

Acoustic mapping of coastal areas in the Arctic zone

Exploration and adventure



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The ACCES project: De-icing of the Arctic coast: new challenges and opportunities!

Arctic coastal regions comprise 34% of the global coastline, and serve as an important breeding and foraging grounds for fish, birds and marine mammals. Providing valuable ecosystem services vulnerable to climate induced stressors are among the most threatened ecosystems globally.

The western coast of Spitsbergen is under warm Atlantic current influence, while the eastern coast is much colder with dominant Arctic waters. Monitoring of seabed morphology and habitats of both sites help to predict future scenarios of an ice-free coast.



http://www.acces-arctic.com/









- NORBIT integrated wideband multibeam sonar (iWBMS) 400kHz
- Swath coverage 5°-210°
- Resolution 0.9°x1.9°
- Weight 9kg
- Power consumption 60W (might be powered with 12-24VDC)
- POSMV antennas mounted on the pole with MBES
- Precise and flexible integrated solution with navigation post-processing capability



Spitsbergen, exploration of the East Coast





Agardhbukta, the East Coast of Spitsbergen













...and all the equipment with us







Agardhbukta





Area 2

Area 1

These areas were surveyed for the first time!

4km ^A









Area 2



NORBIT - explore more -





Area 3 with pockmarks, Agardhbukta



Across -3.73 Depth 17.62







Multibeam sonar data segmentation for Agardhbukta area1, 2019





Seabed classification results





Sand/gravel, some stones



Soft bottom

Spitsbergen, areas mapped by NORBIT during MAKAK and ACCES



coast

West

projects

Acces project will be continued in 2020 following research in the East Coast of Spitsbergen



-explore more-

We explore and discover

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