

DEVELOPING A LONG TERM STRATEGY FOR USING AUVS IN POLAR RESEARCH

K.J. Collins¹, S. Ackley², K. Heywood³, G. Griffiths¹

1 - National Oceanography Centre, Southampton, UK

2 - Clarkson University, New York, USA

3 - University of East Anglia, Norwich, UK

kjc@noc.soton.ac.uk

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

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

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

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