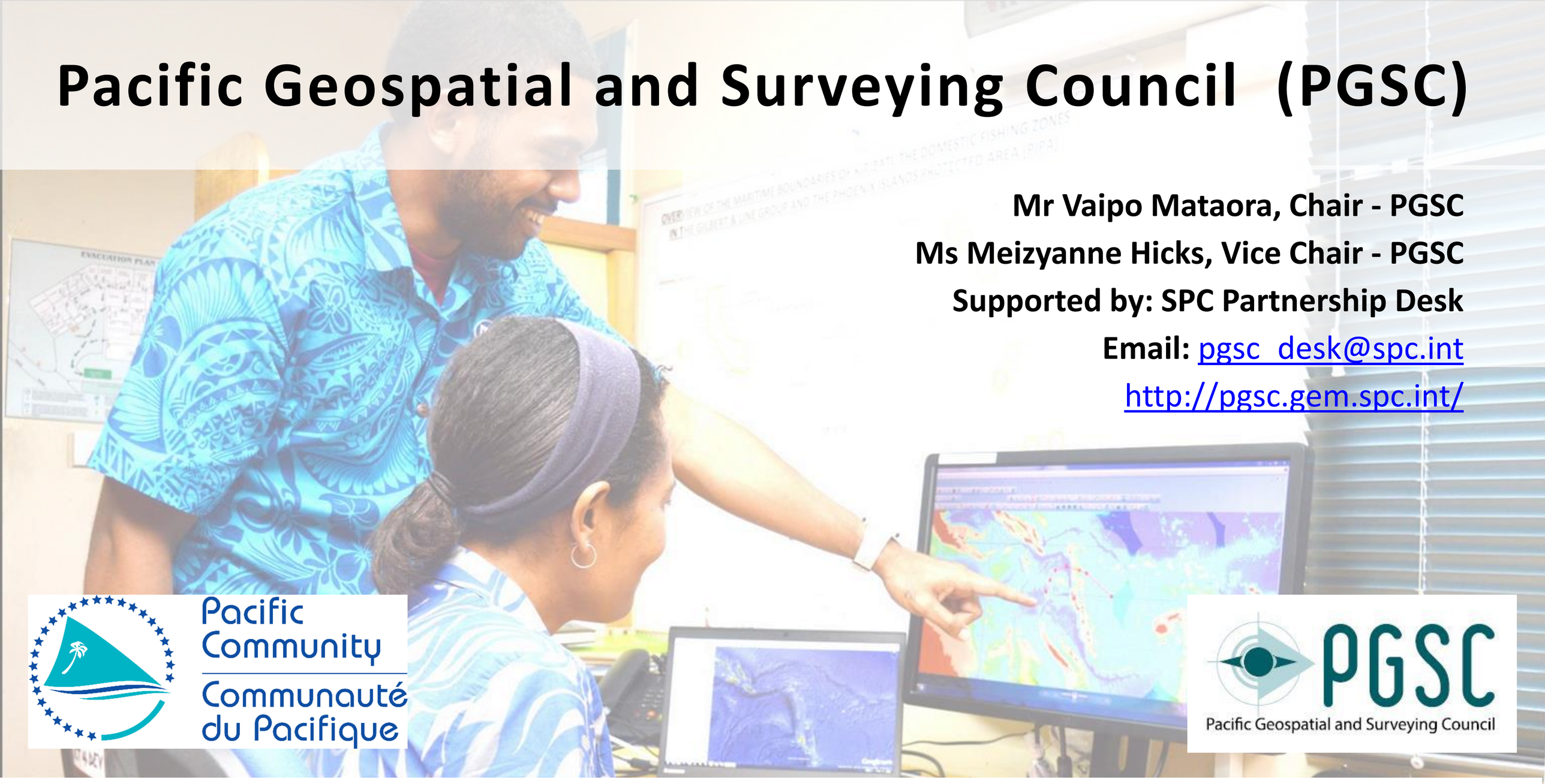
Pacific Geospatial and Surveying Council (PGSC)



Mr Vaipo Mataora, Chair - PGSC

Ms Meizyanne Hicks, Vice Chair - PGSC

Supported by: SPC Partnership Desk

Email: pgsc_desk@spc.int

http://pgsc.gem.spc.int/

Pacific Community
Communauté du Pacifique

PGSC
Pacific Geospatial and Surveying Council

What is the PGSC?

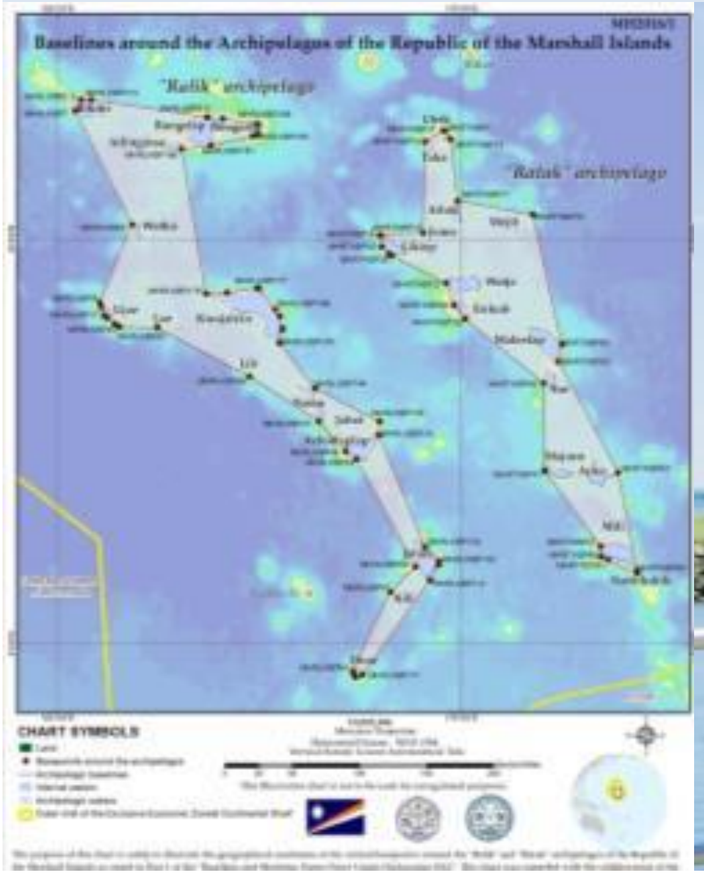
PGSC
Pacific Geospatial and Surveying Council

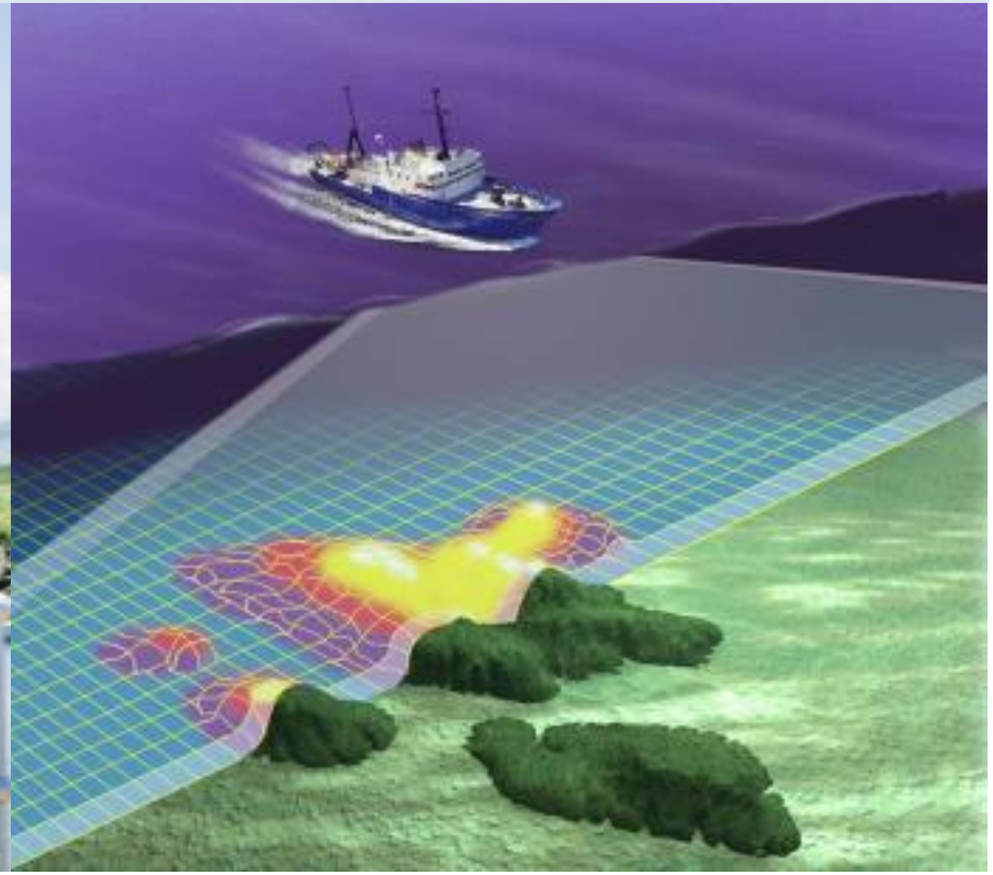
Pacific Geospatial & Surveying Council

- **Independent regional body** advancing geospatial and surveying standards and capacity
- Established in the margins of the Pacific GIS/RS User Conference in November 2014
- Governed by the **PGSC Charter**
- Implementing and monitoring progress against the **PGSC Strategy (2017-2027)**
- Supported by **PGSC Partnership Desk** (GEM Division of SPC)
- **Recognised** Nationally, Regionally and Globally

Vision

Sustainable development in the Pacific enabled by world class geospatial information and surveying services





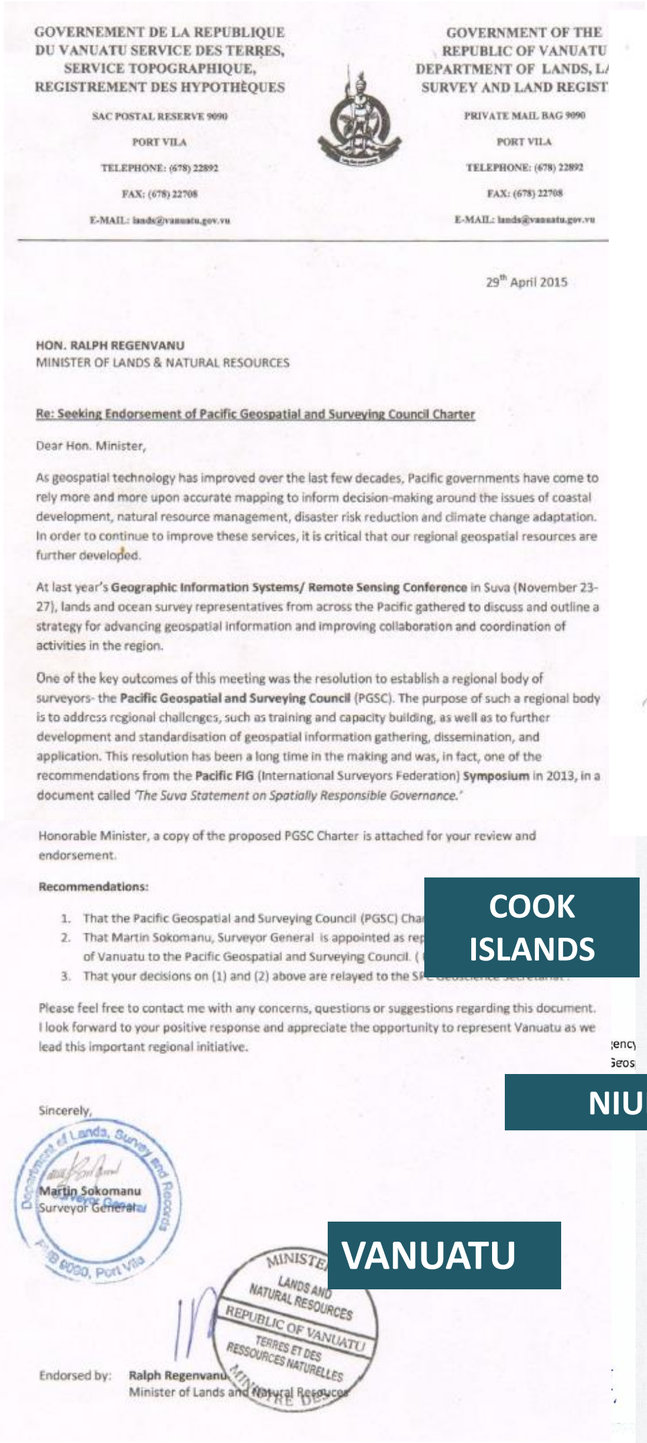
Mission

PGSC
Pacific Geospatial and Surveying Council

Pacific Island survey and geospatial services, including hazard mapping, urban planning, cadastre mapping, hydrography, and other geospatial requirements for sustainable development, are sufficiently resourced to respond to member country priorities.

PGSC Charter

- Drafted by committee in 2014 at inaugural PGSC meeting
- Endorsed by 11 Pacific Governments at Ministerial Level in 2015-2016
- Endorsed by Fiji at Cabinet Level in 2016
- PW, NR, PG & French Territories have shown interest after OGS: NC, PF



GOVERNEMENT DE LA REPUBLIQUE
DU VANUATU SERVICE DES TERRES,
SERVICE TOPOGRAPHIQUE,
REGISTREMENT DES HYPOTHÈQUES

SAC POSTAL RESERVE 9090
PORT VILA
TELEPHONE: (678) 22892
FAX: (678) 22708
E-MAIL: lands@vanuatu.gov.vu

GOVERNMENT OF THE
REPUBLIC OF VANUATU
DEPARTMENT OF LANDS, L
SURVEY AND LAND REGIST

PRIVATE MAIL BAG 9090
PORT VILA
TELEPHONE: (678) 22892
FAX: (678) 22708
E-MAIL: lands@vanuatu.gov.vu

29th April 2015

HON. RALPH REGENVANU
MINISTER OF LANDS & NATURAL RESOURCES

Re: Seeking Endorsement of Pacific Geospatial and Surveying Council Charter

Dear Hon. Minister,

As geospatial technology has improved over the last few decades, Pacific governments have come to rely more and more upon accurate mapping to inform decision-making around the issues of coastal development, natural resource management, disaster risk reduction and climate change adaptation. In order to continue to improve these services, it is critical that our regional geospatial resources are further developed.

At last year's **Geographic Information Systems/ Remote Sensing Conference** in Suva (November 23-27), lands and ocean survey representatives from across the Pacific gathered to discuss and outline a strategy for advancing geospatial information and improving collaboration and coordination of activities in the region.

One of the key outcomes of this meeting was the resolution to establish a regional body of surveyors- the **Pacific Geospatial and Surveying Council** (PGSC). The purpose of such a regional body is to address regional challenges, such as training and capacity building, as well as to further development and standardisation of geospatial information gathering, dissemination, and application. This resolution has been a long time in the making and was, in fact, one of the recommendations from the **Pacific FIG** (International Surveyors Federation) **Symposium** in 2013, in a document called *'The Suva Statement on Spatially Responsible Governance.'*

Honorable Minister, a copy of the proposed PGSC Charter is attached for your review and endorsement.

Recommendations:

1. That the Pacific Geospatial and Surveying Council (PGSC) Cha
2. That Martin Sokomanu, Surveyor General is appointed as rep
of Vanuatu to the Pacific Geospatial and Surveying Council. (
3. That your decisions on (1) and (2) above are relayed to the SP

Please feel free to contact me with any concerns, questions or suggestions regarding this document. I look forward to your positive response and appreciate the opportunity to represent Vanuatu as we lead this important regional initiative.

Sincerely,

Martin Sokomanu
Surveyor General

Endorsed by: Ralph Regenvanu
Minister of Lands and Natural Resources

VANUATU

Office of the Prime Minister

MEMORANDUM

To: Permanent Secretary for Lands and Mineral Resources

From: Secretary to the Cabinet

Date: 18 April 2016

Subject: Cabinet Decision

Enclosed please find Cabinet Decision **No.78** on the subject of *Pacific Geospatial and Surveying Council* for insertion in File No. *1/1/2686* or in an appropriate file.

Please acknowledge receipt.

M. Lolawai (Ms)
for Secretary to the Cabinet

Enc

TONGA

(b) PS Sec.
1. PM. please a copy in Cabinet Paper/Decision file

SAMOA

CP (2016): Written Opinion
Date: 13/04/16

COOK ISLANDS

SOLOMON ISLANDS

DECISION
th April, 2016

FSM

78. Pacific Geospatial and Surveying Council – 1/1/2686 CP(16)61

NIUE

Cabinet, by Wri

KIRIBATI

(i) agreed that Fiji endorse the Pacific Geospatial and Surveying Council Charter, and become a member of the Pacific Geospatial and Surveying Council.

MARSHALL ISLANDS

FIJI

Susan Kiran (Ms)
Secretary to the Cabinet

4th PGSC Meeting 2018 – Tonga

PGSC
Pacific Geospatial and Surveying Council

Chair Actg. CEO - Ministry of Lands and Natural Resources (Tonga)

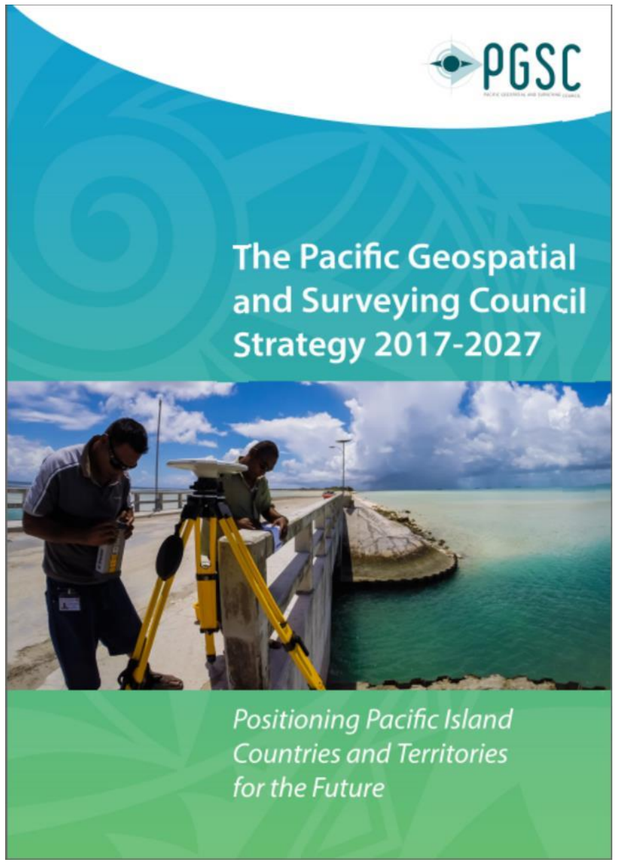
Vice-Chair Ms Meizyanne Hicks, Director Geospatial - Ministry of Lands and Mineral Resources (Fiji)

5th PGSC Meeting 2020 – Virtual

PGSC
Pacific Geospatial and Surveying Council

PGSC Strategy

PGSC
Pacific Geospatial and Surveying Council



The late Prime Minister, Hon. Samiuela ‘Akilisi Pōhiva launched the world’s first regional strategy for surveying & geospatial development on 10 April 2018 in Nuku’alofa, Tonga

Also pictured, the Australian High Commissioner, New Zealand High Commissioner, Japanese Consulate, UNGGIM, and the Pacific Community (PGSC Partnership Desk)

5th PGSC Meeting 2020 – Outcome Statement

PGSC
Pacific Geospatial and Surveying Council

Recognises the critical importance of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) Integrated Geospatial Information Framework (IGIF), and **support** the Council members in the operationalisation of the IGIF.

Encourages members to access the resources and tools of the UN-GGIM Secretariat for the IGIF and agree for the Council to establish a sub-regional collective modality for the IGIF to **support** the design, development and operationalisation of country action plans for the members.

Recognises the Moganshan Declaration "The Geospatial Way to a Better World" of 2018 and **adopts** the Talanoa Outcome Statement on Earth Observation Cooperation in the Pacific made on Tuesday 5th November 2019, Australia, during the Group on Earth Observations (GEO) Week 2019 in Canberra, Australia.

Encourages council members to become members of the GEO, and further **agrees** for the PGSC to be the collective regional voice for Earth Observations in the Pacific.

Recognises the United Nations Decade of Ocean Science for Sustainable Development (2021-2030) and encourage PGSC members to align the activities of geospatial and surveying to UN SDGs.

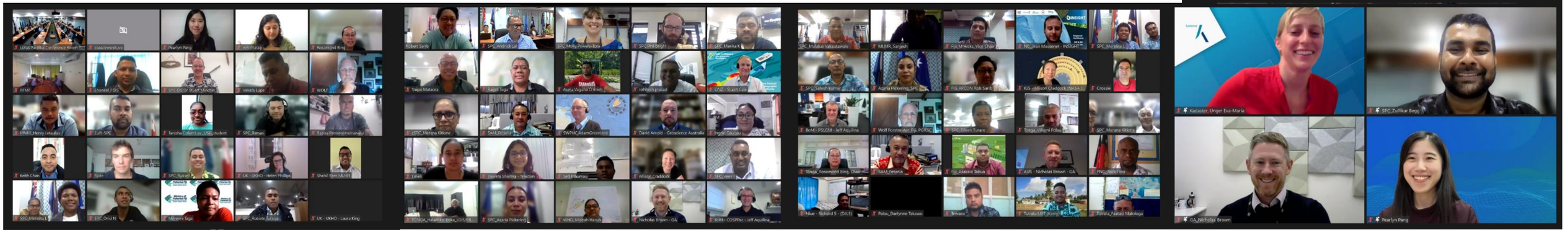
Recognises to commend the participation of the UN-GGIM, UN-GGIM AP, UN-GGIM ETCB, GA, FIG-APCDN, LINZ, SSSi, S+SNZ and NGS-NOAA for their support and resources available to PGSC.

Refer to PGSC-5-Outcome-statement-and-declaration-Final-1.pdf (spc.int)

PGSC Plenary Session 2022

PGSC
Pacific Geospatial and Surveying Council

- PGSC Strategy (2017 – 2027)
- Pacific Geospatial Women Network
- PGSC Working Groups
- PGSC Support and the Partnership Desk
- UN-GGIM Integrated Geospatial Information Framework Country Action Plan
    - Fiji, Kiribati and Tonga



PGSC Plenary Session 2022

PGSC
Pacific Geospatial and Surveying Council

- PGSC Strategy (2017 – 2027)
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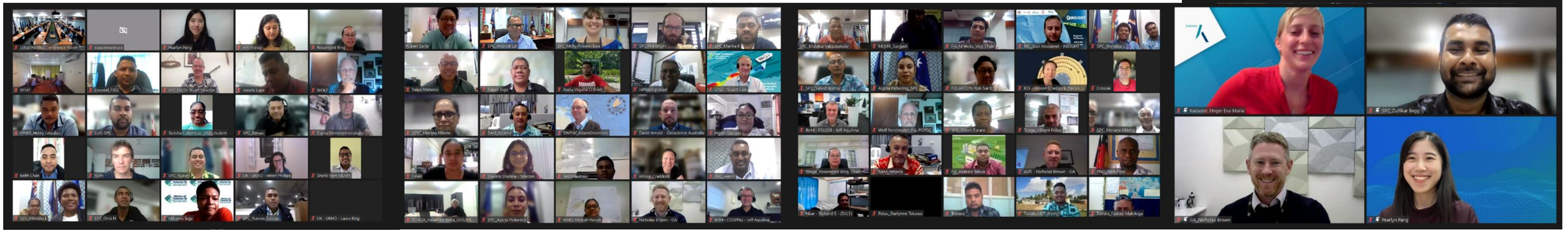


6th PGSC Meeting – Sydney Australia

PGSC
Pacific Geospatial and Surveying Council

PGSC Business Meeting (11th December 2023)

- Council Elections
- 5th PGSC Meeting Minutes
- PGSC Review of Charter
- Terms of reference: -
  - PGSC Women Network
  - PGSC Young Surveyors Geospatial Network
- PGSC Working Groups
- PIC Country Updates
- PGSC Action Items

6th PGSC Partners Meeting - 12th Dec 2023

PGSC
Pacific Geospatial and Surveying Council

Regional Updates

1. **SPC** Case study on Data Handling & Requirements
2. **SPC** Geospatial & Surveying Activities
3. **Bureau of Meteorology Australia** (COSPPac)
4. **GA** (**Geoscience Australia**)
5. **GCA** (**Geospatial Council Australia**)
6. **LINZ** (Land Information New Zealand)
7. **S+SNZ** (Survey and Spatial New Zealand)
8. **AHO** (Australia Hydrographic Office)
9. **SWPHC** (Southwest Pacific Hydrographic Commission)
10. **NIWA** (National Institute of Water & Atmospheric)
11. **GTEWS** (Global Navigation Satellite System Tsunami Early Warning Systems) – IUGG Initiatives
12. **Australian Consulting Surveyors Network**

Global Updates

13. **FIG AP CDN** (Asia Pacific Capacity Development Network)
14. **UN GGIM (Working Group on Marine Geospatial Information)**
15. **UN GGIM Sub-committee on Geodesy (SCoG)**
16. **NOAA** (National Oceanic and Atmospheric Administration)
17. **IGS** (International GNSS Service)
18. **IHO** (International Hydrographic Office)
19. **UN GGCE** (Global Geodetic Centre of Excellence)

Regional Initiatives

20. **Fugro**
21. **IIC Technologies**
22. **Land Equity International**
23. **Aaron Hicks (under New Zealand Volunteer Scheme)**

PGSC Working Groups

PGSC
Pacific Geospatial and Surveying Council

Positioning

Supporting countries to modernise their Geodetic Reference Frames and align to the Global model

Geospatial Policy & Data Management

Supporting countries to develop policies and tools for improved geospatial information and data management

Capacity Building

Supporting countries to build existing and future capacity through expanded professional development and educational opportunities

Strategic Partnerships

- **Donor** support from AU-DFAT, NZ-MFAT, UN-GGIM
- **Training** and **capacity support** from Geoscience Australia, LINZ, UN-GGIM-AP, FIG, UKHO, USP, UNOOSA, SPC
- **Equipment** and **infrastructure** support from GA, SPC
- **MoU** signed with S+SNZ (2018) and SSSi (2019)
- Links with key global and regional frameworks:
  - SDGs, UN-GGIM Roadmap, Sendai Framework, SAMOA Pathway, FRDP, FIG Suva Statement and Christchurch Declaration

PGSC
Pacific Geospatial and Surveying Council

Pacific and New Zealand surveying and geospatial professionals join forces for capacity development

10 Apr 2018 | Nuku'Alofa

MoU signed with S+SNZ April 2018

MoU signed with SSSi Aug 2019

Pacific Community
Communauté du Pacifique

FIG

UN-GGIM
GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

UNOOSA

USP
THE UNIVERSITY OF THE SOUTH PACIFIC

THE WORLD BANK

Australian Government
Geoscience Australia

Land Information New Zealand
Toitū te whenua

United Kingdom Hydrographic Office

SSSI

Survey and Spatial New Zealand

USGS
science for a changing world

Country Members

Countries:-	Name and Organisation:-	Responsible for:-
Cook Islands	- Mr Vaipo Mataora, Director	- Geospatial and Hydrography
Federated States of Micronesia	- Mr Carlson Diopulos, Director - Mr Alfred Lebehn, GIS Manager	- Surveying - Geospatial
Fiji Islands	- Ms Meizyanne Hicks, Director - Mr Asakaia Tabua, Surveyor General - Mr Jervis Robinson, Chief Hydrographer	- Geospatial - Surveying - Hydrography
Kiribati	- Mr Tioti Taaitee, Director - Mr Tion Uriam, Hydrographer	- Geospatial and Surveying - Hydrography
Marshall Islands	- Mr Scadrie Mijjena , Actg. Chief Surveyor - Mr Benedict Yamamura, Chief Coastal Fisheries	- Surveying - Geospatial
Niue	- Mr Richard Siataga, Division Head	- Geospatial and Surveying
Nauru	- Mr Peniasi Nakautoga, Director	- Surveying
Palau	- Ms Sterlina Gabriel, Director - Mr David Idip, Director	- Surveying - Geospatial
Papua New Guinea	- Mr Michael Gideon, Director - Mr Nicholas Pion, Senior Hydrographer	- Geospatial - Surveying
Samoa	- Mr Petania Tuala, Principal Surveyor - Ms Telesia Sila, Principal Mapping Officer	- Surveying - Geospatial
Solomon Islands	- Mr Jimmy Ikina, Surveyor General - Mr Perry Rukale, TO-Cartography	- Geospatial and Surveying - Hydrography
Tonga	- Mr Viliami Folau, Deputy CEO - Mr Taaniela Kula, Deputy CEO - Ms Halalilika Etika, Deputy CEO	- Surveying - Natural Resources - Geospatial
Tuvalu	- Mr Faatasi Malologa, Director	- Geospatial and Surveying
Vanuatu	- Mr Tony Kanas, Surveyor General - Mr Toney Tevi, Director	- Geospatial and Surveying - Hydrography

PGSC Partnership Desk - SPC

Pacific Geospatial and Surveying Council

- Surveying and Geospatial
- Remote Sensing
- Drone Operations
- Maritime Boundaries
- Geology
- Hydrography
- Oceanography

Pacific Geodetic Network (GNSS CORS)

Pacific Geospatial Women Network (PGWM)

- Law and Policy
- Stakeholder engagement
- Training
- Communications
- Procurement
- Management
- Advocacy
- Capacity Development
- Resource Development

PGSC Partnership Desk receives SPC DG Award for Member Collaboration Dec 2018

Partnership and Collaboration National, Regional and International UN-GGIM Workshop, Singapore 2022

Recent Activities

Pacific Geospatial and Surveying Council

Tuvalu Geodetic Surveys - Nine (9) atolls (2016-2019)

GA donates GNSS equipment to PGSC Partnership Desk (2019)

Pre-campaign GNSS Operational Training for Fiji Lands (2019)

Survey team support for Fiji Geodetic Modernization Campaign (2019-2020) - Operational

GNSS Data Processing & Analysis – Tonga Survey Office (2019)

Virtual AUSPOS Training – Tuvalu Survey Team (2020)

Fiji Institute of Surveyors Website (2019)

Tuvalu Geodetic Surveys Data Processing, Analysis and Reporting (2020-2021)

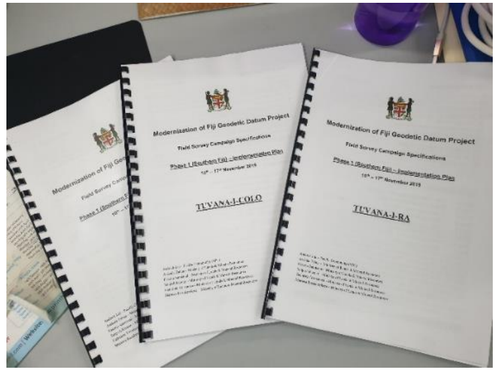
Fiji Geodetic Surveys Campaign Survey Data Compilation, Data Processing and Analysis (2020-2021)

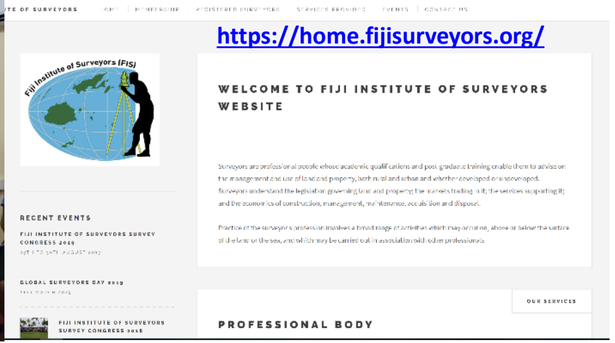
Fiji Geodetic Datum Surveys Data Release (2022)

Tonga (Vava'u, Eua, Niuatoputapu) Geodetic Control Surveys – LiDAR (2022)

Vanuatu (Efate, Tanna, Malekula) Geodetic Control Surveys – LiDAR (2022)

Fiji Geospatial Reference System – ROADMAP October 2023





United Nations Committee of Experts on Global Geospatial Information Management

Pacific Geospatial and Surveying Council

The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening geospatial information management.

Governance →

Technology →

People →

Anchored by 9 Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.

Sub-committee on Geodesy

Expert Group on Land Administration and Management

Expert Group on Marine Geospatial Information

United Nations Committee of Experts on Global Geospatial Information Management

United Nations

11TH TRANCHE DEVELOPMENT ACCOUNT PROJECT

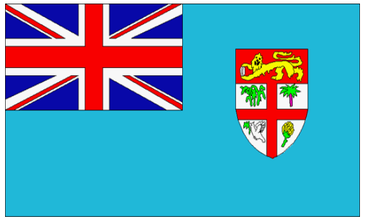
STRENGTHENING GEOSPATIAL INFORMATION MANAGEMENT IN DEVELOPING COUNTRIES TOWARDS IMPLEMENTING THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (PROJECT 1819D)

COUNTRY-LEVEL ACTION PLAN

ADDENDUM L

TOWARDS STRENGTHENING ARRANGEMENTS IN NATIONAL GEOSPATIAL INFORMATION MANAGEMENT

[Republic of the Fiji Islands]



United Nations Committee of Experts on Global Geospatial Information Management

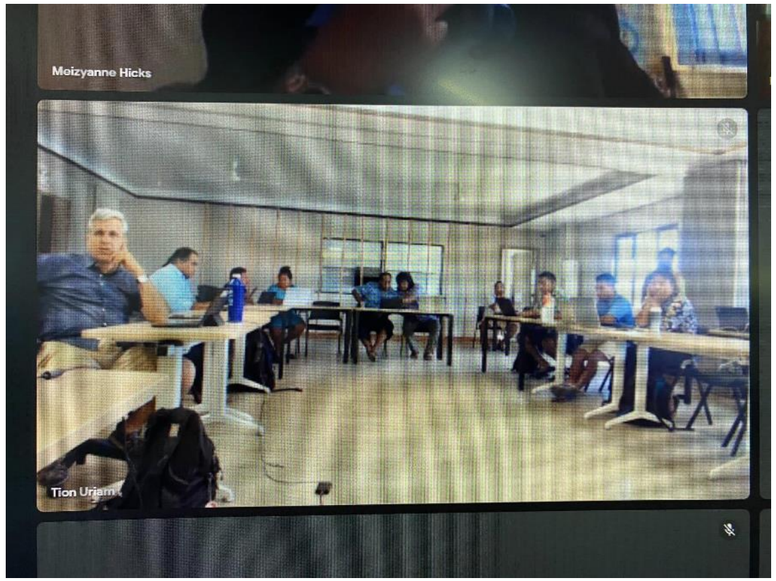
Pacific Geospatial and Surveying Council

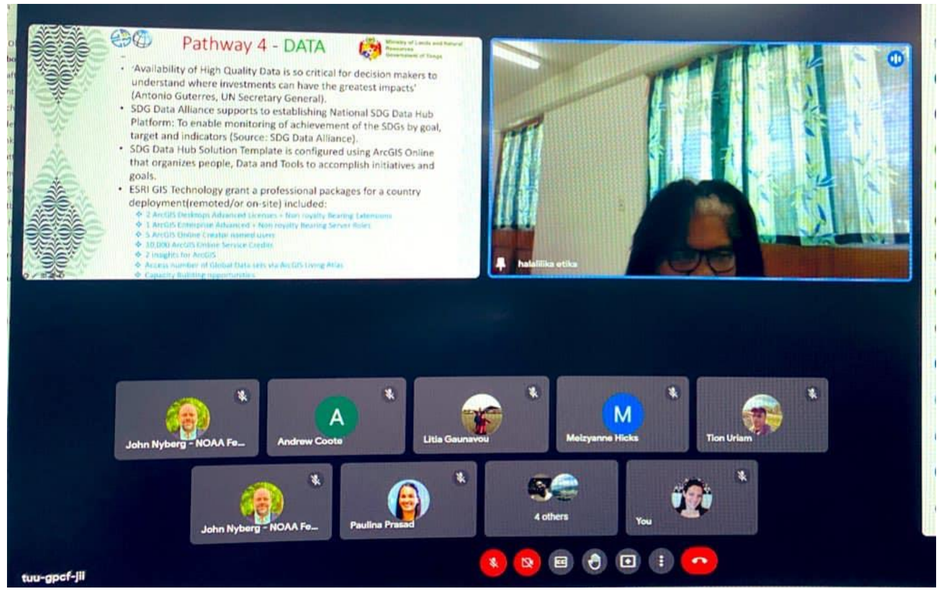
KINGDOM OF TONGA

STRENGTHENING ARRANGEMENTS TOWARD AN INTEGRATED GEOSPATIAL MANAGEMENT

Kiribati and UN-GGIM IGIF

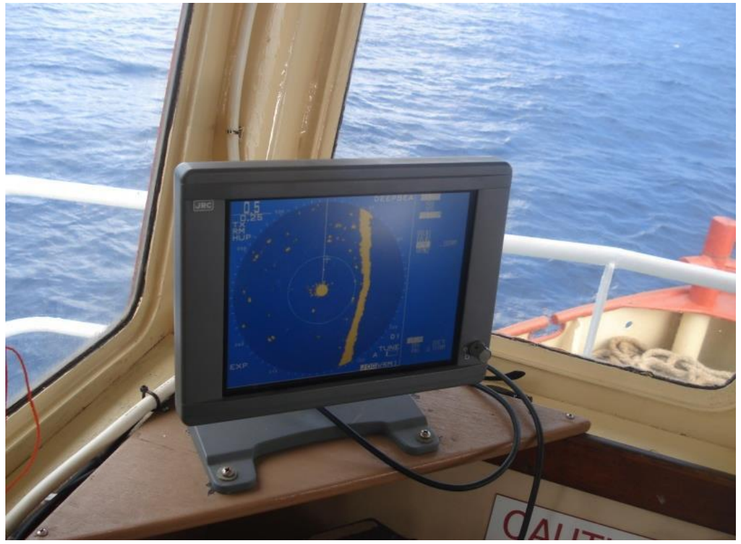
Pacific Geospatial and Surveying Council





Positioning

Pacific Geospatial and Surveying Council



FIJI GEODETIC DATUM 2019 - 2020 GNSS OCCUPATION REPORT

STATION NAME: **CEVA I RA**

4 CHARACTER ID: **CEVA**

LOCATION: **CEVA I RA I SLAND**

COUNTRY: **FIJI**

TYPE OF SURVEY MARK: **20mmx1.220mm STEEL ROD ENCASED BY 30mmx0.5mm ALUMINIUM PIPE IN SITU IN CONCRETE.**

ORTHOMETRIC HEIGHT OF SURVEY MARK:
(MEAN SEA LEVEL DATUM)

OBSERVATION START DATE/DAY: **09/11/2019**

UTC TIME: **2257hrs**

OBSERVATION END DATE/DAY: **17/11/2019**

UTC TIME: **0007hrs**

GNSS RECEIVER TYPE: **TRIMBLE**

MODEL: **TRIMBLE R10**

SERIAL NUMBER: **5333441663**

FIRMWARE VERSION: **4.81**

GNSS ANTENNA TYPE: **TRIMBLE**

MODEL: **TRMR10**

SERIAL NUMBER: **5333441663**

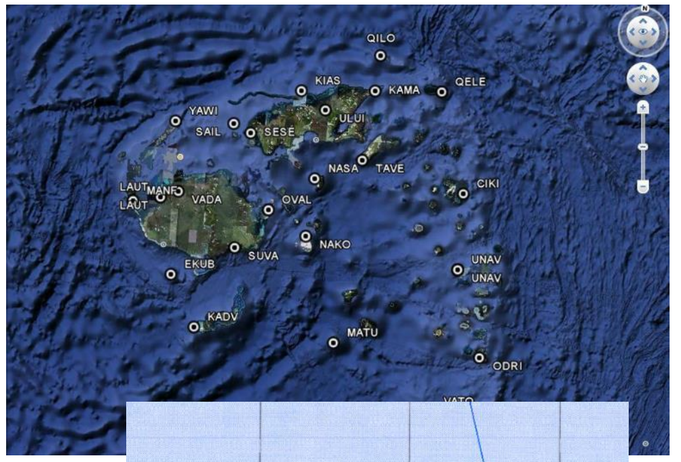
HEIGHT OF GNSS ANTENNA ABOVE STATION MARK: **1.643m**
(VERTICAL MEASUREMENT)

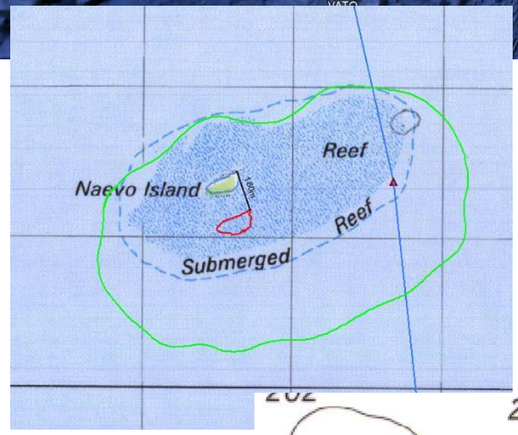
DESCRIPTION OF THE POINT ON THE GNSS ANTENNA
THAT THE ANTENNA HEIGHT REFERS TO:

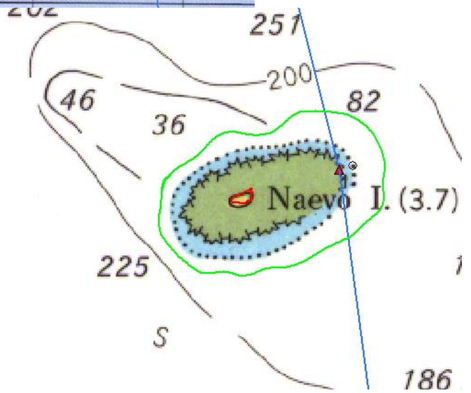
BOTTOM OF QUICK RELEASE

ANTENNA HEIGHT TO ARP = 1.692m

ATTACH ADDITIONAL INFORMATION AND DIAGRAMS THAT MAY BE USEFUL FOR PERSONS PROCESSING THE DATA AND ANALYSING THE RESULTS.





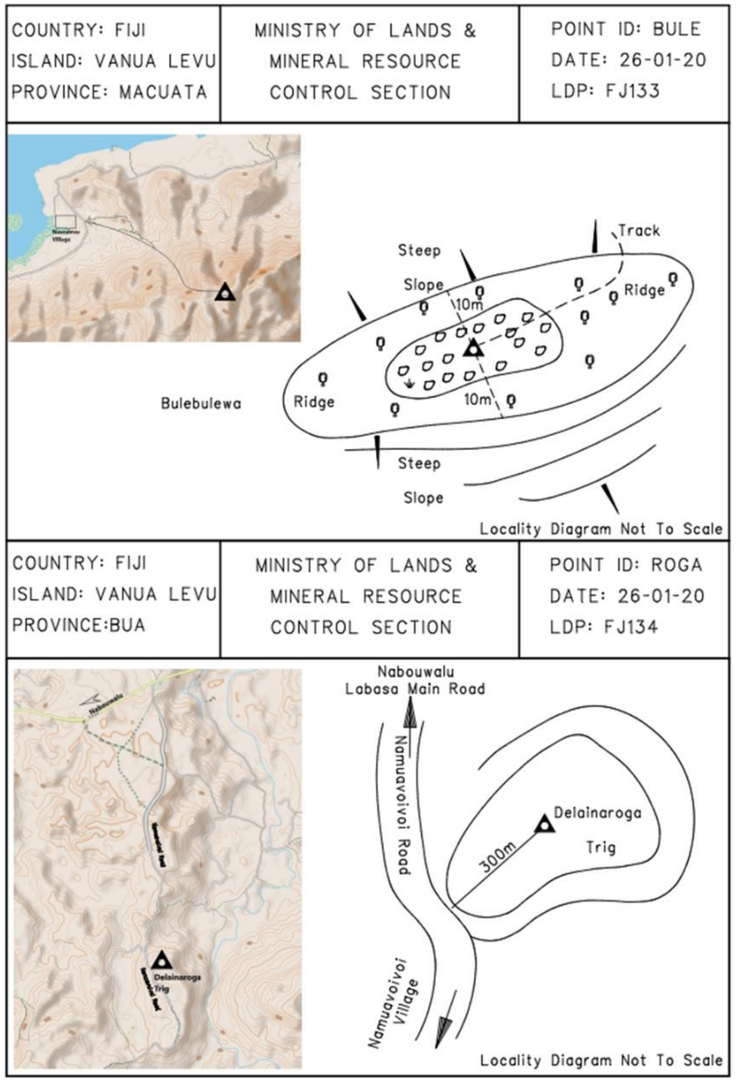


Geospatial

PGSC
Pacific Geospatial and Surveying Council

Geospatial Data Management

Pacific Geospatial and Surveying Council



Fiji Geodetic Stations Survey Campaign Metadata

Station ID	Station Name	Occupation Period	Interval	Receiver Type	Antenna Type	Rinex Version	Vertical Ht (m)	Rinex Height	Antenna Method	Firmware	Checked By	Field Operators
LAUT	Lautoka	Continuous	1sec	SEPT POLARX5	JAVRINGANT_DM	5.2.0			ARP			GA
SUV1	Suva	Continuous	1sec	Trimble NetR5	TRM55971.00	4.19			ARP			SPC
LABC	Labasa	Continuous	1sec	VNET10T-D	HI-TARGET AT-53501	3.02			ARP	CJ00		CONTROL
NABC	Nabouwalu	Continuous	1sec	HI-TARGET VNET10T-D	HITAT53501(HITS)	3.02			ARP	CJ00		CONTROL
TAVC	Taveuni	Continuous	1sec	HI-TARGET VNET10T-D	HITAT53501(HITS)	3.02			ARP	CJ00		CONTROL
KORC	Koro	Continuous	1sec	Leica GR50	Leica AR20	3.02			ARP	4.11.606		CONTROL
LAKC	Lakeba	Continuous	1sec	Leica GR50	Leica AR20	3.02			ARP	4.11.606		CONTROL
ONOC	Ono-i-Lau	Continuous	1sec	Leica GR50	Leica AR20	3.02			ARP	4.11.606		CONTROL
KADC	Kadavu	Continuous	1sec	Leica GR50								
ROTC	Rotuma	Continuous	1sec	Leica GR51								
CEVA	Ceva-i-ra	7 DAYS	1sec	TRIMBLE R10								
BUKE	Delainabukelevu (Kadavu)	7 DAYS	30sec	TRIMBLE NET R9								
NAKO	Nakorowaro (Gau)	7 DAYS	30sec	LEICA GS10								
OALA	Korokoli (Moala)	7 DAYS	10sec	LEICA GPS 1200								
UNAV	Lakeba(GPS - Yadrana)	7 DAYS	1sec	LEICA GS16								
CIKI	Cikobia-i-lau	7 DAYS	15sec	LEICA GS10								
LULU	Cokalulu (Cicia)	7 DAYS	10sec	TRIMBLE NET R9								
MTKU	Matuku	7 DAYS	30sec	LEICA GPS 1200								
OGEA	Ogea Driki	7 DAYS	30sec	LEICA GPS 1200								
VATO	Vatoa	7 DAYS	30sec	LEICA GPS 1200								

Station ID	Start time	Duration	Campaign	File Name	RINEX Version	Ant Height	Ant Method	Ant Manufacturer	A
CEVA	10/11/19 1200hrs UTC	7days	Phase 1	16633153.19o 16633133.19o 16633140.19o 16633201.19o	3.02	1.692	BQR	Trimble	T
BUKE	10/11/19 1200hrs UTC	7days	Phase 1	42703140.19o 42703150.19o 42703160.19o 42703170.19o 42703180.19o 42703190.19o 42703200.19o	3.02	1.934	BON	Trimble	T 2 2
NAKO	10/11/19 1200hrs UTC	7days	Phase 1	NAKO3140.19o	3.02	1.625	Hook Height	Leica	L
OALA	10/11/19 1200hrs UTC	7days	Phase 1	MOAL3130.19o	2.11	1.764	Hook Height	Leica	L
UNAV	10/11/19 1200hrs UTC	7days	Phase 1	UNAV3140.19o UNAV3130.19o	3.02	1.74	Hook Height	Leica	L
CIKI	10/11/19 1200hrs UTC	7days	Phase 1	CIKI3130.19o	3.02	1.693	Hook Height	Leica	L
LULU	10/11/19 1200hrs UTC	7days	Phase 1	LULU.19o	3.02	1.707	BON	Trimble	T 2 2
MTKU	10/11/19 1200hrs UTC	7days	Phase 1	MATU3130.19o	2.11	1.623	Hook Height	Leica	L
OGEA	10/11/19 1200hrs UTC	7days	Phase 1	OGEA3130.19o	2.11	1.545	Hook Height	Leica	L

Capacity Building

PGSC
Pacific Geospatial and Surveying Council

Communications & Community

PGSC
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Public group · 1.3K members

https://www.facebook.com/groups/3998884766792177/

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Mapping our Pacific Geospatial Future

Suva | 21 June 2022

Imagine a world without maps. It's hard to do. Humans are born map-makers, instinctively looking for landmarks, making sense of patterns, and forming connections when we venture beyond our known environment.

For this reason, geospatial science may be one of the most important fields of study you have ever heard of. Geospatial information is location information. At its simplest, this can be topographical information found on a map. But you can also add in layers of location-tagged data, to show changes or trends, for example, in land use, population density, vaccine distribution, or coral reef health over time.

"If you look at Fiji's national development plan, there are so many areas where geospatial information comes in. There are calls

Feature

Embracing challenges through Partnerships, Pacific Geospatial & Surveying Council (PGSC) and the Pacific Community (SPC)
By - Andrick Lal, Senior Geodetic Surveyor

Modern Geodetic Infrastructure – Key to Consistency and Efficiency
By – Sanjesh Kumar, Senior Surveyor, Asaikata Talisa, Surveyor-General Fiji

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Thank you