

**8th CSPCWG Meeting
Turku, Finland, 29 November – 2 December 2011**

Paper for Consideration by CSPCWG

Clarification of S-4: Use of abbreviations 'GNSS' and 'GPS'

Submitted by:	UK
Executive Summary:	In response to IHO CL56/2010 on new and revised specification in S-4, Iceland proposed changing references to GPS to the more generic abbreviation GNSS
Related Documents:	S-4, IHO CL 26/2010 and 03/2011
Related Projects:	None

Introduction / Background.

IHO CL56/2010 on new and revised specification in S-4 included a proposed new 'chart accuracy' note, which has since been included in S-4. However, in their response to CL56/2010, Iceland stated:

We do not agree with the word GPS, instead we propose the word GNSS for Global Navigation Satellite System. That will cover the Chinese Beidou Satellite System, Galileo, EU Satellite system and the Russian system GLONASS.

In his response, recorded in CL03/2011, CSPCWG Chairman stated:

Iceland suggested changing 'GPS' to the more general 'GNSS' in the 'Chart Accuracy' note. As the note states 'such as GPS', consistent with similar sample notes in section B-200 of S-4, it will not be changed at this time. However, the point is valid and the usage will be reviewed in the whole section when opportunity arises. Member States may, of course, adapt the suggested wording of the example note, as they consider appropriate.

Analysis / Discussion.

The paragraph mentioned in the CLs currently states:

B-202.4 Chart Accuracy. In many parts of the world, even the most recent data available may have been gathered when survey methods were less sophisticated than they are now and the achievement of accuracy currently available with GPS was not possible. In these areas, GPS positions available to the navigator may be more accurate than the charted detail. Therefore, in such circumstances, a cautionary note should be included, eg:

CHART ACCURACY

Owing to the age and quality of the source information, some detail on this chart may not be positioned accurately. Particular caution is advised when navigating in the vicinity of dangers, even when using an electronic positioning system such as GPS.

The first two mentions of GPS should more correctly refer to the generic GNSS. The reference in the note is an example ('such as'), so GPS is better than GNSS. Alternatively, the note could read:

CHART ACCURACY

Owing to the age and quality of the source information, some detail on this chart may not be positioned accurately. Particular caution is advised when navigating in the vicinity of dangers, even when using a Global Navigation Satellite System such as GPS.

However, this limits the application to satellite navigation systems, excluding such land-based systems as Enhanced Loran.

In addition to the paragraph on chart accuracy above, there are relevant references to GPS in S-4 as follows:

B-202.3 The example notes at a, b and c. all begin with:

‘Positions obtained from satellite navigation systems, such as GPS, are normally referred to WGS84 Datum’.

B-481.3 Older forms of electronic positioning have been largely superseded by Global Navigation Satellite Systems (GNSS), such as the Global Positioning System (GPS).

To replace GPS by GNSS would not make sense in these cases, as GNSS is the generic abbreviation, while GPS is the example (as needed to follow the words ‘such as’).

B-635.4

- for a sounding which appears abnormal and may indicate the possible presence of a danger to surface navigation, every effort should be made to confirm its position by as accurate a means as possible (eg a GPS position);

In this case, GPS could be correctly replaced by GNSS.

Conclusions.

The Global Positioning System (GPS) is currently the most widely used example of a Global Navigation Satellite System. When the generic description is appropriate, ‘Global Navigation Satellite System’ or its abbreviation ‘GNSS’ should be used. When an example can usefully be quoted, the ‘Global Positioning System’, or its abbreviation ‘GPS’ should be used.

Recommendations.

Replace GPS by GNSS in two places in B-202.4 and one place in B-635.4. This should be done editorially at the next opportunity.

Justification and Impacts.

- Strictly correct usage.
- Very limited impact.

Action required of CSPCWG.

The CSPCWG is invited to:

Endorse the recommendation above.