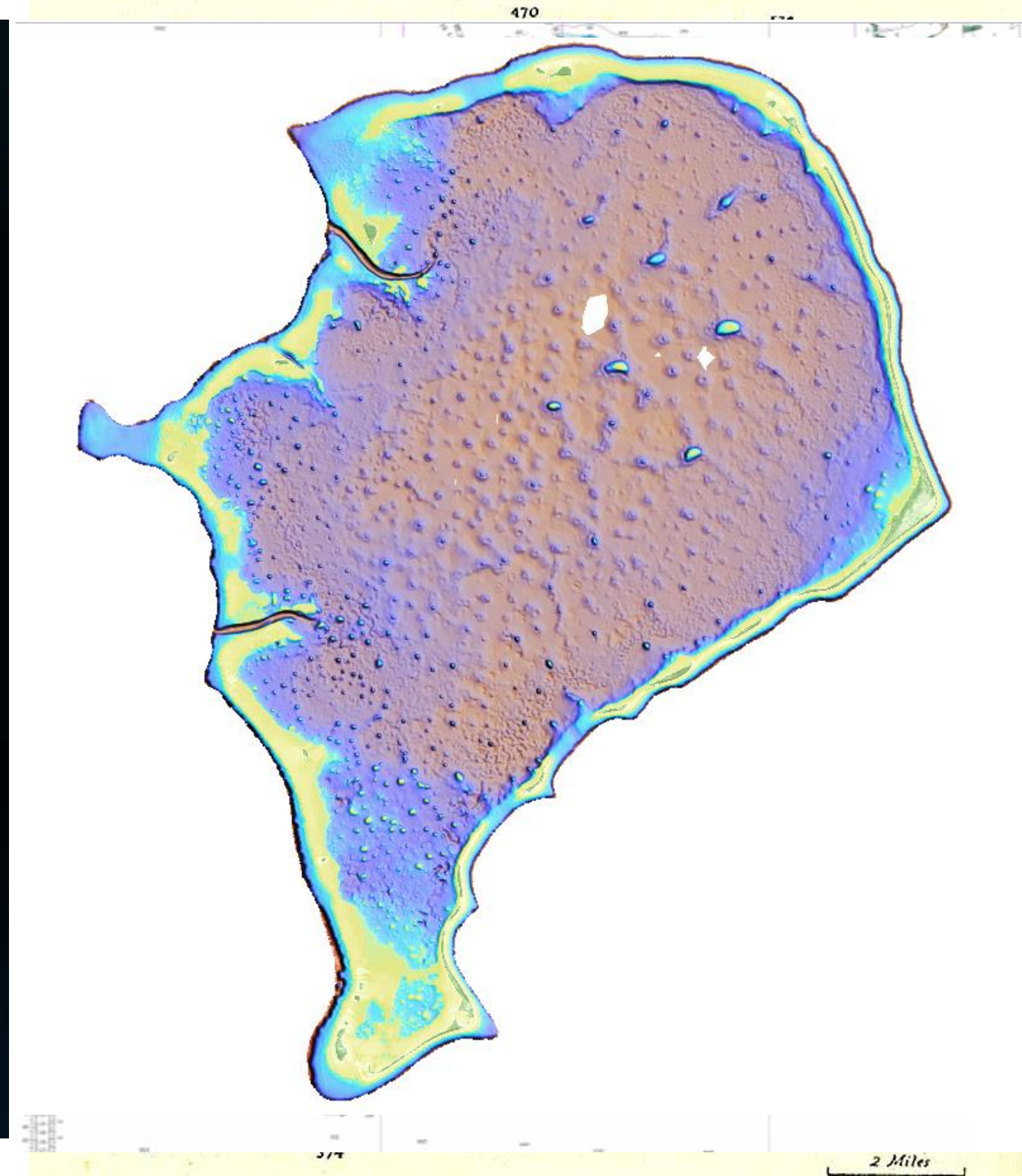
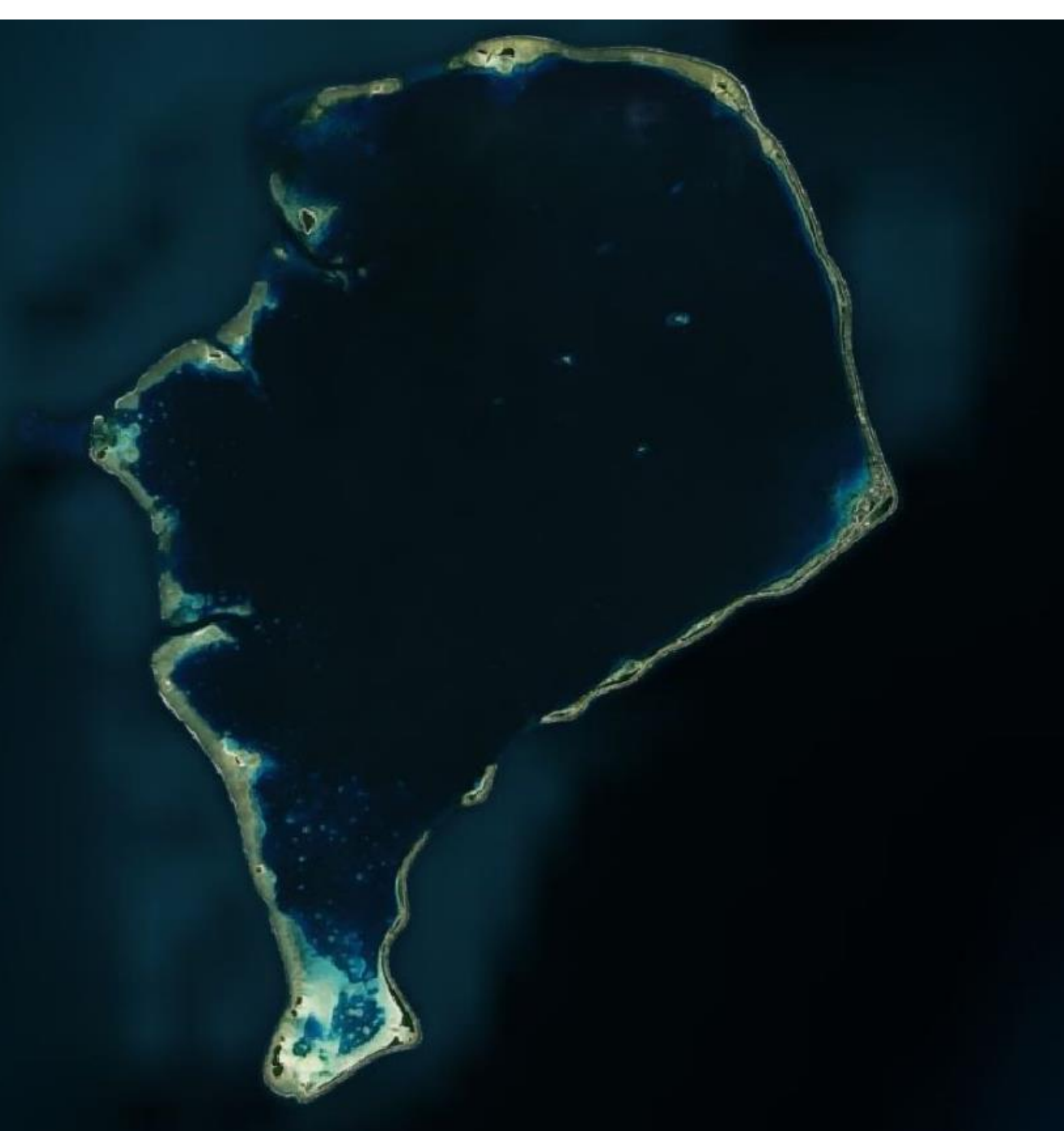
Empowered lives.
Resilient nations.

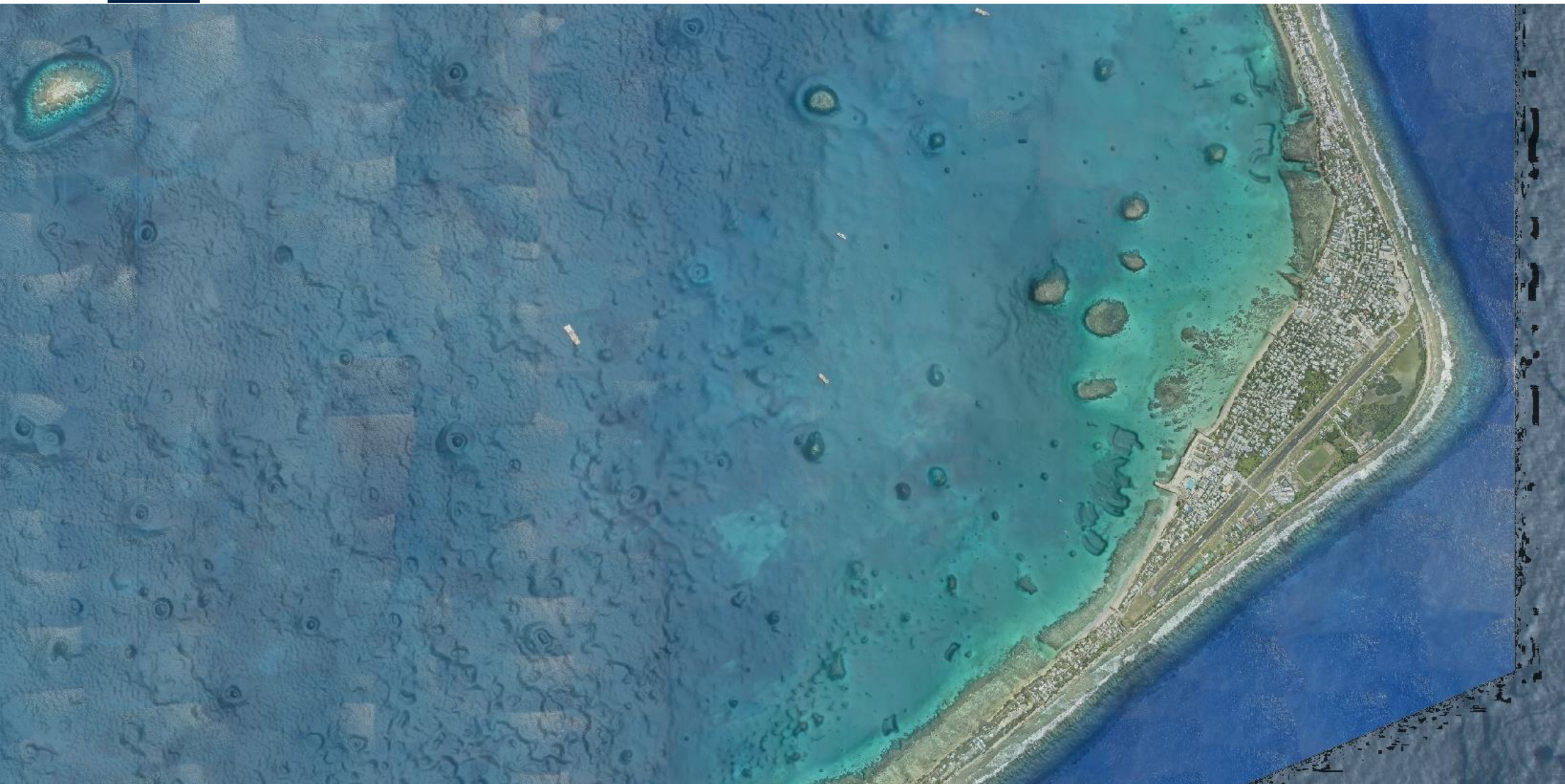


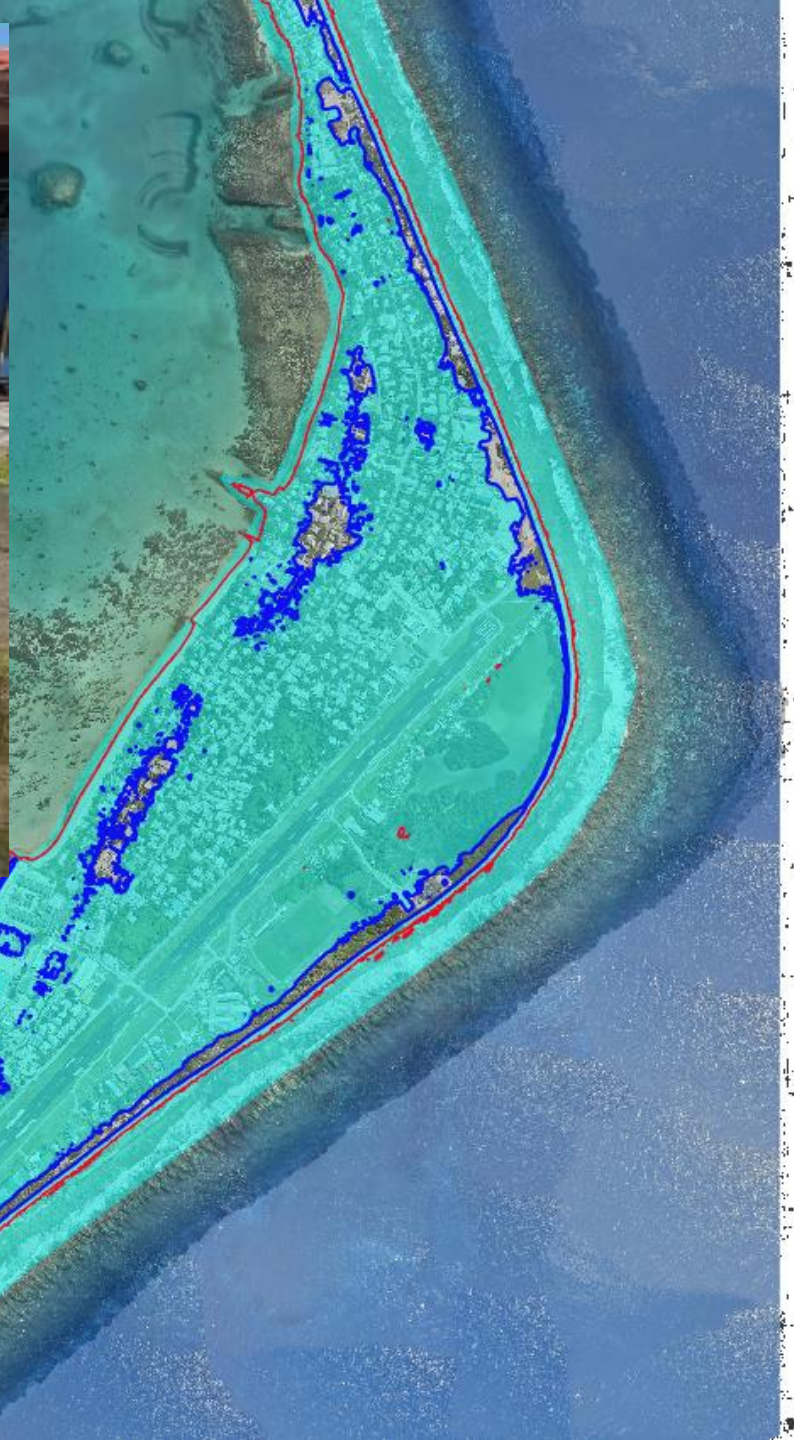
FUGRO

Tuvalu Coastal Adaptation Project Survey of all 9 Atolls



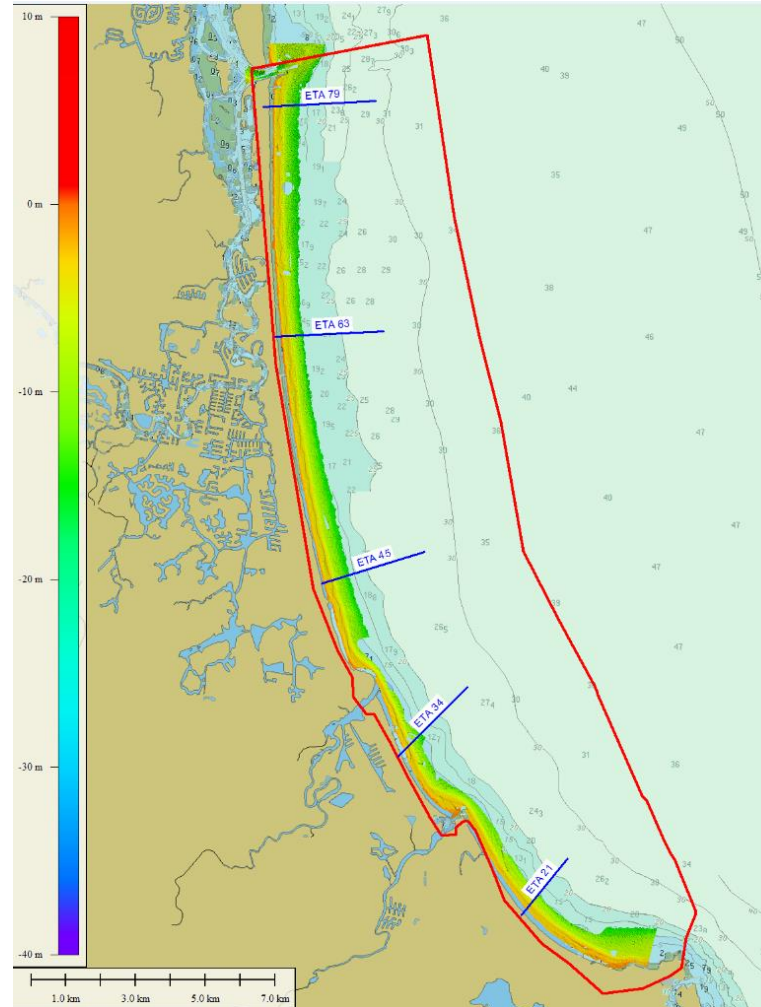
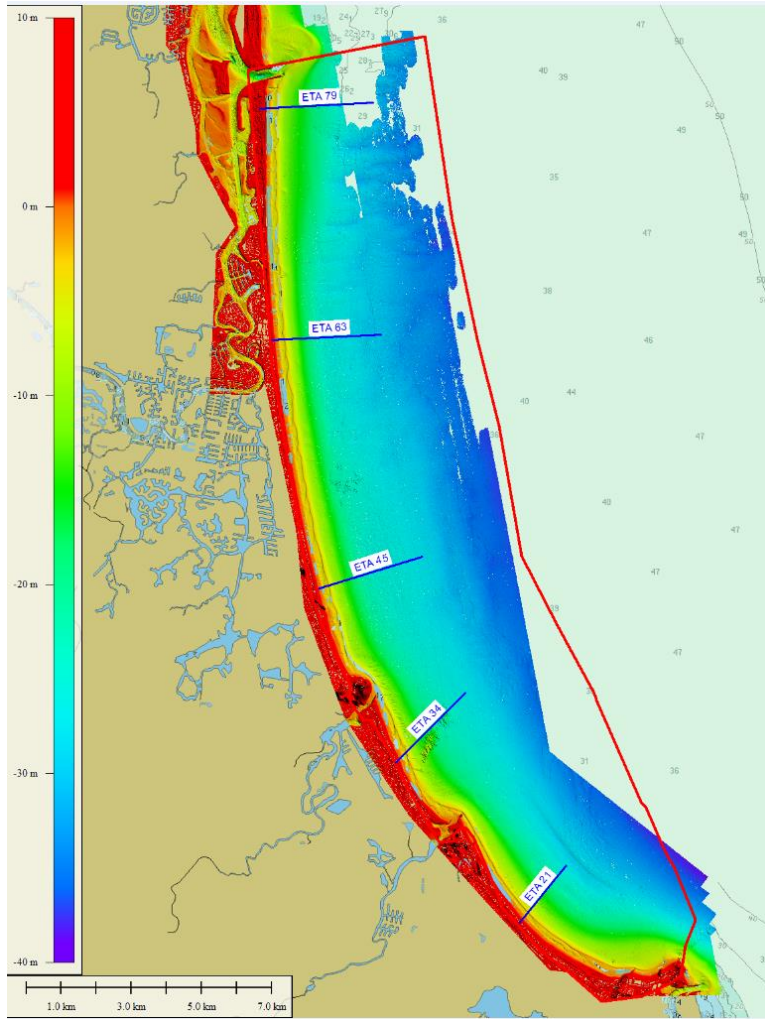








Current Project– Queensland ALB & SDB Monitoring



Project Objective:

Monitor coastal dynamics over 12 months (July 2019 to June 2020)

Survey size:

~200 SqKm

Survey Technic / Standard:

ALB and SDB, IHO Order 1b

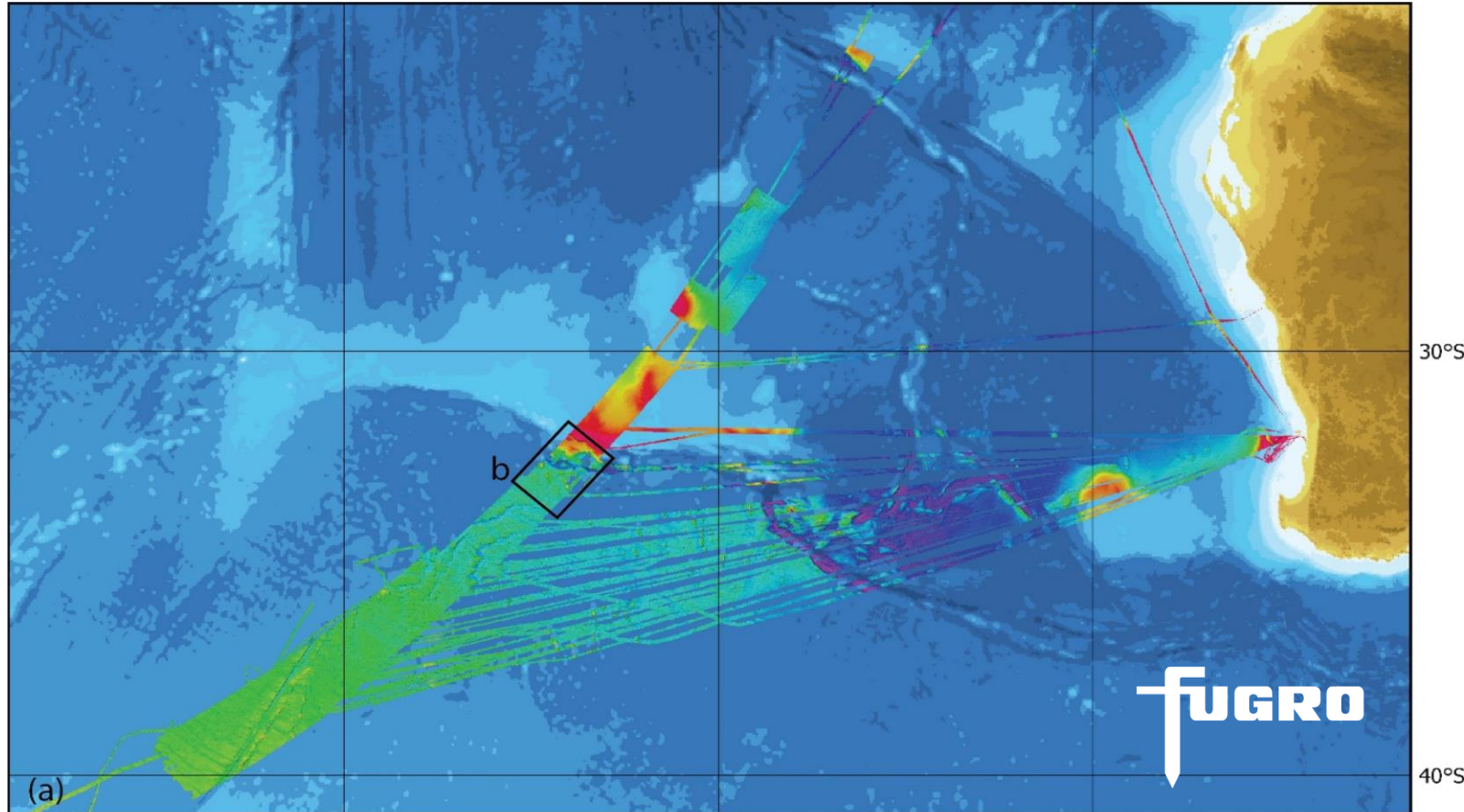
Project Status:

ALB Reference Survey completed
SBD Monitoring on going

GEBCO Seabed 2030

Fugro's Asia Pacific fleet participating in our global effort to support Seabed 2030

>500,000 sqkm donated to date



Addressing the Tsunami Risk in Asia and Pacific States

Participating in the United Nations Economic and Social Commission for Asia Pacific (UNESCAP) Sustainable Business Network task force on disaster and climate risk reduction

Pilot 1. Tsunami Detection using Advanced GNSS deployed at sea on Vessels

Pilot 2. Utilise helideck monitoring systems on offshore installation to augment tsunami warning systems



CHINA NAVIGATION



FAS900

Fugro Autonomous Surveyor

FAS-900 designed for utilisation in the **hydrographic** industry; Primarily for **broad area mapping of the seabed** with MBES for nautical charting applications.

FAS-900 Benefits include:

- **Faster collection of high data quality;**
- **Reduces HSSE exposure** through minimised offshore staffing;
- Provides sustainable operation through significantly **reduced fuel consumption** and carbon footprint.
- Hugh Parker (Adelaide) the Global Product Owner.



Remote Operations Centre

Remote Operations Centres established in Perth and Aberdeen to manage offshore operations reducing field exposure.

Data returned via Fugro **Back2Base** technology



RAMMS

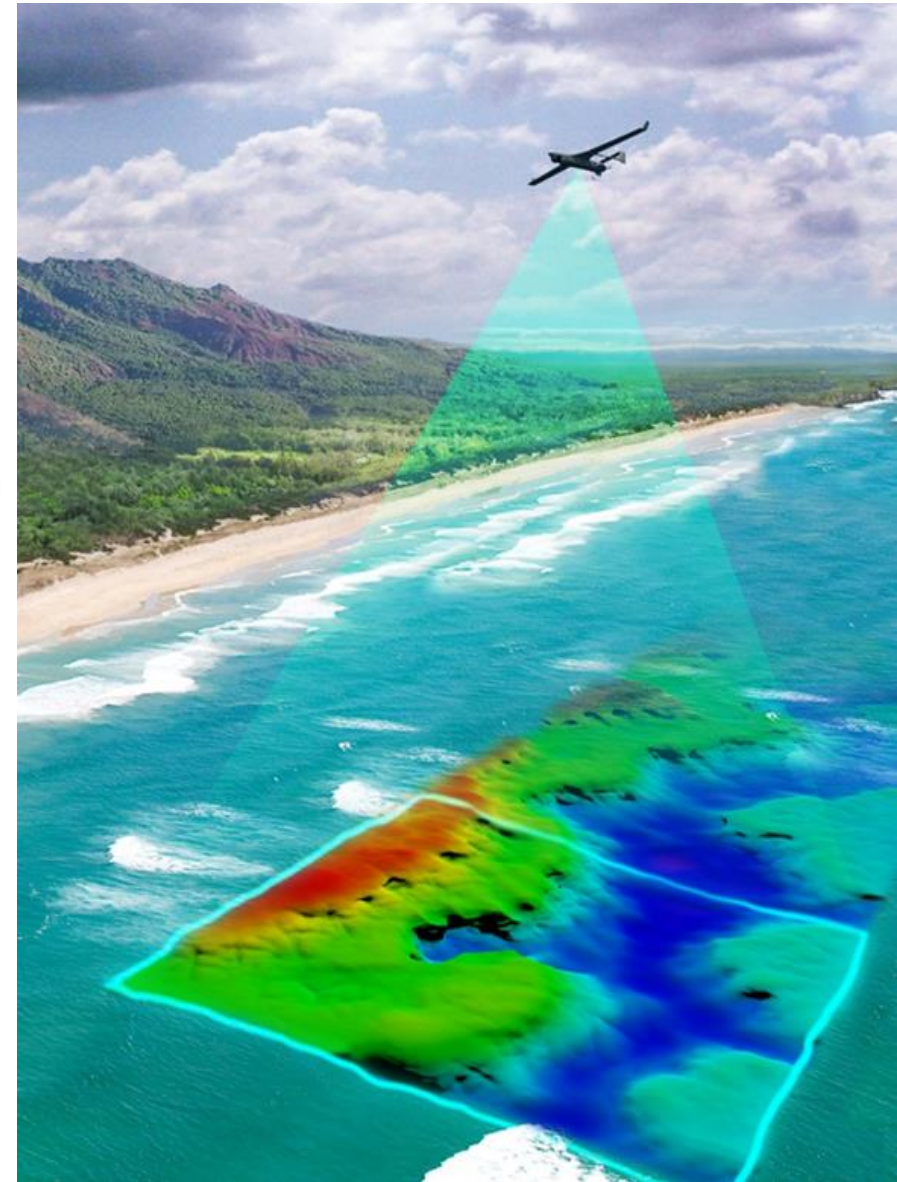
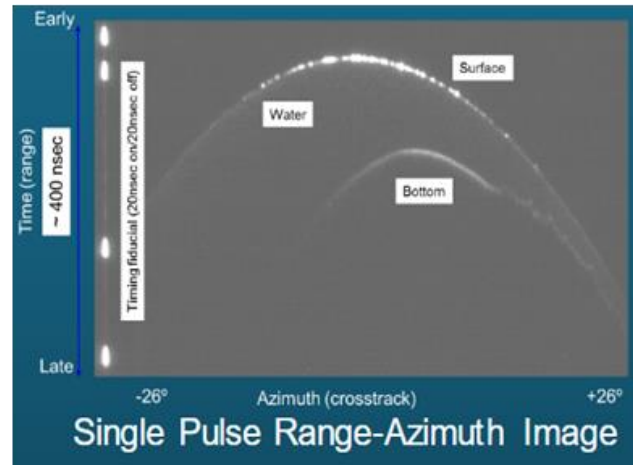
No moving parts

Low-power , Weight, Size

High Data Density

Drone Survey Capability

Pyxis generic point cloud
data processing using ML &
AI



Accredited Cat B Applied Hydrographic Survey Programme

24 week duration

12 Places

3 Points of Entry



FIG/IHO/ICA International Board on
Standards of Competence for Hydrographic Surveyors
and Nautical Cartographers (IBSC) N°190



CERTIFICATE OF RECOGNITION

The FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers, having reviewed the programme **Applied Hydrographic Survey Programme (AHSP)** submitted by the **FUGRO ACADEMY/FUGRO GREAT BRITAIN (NORTH) MARINE LTD (UK)** against the Standards of Competence for Category "B" Hydrographic Surveyors, S-5 B Edition 1.0.1, and being satisfied that it meets the requirements prescribed in the Standards, hereby awards this certificate of recognition for a period of six (6) years.

Signed at Monaco

Adam Greenland
Chair of the Board
This day the 31 March 2018

First course completed 2019. 2020 course currently training students from Australia, PNG (NMSA), India, Africa etc.

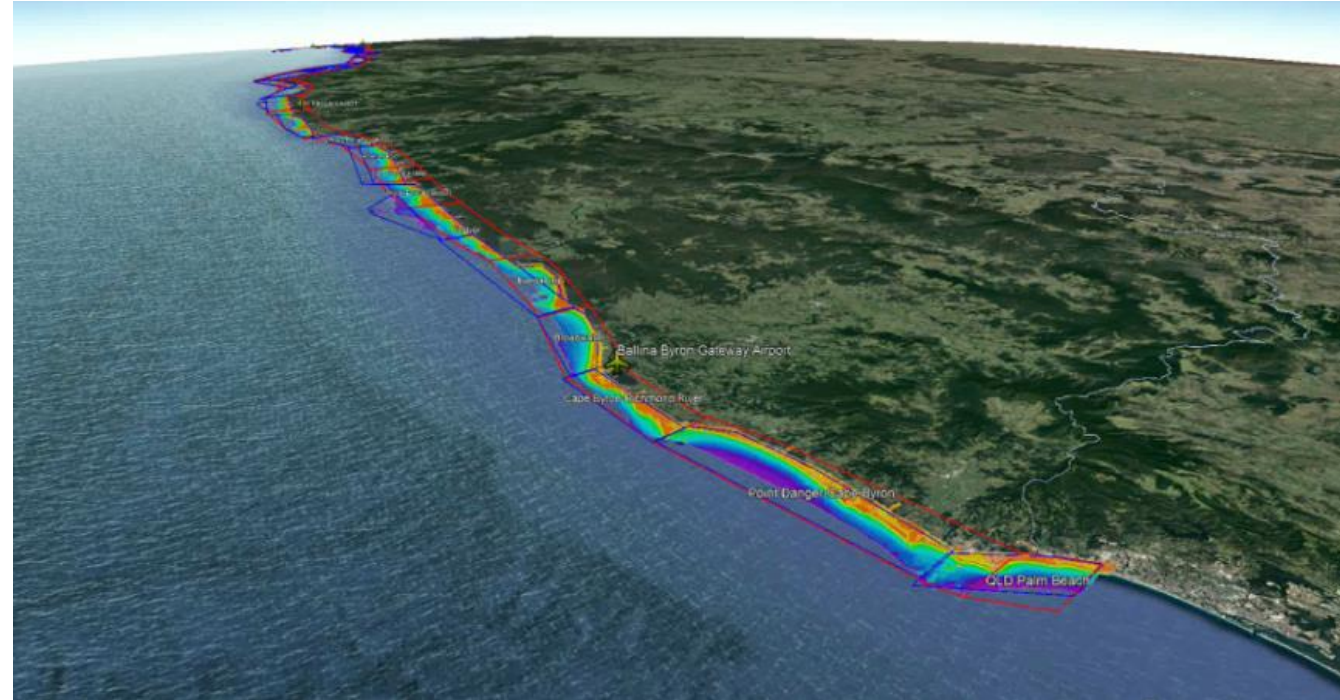
World Hydrography Day - Survey Seminar (Suva)



New South Wales 2018

- Survey period: 14 weeks
- Area flown: ~9,500 SqKm
Final data Coverage area: ~7000SqKM
- Number of flights: 80 (~4hrs duration flight)
- 6 flights / week conducted on average during the course of the entire project (Up to 12 flights/week)

90kmm of coastal area fully surveyed per week



“

We unlock insights from Geo-data,
for a safe and liveable world

Our Mission