

## **Fourteenth session**



# Forum on the

# **First Joint Development Plan for Global Geodesy**

Organized jointly by the Subcommittee on Geodesy and the United Nations Global Geodetic Centre of Excellence Tuesday 6 August 2024 11:30 am - 12:45 pm Conference Room 4 (CR-4 GA Building) United Nations Headquarters in New York

## **Concept Note and Provisional Agenda**

### Background

#### Our reliance on satellites

Satellites are integral to modern society. Satellite services are needed for economic development, monitoring our environment, and operating critical infrastructure systems. Global Navigation Satellite Systems (GNSS) provide accurate timing and positioning information crucial for various sectors, including telecommunications, energy, financial systems, and emergency services. A loss of access to GNSS satellites would be catastrophic, leading to transportation and communication disruptions, economic collapse, and national security threats. The impacts would be far-reaching and severe.

Modern society relies on satellites, but have you considered what satellites rely on?

#### The global geodesy supply chain

The global geodesy supply chain (Figure 1) creates the geodetic products all satellites need. To design, develop and operate satellites you constantly need updated information about the Earth's shape, orientation, and gravity field, and the orbits of satellites. In short, you need to know both the Earth's, and the satellite's, 'place in space'. Their positions in space constantly change and therefore need to be monitored if we are going to sustain an accurate and reliable connection between them.



Figure 1: The global geodesy supply chain.

This place in space information is generated from a global geodesy supply chain which includes ground station observatories distributed around the world, along with data- and analysis centers all operated by highly qualified people.

The United Nations Global Geodetic Centre of Excellence (UN-GGCE) Hidden Risk report<sup>1</sup> shows Earth's Plan A for ensuring satellites provide accurate and reliable information is at risk. To make matters worse - there is no Plan B. This has significant implications for civilian and defense applications reliant on satellite services.

#### First Joint Development Plan for Global Geodesy

The First Joint Development Plan for Global Geodesy describes the strategic objectives and activities, which when achieved, will strengthen the global geodesy supply chain. The plan reflects needs of Member States and partners described in the UN-GGCE Global Geodesy Needs Assessment<sup>2</sup>. The UN-GGCE reviewed and summarized expert views and perspectives from in-person consultation meetings and nine "listening" sessions where the team members listened to the needs of over 550 representatives from 110 Member States and partner organizations around the world. Furthermore, the Global Geodesy Needs Assessment drew on responses and recommendations from other reports and surveys of the UN-GGIM Subcommittee on Geodesy and recommendations from the United Nations General Assembly resolution 69/266 (2015)<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> <u>https://ggim.un.org/UNGGCE/documents/20240620-Hidden Risk Report.pdf</u>

<sup>&</sup>lt;sup>2</sup> https://ggim.un.org/UNGGCE/documents/20240509-Global Geodesy Needs Assessment.pdf

<sup>&</sup>lt;sup>3</sup> https://ggim.un.org/documents/A RES 69 266 E.pdf

This forum will bring representatives from space agencies, industry, defense and science, together to:

- 1. Introduce the First Joint Development Plan on Global Geodesy.
- 2. Discuss options on how representatives will take responsibility for activities outlined in the First Joint Development Plan in the short, medium and long-term.
- 3. Encourage others to take action.

### **Provisional Agenda**

#### 11:30 – 11:35 am

Welcome and introduction. [Ingrid Vanden Berghe, Administrator -General, National Geographic Institute, Belgium]

### 11:35 – 11:50 am

Presentation - Strengthening the global geodesy supply chain together [Nicholas Brown, Head of Office, United Nations Global Geodetic Centre of Excellence]

#### 11:50 am – 12:45 pm

Panel discussion

#### Panelists:

- 1. Alison Rose, Chief of Space Division, Geoscience Australia
- 2. JN Markiel, National Geospatial-Intelligence Agency, United States of America
- 3. John Nyberg, Director, International Hydrographic Organization
- 4. Richard Gross, President, International Association of Geodesy
- 5. Albert Momo, Founder and CEO, GeoDEV International

### **Participation**

The Forum on the First Joint Development Plan for Global Geodesy is an in-person meeting only.