

# Cooperation Based Global Navigation Satellite Systems Solution to On-Site Inspection

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The International Committee on Global Navigation Satellite Systems (ICG), as an international multilateral platform under the United Nations Outer Space Agency (UNOOSA), is promoting voluntary cooperation on matters of mutual interest related to civil satellite based positioning, navigation, timing, and value added services. At the same time, the On-Site Inspection (OSI) Division of CTBTO, as the neighbour of UNOOSA, is developing its essential Global Navigation Satellite Systems (GNSS) positioning and navigation equipment for on-site inspection. As a matter of fact, GNSS positioning and navigation equipment is still a classification of equipment whose application to OSI is still a pending issue in Working Group B and policy making organs of the Comprehensive Nuclear-Test-Ban Treaty Organization. This work would propose a 4-mode GNSS positioning and navigation solution to OSI, which would involve interagency efforts and all the four major United Nations declared global satellite navigation systems, including GPS, GLONASS, GALELIO, and BEIDOU. This solution is based on the ICG suggestion of compatibility, interoperability, and transparency among all the GNSS systems. It would not only provide a more reliable and practical solution to in-field OSI positioning and navigation, but also take into consideration keeping the balance between technical sufficiency and practical feasibility.

## Promotional text

This work proposes a 4-mode GNSS positioning and navigation solution to OSI based on the interagency cooperation between UNOOSA and CTBTO, which would involve all the 4 major United Nations declared global satellite navigation systems, including GPS, GLONASS, GALELIO, and BEIDOU.

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