

2011/2/SSGESST08 The Study Group on Calibration of Acoustic Instruments in Fisheries Science (SGCal), chaired by David A. Demer, USA will meet in Pasaia, Spain, on 20 April 2013 to:

- a) Review the draft Cooperative Research Report (CRR) and make refinements;
- b) Recommend, via the CRR, protocols to be used for acoustic-system calibrations;
- c) Document, via the CRR, current theory and recommended practice of acoustic-system calibrations.

SGCal will report by 17 June 2013 (via SSGESST) for the attention of SCICOM, WGFAST and ACOM.

Supporting Information

Priority	<p>Acoustic data are currently being collected from a variety of acoustic systems in many countries to address a range of ecosystem monitoring and stock management objectives. The ICES CRR covering this topic (CRR 144, Foote <i>et al.</i>, 1987) is now more than 20 years old. Whereas much of the theoretical principles are still relevant, some need to be expanded to include currently used technologies (e.g. multibeam and broadbandwidth systems), and methods and standard protocols for calibrating these instruments need to be updated.</p> <p>There exists an urgent need to evaluate this work and to develop recommendations for protocols appropriate for calibrations of acoustic systems used in fisheries research and surveys. This need has been identified by a number of ICES Member Countries and observer countries and has been conveyed to WGFAST and SSGESST.</p>
Scientific justification	<p>Term of reference a: The ICES reference for acoustic system calibrations needs review and revision to be useful to practitioners of fisheries acoustics for stock management. The first step in this process is to review, summarize and report on the literature regarding the acoustic systems that are currently used in fisheries research and surveys. The theoretical principles for calibrating these instruments must be capitulated, and the methods currently being practiced must be evaluated.</p> <p>Term of reference b: Based the literature review, the Expert Group must make recommendations to the ICES community for standard protocols to be used for acoustic system calibrations. These protocols must cover the calibrations of all commonly used acoustic systems used in fisheries research and surveys, or be generic enough for calibrating other systems not specifically considered. The protocols must be practical and based on solid theoretical principles; and</p> <p>Term of reference c: There is a recognized need to comprehensively document the current theory and recommended practice of acoustic instrument calibrations for use in Fisheries Science, and publish them in an easily accessible report.</p> <p>WGFAST and SSGESST continue to recognize the difficulty of addressing these needs during full working group sessions and support the continuation of this study group comprised of experts to develop recommended methods and guidelines without delay. This Study Group will meet three times.</p>
Resource requirements	<p>No new resources will be required for consideration of these topics at the relevant group meetings. Having overlaps with WGFAST meetings, this SG will draw on a larger resource pool of experts which will increase efficiency in completing the objectives and reducing travel costs.</p>

Participants	It is expected that ca. twenty five scientists from six ICES and three observer countries will initially participate in the study group. History has shown this number will likely decline to about half that number as the meeting progress, and about one fourth may be active in authoring the report. Interested industry representatives, both hardware and software suppliers) should be actively invited to participate.
Secretariat facilities	None.
Financial	No financial implications. Having overlaps with other meetings of expert groups of SSGESST increases efficiency and reduces travel costs.
Linkages to advisory committees	There are no direct linkages to the advisory committees but the work is of relevance to ACFM.
Linkages to other committees or groups	No direct linkages, however, depending on the outcome organizations such as FAO will be interested in the results.
Linkages to other organizations	WGFAST. This work should have relevance to many working, groups carrying out stock assessment of many semi-demersal and pelagic species in many ICES countries.