



COSPPac

Climate and Oceans Support Program in the Pacific

Pacific Geospatial & Surveying Council

UN GGCE Capacity Development Workshop - July 2025



Vaipo Mataora
Chair (Cook Islands)



Meizyanne Hicks
Vice Chair (Fiji)

Supported by: SPC Partnership Desk

Email: pgsc_desk@spc.int

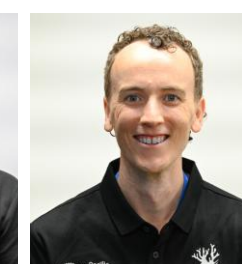
<http://pgsc.gem.spc.int/>



Partnership Desk



Coordinator



MERL
Advisor



GEDSI
Advisor



Comms
Officer



Geodetic
Officer

Oceans & Maritime Programme
Geoscience Energy & Maritime Division



What is the PGSC?

- The Pacific Geospatial and 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** endorsed by 11 Pacific Island governments
- Implementing and monitoring progress against the **PGSC Strategy (2017-2027)**
- Supported by **PGSC Partnership Desk** (GEM Division SPC)



Mission

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

Outlines

- Membership

- Core Member (countries lands & survey, geospatial, hydrographic professionals)
- Observer (organisation, institution)
- Expert Contributor

- Meetings

- Every 1-2 years

- Working Groups

- May be established to address technical issue or conduct specific activity

- Responsibilities of Chair/ Vice Chair

- Administration & Governance

- Governed by members

VISION

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



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



MINISTRY OF LANDS, HOUSING AND SURVEY
P.O.BOX G38
HONIARA
SOLOMON ISLANDS

Your Ref:

Our Ref: PGSC/ 1

Telephone: 28156/ 21511

Fax: 28156

Email: Jimmy.Ikina@sig.gov.sb

② SG

Your recommendation is fully
endorsed by Hon. Minister.
Please proceed with formalities.

11 May, 2015

The Honourable Minister
Ministry of Lands, Housing & Survey
P.O. Box G38
HONIARA,
Solomon Islands



PS,
I have fully endorsed
recommendations ① & ②
as proposed by Surveyor
General. Plse convey our
endorsement to SPC.

Dear Hon. Minister, Mr Andrew Manepora,

Re: Request for Endorsement of Pacific Geospatial and Surveying
Council Charter

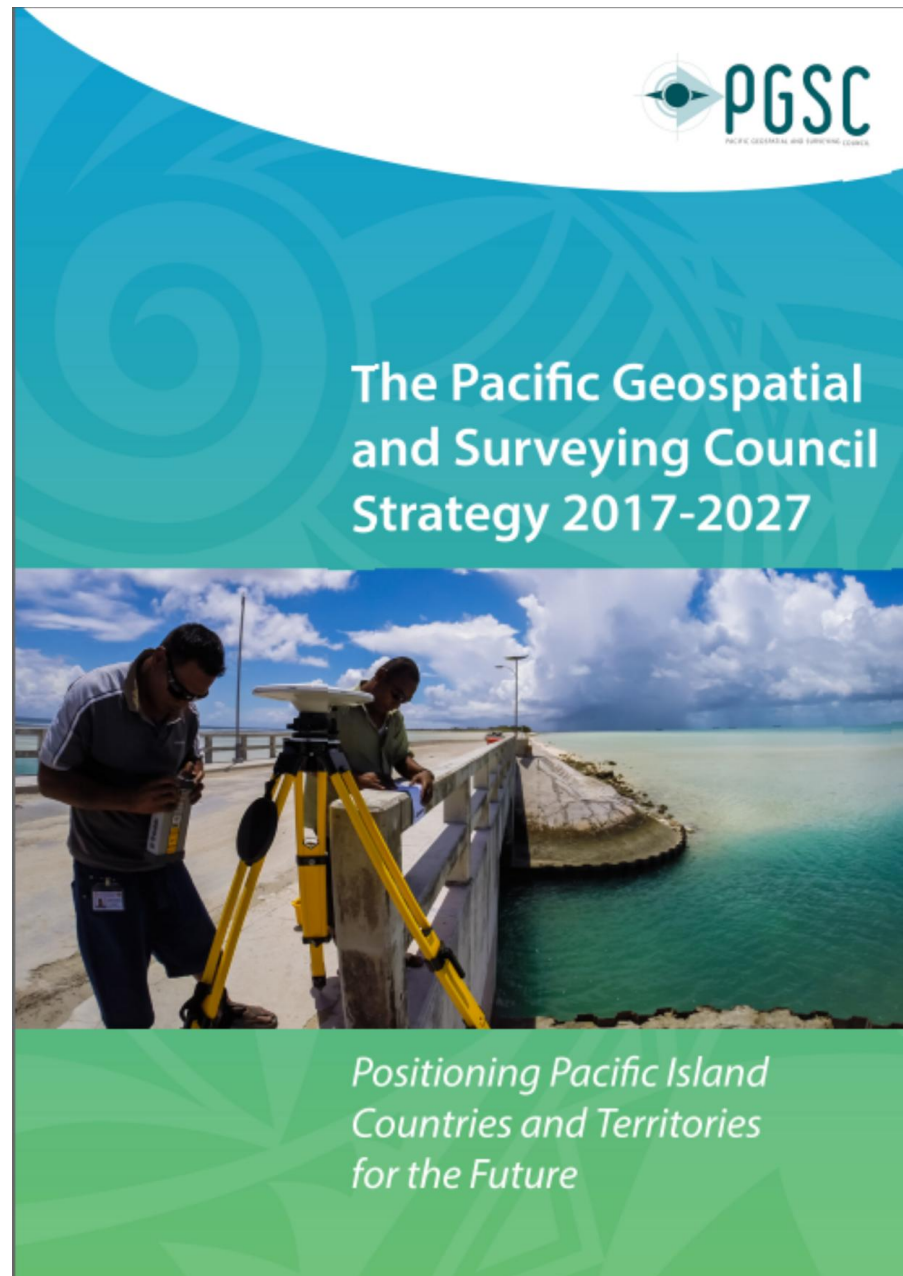
Minister 25/5

PGSC Strategy

- Workshopped and developed collaboratively at the 2015 PGSC Meeting
- Drafted by the PGSC Strategy Drafting Committee
- Edited and reviewed by MEL consultants
- Content endorsed by the PGSC in November 2016
- Officially launched at PGSC meeting in April 2018



PGSC Strategy



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)

Pacific Geospatial and Surveying Council 2018



Chair Ms Rosamond Bing, CEO - Ministry of Lands and Natural Resources (Tonga)

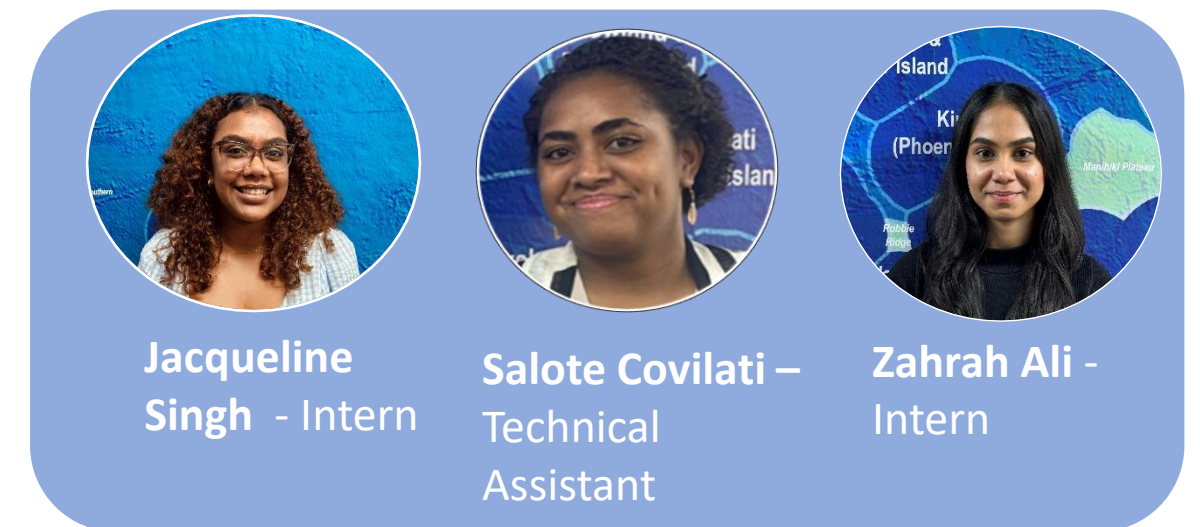
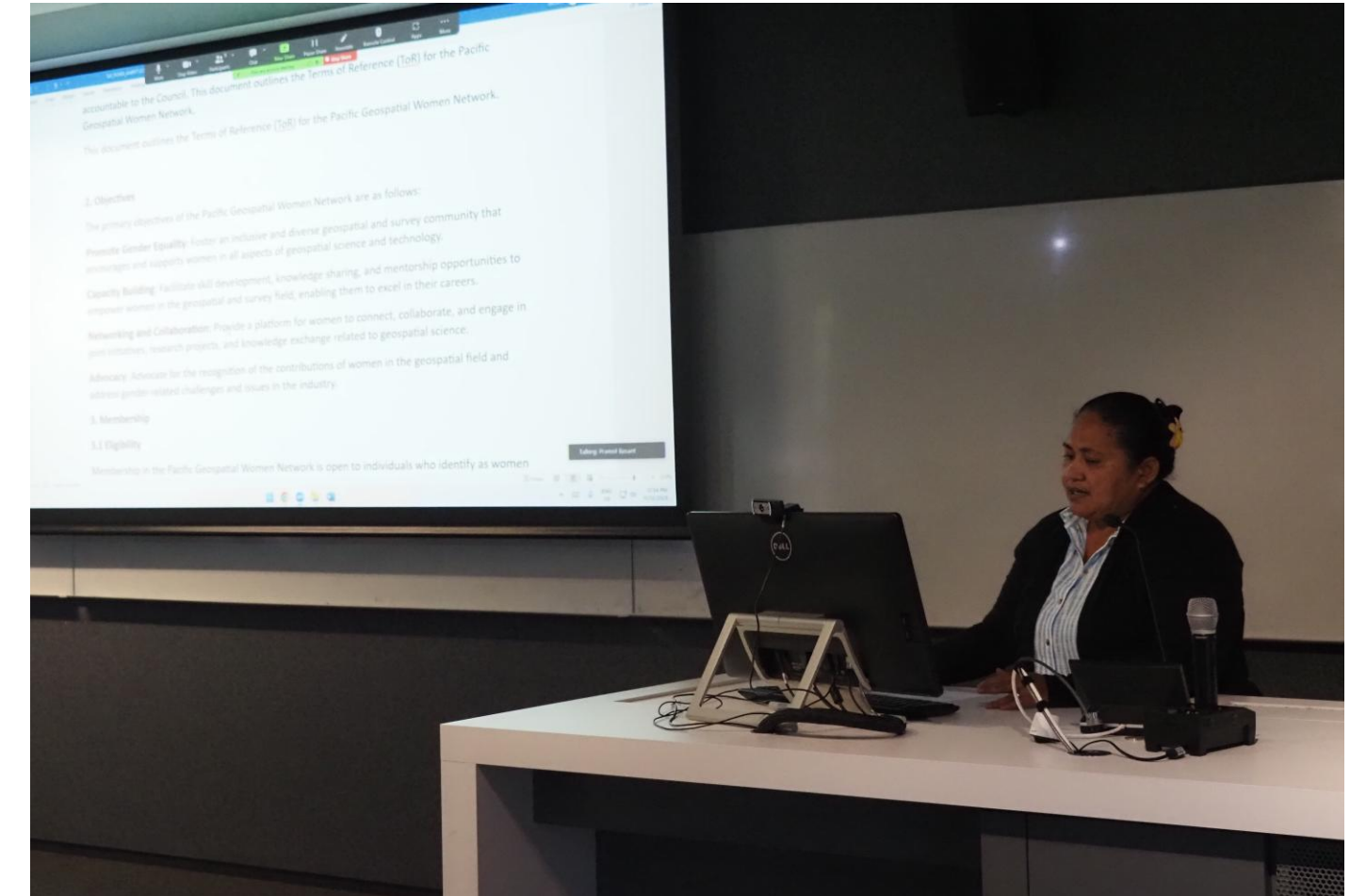
Vice-Chair Ms Meizyanne Hicks, Director Geospatial - Ministry of Lands and Mineral Resources (Fiji)

Pacific Geospatial and Surveying Council 2020

The Pacific Geospatial and Surveying Council brings together regional experts, practitioners, and heads of surveying, geospatial information management, and hydrography to report progress against the PGSC Strategy (2017–2027), conduct council business, identify key actions for working groups to progress, and provide a platform to raise regional issues and concerns related to geospatial and surveying capacity development, policy, technical standards, technology, and resourcing.



UN-GGIM & PGSC Plenary - 2022



**Pacific Geospatial Women
Network (PGWN)**

6th PGSC Meeting – Sydney Australia

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



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**
13. **PIAG** (Pacific Islands Advisory Group – GEO)

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)

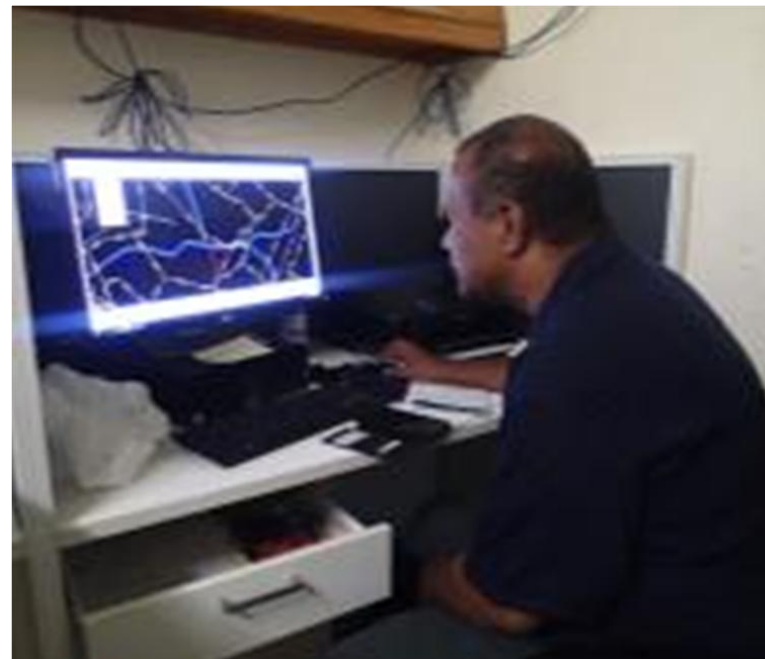
PGSC Working Groups

Positioning



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

Geospatial Policy & Data Management



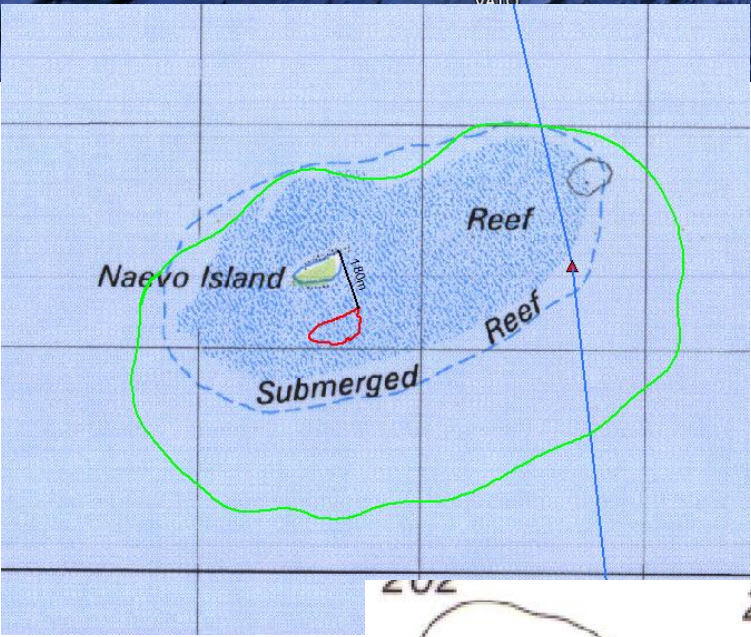
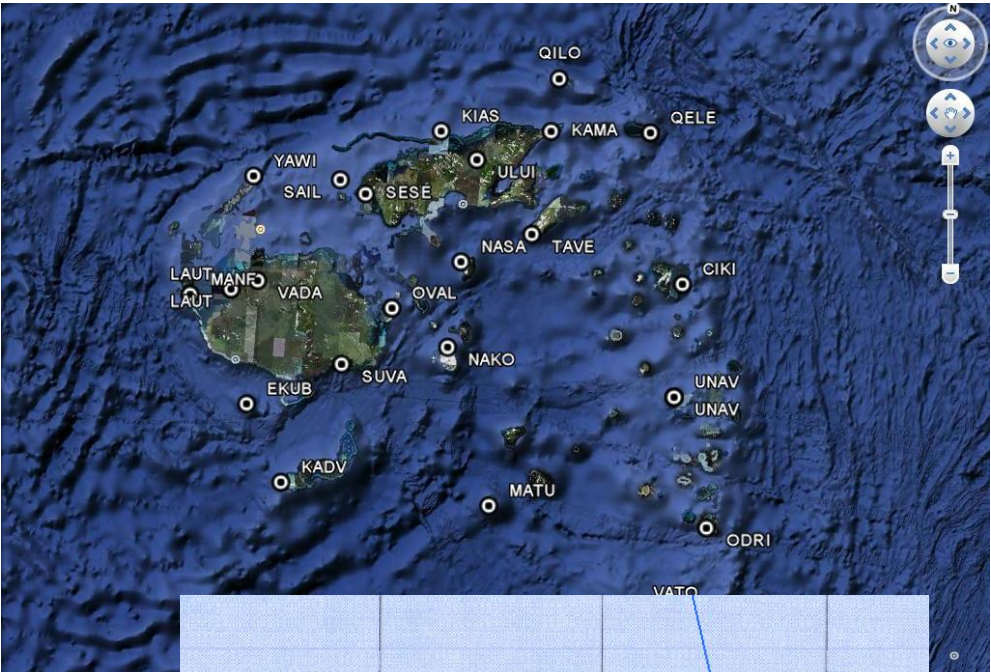
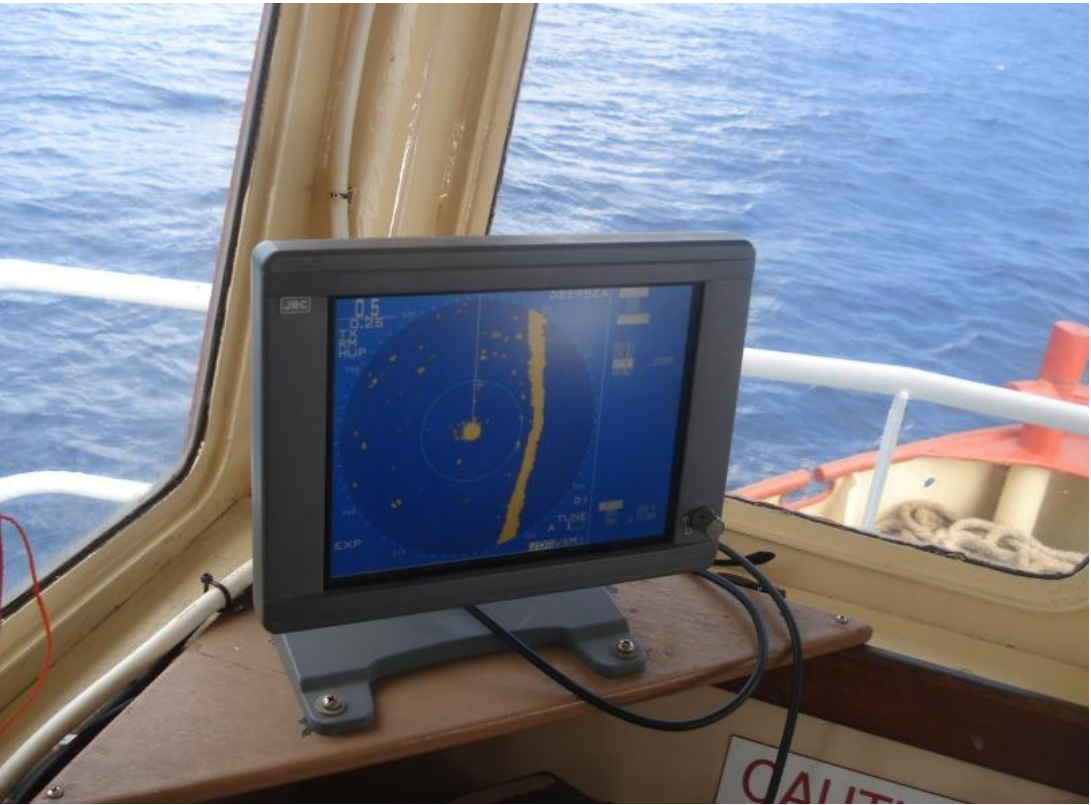
Supporting countries to develop policies and tools for improved geospatial information and data management

Capacity Building

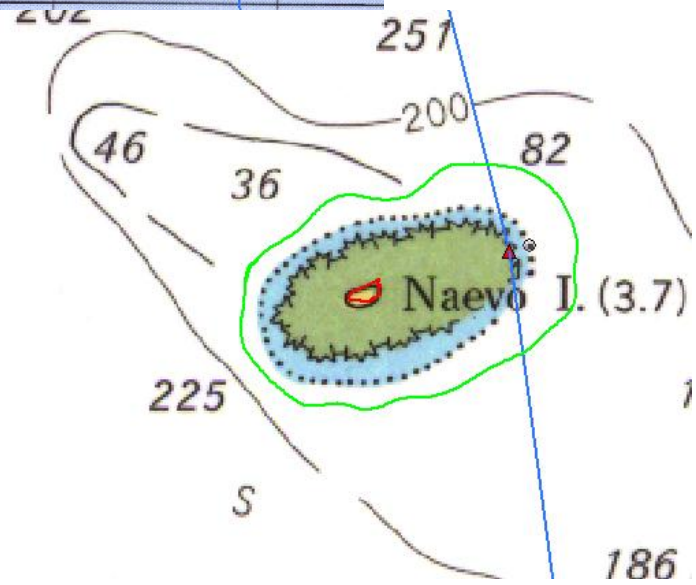


Supporting countries to build existing and future capacity through expanded professional development and educational opportunities

Positioning



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:	4.01
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.	





Positioning & Navigation

Geodetic Reference Frame

Land Cadastre

Geodetic Infrastructure

Maritime Boundaries

Standards & Policy

Land Motions

Geospatial Data & Information

Topographic Mapping

Global, Regional & National Network

Digital Terrain Models

Risk Assessment & Monitoring

Natural Disasters

Positioning & Navigation

Ocean Science

Geodetic Reference Frame

Ports & Maritime

Tidal Infrastructure

Hydrography

Standards & Policy

Tidal Modelling

Tidal Data & Information

Digital Elevation Models

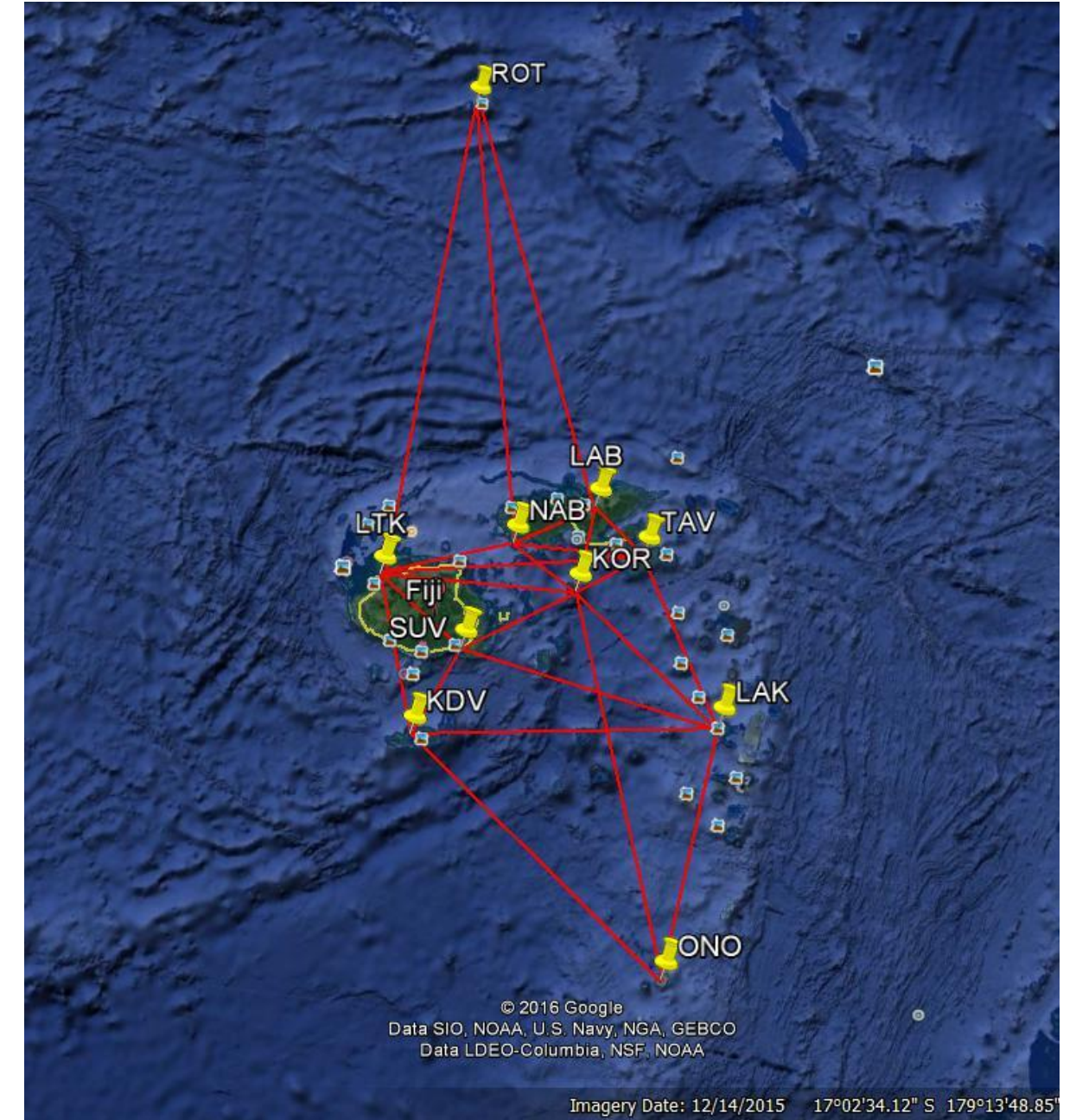
Global, Regional & National Network

Extreme Events

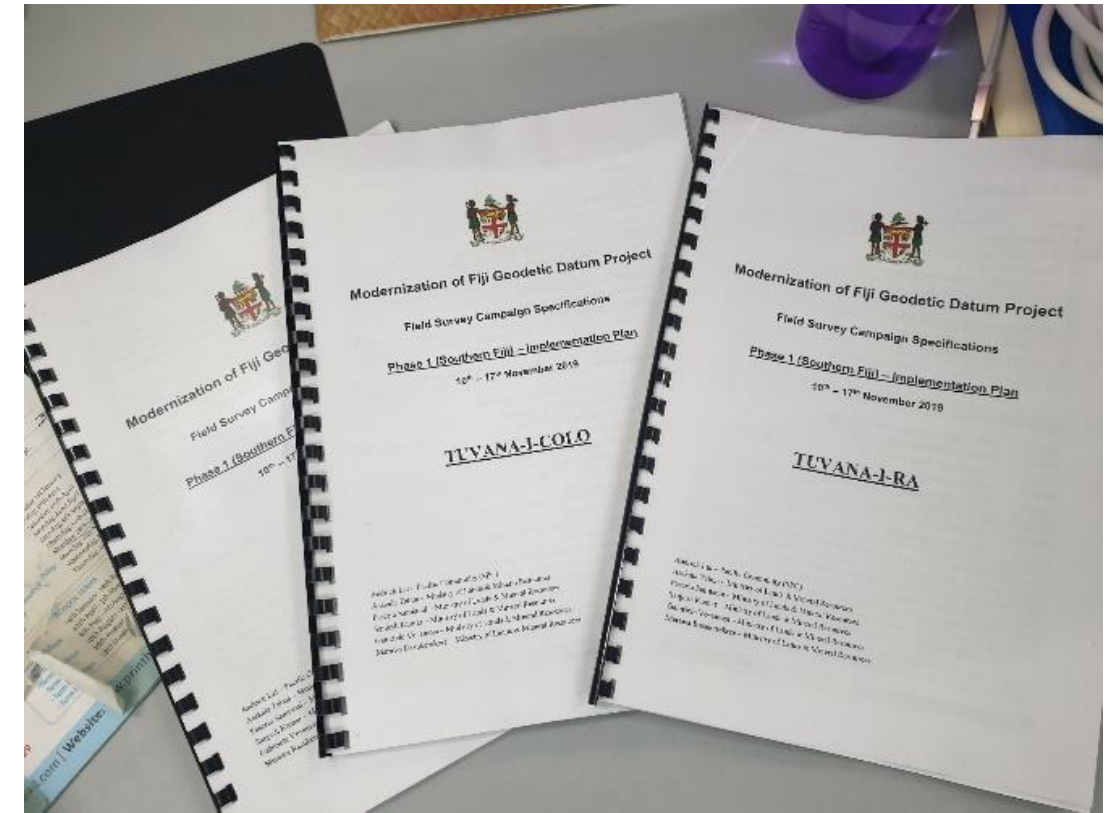
Risk Assessment & Monitoring

Climate Change

Regional Geodetic Infrastructure



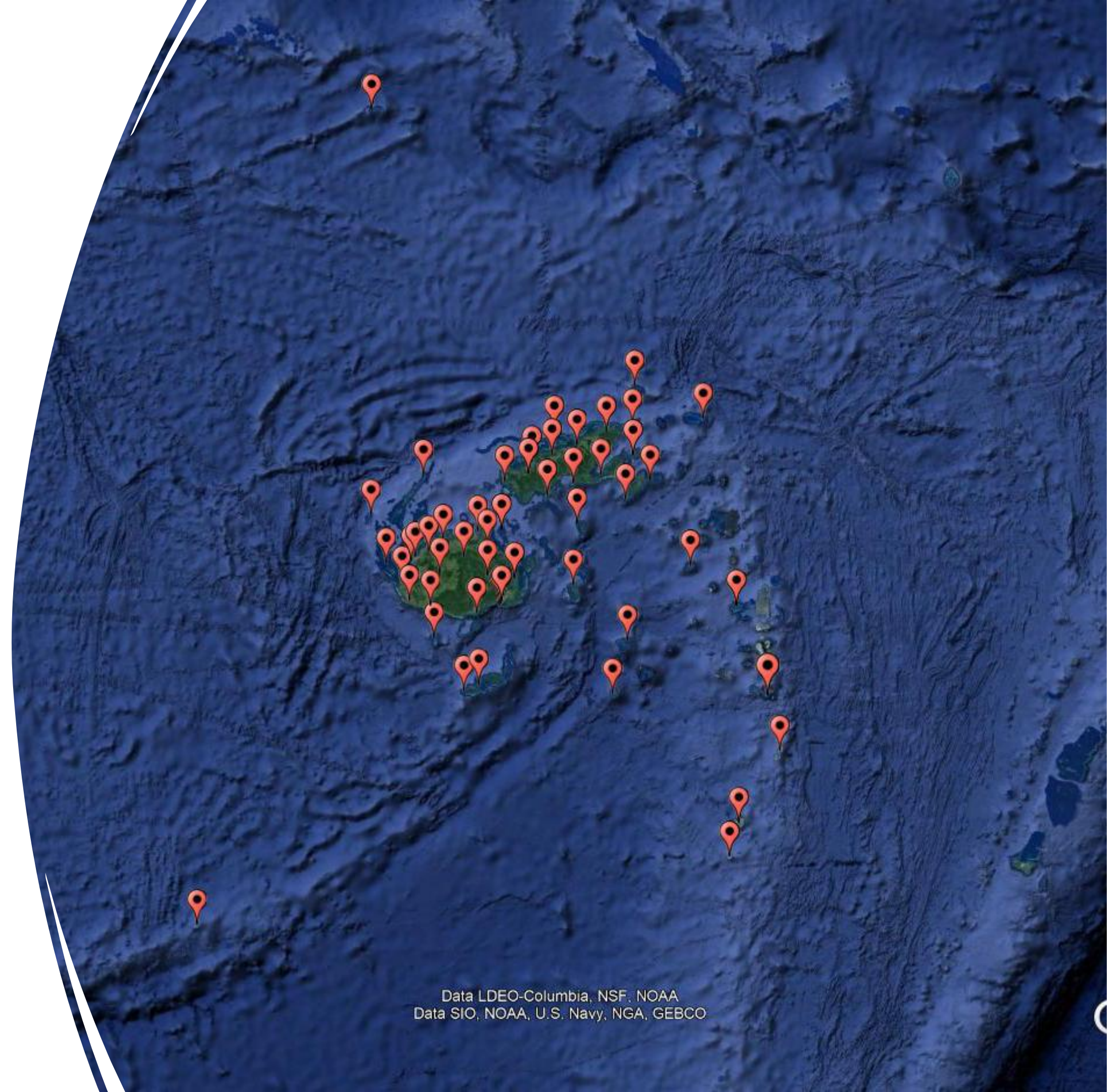
The Geodetic Infrastructure - Fiji



Geodetic Survey Operations

Geodetic Survey Campaign

- **Three Phases**
 - 10-16 November 2019
 - 7-15 December 2019
 - 26 January – 2 February 2020
- **GNSS Static Occupations**
 - 51 Stations – 7 days
 - 104 Stations – 6 hours
 - 43 Stations – 1 hour
- **Survey Personnel**
 - 65 (Surveyors/ Technicians/ Survey Assistant/ Casuals)
- **Survey Equipment**
 - Trimble (16) and Leica (11)
- **Transportation**
 - Naval Vessels/ Local Ferries/ Vehicles



Geospatial Policy & Data Management



Australian Geospatial Reference System Compendium

Standard for the Australian Survey Control Network

Special Publication 1

Version 2.2

Intergovernmental Committee on Surveying and Mapping (ICSM)
Geodesy Working Group (GWG)
7 December 2020

Intergovernmental Committee on Surveying and Mapping
Geodesy Working Group
16 August 2022

Guidelines

Australian Geospatial Reference System Compendium

1

Data Centre



Australian Government
Geoscience Australia

Positioning
Australia

Global Navigation Satellite System Data Centre

About

The Geoscience Australia GNSS Data Centre archives and distributes Global Navigation Satellite System (GNSS) data and products derived from a network of continuously operating GNSS reference stations across the Asia-Pacific region. Through this data centre GA actively supports the International GNSS Service (IGS) and the Asia-Pacific Reference Frame (APREF) project as a regional data centre.

To learn more about the GNSS network or access the various datasets available, click on the links below.



Network

View a map showing the status of the GNSS reference stations that contribute data to Geoscience Australia.



Data

Download RINEX data files that can be used to post-process GNSS data.



Streaming

Connect to a correction stream from a GNSS reference station that can be used to obtain high-accuracy positioning information in real-time.



AUSPOS

Post-process GPS data to obtain a precise coordinate using Geoscience Australia's online GPS processing service.



Metadata

View metadata associated with a GNSS reference station.



Documents

A list of user guides and technical specifications produced by Geoscience Australia.



INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

A STRATEGIC GUIDE TO DEVELOP AND STRENGTHEN
NATIONAL GEOSPATIAL INFORMATION MANAGEMENT

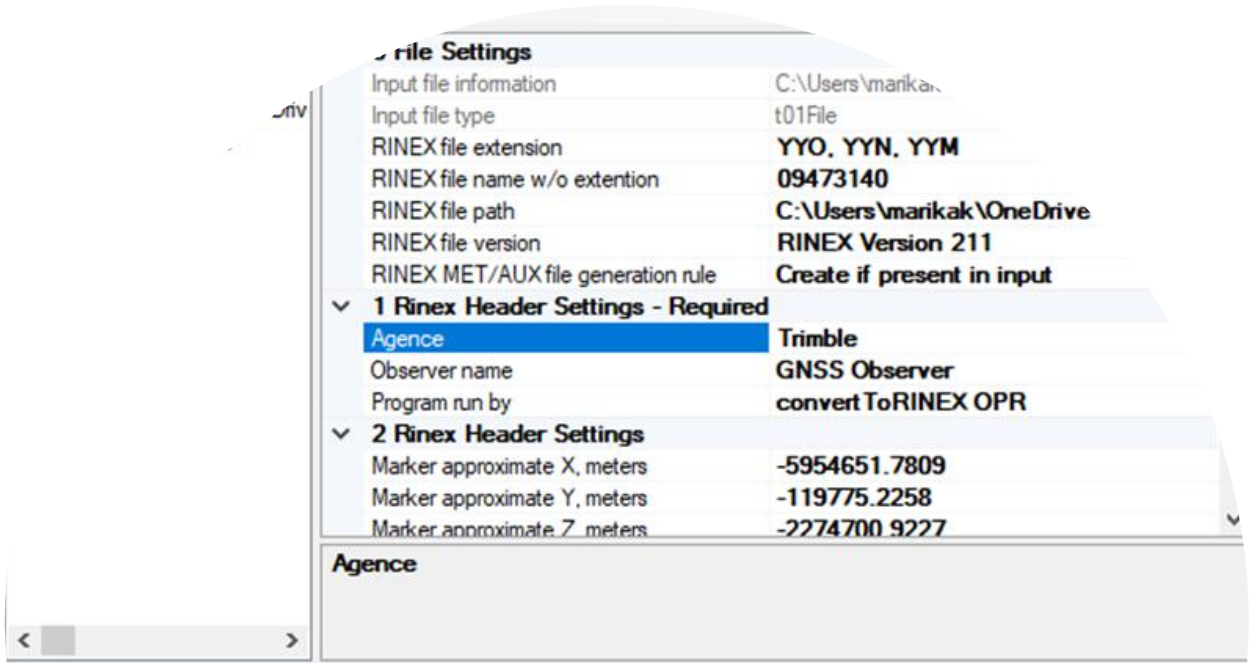
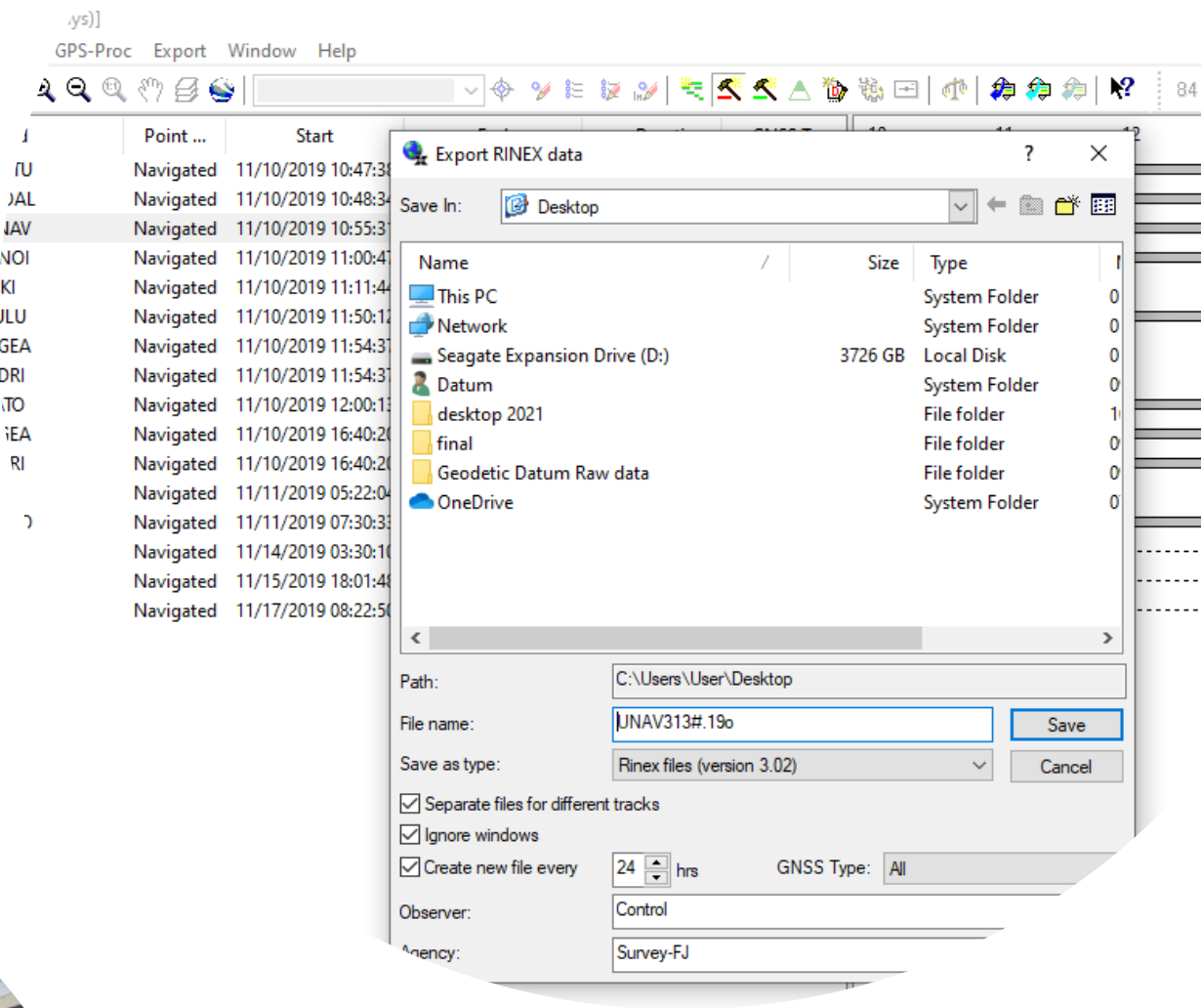
Geospatial Policy & Framework

Standards

Geodetic Survey Data Preparations Capacity

- Data Storage
- Data Downloading
- Data Conversion
- Data format
- GNSS Occupation Summary
- Locality Diagrams
- Field Survey Sheets
- Data Source
- Check and verify meta data

VITI LEVU & SURROUNDING ISLANDS				
WGS 72				
Latitude	Longitude	MSL Ht	Latitude	
18 08 35.28307 S	178 26 24.43342 E	68.57	18 8 35.279 S	178 26 24.43342 E
17 51 36.91470 S	178 36 31.20563 E	50.353	17 51 36.910 S	178 36 31.20563 E
18 30 55.011 S	177 38 49.063 E	8.8	18 30 54.970 S	177 38 49.063 E
18 09 16.64688 S	177 36 48.24271 E	329.58	18 9 16.646 S	177 36 48.24271 E
18 05 31.25589 S	177 21 56.39777 E	237.96	18 5 31.255 S	177 21 56.39777 E
17 49 34.2528 S	178 17 31.57718 E	149.83	17 49 34.250 S	178 17 31.57718 E
17 41 6.58906 S	178 31 10.58872 E	628.56	17 41 6.586 S	178 31 10.58872 E
17 40 16.05061 S	178 48 32.17230 E	625.69	17 40 16.056 S	178 48 32.17230 E
17 47 29.46092 S	177 43 52.85371 E	888.75	17 47 29.461 S	177 43 52.85371 E
17 52 41.52648 S	177 17 3.54343 E	228.99	17 52 41.526 S	177 17 3.54343 E
17 29 15.05356 S	178 17 44.70744 E	481.58	17 29 15.051 S	178 17 44.70744 E
17 19 41.52831 S	178 11 8.27595 E	203.2	17 19 41.525 S	178 11 8.27595 E
17 18 58.29670 S	178 27 58.66570 E	31.78	17 18 58.296 S	178 27 58.66570 E
17 25 14.49082 S	177 46 43.06777 E	368.67	17 25 14.490 S	177 46 43.06777 E
17 39 4.43158 S	177 23 37.39203 E	480.4	17 39 4.432 S	177 23 37.39203 E
		64.83	17 40 19.38 S	177 23 37.39203 E
		1.49		
		65.5		



Geodetic Survey Data Preparations

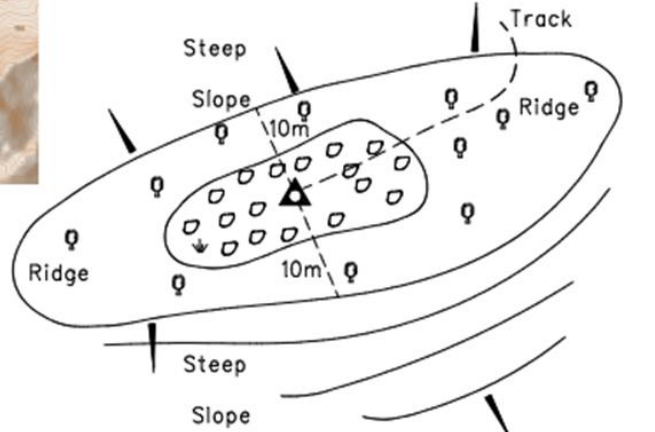

Fiji Geodetic Stations Survey Campaign Metadata												
Station ID	Station Name	Occupation Period	Interval	Receiver Type	Antenna Type	Rinex Version	Vertical Ht (m)	Rinex Height	Antenna Method	Firmware	Checked By	Field Operators
LAUT	lautoka	Continuous	1sec	SEPT POLARXS	JAVRINGANT_DM	5.2.0			ARP			GA
SUV1	Suva	Continuous	1sec	Trimble NetRS	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	Leica AR20	3.02			ARP	4.11.606		CONTROL
ROTC	Rotuma	Continuous	1sec	Leica GR51	Leica AR21	3.02			ARP	4.11.606		CONTROL
CEVA	Ceva-i-ra	7 DAYS	1sec	TRIMBLE R10	TRMR10	3.02	1.642	1.692	Bottom of Notch	4.81	MT&MR	Posate
BUKE	Delainabukelevu (Kadavu)	7 DAYS	30sec	TRIMBLE NET R9	TRM557971.0	3.02	1.978	1.934	Bottom of Notch	5.37	MT&MR	Sakumeni
NAKO	Nakorowaro (Gau)	7 DAYS	30sec	LEICA GS10	LEIAS10	3.02	1.265	1.625	Hook height	5.05	MT&MR	Sisa
OALA	Korokoli (Moala)	7 DAYS	10sec	LEICA GPS 1200	LEIAX1202	2.11	1.404	1.764	Hook height	4.0	MT&MR	Navitalai
UNAV	Lakeba(GPS - Yadrana)	7 DAYS	1sec	LEICA GS16	LEIGS16	3.02	1.38	1.740	Hook height	8.0	MT&MR	Jesoni
CIKI	Cikobia-i-lau	7 DAYS	15sec	LEICA GS10	LEIAS10	3.02	1.333	1.693	Hook height	5.05	MT&MR	Gabriele
LULU	Cokalulu (Cicia)	7 DAYS	10sec	TRIMBLE NET R9	TRM557971.0	3.02	1.751	1.707	Bottom of Notch	4.85	MT&MR	Daniel
MTKU	Matuku	7 DAYS	30sec	LEICA GPS 1200	LEIAX1202	2.11	1.263	1.623	Hook height	4.0	MT&MR	William C
OGEA	Ogea Driki	7 DAYS	30sec	LEICA GPS 1200	LEIAX1202	2.11	1.185	1.545	Hook height	4.0	MT&MR	Livi
VATO	Vatua	7 DAYS	30sec	LEICA GPS 1200	LEIAX1202	2.11	1.272	1.632	Hook height	4.0	MT&MR	Niko

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	1
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	1 2 2
NAKO	10/11/19 1200hrs UTC	7days	Phase 1	NAKO3140.19o	3.02	1.625	Hook Height	Leica	1
OALA	10/11/19 1200hrs UTC	7days	Phase 1	MOAL3130.19o	2.11	1.764	Hook Height	Leica	1
UNAV	10/11/19 1200hrs UTC	7days	Phase 1	UNAV3140.19o UNAV3130.19o	3.02	1.74	Hook Height	Leica	1
CIKI	10/11/19 1200hrs UTC	7days	Phase 1	CIKI3130.19o	3.02	1.693	Hook Height	Leica	1
LULU	10/11/19 1200hrs UTC	7days	Phase 1	LULU.19o	3.02	1.707	BON	Trimble	1 2 2
MTKU	10/11/19 1200hrs UTC	7days	Phase 1	MATU3130.19o	2.11	1.623	Hook Height	Leica	1
OGEA	10/11/19 1200hrs UTC	7days	Phase 1	OGEA3130.19o	2.11	1.545	Hook Height	Leica	1

COUNTRY: FIJI
ISLAND: VANUA LEVU
PROVINCE: MACUATA

MINISTRY OF LANDS &
MINERAL RESOURCE
CONTROL SECTION

POINT ID: BULE
DATE: 26-01-20
LDP: FJ133

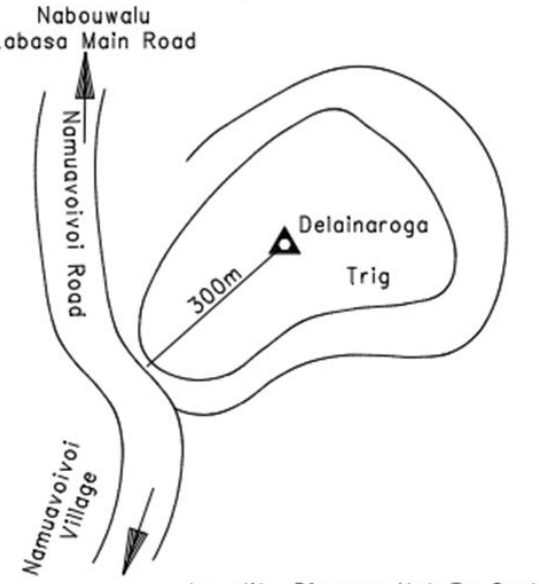



Locality Diagram Not To Scale

COUNTRY: FIJI
ISLAND: VANUA LEVU
PROVINCE:BUA

MINISTRY OF LANDS &
MINERAL RESOURCE
CONTROL SECTION

POINT ID: ROGA
DATE: 26-01-20
LDP: FJ134



Locality Diagram Not To Scale

=====

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

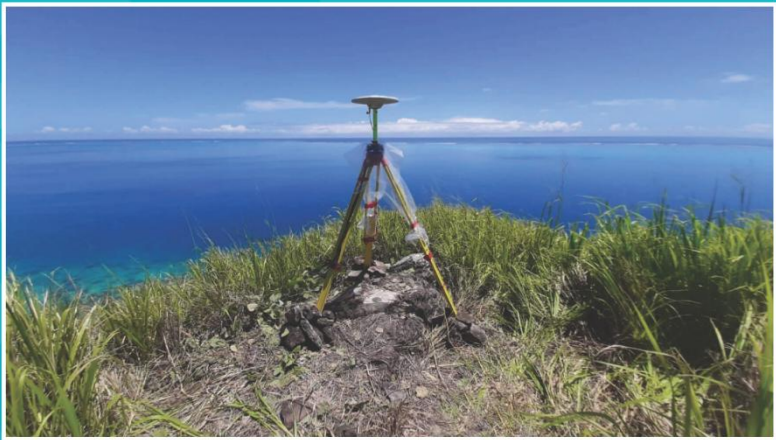
ANTENNA HEIGHT TO ARP - 1.692m

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

Data Release Report



Fiji Geodetic Datum Surveys



PACIFIC COMMUNITY
DATA RELEASE REPORT No. 7/2022

A. Lal¹, V. Rattan¹, M. Kalouniviti¹, A. Tabua², S. Kumar², G. Vosamosi²,
M. Cabemaiwai², M. Tamata²



Produced by the Pacific Community (SPC)
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Website: www.spc.int
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1. Oceans and Maritime Programme, Geoscience Energy & Maritime (GEM) Division, Pacific Community (SPC), Suva, Fiji
2. Control Section, Ministry of Lands & Mineral Resources, Government of Fiji



Capacity Building



Pacific Geospatial Women Network



Capacity Building
(Early Career)



Stakeholder Engagement



Capacity Building
(Rural Women)



Resource Mapping



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



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



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



Survey
and Spatial
New Zealand



USGS
science for a changing world

Global & Regional Collaborations





Land - Sea Integration in the Pacific

"Lessons and good practices"

Forum on the Integration of Terrestrial, Maritime, and Cadastral Domains

United Nations Conference Room 4, New York.
6th August 2024


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Viliani Folau vfolau@lands.gov.to


Nic Donnelly ndonnelly@linz.govt.nz

Andrick Lal andrickl@spc.int

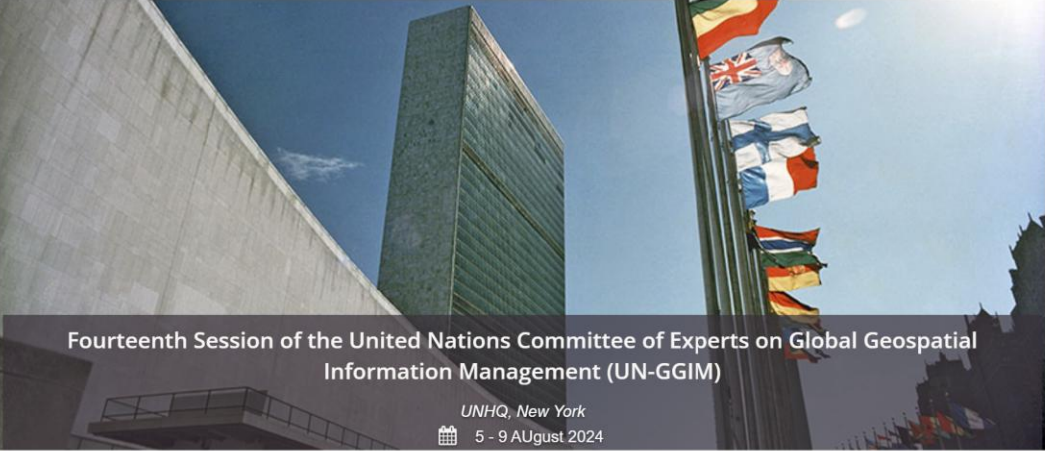




TOPICS ▾ DATA ▾ METHODOLOGY ▾ EVENTS ▾ PUBLICATIONS ABOUT ▾



Meetings > Fourteenth Session



Fourteenth Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)

UNHQ, New York
5 - 9 August 2024

Side event presentation materials

Note: Please click the date/s below to display the presentation materials

Monday, 5 August 2024

Tuesday, 6 August 2024

Forum on the Integration of Terrestrial, Maritime and Cadastral Domains, 10:00-11:15am, CR-4

Presentations

- Singapore
- Pacific case

Annual sessions

- Fifteenth session
- Fourteenth session
- Thirteenth session
- Twelfth session
- Eleventh session
- Past sessions

Overview

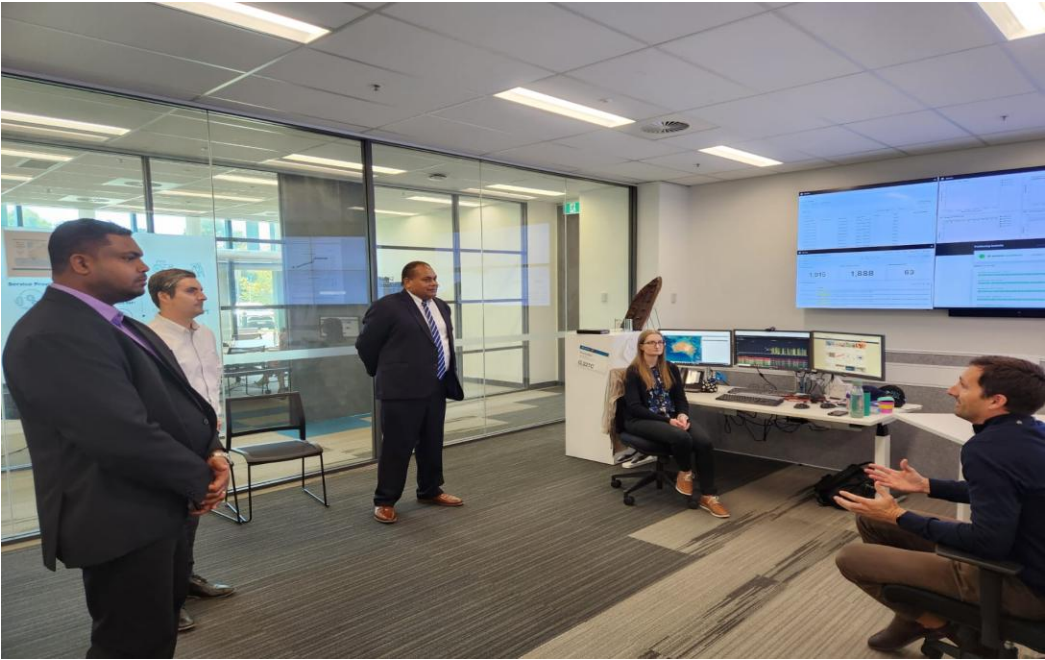
- Mandates
- Aims and Objectives
- Bureau
- Regional Committees
- Functional Groups
- Thematic Networks

Quick links

- UN-GGIM Events
- Past Events
- UN-IGIF
- UNEGN
- UN-GGCE
- UN-GGKIC

Posts from @UNGGIM

Regional Collaborations



Expert Consultation and Meeting on Enhancing Geospatial Information Management Arrangements and Accelerating the Implementation of the Sustainable Development Goals together with the Sub Regional Workshop on United Nations Integrated Geospatial Information Framework for the Pacific Island Countries and Territories and the 2024 Annual Meeting of the Pacific Geospatial and Surveying Council

11 - 15 November 2024 | Suva, Fiji





Global & Regional Collaborations
UN-GGCE International Workshop
“Joining Land and Sea”

PGSC Partnership Desk

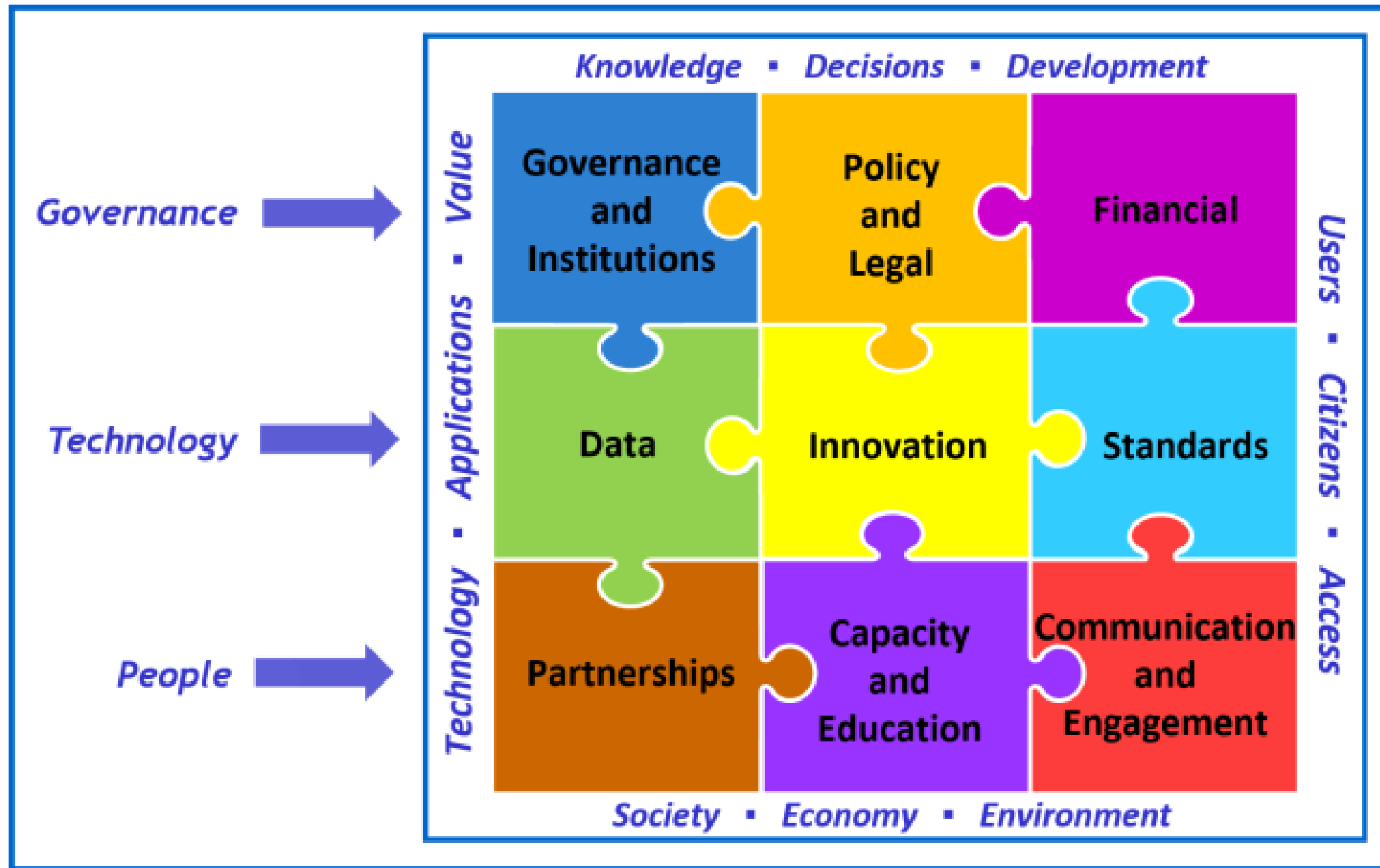
- Strengthen PGSC Initiatives and provide effectiveness towards:-
 - Regional Collaboration and Coordination
 - Resource Mobilisation
 - Policy, Standards & Framework
 - Support to meetings and workshops
 - Enhance capability and capacity for geospatial and surveying
 - Technical Services (Geodetic & Hydrographic Surveying, Geospatial and Remote Sensing)
 - Communication
 - PGSC Webpage (website!!)
 - Other platforms; Facebook and LinkedIn
 - Webinars and Virtual Meetings
 - Planning, Monitoring, Evaluation and Learning (PMEL)
 - Review of PGSC Strategy 2017-2027
 - Capacity Mapping

PGSC Partnership Desk

- Strengthen Partnership Desk and provide effectiveness towards:-
 - Gender equality, disability and social inclusion (GEDSI)
 - Networks (PGWN and PYSN)
 - Factsheets (Women in Geospatial & Surveying)
 - Geodetic Infrastructure
 - PGSC Equipment Pool
 - GNSS CORS in the Pacific
 - Geodetic Data, Information & Reporting (Ocean Portal)
 - Data processing and analysis
 - Historical data & Information

Pacific Geospatial and Surveying Council - Needs

1. UN-IGIF Country Level Action Plan



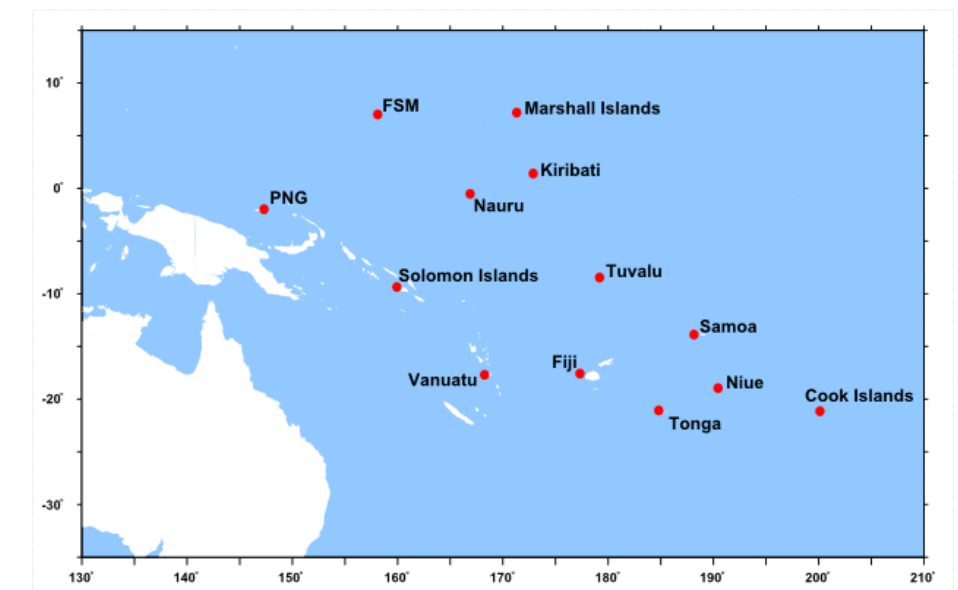
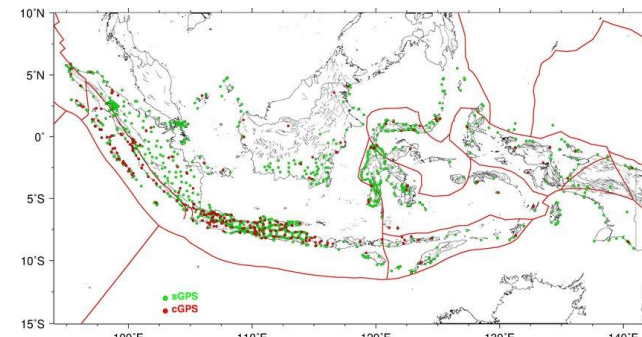
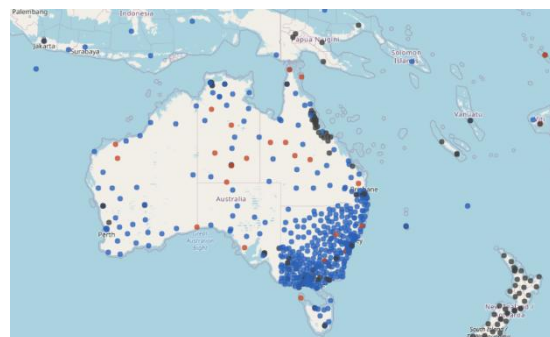
- ❖ Alignment of geospatial strategies and development of country-level IGIF Action Plans
- ❖ Technical guidance, awareness & build institutional capacity
- ❖ Regional coordination and partnerships

Pacific Geospatial and Surveying Council - Needs

2. Geodetic Infrastructure - GNSS & Tide Gauges



- ❖ Infrastructure development & support
- ❖ Funding and technical guidance for the installation
- ❖ Collaboration with regional partners to ensure sustainability.
- ❖ Site identification and logistical support for station installation.
- ❖ Data sharing



Pacific Geospatial and Surveying Council - Needs

3. Regional and National Knowledge Capacity



- ❖ **Technical guidance, awareness & build institutional capacity**
- ❖ **Training curricula tailored to the Pacific context.**
- ❖ **Establishment of train-the-trainer programs to ensure long-term sustainability.**
- ❖ **Hands-on training on GNSS CORS**
- ❖ **e-learning platforms**

Communications & Community



Pacific Geospatial and Surveying Council

Public group · 1.3K members

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



Home > Updates from SPC > Web Stories

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 to use geospatial information to support the development of the country."



feature

modernisation programs in CAPs, there are also other initiatives that will require assistance, such as:

- Revision of legislation of the Native Lands Act, and relevant Survey legislation to align with Timor's IGIP and CAP aspirations; and
- Upgrading of Timor's Navigation Charts, to assist commercial shipping and cruise liners to navigate Timor's waters safely, thus improve the trade and tourism industry, once the COVID-19 influences have subsided.

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

In November 2014, a group of Pacific regional surveying and geospatial experts met in the margins of the annual Pacific Geospatial Information Systems and Remote Sensing (GISRS) User Conference in Suva, Fiji. It was at this meeting that the PGSC was first envisaged as a charter governing its mission and objectives were developed. In addition, the Pacific Community (SPC) established the Pacific Geospatial and Surveying Partnership Desk to provide secretariat services and support the PGSC in achieving its goals and objectives. Briefly, the PGSC, is an independent regional advisory body that provides a forum for Pacific Island geospatial information and survey authorities to discuss and address regional challenges. The PGSC aims to collaborate with regional and international organisations, associations, educational institutions and technical groups to support progress on national, regional and global development objectives for sustainable development in the Pacific enabled by world-class geospatial information and surveying services. The 14 country members of the PGSC describe that geospatial information underpins the majority of economic and sustainable development activities in the world today. The services provided by Pacific Island geospatial scientists and surveyors contribute to the security and well-being of Pacific people, supporting numerous industries and sectors. These include natural resource management, civil engineering, climate change adaptation, disaster risk reduction, transport, land ownership, health, and agriculture to name a few. The SPC is the principal scientific and technical organisation in the Pacific region, proudly supporting development since 1947. From a geospatial modernisation perspective, the SPC Geospatial Survey Team deliver professional advice and services to the PGSCs. This primarily involves provision of instrumentation, on-site technical guidance or support on numerous field survey operations or techniques, processing and management of geospatial data, geospatial data and positioning matters, GNSS base stations, GNSS receivers for survey control, monitoring, cadastral or geospatial activities, and precision levelling monitoring surveys, including assisting with tide gauge measurements for the Pacific Sea Level & Monitoring Project in the Pacific. Partnerships are critical to the successful implementation of the Pacific Geospatial and Surveying Council Strategy 2017-2027. The responsibilities of regional surveyors and geospatial managers frequently correspond to broader initiatives, which all contribute toward achievement of United Nations Sustainable Development Goals. The PGSC relies upon collaboration, and is an important contributor towards sustaining a GRIFF and global efforts to improve positioning and geospatial information management. The goals of the PGSC, the Partnership Desk and SPC are focused on:

- Positioning
- Geospatial Policy & Data Management
- Capacity Building

Since 2014 the PGSC Partnership Desk, SPC and development partners such as the Pacific Geospatial and Surveying Council (PGSC) virtual meeting.

Modern Geodetic Infrastructure - Key to Consistency and Efficiency By - Sanjesh Kumar, Senior Surveyor, Asakala Tabua, Surveyor-General Fiji

Fiji is highly vulnerable to natural disasters such as cyclones, coastal inundation and flooding due to climate change and subsequent sea level rise. These natural events affect the food security, livestock, infrastructure, health, housing and livelihoods of more than 800,000 Fijians. It is therefore critical for Fiji to mitigate the influence of natural disasters and climate change. Surveyors can alleviate this impact by applying their skills to disaster preparedness, building resilience, quantifying the environmental and social changes, and providing qualitative analysis. The keys to monitoring and measuring such changes are access to reliable satellite positioning technology, high resolution and accurate geospatial data and information, and systems at the local, national, regional and global level. Prior to modernisation, Fiji's geospatial data was based on the World Geodetic System 1972 (WGS72) and comprised of a network of triangulation and trilateration observations, which interconnected the main and outermost islands. To achieve a modernised datum, Fiji has embraced the challenges and identified the action required to migrate from a local datum to a GRSF, such as the International Terrestrial Reference Frame (ITRF). Presently, the ITRF, and/or its subset Asia Pacific Reference Frame (APRIF), is the frame adopted by many PGSCs to realise their nation's geospatial datum, primarily because of its reliability, accuracy and accessibility. As such, Fiji's Cabinet Memorandum - Modernising Fiji's Geospatial Datum was strategically aligned to the 2015 UN General Assembly Resolution on the GRSF, in August 2015. This mandate to modernise their geospatial datum, also set the roadmap for the integration, interoperability and management of geospatial information and systems at the local, national, regional and global level. The field campaign involved the occupation of 164 GNSS with GNSS receivers, and was divided into three (3) phases. The GNSS were occupied continuously for 7 days, and each phase was completed in November 2019, December 2019 and February 2020 respectively. A number of these GNSS occupied were existing Depper stations, which were originally observed in the early 1980s. Observations on first order trigonometric geodetic stations were primarily on the islands of Viti Levu and Vanua Levu, as well as the Maritime Islands. Other observations were taken to selected parcels, and standard survey marks in major towns and cities. A substantial amount of the GNSS survey data acquired during the field survey campaign will be used to validate the position of Fiji's existing geodetic system and the determination of a new geospatial datum aligned to the ITRF / GRSF. The GNSS data will subsequently be integrated with the Pacific GNSS CORS Network for the computation of the new transformation parameters, and be the primary network adjustment of Fiji. Briefly, datum modernisation started with the construction of eight (8) GNSS CORS across Fiji. These stations complemented two (2) GNSS CORS managed by Geoscience Australia and the SPC. Soon after the construction of the GNSS CORS, survey teams were deployed to carry out reconnaissance and identification of existing 'passive' geodetic control stations (GCSs), that would be connected to the GNSS CORS, and form the fiducial observations for the geospatial network adjustment. In order for this geospatial field campaign to be successful, collaboration and assistance with the Fiji Hydrographic Office, Fiji Navy, SPC, PGSC and Partnership Desk was necessary. The campaign involved more than sixty (60) survey personnel and included a three-day workshop in the operation of GNSS survey equipment. This training and capacity building for the survey personnel was facilitated by the SPC and Partnership Desk in October 2019. The field campaign involved the occupation of 164 GNSS with GNSS receivers, and was divided into three (3) phases. The GNSS were occupied continuously for 7 days, and each phase was completed in November 2019, December 2019 and February 2020 respectively. A number of these GNSS occupied were existing Depper stations, which were originally observed in the early 1980s. Observations on first order trigonometric geodetic stations were primarily on the islands of Viti Levu and Vanua Levu, as well as the Maritime Islands. 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20 position February/March 2021

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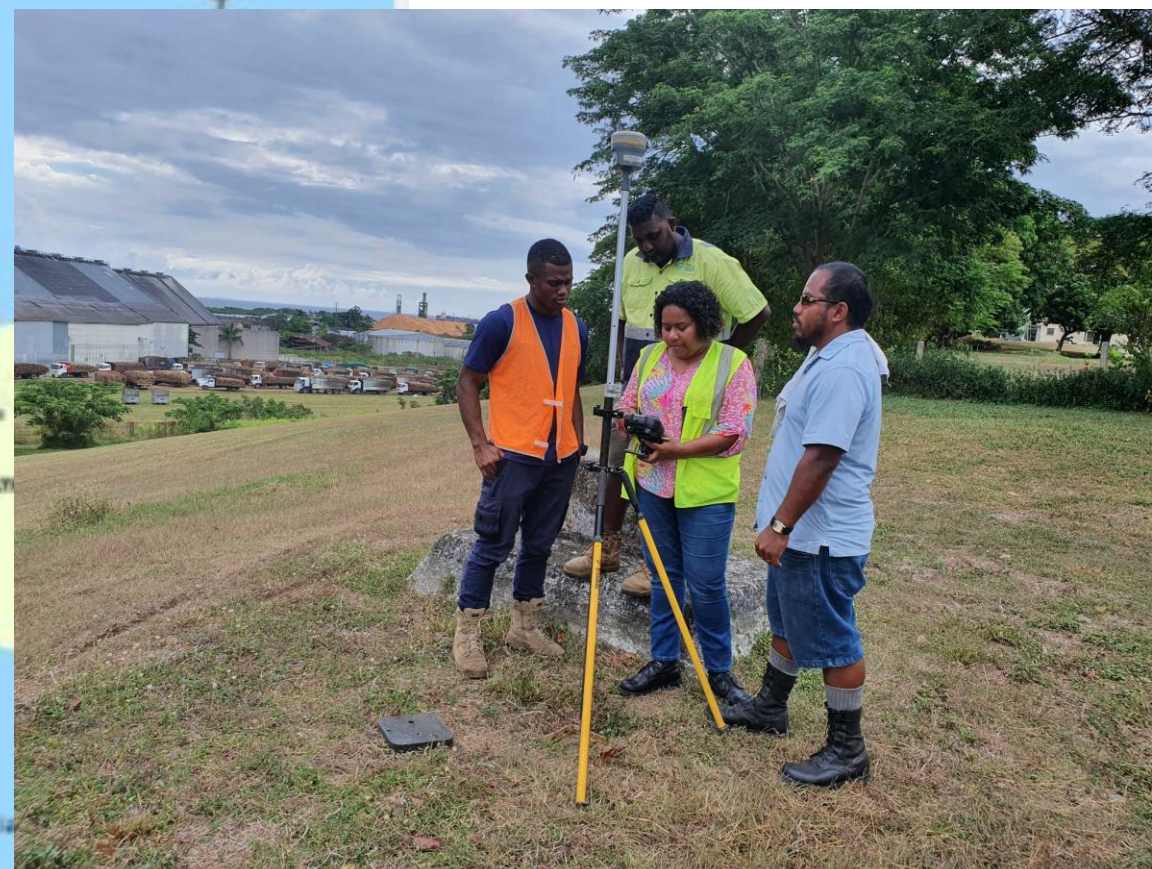


Merana Kitone

Admin · February 27, 2020 · 🌐

The Pacific Geospatial and Surveying Council (PGSC) is an independent regional advisory body that provides a forum for Pacific Island geospatial information and survey authorities to discuss and address regional challenges.

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Merana Kitone

Admin · Top contributor · November 5, 2024 · 🌐



Pacific-Community-SPC · November 5, 2024 · 🌐

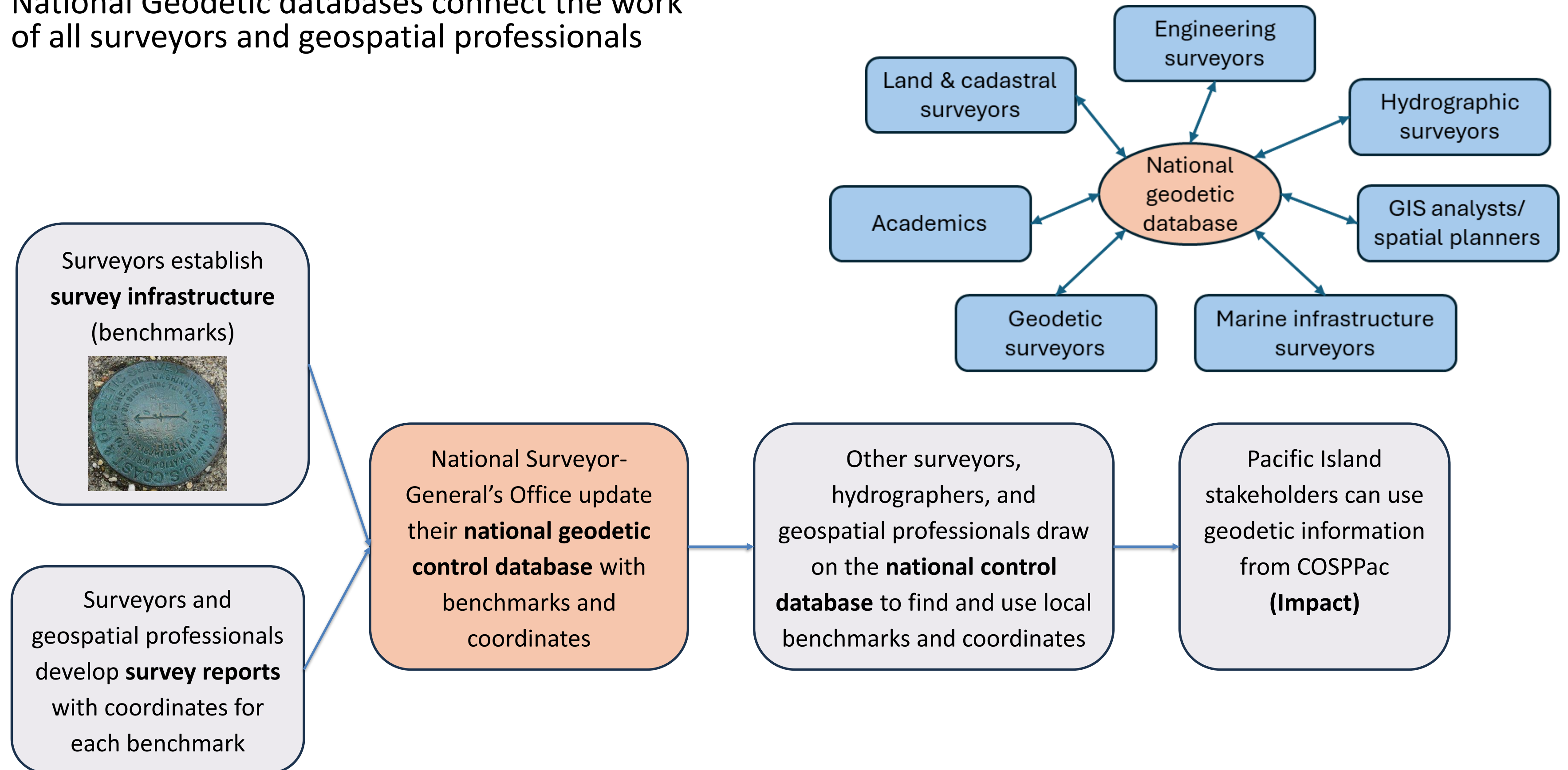
#PacificStats | This World Tsunami Awareness Day, 5 November, we shine a light on the vulnerability of Pacific populations to tsunamis. In 2021, 40% of people in... See more

PGSC Facebook Page

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

Data Management – Database, the Key Connector

National Geodetic databases connect the work of all surveyors and geospatial professionals

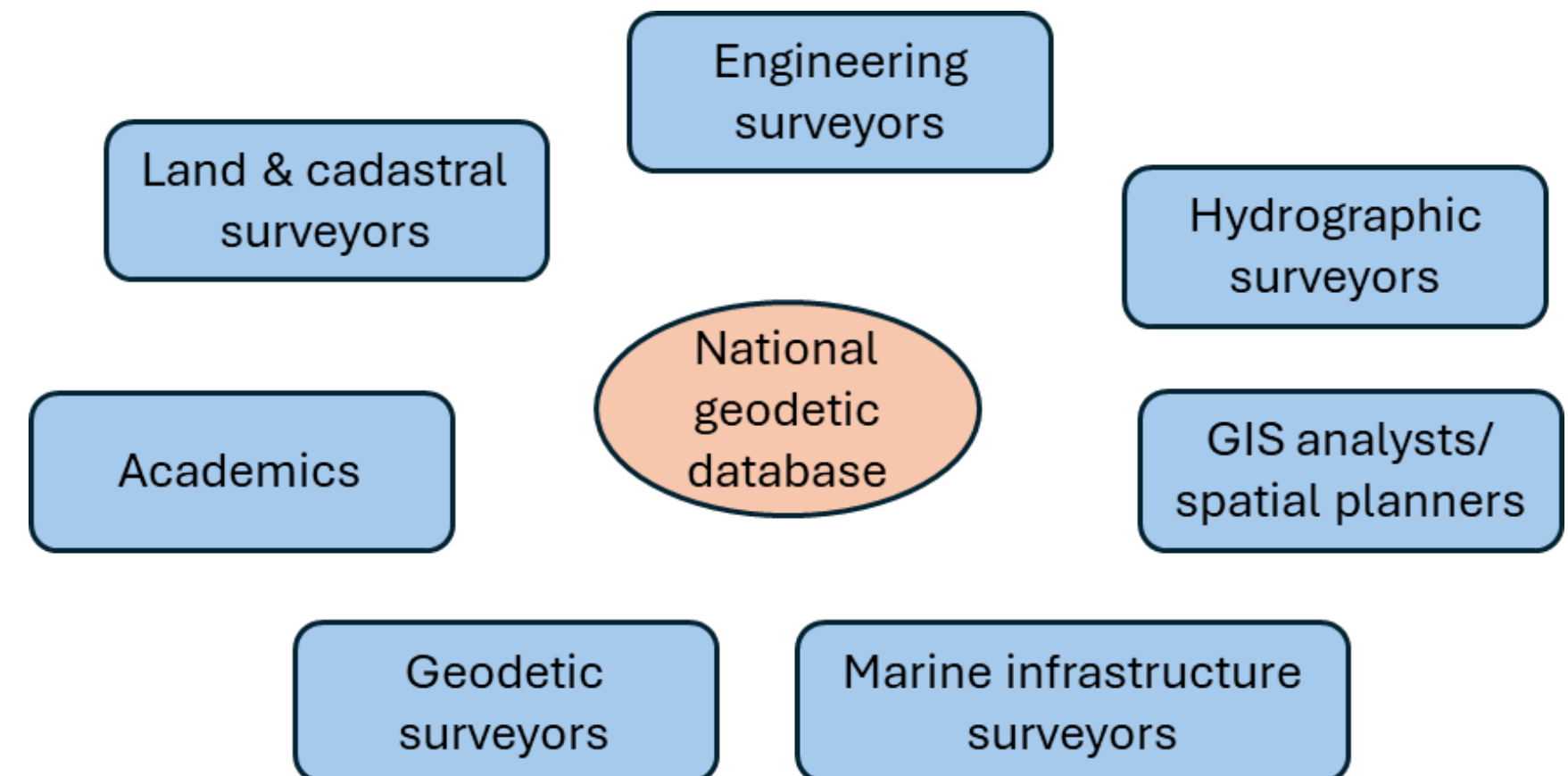


Preliminary Evaluation - Countries lack a national geodetic database

- In 14 Pacific countries we work with:
 - 5 countries maintain and update an **online database**.
 - 1 country has an **online database** that is out of date.
 - 8 countries have **paper records** and is out of date.

For countries with outdated, paper records:

- National surveyors, hydrographers, and geospatial professionals are disconnected and cannot leverage each others' work
- Survey and geospatial work has more chance of error and is more costly.





COSPPac

Climate and Oceans Support Program in the Pacific



Pacific Sea Level
& Geodetic Monitoring



Pacific
Community
Communauté
du Pacifique



Thank you

Andrick Lal

Coordinator - PGSC Partnership Desk

Pacific Community (SPC)

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