

Abstract

## Experiences with Multipurpose Acoustic Networks in the Arctic.

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The EU funded project Integrated Arctic Observing System (INTAROS) (2016-2021) involve 49 institutions in Europe, North America and Asia. INTAROS will develop an integrated Arctic Observation System by extending, improving and unifying existing systems in the different regions of the Arctic. INTAROS has a strong multidisciplinary focus, but with a particular focus on improving the in situ ocean observing systems, which is the largest gap in the overall Arctic observing system. This presentation will focus on how acoustic networks can contribute to development of a sustainable Arctic Ocean Observing System.

Multipurpose acoustic networks are used for underwater geo-positioning, passive acoustics and acoustic thermometry, and the networks have demonstrated in several projects in the Fram Strait and in the Beaufort Sea. New initiatives for deploying acoustic systems in the Baffin Bay and north of Svalbard have been taken. These initiatives are timely in the context of the new cluster of Arctic projects funded by EU's research program HORIZON 2020 (INTAROS, APPLICATE and BLUE-ACTION) and programs funded by Office of Naval Research (e.g. CANAPE, SODA). Furthermore, by implementing moored acoustic networks in ice covered regions of the Arctic it will for example open up for extending the ARGO program into the Arctic.