



# Briefing on the importance of the Global Geodetic Reference Frame

## Tuesday, 6 May 2014

The Permanent Missions of Australia, France, Jamaica and Norway invite you to attend a briefing on Geospatial Information Technologies and the importance of the Global Geodetic Reference Frame.

### Speakers:

**Mr. Gary Johnston (Moderator)**  
Geoscience Australia, Australia

**Ms. Anne Joergensen**  
Norwegian Mapping Authority, Geodetic Institute, Norway

**Mr. Tevita Boseiwaqa**  
Department of Lands and Mineral Resources, Fiji

**Dr. Zuheir Altamimi**  
National Institute of Geographic and Forestry Information, France

**Mr. Milton Saunders**  
National Land Agency, Jamaica

**Tuesday, 6 May 2014, 1:15 to 2:30 pm**  
**CR E North Lawn Building at the United Nations**

**Lunch will be provided!**

Kindly RSVP within May 4<sup>th</sup> to [emilie.everett@mfa.no](mailto:emilie.everett@mfa.no)

## **DRAFT CONCEPT NOTE**

### **GEOSPATIAL INFORMATION TECHNOLOGIES**

**28 April 2014**

Geospatial information technologies support national development, economic growth, improved decision making, enhanced policy formulation and contribute to overcoming many global challenges. Their uses range from personal navigation tools to informing large-scale humanitarian or disaster responses. Governments, industry and society now recognise and understand that ‘location’ is a vital component for effective decision making.

However, the principles and methods that are required to obtain a positional location are generally not well understood. Positioning services around the world rely on the guaranteed availability of and access to a high quality global coordinate system: the Global Geodetic Reference Frame (GGRF). The GGRF enables geospatial information to be utilised in applications such as land titling and ownership, engineering construction, precision agriculture, intelligent transport, navigation, geodynamics, and other geoscientific studies, including climate change and sea level monitoring.

The GGRF is underpinned by an infrastructure that consists of globally distributed observatories and satellite tracking stations. It is operated by an internationally organized effort of data centres and analysis teams within governments and the scientific community that, on an ongoing basis and often in real-time, provide products, corrections and models that enable the GGRF to function. Although vitally important to society, this global cooperation relies almost entirely on a ‘best efforts’ principle. The infrastructure is operated by national governments through their national geospatial or space agencies, but a significant proportion of this infrastructure also relies on research organizations and universities which contribute on a research project basis.

In recognition of the growing importance of geospatial information globally, in July 2011 ECOSOC established the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) as the peak inter-governmental mechanism to provide a forum for coordination and dialogue, and to make joint decisions on the production and use of geospatial information within national and global policy frameworks.

The inherent weakness in the sustainability of the GGRF was first noted at the first session of UN-GGIM in 2011. At its third session, in July 2013, UN-GGIM considered a comprehensive report on the GGRF including responses to a questionnaire to which over 100 Member States responded. A significant number of respondents (81%) were from Member State agencies that currently contribute to the global geodetic community, and considered that the geodetic data, products and services were of high-critical importance in their country. Recognizing the economic value of precise positioning, the majority of Member States (75%) indicated that they would benefit from having a high level mandate in place that would provide clear responsibilities for national governments and international agencies. Over 50% of agencies indicated that they are potentially able to share the majority of their geodetic data internationally, particularly if a high level mandate was in place to do so. Importantly, it was noted that no Member State can maintain the GGRF alone, and that its sustainability requires global contributions and cooperation.

Recognizing the growing demand for positioning services, the economic importance of the GGRF, and the need to improve global cooperation within geodesy, in 2013, a decision by UN-GGIM to move forward with a resolution on the GGRF was brought to the attention of ECOSOC. Taking forward a draft resolution will be considered at an appropriate time in the near future.

This briefing seeks to improve awareness of the growing importance of the GGRF – particularly for economic growth strategies, policy-making, and national, regional and global development efforts. It will outline the potential benefits and uses of this tool for Member States and will provide a basic understanding of the processes and infrastructure underpinning the GGRF, including potential areas for its improvement.