

A Geodetic and Positioning Thematic Layer – Identifying Tools to Connect the GGRF and IGIF

Allison Craddock (USA), Graeme Blick (New Zealand), Ryan Keenan (Australia), Mikael Lilje (Sweden) and Rob Sarib (Australia)

Key words: Capacity building; GNSS/GPS; Positioning; Reference frames; Reference systems; Geodetic; Positioning; Capacity Development

SUMMARY

Effective and sustainable modernization of a nation’s geodetic framework relies on the ability of the relevant organizations and other stakeholders to communicate, integrate, and align both their strategic objectives and operational planning with the United Nations Committee of Experts on Global Geospatial Information Management (UN GGIM) Sub-Committee on Geodesy’s (SCoG) roadmap for a Global Geodetic Reference Frame (GGRF) for Sustainable Development. In addition, to implement geodetic modernization initiatives through multiple government agencies, a holistic country action plan (CAP) for geospatial information management must incorporate pertinent geodetic outcomes and outputs. Presently, the CAP framework and principles used by nations is the UN GGIM - World Bank Integrated Geospatial Information Framework (IGIF).

From engagement with geospatial and survey communities across emerging nations in the Asia Pacific region, it is evident more assistance and coordination is necessary to articulate integrate and connect geodetic organizational strategies with the requirements of the GGRF roadmap; the strategic pathways of the IGIF; and resourcing for a meaningful and relevant multi-faceted CAP. One of the supporting mechanisms for such planning or preparation, which representatives of the FIG Asia Pacific Capacity Development Network (AP CDN) and the UN SCoG Education, Training and Capacity Building (ETCB) working group are considering, is a policy framework and guide for a “Geodetic and Positioning Thematic Layer” (GPTL). Essentially, this “thematic layer”, in terms of the GGRF and IGIF, aims to provide a comprehensive understanding of, and a toolbox for, the “why, what, how, and who” of geodesy and positioning.

Consequently, this discussion paper will provide insights for a GPTL dedicated to recognizing, and aligning the geodetic capacity development needs with broader geospatial information management issues and applications; as well as outlining a rigorous, participatory, and inclusive consultation

A Geodetic and Positioning Thematic Layer – Identifying Tools to Connect the GGRF and IGIF (11081)
Allison Craddock (USA), Graeme Blick (New Zealand), Ryan Keenan (Australia), Mikael Lilje (Sweden) and Rob Sarib (Australia)

FIG e-Working Week 2021
Smart Surveyors for Land and Water Management - Challenges in a New Reality
Virtually in the Netherlands, 21–25 June 2021

process for the design and development of a thematic layer. Furthermore, as the intention of the authors is to prepare a “white paper” that will concisely describe the issues of a GPTL and initiatives for an appropriate guide and/or policy framework, this paper will seek feedback on: the potential scientific, social, environmental and political benefits of modernizing geodetic infrastructure and systems; the challenges associated with the GGRF roadmap; leveraging the elements of each IGIF strategic pathway; the importance of collaborative efforts; and the capacity development needs and resources in relation to governance, technology and people.

A Geodetic and Positioning Thematic Layer – Identifying Tools to Connect the GGRF and IGIF (11081)
Allison Craddock (USA), Graeme Blick (New Zealand), Ryan Keenan (Australia), Mikael Lilje (Sweden) and Rob Sarib (Australia)

FIG e-Working Week 2021
Smart Surveyors for Land and Water Management - Challenges in a New Reality
Virtually in the Netherlands, 21–25 June 2021