

Subproject: high resolution physical and biogeochemical (chlorophyll, PCO₂) variability in surface layer (0-40) in sub-arctic fjord

Actual field dates: August 1-10, 2016

Field site: Godthåbsfjord and Kobbefjord

Number of man-days in the field: 14

Summary:

The commercial survey AUV of CEOS was rebuilt as an AUV ready for biogeochemical surveys. The camera was replaced by a fluorescence and turbidity sensor. In addition, a PAR sensor was added to the system setup. Field trials with the AUV were successful. However, later during the Arctic summer, the stratification in the fjords was very high. The AUV was unable to penetrate the buoyant surface layer once balanced at the surface water's density. Therefore in future surveys should be focused on spring conditions or periods and locations where stratification is acceptable.

Photos:

Fig.1: The CEOS-AUV with new nose section

Credit: Wieter Boone

Fig. 2: AUV field measurements in Kobbefjord, Nuuk area, West Greenland. Credit: Wieter Boone

Fig. 3: AUV in Nuuk fjord, cross sectional survey

Credit: Wieter Boone



Figure 1



Figure 2

Participants:

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Figure 3

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