



International Engagement Subcommittee Report

International Engagement Subcommittee

- Members:
 - Matt Higgins, Chair
 - Renato Filjar
Vice-Chair
 - Terry Moore
 - Jade Morton
 - Jeffrey Shane
 - Russ Shields
 - Todd Walter
- *Non-US citizens input on issues from international perspective.*
- *Balanced by input from US members on what the US needs from international engagement.*
- Role/ Study Areas:
 - Interfacing with international community (ICG, etc.)
 - Pursue GNSS compatibility & interoperability
 - GNSS service & performance gaps vs. synergies
 - Collaboration vs. competition

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Assessment of Other GNSS Compared to GPS

We have been developing a series of Fact Sheets assessing characteristics of other GNSS that are not currently available on GPS.

System Capability

GEO Satellites

IGSO Satellites

Improved Broadcast Ionosphere Model

Configurable Payload (SDR)

Intersatellite Links

Ground Segment Coverage

Improved Satellite Clocks

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Service Capability

Search and Rescue

Emergency Warning Service

Short Messaging Service

High Accuracy Service

Open Authentication

Commercial Authentication

Template and Example of a Fact Sheet

Topic	Inter-Satellite Links
Description	Already deployed by BeiDou and planned for Galileo 2 nd generation
Advantages	<ul style="list-style-type: none">• Can be deployed as radio or optical links.• Inter-satellite communication improves timeliness of satellite orbit and health information with less reliance on uplink stations.• Inter-satellite ranging improves orbit accuracy with less reliance on monitor stations.
Value for GPS	Would enable increased performance with decreased reliance on ground infrastructure
Planned for GPS	Unsure
Best on GPS or other technology	Deployed on future GPS.
Recommended Response by US	

Assessment of Other GNSS Compared to GPS

System Capability	Progress
GEO Satellites	Needs consideration with LEOs etc
IGSO Satellites	Needs consideration with LEOs etc
Improved Broadcast Iono Model	Draft Complete*
Configurable Payload (SDR)	To be done
Intersatellite Links	Draft Complete
Ground Segment Coverage	To be done
Improved Satellite Clocks	To be done

Assessment of Other GNSS Compared to GPS

Service Capability	Progress
Search and Rescue	To be done
Emergency Warning Service	Draft Complete
Short Messaging Service	To be done
High Accuracy Service	Being Pursued by ECAS Subcommittee
Open Authentication	Draft Complete
Commercial Authentication	To be done

Additional Discussion

- As well as the technical comment, the Subcommittee had a good discussion on possible ways to progress the issues identified in Fact Finding to date.
- Our meeting was also attended by US Government representatives of Coast Guard, State Department and Space Force ~ very useful to have early and direct input to our Fact Finding.
 - For example when discussing issues like interoperability of GPS with other GNSS, State Department has a key role in UN International Committee on GNSS.
- We intend to continue to include those US Government representatives in our future meetings.

Next Steps

- Draft Fact Sheets on the remaining System or Service capabilities in the preceding tables ~ aim to have them available for next Board Meeting.
- Need discussion and guidance from the wider Board on best way to progress the findings in the Fact Sheets.
- Between now and the next meeting we will also broaden the Fact Finding to other aspects of our International Engagement task.