

Proposed Idea for IPY 2007

Sea Ice and Climate

Background

There has been evidence from submarine data that the polar pack has thinned significantly in the last 30 years. The magnitude of this thinning has been disputed by others. Clearly it is an important question to resolve with regard to climate change.

Proposal

An international effort to conduct further submarine trips with surface ships as “ground truth” data and possibly satellite images as well. Only USA and UK can provide the submarines. Canada could provide the *CCGS Amundsen*, Germany could provide the *Polarstern*. Two routes would be established, one through the NW passage or the Canadian high Arctic, one in the European sector of the Arctic, and all sea ice researchers encouraged to work in these two areas. Sea ice thickness, strength, biological activity, heat transfer etc. would be done throughout the year, not just the summer. If possible, the submarines would track the same route more than once during the year.

The details of this proposal have to be worked out by an international committee of scientists who would be involved in the project. The organization of the project would itself be a major undertaking.

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