

UBC Human Powered Submarine Team Competes in Escondido, CA

By Norbert Schumacher

University of British Columbia (UBC) is well known for its Mechanical Engineering programs and for its student design teams. SUBC, the UBC Human Powered Submarine team is one of more active student design teams at UBC.

SUBC recently competed in the 2006 Human Powered Submarine Competition, held in Escondido, California. The competition judges the teams on a variety of characteristics, the most important of all being the craft's speed. The crafts are completely propelled by the instantaneous exertions of the pilot in a straight line course through 2 timing gates which electronically determine speed.

Unfortunately, the SUBC craft achieved a speed of only slightly over one knot. This was mostly due to the hatch closure problems. The overly large access hatch was difficult to keep in place. Other minor difficulties in achieving top speed were insensitive and jerky controls.

One of the plans for future modifications includes making the entire forward part of the hatch fixed to the rest of the hull. This will allow the hull to take most of the pressure forces, and the force of the pilot powering the linear drive system. Another planned modification, is to remove all the "pour-in-place foam" which turned out to be open-cell foam, instead of closed-cell foam, and lost its buoyant properties after several minutes of submersion.

Overall the competition was an excellent experience for our re-emerging team, and the knowledge that the team gained was invaluable. The SUBC team looks forward to a similar competition on the East Coast, in the upcoming year, and is grateful to all the sponsors and supporters.

The main SUBC sponsors are: UBC and the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC), with the support of the SNAME Pacific Northwest Section (SNAME PNW).



Clockwise from bottom left: Norbert Schumacher, Paul Dunwoody, Nick Comyn, and Valerie Roberts