

**6th CSPCWG MEETING
IHB, Monaco, 1-3 December 2009**

Paper for Consideration by CSPCWG

Representation of swathe surveys on source diagrams

Submitted by:	UK
Executive Summary:	An increasing number of new surveys are swathe (eg multibeam). Scale is irrelevant but sea floor coverage is useful.
Related Documents:	S-4.
Related Projects:	None

Introduction / Background

An increasing number of new surveys are swathe (eg multibeam). Scale is irrelevant but it is useful to the chart user to know to what degree the sea floor has been ensonified.

Note that 'swathe' is the correct generic term for modern survey method which include beam-forming (eg multibeam), interferometric and lidar.

Analysis / Discussion

S-4 B-294.3 states: The scale of a controlled survey (see B-295.2) may provide some indication of the thoroughness and the line-spacing, and should be stated in the form 1:5 000, 1:15 000, etc, on conventional Source diagrams. The scale of a chart source may have some value. If considered useful, line-spacing may be added to the details of a survey, e.g. '200m', under the heading 'Line-spacing', or equivalent. For surveys gathered by systems using multibeam, interferometric, laser or Lidar technologies, scale has little relevance and a measure of 'Sounding Density' may be used instead. However, a statement of whether full sea floor coverage has been achieved will be more informative.

Not all swathe surveys achieve full sea floor coverage (eg in shallow water where 'skunk-striping' is apparent). The guidance above suggests a measure of 'sounding density' may be used, but this does not seem very practical or likely to be understood by the chart user. US simply uses the term 'partial sea floor coverage' and UK has now followed this lead but would be interested to know how other HO are classifying such survey on their source diagrams.

For CATZOC purposes, UK uses A1 or A2 for full sea floor coverage and B for partial sea floor coverage swathe surveys.

Conclusions

The existing guidance in S-4 is inadequate, given the increase in the use of swathe surveys.

Recommendations

Improve the guidance given at S-4 B-294.3 for categorizing swathe surveys which do not achieve full sea floor coverage.

Justification and Impacts

Justification	improves standardization; provides enhanced information to the chart user
Impact	minor change to S-4

Action required of CSPCWG

The CSPCWG is invited to consider the above and advise:

- a. what term(s) should be used to categorize swathe surveys which do not achieve full sea floor coverage?
- b. decide whether the guidance in S-4 should be enhanced.