

# **A template for the development of a modernised geodetic infrastructure in Pacific Island states**

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## **ABSTRACT**

This workshop presentation is designed to assist government geodesists in Pacific Island states with the development of modernised geodetic infrastructure and reference frames within their jurisdictions. The requirements for a modern geodetic infrastructure are discussed. The following requirements are discussed in detail; monumentation (location and design), network design, campaign and CORS GNSS observations, time-series analysis, deformation modelling, estimation of transformation parameters between legacy datums and a modernised datum, connections to tide-gauges, geoid modelling and development, accessing the datum (CORS data, RTK, station information and coordinates), and maintenance of the datum and deformation model. Recent experiences in Papua New Guinea and New Zealand are used for reference. The presentation is particularly tailored towards Pacific states to take into consideration the sparseness and remoteness of supporting infrastructure that are typical of the region. Other considerations of relevance to the region are the requirements to support registration of customary land, provide geodetic support for resource developments in remote areas and to monitor geophysical hazards and sea-level change.

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