



Geoscience, Energy and Maritime Division (GEM) Pacific Community(SPC)

Hydrographic related activities in 2021 Oceans and Maritime

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## SPC's 27 Member Countries and Territories



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#### SPC Member Map





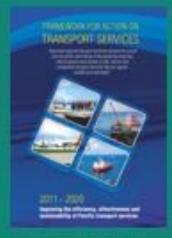
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#### Framework for a Pacific Oceanscape



Integrated ocean management

#### Framework for Action on Transport Services



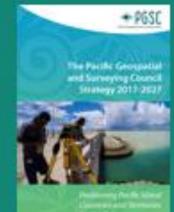
Improving the efficiency, effectiveness and sustainability of transport services

### Pacific Islands Meteorological Strategy



Improved marine weather and ocean services

#### Pacific Geospatial and Surveying Council Strategy



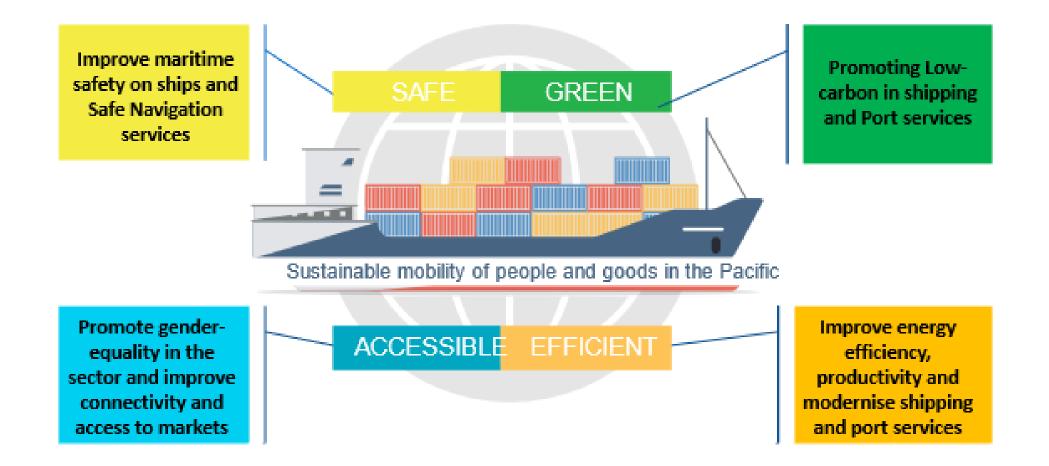
World-class geospatial information and surveying services





## **SPC Maritime Integrated Programme**

Community-centred approach to safety-for-all at sea







## **Good ocean and maritime governance**



UK Government supports Pacific Islands progress on Extended Continental Shelf submission. https://www.spc.int/updates/news/joint-release/2021/08/uk-government-supportspacific-island-progress-on-extended



#### **PICs Maritime Boundaries**

This dashboard is the regional platform for sharing progress and relevant information on Pacific island maritime boundaries and zones.

VIEW DASHBOARD

Soft launch of the Pacific Islands Maritime Boundaries interactive dashboard https://pacificdata.org/dashboard/maritime-boundaries

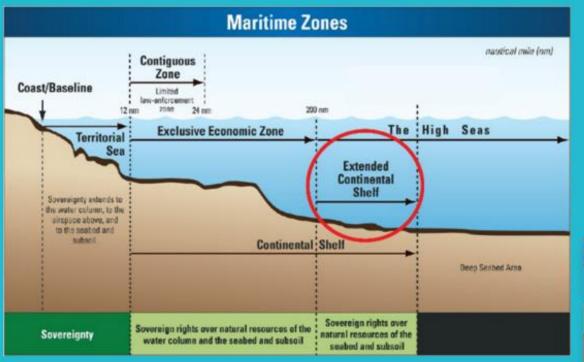




# **Pacific Extended Continental Shelf Project**



# Developing capacity to progress ECS submissions



#### **Capacity Building Opportunities**

- National or regional training
- Software training
- Attachments or online courses

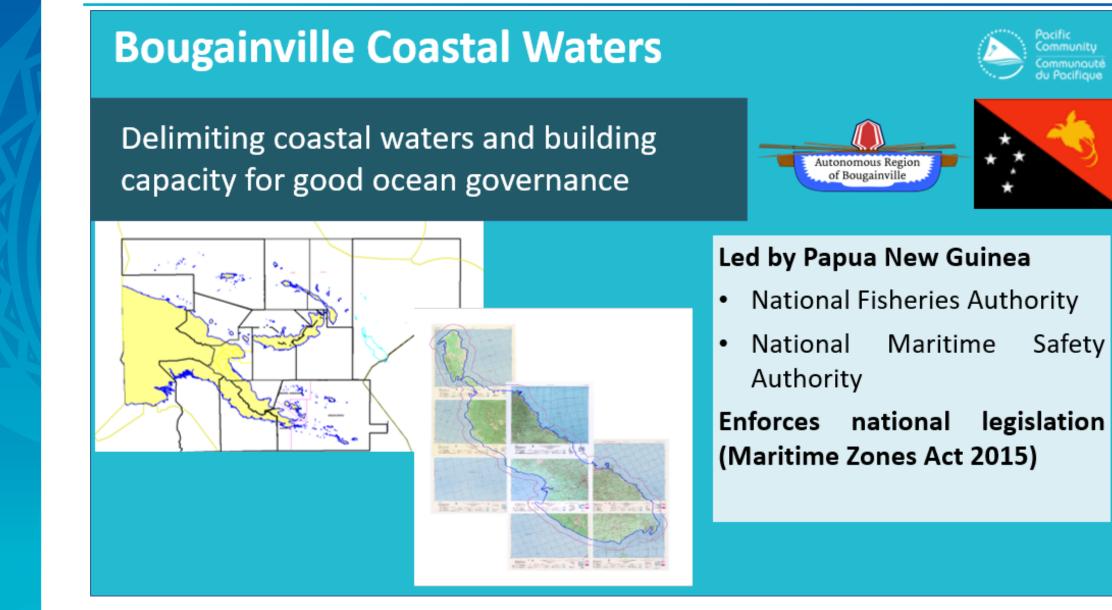
## Data Acquisition

• Satellite imagery/ bathymetry

## **Submission Consultancy Support**



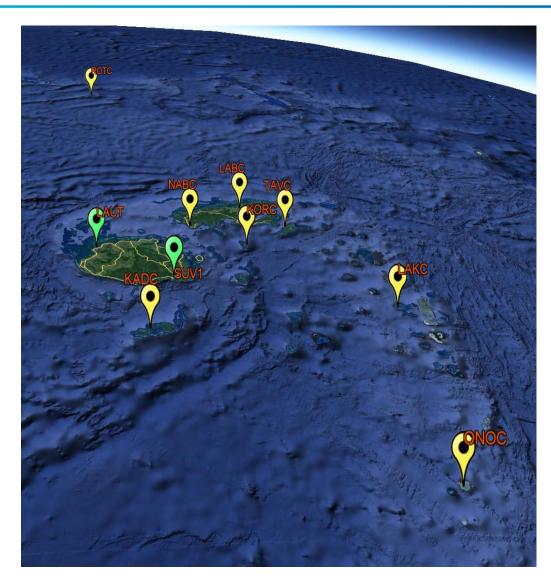
**Ocean Management & Literacy Team** 





# Geodetic Reference Frame of Tuvalu and Fiji





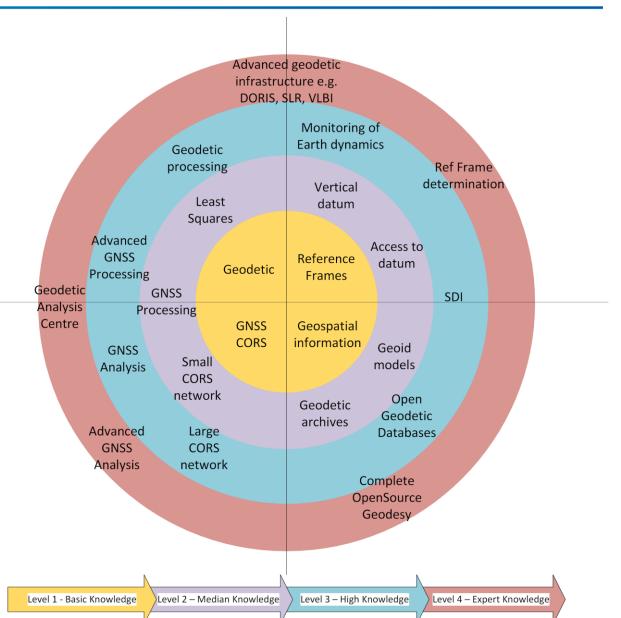




Purpose



- Modernise Fiji's and Tuvalu's Geodetic Reference Frame
- Define the geodetic infrastructure aligned to Global Geodetic Reference Frame (GGRF)
- Compatible with IGS and positioning technology
- Near real time positioning for disaster risks and hazards
- Monitoring Earth dynamics
- Enhance geospatial capacity and capability





## **Geodetic Survey Operations**







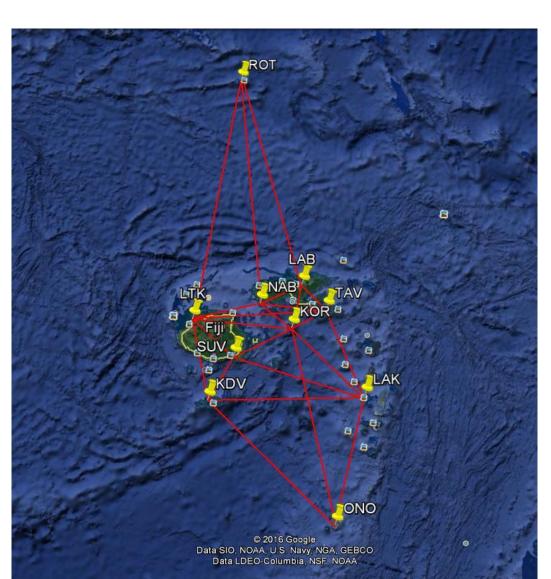




## The Geodetic Infrastructure

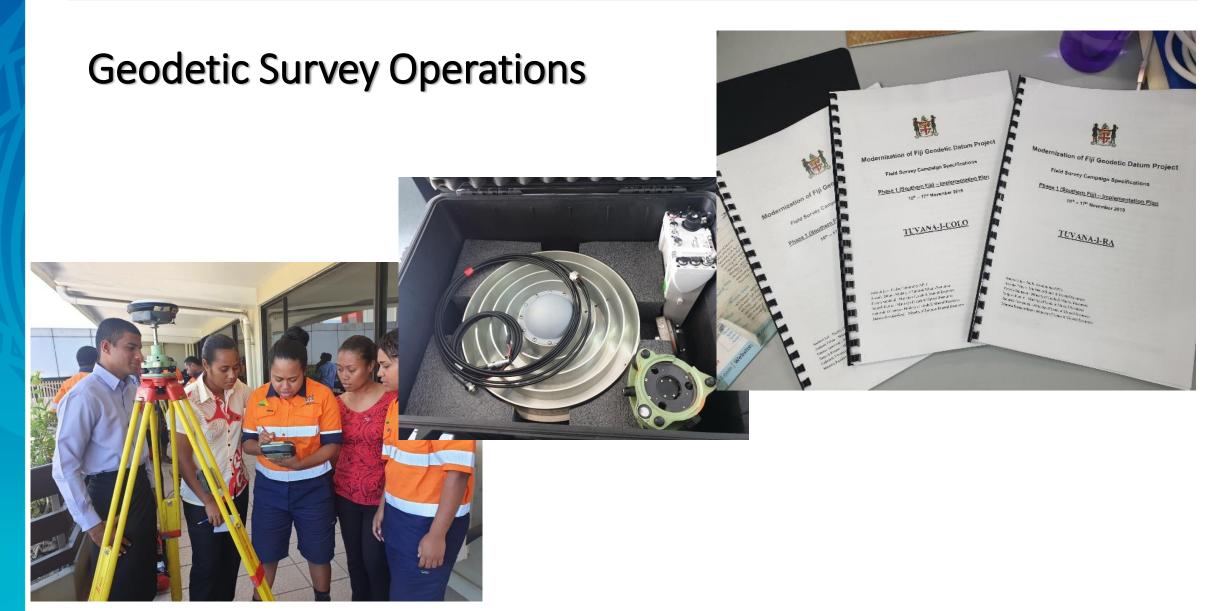














# **Applied Ocean Science**



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- SPC through the DFAT funded Climate and Oceans Support Program in the Pacific produced 2022 tide prediction calendar for 24 locations in the region, including a new calendar for Ebeye, RMI.
- Digital copies of the calendar can be accessed at the Pacific Ocean Portal- under the library tab. <u>http://oceanportal.spc.int/</u>



# Marshall Islands - Ebeye 2022 Tide Predictions Calendar Climate and Oceans Support Program in the Pacific Apacific Islands Program supported by the Australian Government







## Lautoka

The diagram below shows the predicted heights of key tide components based on averages of the data available.

Continuously Operating Reference Station Land Reference Station Benchmark LAUTBM 31.336m Tide Gauge Sea level station 4.440m Benchmark (SSBM) FIJ13 2.443m HAT Highest Astronomical Tide (HAT) 1.301m Mean Sea Level (MSL) MSL 0.128m Lowest Astronomical Tide (LAT) LAT TideGaugeZero (TGZ) TGZ 0m

The tide calendars include datum schematic which defines the zero of the predictions, connecting the tide stations to the Continuous Operating Reference Stations (CORS)





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SPC through the DFAT funded **Climate and Oceans Support** Program in the Pacific has developed a tide predictions mobile application for both Android and Apple users. This can be discovered on the respective play stores by searching "Pacific Tides". The app will be launched in the next few months for wider public access. For any feedback or review, please email: zulfikarb@spc.int



Pacific Tide Prediction Calendars are generated by the Australian-funded Climate and Oceans Support Program in the Pacific (COSPPac) and are now being designed and produced in the region by the Pacific Community (SPC)'s Ocean and Tides Knowledge Unit. The calendar predictions are calculated by the Australian Bureau of Meteorology's Tidal Unit with information from the Pacific Sea Level Monitoring stations and a few additional tide gauges around the region. SPC through the DFAT funded Climate and Oceans Support Program in the Pacific has developed a tide predictions mobile application for both Android and Apple users. This can be discovered on the respective play stores by searching "Pacific Tides". The app will be launched in the next few months for wider public access. For any feedback or review, please email:

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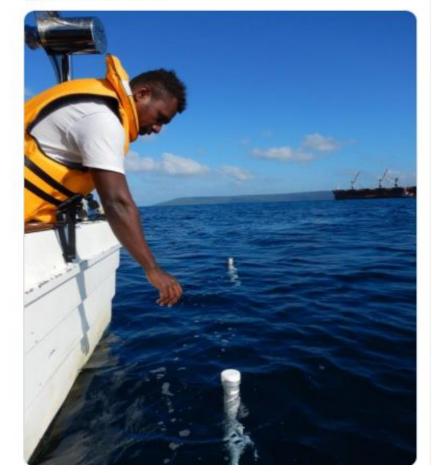


SPC hosted the 5<sup>th</sup> Data Buoy Cooperation Panel Pacific Islands Training Workshop on Ocean Observations and Data Applications (DBCP-PI-5), Virtual Session in 2021. A total of 160 participants were engaged in a week long session to discuss how to enhance Pacific Islands Nations capacity to apply ocean observations for social and economic benefit, and to improve the forecasts for severe weather events. Pacific Live tweets @spc\_live - 28 May 2021 A new initiative for the #SolomonIslands Met Service embarking on ships weather observation.

Addressing issues of limited data for real time weather warnings.

Presentation at 5th Pacific Islands Workshop on Ocean Observations and Data Applications.

📓 🜌 Environment Division



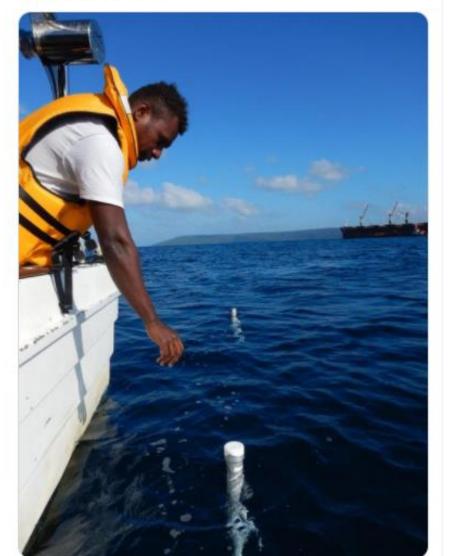


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## **PACIFIC RESILIENCE PROJECT**

#### Acquisition of lidar data for Marshall Islands, Tonga & Vanuatu

- Lidar data captured for Majuro and Ebeye islands in 2020.
- In January 2022 completed acquisition of lidar data for selected islands in Vanuatu.
  - Malekula Island, Efate Island & Tanna Island
- Acquisition of lidar data for selected islands in Tonga is scheduled for April 2022.
  - Eua Island, Niuatoputapu, & Tafani Islands, Vava'u Island Group
- SPC has contracted IIC Technologies to undertake quality assurance checks on lidar data.

#### Training on Use of Lidar Data

- Training has also been provided to countries on application of lidar data in workplaces.
  - National Marshall Islands, (April 2021), Vanuatu (Aug. 2021), Tonga (Oct 2021), Samoa (Scheduled for Mar 2022).
  - Regional Two regional training completed in June 2021 with participants from Kiribati, Solomons, Niue, FSM & SPC.



# Opportunities ahead



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The Science We Need For The Ocean We Want

2021 United Nations Decade of Ocean Science for Sustainable Development

A global framework to support efforts to reverse the cycle of decline in Ocean health & create improved conditions for sustainable development



'PCCOS provides a platform for coordination and integration of ocean science, knowledge and information in the Pacific and for partnerships with international and regional stakeholders

PCCOS aims to help Pacific Island governments and communities **easily access the ocean science and expertise they need** to make informed decisions and to protect and sustainably manage ocean resources.





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## **Opportunities ahead ...**





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The Pacific Community Centre for Ocean Science

#### The Fisheries, Aquaculture and Marine Ecosystems (FAME) Division of SPC are investigating the potential to design and construct a specific research platform for the Pacific region to support:

#### SPC/PCCOS Research Vessel Project

 The development of regional scientific advice To reinforce the region's capabilities to manage its natural resources

 Potential for vessel usage sharing by regional scientific organisations



## Latest developments & perspectives...



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- The 51st Meeting of the Committee of Representatives of Governments and Administrations and the 12th Conference of SPC concluded in December 2021 with the adoption of the organisation's new 10-year strategic plan.
- CRGA and Conference took on a celebratory tone as the organisation welcomed the return of the United Kingdom as an SPC member. As a founding Member State of SPC, the UK's resumption of membership represents its strong commitment to supporting the region's sustainable development and building a better future for all the people of the region. It brings the total number of Pacific Community members to 27.
- Pacific Community adopts 10-year plan at its annual meeting, setting out ambitious vision for future of the Blue Pacific SPC has set its vision for a sustainable, thriving and peaceful Blue Pacific with the endorsement of its new 10-year Strategic Plan 2021+
- Inaugural participation of the European Union as a Permanent Observer to SPC – The Pacific Community welcomed the European Union, a highly valued strategic and development partner, to CRGA 51 as SPC's first Permanent Observer.
- **SPC** continues to seek opportunities for engagement with members and stakeholders of the organisation. We will utilise dialogues, already appearing in members' calendars, to further inform the implementation of our strategy



https://purl.org/spc/digilib/doc/uzzya





#### A consistent approach to safety of navigation in the Pacific:

- Ensure Safety of Navigation is integrated to the 2050 Strategy for the Blue Pacific Continent
- Approach IMO with a consistent Pacific initiative related to Safety of Navigation under SOLAS Chapter V submission to TCC (SPC, IALA, IHO? Countries?)
- Establish a consortium of partners to support Safety of Navigation initiatives in the Pacific (similar to the consortium of partner on maritime boundaries)





**Note** SPC activities under the Oceans and Maritime Programme and its role and continued involvement in the Maritime Sector

**Acknowledge** the importance of a safe, green, accessible, and efficient maritime sector under the 2050 Strategy for the Blue Pacific Continent

**Agree** for a consistent and coordinated approach of safety of navigation in the Pacific between countries and interested partners and to engage with IMO through Pacific position papers and formal requests for support





