



International Committee on  
Global Navigation Satellite Systems

**SUMMARY**  
**of the Twenty-fourth Meeting of the Providers' Forum**  
**held in conjunction with the Fifteenth Meeting of the International Committee**  
**on Global Navigation Satellite Systems (ICG)**  
**27 September and 1 October 2021**  
**Vienna, Austria**

1. The Twenty-fourth Meeting of the Providers' Forum, co-chaired by the European Union and India, was held in conjunction with the Fifteenth Meeting of the International Committee on Global Navigation Satellite Systems (ICG), on the 27<sup>th</sup> of September and the 1<sup>st</sup> of October 2021, in a hybrid format with both in-person participation in Vienna, Austria and virtual participation. The meeting agenda is attached as an annex to this report. China, India, Japan, the Russian Federation, the United States and the European Union were represented at the meeting.

**Open Service Information Dissemination**

2. The following presentation was provided:
  - **iGMAS Update**  
China presented an update on its International GNSS Monitoring and Assessment System (iGMAS), including the enhancement of iGMAS by providing more types of BDS-3 precise orbit and clock products, implementing new receivers to track all GNSS open signals and releasing five National Standards to specify the quality requirements and file format for observation data and products. The assessment results for BDS, GPS, GLONASS, Galileo from the past one year were also introduced. The results showed much better performance of BDS-3 than that of BDS-2.

**Spectrum Protection and Interference Detection and Mitigation**

3. The Providers discussed spectrum protection for S-Band signals and agreed to recommend to the ICG that further discussion on this topic take place in the Working Group on Systems, Signals and Services (WG-S) under the Compatibility and Spectrum Subgroup.

**Multi-GNSS Demonstration Project in the Asia/Oceania Region**

4. Japan provided an update on Multi-GNSS Asia, which promotes multi-GNSS in the Asia/Oceania region. Since the annual conference of MGA 2020 was postponed due to the COVID-19 situation, MGA activities on GNSS applications promotion and capacity building were conducted on an online-basis. In the Rapid Prototype Development (RPD) Challenge, participants experienced not only idea competition but also designing, building and demonstrating their proposals/concepts on disaster mitigation and prevention by utilizing precise GNSS positioning as well as the Emergency Warning Service (EWS) function. The RPD challenge will continue in 2021 as RPD Challenge 2021, which will be launched on 2nd of October 2021. The annual MGA conference is planned to be held in March 2022 in collaboration with the Geo-Informatics and Space Technology Development Agency (GISTDA).

**ICG Information Centres: Regional Centres for Space Science and Technology Education (affiliated to the United Nations)**

5. The ICG Secretariat noted that the nine-month postgraduate courses on GNSS will be held at the regional centres in the academic year 2021/2022. The Regional Centre in Rabat, Morocco will also host a workshop on Space Weather and GNSS in 2022. This workshop will be co-organized by UNOOSA, Boston College and ICTP. The Secretariat also noted that the second edition of the Interoperable GNSS Space Service Volume booklet, launched at the ICG-15 meeting, will be distributed to all regional centres for educational purpose.

**Other Matters:**

- **Membership and Participation in ICG**

6. The Providers discussed the request from 04 January 2021 for membership status in the ICG from Pakistan.
7. The Providers also discussed the request from 30 December 2019 for membership status in the ICG from the Republic of Korea.
8. The Providers took note of RTCM's interest to collaborate with ICG.

- **Terms of Reference of the Providers Forum**

9. The Providers reviewed the Terms of Reference and agreed on further changes to be made under item 7, D. Procedures of work, structure and organization.

## TWENTY-FOURTH MEETING OF THE ICG PROVIDERS' FORUM

Vienna, Austria

27 September and 1 October 2021

### AGENDA

*Venue : Vienna International Centre (VIC)*

*Co-Chair: Pieter De SMET, European Commission*

*Co-Chair: Manish SAXENA, India*

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| <b>Monday, 27 September 2021</b>  |  |
| <i>Venue : Vienna International Centre (VIC), Wagramer Strasse 5, 1220 Vienna</i> |  |
| <i>Time: Vienna (Austria) Local Time (UTC+2 hours)</i>                            |  |
| <b>8:00 – 16:00</b>   | <p><b>Grounds Pass/Badge: Pass Office at Gate 1</b></p> <p><i>Individual badges will be issued at the United Nations Security and Safety Section Pass Office at Gate 1, as appropriate. Participants should provide an appropriate form of identification at the entrance.</i></p>   |
| <b>Conference Room: CR-4 (Building C, floor 7)</b>                                |  |
| <b>13:30 – 15:30</b>  | <b>First Providers' Forum meeting</b>  |
|   | <i>Attended by only the Providers. The primary purpose is: (i) to discuss the agenda and meeting procedures for ICG-15 and the 24<sup>th</sup> Meeting of Providers' Forum; (ii) to develop response or suggest amendments to the Working Groups draft recommendations; (iii) to address any other matters; (iv) to compose a temporary drafting group on the preparation of the Providers' Forum report</i> |
|   | <b>Opening Remarks by the co-chairs</b>  |
|   | <p><b>Review of Providers' Forum Agenda</b></p> <ul style="list-style-type: none"> <li>- <i>Composition of a drafting group on the preparation of the report of the Providers' Forum.</i></li> </ul>   |
|   | <p><b>Open service information dissemination</b></p> <ul style="list-style-type: none"> <li>- <i>Update and Assessment of Multi-GNSS Performance, Wei ZHOU, China Satellite Navigation Project Center, China</i></li> </ul>  |

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|  | <b>Service performance monitoring</b>  |
|  | <b>Spectrum protection: interference detection and mitigation</b>  |
|  | <b>Multi-GNSS demonstration project in the Asia/Oceania region</b><br><ul style="list-style-type: none"> <li>- MGA Activities Report, <i>KOGURE Satishi, Japan Aerospace Exploration Agency, Japan</i></li> </ul>  |
|  | <b>ICG Information Centres: Regional Centres for Space Science and Technology Education (affiliated to the United Nations)</b><br><ul style="list-style-type: none"> <li>- <i>The activities in 2021 and 2022, Sharafat Gadimova, Office for Outer Space Affairs</i></li> </ul>                                      |
|  | <b>Comments on the Agenda of the ICG-15 Meeting</b>  |
|  | <b>Other Matters:</b><br><ul style="list-style-type: none"> <li>- <i>Request for a member of the ICG of Pakistan and the Republic of Korea</i></li> <li>- <i>Establishment of a liaison between RTCM SC-134 (Radio Technical Commission for Maritime Services) Committees with the ICG working groups</i></li> </ul> |
| <i>15:30 – 15:50</i>                               | <i>Coffee Break<sup>1</sup></i>  |
| <b>15:50 – 16:50</b>                               | <b>Meeting with the Working Groups Co-Chairs and Working Groups reports</b>  |
|  | <i>Attended by only the Providers and the co-chairs of the Working Group. The primary purpose is: (i) to identify issues for discussion in the working groups; and (ii) to consider their reports on the status of the implementation of the agreed recommendations from the previous ICG meetings.</i>              |
| <b>16:50 – 17:30</b>                               | <b>Providers' Forum Meeting (to be continued as needed)</b>  |
| <b>17:30</b>                                       | <b>Adjourn</b>   |
| <b>Friday, 1 October 2021</b>                      |  |
| <b>Conference Room: CR-4 (Building C, floor 7)</b> |  |
| <b>10:00 – 12:30</b>                               | <b>Second Providers' Forum Meeting</b><br><i>Co-Chairs: Pieter De SMET, European Commission and Manish SAXENA, India</i>   |
|  | <b>Attended by only the Providers and the co-chairs of the Working Group (as needed).</b> <i>The primary purpose is: (i) to discuss any draft recommendations to the ICG from the working groups; (ii) to develop response or suggest amendments to the draft recommendations if needed.</i>                         |

<sup>1</sup> VIC Catering Services: Cafeteria: 7.30 a.m.–3 p.m., C07 Coffee Corner: 8 a.m. – 4 p.m. for takeaway. The cafeteria is located in building F, entrance level. The coffee corner is located on the seventh floor of the C building.

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|                      | <b>Recommendations of the Working Groups</b>   |
| <i>11:00 – 11:20</i> | <i>Coffee Break</i>                            |
|                      | <b>Adoption of the Providers' Forum report</b> |
|                      | <b>Concluding remarks</b>                      |
| <i>12:30 – 13:30</i> | <i>Lunch Break</i>                             |