Statement by Mr. Ryan Guglietta, United States Representative, on Agenda Item 9, "Recent Developments in Global Navigation Satellite Systems," February 14, 2023

Thank you, Chair and distinguished delegates. With billions of users worldwide, the importance of Global Navigation Satellite Systems to the world economy is apparent. One of these GNSS is the U.S. Global Positioning System, which remains a reliable pillar throughout the world, and the United States continues to engage in activities to ensure compatibility and encourage interoperability among the different GNSS services. Since our last meeting, the United States has continued to upgrade the capability and service of GPS through the integration of the newest generation of satellites, GPS Block III, which are broadcasting the 3rd civil signal, L1C, in addition to the legacy signals. The sixth GPS Block III satellite vehicle was launched on January 18, 2023, bringing the total number of GPS III satellites in orbit to six, and we expect additional satellites to become available in the coming months and years ahead, to continue our modernization efforts.

We are also designing new capabilities and enhancements that will be available on the GPS Block IIIF satellites, beginning with GPS-III SV11. GPS Block IIIF satellites will also host two new NASA-sponsored secondary payloads: a laser retro-reflector array to enable precise optical laser ranging of GPS satellites, and a Canadian-furnished Search and Rescue repeater that will relay distress signals to rescuers as part of the U.S. contribution to the COSPAS-SARSAT international system. In addition to the space segment enhancements, we are continuing the effort to upgrade the GPS ground control system to support the new capabilities brought on by the Block III and Block IIIF satellites. The new next generation operational control system is being rolled out in phases, and we anticipate further performance improvements and increased capabilities for all users as we complete the rollout.

The National Space-Based Positioning, Navigation, and Timing, sponsored by NASA since 2007 on behalf of the National Space-Based PNT Executive Committee, continued holding public meetings to seek feedback from GPS commercial, scientific, and international users and formulate recommendations to advise the U.S. federal government.

The United States continues its engagement and leadership in activities related to the UN-affiliated International Committee on GNSS, having been a contributing founder of the organization. In addition to hosting the ICG twice, the United States also co-chairs the Working Group on Systems, Signals and Services, which is making great progress on important issues. We appreciate UNOOSA and

the Government of the United Arab Emirates hosting the 16th meeting of the ICG in the United Arab Emirates in October 2022. The United States continues to support a recommendation adopted during the previous ICG meeting for the development of a technical booklet on the importance of GNSS spectrum protection and interference detection and mitigation.

The United States also co-chairs the Space Use Subgroup under the ICG Working Group B on Enhancement of GNSS Performance, New Services and Capabilities, focused on activities to document the capabilities and benefits of the Interoperable GNSS Space Service Volume. The Interoperable SSV will enable improved navigation for future space operations up to and beyond geosynchronous orbit, even including lunar missions. The subgroup unveiled the second edition of its booklet on this subject at the fifteenth meeting of the ICG, which fully updated and expanded the content of the first edition released in 2018. These updates will better assist U.S., international governmental, and commercial space mission planners in developing their mission architectures and meeting their PNT requirements. Further work is underway to advance PNT in the lunar environment. The latest edition is available for download on the ICG web portal managed by UNOOSA.

In addition to the GNSS multilateral cooperation that takes place through the ICG, the United States has many productive bilateral relationships dealing with civil satellite navigation issues. This includes both policy level meetings and technical discussions aimed at ensuring compatibility and encouraging interoperability with GPS, to the extent possible. In the last year, the United States has continued its close cooperation with the European Union on GNSS activities under our 2004 GPS-Galileo Cooperation Agreement, including working level discussions on enhancements to GNSS. Additionally, the United States has engaged with Japan, India, and the Republic of Korea as a future GNSS service provider.

Through NASA, we are engaged with the European Space Agency and Italian Space Agency to conduct flight experiments to validate the combined use of GPS and Galileo signals to support navigation for space users and improve their PNT capabilities. Furthermore, in 2022 the U.S. Coast Guard Navigation Center secured the public release of the antenna patterns for GPS Block III, which will further improve the ability of space mission planners to conduct accurate analyses of the GPS performance available to support their space missions. Similarly, the United States is also working with its European partners to secure the public release of the antenna patters for Galileo satellites.

In conclusion, let me reiterate several key policy principles that remain centerpieces from the 2020 U.S. National Space Policy and the 2021 Space Policy

Directive 7 for Space-based Positioning Navigation and Timing. The United States intends to continue to improve GPS accuracy and availability through the enhanced performance of modernized satellites. The United States intends to continue to broadcast GPS signals free of direct user charges. And the United States is committed to keeping GPS as a reliable pillar in an emerging international GNSS system.

Thank you, Chair.