



International Workshop on Arctic Ocean Observation:  
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Science Session

## Autonomous Platforms, Infrastructure and Coordination for Sustained Arctic Observing

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The need for sustained, climate-scale observing presents severe challenges to the Arctic science community. New developments in autonomous platforms adapted for year-round operation in the Arctic, including Argo profiling floats and long-endurance underwater gliders, provide persistent, distributed sampling, extending the reach of conventional ship-based observing. Acoustic infrastructure allows localization and navigation of autonomous platforms when sea ice blocks access to satellite services and, in some cases, allows exfiltration of data collected by instruments operating beneath the ice. This presentation will review recent achievements and plans for autonomous floats and gliders, and for the acoustic infrastructure that supports them.

It will also summarize efforts to coordinate sustained Arctic observing through the establishment of a Global Ocean Observing System (GOOS) regional Alliance for the Arctic.