

Abstract

MODERNISATION OF FIJI'S GEODETIC DATUM

Fiji's Geodetic Datum 1986 (FGD 1986) is obsolete and there is a great demand to modernise our datum based on the world recognised International Terrestrial Reference Framework (ITRF 2010) or World Geodetic System 1984 (WGS84).

The local Fiji Geodetic Datum is not compatible to modern technology used by Civil Aviation Authority, the Navigation Organisation and other Organisations relying heavily on satellite for positioning

International Civil Aviation Organisation (ICAO) has recognised the adoption of modernised geodetic datum to effectively and efficiently monitor safety aspects of air traffic control and expected route flights to follow.

Modernisation of Geodetic Reference Systems will require the engagement of a GEODESIST; a specialist in the geodetic field which we do not have in Fiji.

Fiji's participation was initiated by the Modernisation of Geodetic Reference Systems, which is one of the few important agenda that the government needs to undertake through the Ministry of Lands and Mineral Resources.

The need for Fiji to adapt to the use of space technology for datum determination aligning it to the UN Global Geospatial Information proposed resolutions. Fiji needs to get all the relevant advice and technical assistants through such forums for the Ministry of Lands to facilitate our geodetic datum change.

Various discussions were held with other member countries including Australia, New Zealand, Japan and also the UN GGIM Working Group on the Geodetic Reference Frame for Fiji. Assistances in terms of advice were also forthcoming from the corporate firm Trimble International on the distributions of CORS stations and observations and also on the required equipment, materials and the costs.

The Geodesist will map out the detail work plan required for the project until the new geodetic datum is determined.

The Fiji datum needs to be changed now in anticipation UN resolution and the global adaptations of the Global Network Satellite System for geodetic framework. This paper presents Fiji's progress towards this new datum.

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