

The Asia-Pacific Reference Frame (APREF) Project

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SUMMARY

A geodetic reference frame, or datum, is the cornerstone of all geospatial measurements, including those undertaken for Earth-observation, mapping, positioning, navigation and timing. Increasingly, applications in mining, agriculture, construction, emergency, land, utility and asset management have a need for a centimetre level reference frame. Also, many scientific questions, such as sea level rise mitigation and crustal dynamics, can only be adequately addressed using long-term observations of the Earth's surface relative to a regional reference frame with millimetre accuracy. The broad objective of the APREF will be to create and maintain an accurate and densely realised geodetic framework, based on continuous observation and analysis of GNSS data that will support many geospatial applications across the region. The APREF will focus on both the horizontal and the vertical components, in close cooperation with the Permanent Committee for GIS Infrastructure Asia-Pacific (PCGIAP), the pertinent International Association of Geodesy (IAG) components and the International Federation of Surveyors (FIG). This presentation will overview the key elements of the APREF initiative, including its implementation time-frame, objectives, proposed structure and products.

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