

THIRTY-FIRST MEETING OF THE ICG PROVIDERS' FORUM

Monday, 23 June 2025 (Hybrid format)

Vienna International Centre (VIC), Vienna, Austria

SUMMARY

The thirty-first meeting of the Providers' Forum was held in hybrid format on 23 June 2025 in Vienna. The meeting was chaired by Xiaochun Lu of China.

The meeting noted the European Union's presentation on "*Update on ESA's Precise Orbit Determination (POD) GNSS Experiment – Proba-3 and Lunar Pathfinder*". It was noted that the European Space Agency (ESA)'s PROBA-3 mission was a technology demonstration mission for formation-flying of a pair of satellites in a highly elliptical orbit (HEO) with new developed technologies and high degree of on-board autonomy. It was also noted that beside the nominal operations, a global navigation satellite system (GNSS) POD experiment was foreseen to be conducted, and that PROBA-3's use of both Galileo and global positioning system (GPS) signals, and its ability to operate above and below the GNSS constellations, made it an ideal candidate for demonstrating the benefits of interoperable GNSS Space Service Volume (SSV).

The meeting took note of the Joint Statement by three of the United Nations' specialized agencies: the International Telecommunication Union (ITU), the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) regarding protection of the radio navigation satellite service from harmful interference. It was noted that the cases of harmful interference were in the form of jamming and spoofing that disrupted GNSS operating in the frequency bands allocated to the Radio Navigation Satellite Service (RNSS). The joint statement can be found at: <https://www.itu.int/en/mediacentre/Documents/2025/ICAO-IMO-ITU-Joint-Statement.pdf>

The meeting noted that the United Nations-affiliated regional centres for Space Science and Technology Education carried out the nine -month postgraduate courses on GNSS in the academic year 2024/2025. It was noted that the United Nations/Nigeria Workshop on the International Space Weather Initiative: *Space Weather During a Moderate Solar Cycle #25*, 6 – 10 October 2025, Abuja, would be jointly organised by the Office for Outer Space, the National Space Research and Development Agency (NASRDA) and supported by the African Regional Centre for Space Science and Technology Education-in English Language (ARCSSTE-E), Ile-Ife, Nigeria.

The meeting noted that the 15th Multi-GNSS Asia (MGA) Annual Conference was held on 4 - 6 March 2025 at Duangjitt Resort, Phuket, Thailand. It was also noted that the following ICG related events were held in conjunction with the MGA Conference: (i) International GNSS Monitoring and Assessment (IGMA) and Performance Standard Workshop, (ii) 4th ICG Workshop on Precise Point Positioning (PPP) Interoperability and (iii) a first working draft "Statement on the Critical Role of the Global Geodesy Supply Chain for GNSS" was discussed at the ICG Working Group D "Reference Frames, Timing and Applications" meeting. The meeting further noted that the 16th MGA meeting was planned to be held on 6 – 8 March 2026 in Japan.

The meeting took note of a report on the “*Joint ICG – IOAG Multilateral Cislunar PNT*” Workshop held on 11 – 13 February 2025 at VIC, Vienna. It was noted that the workshop, jointly organized by ICG and the Interagency Operations Advisory Group (IOAG), brought together the key participants and critical topics to form a pivotal step in the coordinated development of lunar PNT systems and services. The Workshop demonstrated the need for further coordination to foster compatibility, interoperability, and availability of lunar PNT systems. The meeting further noted that the 2nd Workshop was planned to be held in 2026.

The meeting noted that lunar time interoperability was closely tied to PNT services, which were essential for PNT on the lunar surface and that the ICG Working Group S would present its work on matters related to lunar PNT compatibility with GNSS and RNSS.

The meeting considered the provisional agenda for the 19th meeting of ICG to be held on 20 – 24 October 2025 in Busan, Republic of Korea. It was noted that the ICG Working Groups S and D were planning to hold a joint session.

The meeting considered the provisional agenda for the 32nd meeting of the Providers’ Forum to be held on 19 and 23 October 2025 in Busan and agreed that the following topics would be discussed: open service information dissemination; service performance monitoring; spectrum protection (interference detection and mitigation); multi-GNSS demonstration project in the Asia/Oceania region; ICG information centres; potential areas of coordination between ICG and international organizations. It was noted that the 32nd meeting of the Providers’ Forum would be chaired by China.

The meeting took note of the membership application of Pakistan for member status and the membership application of the United Nations Global Geodetic Centre of Excellence (UN-GGCE) for observer status in ICG. The meeting also took note of the statement made by the representative of India.

The meeting noted that the ICG Executive Secretariat in consultation with the chairperson of the ad hoc working group on terms of reference (ToR) would schedule a meeting of the ad hoc working group prior to the 19th meeting of ICG to continue discussions on review proposals made on the ICG and Providers’ Forum ToRs at the 18th meeting of ICG in Wellington, in 2024.