

National Oceanography Centre

WORLD CLASS MARINE SCIENCE AND TECHNOLOGY FOR YOUR BUSINESS

Collaborating with Industry

Advancing NOC technology

INNOVATIVE BATTERY SOLUTION

Since 2001, Autosub AUV's have brought back unique information from under floating ice. In doing so, they have arrived at the beginning of a new era for glaciologists and polar oceanographers.

The latest in the Autosub family of vehicles, Autosub Long Range (ALR), can operate at 6,000m water depths, for 6 month missions and travel 6,000Km. This pioneering technology presents significant challenges around power.

NOC worked closely with Steatite who developed a mission critical Lithium Primary solution that increased the AUV's endurance whilst reducing the whole life cost. The Lithium Primary solution offered a number of benefits over the existing Alkaline solution such



as greater endurance due to the increased energy density, weight saving, higher stable head voltage and a greater operating temperature range.

Each Steatite battery set is constructed to a frame inside a pressure vessel by NOC engineers with connections made to ALR. NOC required all design, build and UN testing to be carried out by one contractor and Steatite was able to offer this.

STEATITE



National
Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

noc.ac.uk

NERC SCIENCE OF THE
ENVIRONMENT

“Steatite has a long established working relationship with NOC and collectively we have managed to meet many of the operational demands for supplying battery power for electronic equipment, sensors and unmanned vehicles in subsea applications. As future demand requires marine equipment to be used at

greater depths, or require greater endurances then the unique battery design skills offered by Steatite using lithium batteries will facilitate developments within the oceanographic community. We are delighted at the operational success of the Autosub 6000 using our battery solution.”

Paul Edwards
Steatite Limited



To talk to us about ways of working together
contact: business@noc.ac.uk