

Best Practices Guide to AUV Polar Operations

Maxine von Eye

April 16, 2007

1 Introduction

I used the second half of my CASEE bursary to visit ISE Ltd. in Vancouver, BC, Canada from 19 March - 8 April 2007. While I was there, I worked with James Ferguson on developing a Best Practices Guide for AUV Polar Operations web site, and I was also able to go on one day of sea trials for the Bremen Explorer AUV.

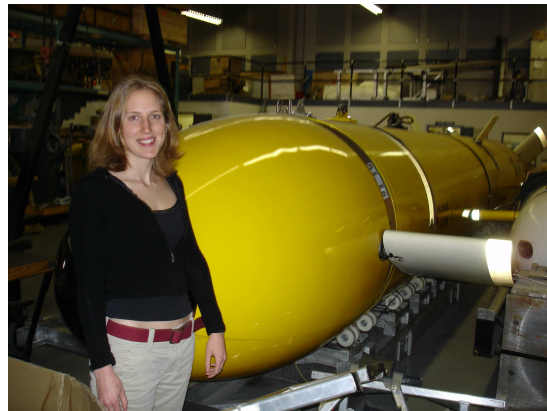


Figure 1: Me with the Theseus AUV

2 Web Site Development

The Best Practices Guide to AUV Polar Operations web site is the brainchild of the ECOR underwater vehicle specialist panel, chaired by Neil Bose. They wanted a site where researchers could exchange ideas and experiences, and where a large body of knowledge on polar AUV operations could develop. The site would not be exclusively for AUV operators, but for a larger audience including

- a. AUV manufacturers,
- b. polar scientists and engineers,
- c. subsea equipment manufacturers,
- d. funding agencies for Arctic programs,
- e. proposal reviewers,
- f. insurance underwriters,
- g. the public at large.

I developed a web site, which can be found at <http://www.srcf.ucam.org/polarauvguide/>. The web site includes a best practices guide, sections on tools for AUVs, sensors and the polar environment, and a wiki that all members can edit with a password. The information collected on the wiki will then be moved to the public part of the site once a general consensus about a particular topic is reached. I presented the site to the AUV community on the second day of the CASEE AUV Science in Extreme Environments workshop, 11-13 April 2007.

3 Bremen Explorer AUV Sea Trials

On 3 April 2007 I assisted on sea trials for the new Bremen Explorer AUV. We were on the ISE Researcher vessel in the waters around Vancouver. It was the first time I saw an AUV being operated, and it was great to see part of what goes into developing such a vehicle at ISE.

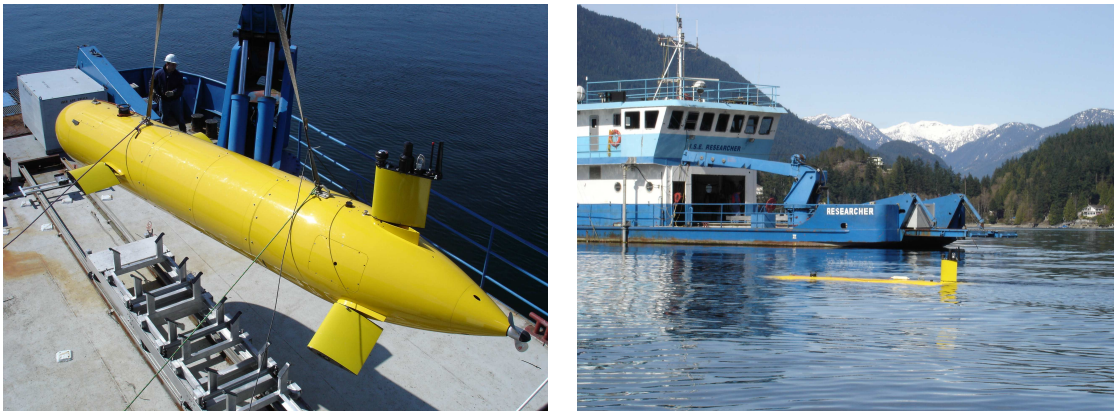


Figure 2: The Bremen Explorer