Geophysical Research Abstracts Vol. 21, EGU2019-12018, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



Recent Achievements and Activities of the International GNSS Service

Allison Craddock (1), Gary Johnston (2), Rolf Dach (3), Charles Meertens (4), Chris Rizos (5), and Michael Moore (2)

(1) Jet Propulsion Laboratory, California Institute of Technology, United States (craddock@jpl.nasa.gov), (2) Geoscience Australia, Canberra, Australia (Gary.Johnston@ga.gov.au), (3) Astronomical Institute of the University of Bern, Bern, Switzerland (rolf.dach@aiub.unibe.ch), (4) UNAVCO, Boulder, Colorado, United States (chuckm@unavco.org), (5) University of New South Wales, Sydney, Australia (c.rizos@unsw.edu.au)

For twenty-five years, the International Global Navigation Satellite System (GNSS) Service (IGS) has carried out its mission to advocate for and provide freely and openly available high-precision GNSS data and products. IGS was first approved by its parent organization, the International Association of Geodesy (IAG), at a scientific meeting in Beijing, China, in August of 1993. A quarter century later, the IGS community gathered for a workshop in Wuhan, China to blaze a path to Multi-GNSS through global collaboration.

The IGS is a critical component of the IAG's Global Geodetic Observing System (GGOS), where it facilitates cost-effective geometrical linkages with and among other precise geodetic observing techniques, including: Satellite Laser Ranging (SLR), Very Long Baseline Interferometry (VLBI), and Doppler Orbitography and Radio Positioning Integrated by Satellite (DORIS). These linkages are fundamental to generating and accessing the International Terrestrial Reference Frame (ITRF). As it enters its second quarter-century, the IGS is evolving into a truly multi-GNSS service, and at its heart is a strong culture of sharing expertise, infrastructure, and other resources for the purpose of encouraging global best practices for developing and delivering GNSS data and products all over the world.

This poster will present an update on current IGS products and operations, as well as highlights on recent organizational developments and community activities. The impacts and benefits of global cooperation and openly available data will be emphasized, and information about the IGS stations and network, contributions to the International Terrestrial Reference Frame solutions, and product applications will be presented. A summary of IGS products, in particular how they are made, and their availability will be provided. Outcomes of the 2018 Wuhan Workshop, future technical challenges, and potential new directions will be discussed.