



Twelfth Session of the United Nations
Committee of Experts on Global Geospatial Information Management

Subcommittee on Geodesy

Forum on Global Geodetic Reference Frame for Sustainable development “Fundamental for Earth Science Missions and Climate Adaption”

Tuesday, 2 August 2022

1:30 pm - 3:25 pm

Venue: Conference Room 2 (CR-2, Conference Building)
United Nations Headquarters, New York

CONCEPT NOTE

Background

Every day, humanity benefits from geodesy. Geodesy is the science of measuring the size, shape, orientation and gravity field of our planet and it is a foundation for evidence-based policies, decisions and program delivery. Geodesy is used every day, in the fields of civil engineering, industrial automation, agriculture, construction, mining, financial transactions, intelligent transport systems, disaster response and emergency management, environmental studies and scientific research. Furthermore, geodesy enables accurate collection, management and alignment of nationally integrated geospatial information – a key requirement for societal, environmental and economic activities, the measuring and monitoring of progress of the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction, the Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway, and other global, regional and national development agenda and initiatives.

Objectives of the Forum

The United Nations Forum on Global Geodetic Reference Frame for Sustainable Development with the title “Fundamental for Earth science missions and climate change” is convened by the Subcommittee on Geodesy to inform the audience on the critical role that geodesy and the global observatories play in Earth observation and climate research.

The Forum will show how the measurements that we make from satellite systems are helping to inform decisions around the world, and some of the most important ones are measurements of sea level rise. These measurements depend on having a very well understood reference point – a global geodetic reference frame. This reference frame is also fundamental from research on sea level and climate adaptation as will be presented in the Forum. In addition, a case study from the South Pacific will elaborate on consequences of sea level rise.

In 2021, at its Eleventh Session, the Committee of Experts on Global Geospatial Information Management (UN-GGIM) welcomed the progress made by the Government of Germany and the United Nations to host and establish a Global Geodetic Centre of Excellence (GGCE) at the United Nations Campus in Bonn, Germany to support and sustain the Global Geodetic Reference Frame (GGRF). This Forum will also present status on the establishment of the GGCE.

“This is an open side event and all Session attendees are invited”





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Provisional Agenda

1:30 – **Forum Chair:**

1:40 Mr. Nicholas Brown

Co-Chair, United Nations Subcommittee on Geodesy, Geoscience Australia

Opening Remarks: Geodesy: Fundamental for Measuring Global Change

His Excellency Ambassador Peter Thomson

*United Nations Secretary General's Special Envoy for the Ocean and
UN-GGIM Global Geodesy Ambassador*

1:40 – **The critical role that global geodesy plays in Earth observation:**

2:20 Dr. Karen St. Germain

*Director Earth Science Division, NASA Science Mission Directorate, United States of
America*

Followed by questions from the floor

2:20 - **Sea level rise and climate adaptation:**

2:40 Dr. Matthew Simpson

Research Geophysicist, Norwegian Mapping Authority

2:40 – **Consequences of sea level rise - Case study from Asia and the Pacific:**

3:00 Ms. Meizyanne Hicks

*Director Geospatial Information Management, Ministry of Lands and Mineral
Resources, Fiji*

3:00 – **United Nations Global Geodetic Centre of Excellence in Bonn:**

3:15 Mr. Johannes Bouman

*Head of Department Geodesy, Federal Agency for Cartography and Geodesy,
Germany*

3:15 – **Summary and Close:**

3:25 Mr. Nicholas Brown

Co-Chair, United Nations Subcommittee on Geodesy, Geoscience Australia

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