



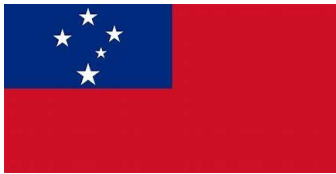
Pacific  
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UN-GGIM  
UNITED NATIONS  
COMMITTEE OF EXPERTS ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT



SDG  
DATA  
ALLIANCE



# SAMOA STATUS GEOSPATIAL & SURVEYING

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

**Pasifika Conference Room, Pacific Community (SPC), Lotus Building, Suva, Fiji**

11<sup>th</sup> November 2024

# Geodetic Reference Frame

## HORIZONTAL NETWORK & DATUM - 2005

- The Samoan Geodetic Reference System
- Horizontal Datum Samoa Geodetic Reference System 2005 (SGRS2005)
- Reference Frame International Terrestrial Reference Frame 2000 (ITRF2000)
- Epoch 2016.0
- Ellipsoid GRS80

### Activities\project

- Samoa CORs\GNSS Station and Equipment's upgrade under PSLGM
- Geoid model for Samoa

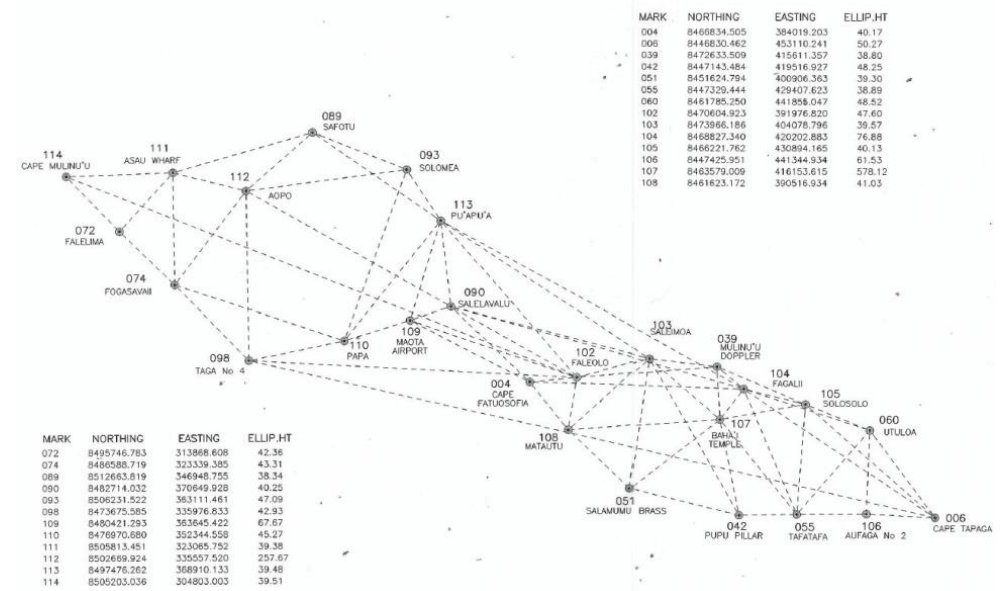
## VERTICAL NETWORK & DATUM 2009

- Vertical datum remains as Mean Sea Level (MSL)
- Results from the South Pacific Sea Level & Climate Monitoring Project (SPSLCMP) used to adopt a new value of MSL.
- Primary Network heights is levelled by connection to the national levelling network.

## SAMOA MAP GRID

Samoa adopt the UTM map projection for all survey, mapping and land information purposes. This is defined as follows;

### 1<sup>st</sup> Order Geodetic Network



The Samoan Map Grid	
Name:	Samoa Map Grid (SMG)
Projection:	Universal Transverse Mercator (UTM)
Longitude of Origin:	Central meridian = 171 degrees West
Latitude of Origin:	Equator
False Easting:	500,000 metres
False Northing:	10,000,000 metres
Central Scale Factor:	0.9996
Zone width:	6 degrees
Note:	Samoa lies in Zone 2 (ie SMG 2)

# Spatial Data Infrastructure – Land Administration

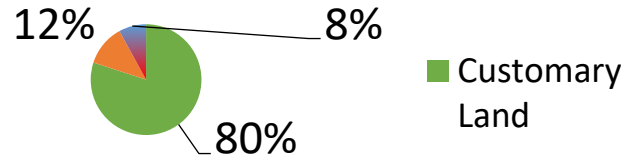
Land Administration is done by the Ministry of Lands and Survey

## Types of land in Samoa

There are 3 types of land in Samoa

1. Customary Land
2. Freehold Land
3. Public Land(Government)

80 percent of land in Samoa is held under customary ownership and this land is protected under the constitution. The remaining non- customary land consists of 12 percent of freehold land and 8 percent of public land.



## SOLA Samoa – Land Administration Software

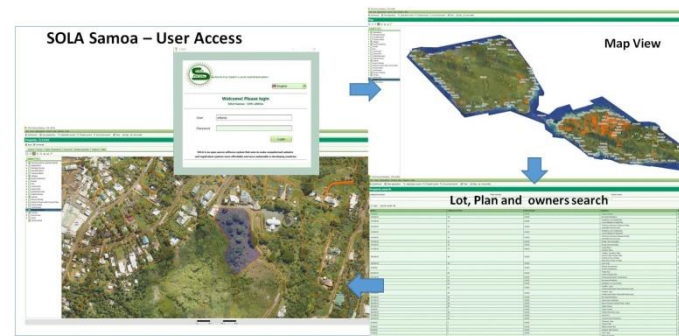
SOLA (Solutions for Open Land Administration) is a Free/Libre Open Source Software (FLOSS). Initial software development started 2010 and was completed on February 2012 then pilot implementation in March 2012. First upgrade of the SOLA in 2020.

### Objectives;

1. Migrate Digital Cadastral Database (DCDB) to an open source environment that supports cadastral mapping functions, processing of lodged cadastral survey plans, cadastral map and survey plan searches.
2. Migrate the Land Registration System (LRS) to an open source environment that supports dealing registration functionality, computer folio (title) certificates and existing LRS search products.
3. Provide read only access to cadastral map information.
4. Provide read only access to selected title registration information to all MNRE staff.
5. Implement enhancements supporting Unit (Strata) Titles legislation.
6. Implement a Digital Archive to manage scanned registration documents.

## Legislations

- Land Titles Registration Act 2008.
- Spatial Information Act 2010.
- Survey Act 2010.
- Valuation Act 2010.
- Survey Regulation 2011.
- Lands, Surveys and Environment Act 1989.
- Taking of Land Act 1964.
- Unit Titles Act 2009



# Geospatial & Surveying Agencies

## GOVERNMENT OFFICES –SPATIAL DATA

- Ministry of Lands and Survey (New Ministry Established on July 2024)
  - Spatial Information Agency;(formerly under MNRE)
    - Surveying
    - Quality Assurance
    - National Mapping Section
  - Samoa Institute of Surveyors (launched 2024)
- Ministry of Natural Resources and Environment(MNRE);
  - Samoa Meteorology Division
  - Environment & Conservation Division under Marine Conservation Section
  - DMO- Disaster Management Office
  - Forestry Division
  - Water Resources
- Ministry of Works, Transport and Infrastructure (MWTI)
- Samoa Bureau of Statistics
- Ministry of Agriculture.
- Ministry of Health
- Electric Power Cooperation
- Samoa Water Authority
- Land Transport Authority

# Geospatial & Surveying Activities

- GPS\GNSS survey – Geodetic Network Upgrade
- School Awareness – Geospatial and Surveying
- Online\electronic lodgments – survey plan(development process)
- Update cadastral database – SOLA(Solution for Open Land Administration)
- Technical services and the application of GIS on various fields if needed by the ministry, external ministries and private organization.
- Provide public access to high quality and reliable geospatial datasets and information to assist and support Government and Private Organization decision makers, for a sustainable management of our natural resources and environment.

# Future - Geospatial & Surveying

- *Where do you see your agency with respect to geospatial & surveying in the next five (5) to ten (10) years?*
  - Policies and Guidelines
    - Land Policy - holding, management, and usage of Lands in Samoa.
    - ✓ Data Sharing
    - ✓ Draft Geospatial Policy
    - ✓ Geographic Name
  - Geospatial Dataset
    - ✓ Update our National Topography Map, 50,000 (Published: 2000)
    - ✓ Update Imageries
    - ✓ Update of our Land Tenure – Government Land

# Resources

*What are the necessary resources required to enhance your agencies/countries geospatial information management?*

- Funding support
- Equipment
  - ✓ Drone
  - ✓ GPS\GNSS
  - ✓ Vehicle
- Capacity Building for staff

# Issues & Challenges

- Few staff with geospatial and surveying education background.
- Lack of Training opportunities (Regional & International Institutions).
- Lack of Financial Support from Government.
- Poor collaboration within government ministries.
- Staff Turnover



# Fa'afetai Lava