

## **DEVELOPING A LONG TERM STRATEGY FOR USING AUVS IN POLAR RESEARCH**

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Three international workshops have reviewed the use of Autonomous Underwater Vehicles (AUVs) in polar and extreme environments:

(1) Acoustic Navigation and Communications for High-latitude Research, Seattle, Feb.06

<http://anchor.apl.washington.edu/index.html>

(2) Masterclass in AUV Technology for Polar Science, NOCS, Mar. 06

<http://www.noc.soton.ac.uk/CASEE/CASEE2/Introduction.html>

(3) AUV Science in Extreme Environments, SPRI, Apr. 07

<http://www.noc.soton.ac.uk/CASEE/CASEE2/pages/Science.html>

The proceedings for the latter two have been published and case studies are being presented within Session 3.4 of this meeting. AUV technology is well developed and can answer a range of scientific questions beyond the capabilities of other technologies. The third workshop identified that there was a need for strategic planning for the incorporation of AUVs into polar research, especially given the long term legacy objectives of IPY specifically:

- A collective multinational programme drawing upon national assets and resolving the institutional barriers to implementing this.

- A move from short expeditions to long term effort, (sufficiently resourced to withstand occasional setbacks) for example: routinely launching and recovering AUV from bases around the Antarctic, Lagrangian drifters and acoustic navigation networks (ANCHOR).

- The need for interoperability, standardisation of equipment and support infrastruc