

Agenda Item – 9

Global Navigation Satellite Systems

Madam Chairperson and Distinguished delegates,

Indian delegation is happy to note the importance attached to the topics related to global navigation satellite system by this subcommittee, and by the General Assembly. On this occasion, the Indian delegation would like to update this Sub-Committee on the progress of India's satellite navigation programme since the last session.

Madam Chairperson,

India pursues two paths as part of its Satellite navigation programme, viz., GAGAN and NavIC. GAGAN (GPS Aided GEO Augmented Navigation) is a Satellite Based Augmentation System (SBAS), while NavIC (Navigation with Indian Constellation) is an independent regional system.

GAGAN has been established by Indian Space Research Organisation (ISRO) in association with the Airports Authority of India (AAI) to provide increased position accuracies required for civil aviation applications. NavIC has been implemented as an independent regional satellite based navigation service. Signal-in-Space (SIS) Interface Control Document (ICD) of NavIC has been placed in public domain to enable the production of user receivers. The capabilities of the system have been successfully tested and demonstrated in various sectors. Currently, a few mobile handsets released in India are having NavIC capability.

In 2020, the International Maritime Organization recognized NavIC as a component of Worldwide Radio Navigation System (WWRNS). NavIC has also been incorporated into the standards of Third Generation Partnership Project (3GPP) Release 16. In addition NavIC is part of the protocol for Radio Technical Commission for Maritime Services (RTCM).

The NavIC-based emergency messaging system has been in operation for fishermen to provide alerts on impending disasters. The details of the messages have been placed in the public domain. India is developing a distress acknowledgement message system using NavIC. This system will be operationalised shortly.

India gratefully appreciates the excellent work carried out by the UN Office on Outer Space Affairs, as the Executive Secretariat for the International

Committee on Global Navigation Satellite Systems (ICG) and the Providers Forum to bring synergy among global players in satellite navigation. India presented the summary of ICG-14 in the Planning Meeting for ICG-15 held in Vienna, Austria in February, 2020.

In the area of capacity building, Indian Institute of Remote Sensing and Indian Space Research Organisation organised an on-line course on “*satellite based navigation: A Journey from GPS to Mobile Phone platforms*” during March, 2021.

Madam Chairperson,

In conclusion, Indian Delegation assures its continued commitment to this Sub Committee and the ICG global forum in addressing the issues of common interest for Satellite Navigation System providers and also in taking the benefits of GNSS to all countries, especially to the developing countries.

Thank you Madam Chairperson