2012 Project Summary

Glacier-Ocean Coupling in a Large East Greenland Fjord

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The objective of this project is to investigate ice-sheet ocean interactions in one major glacial fjord, in southeast Greenland, and determine what oceanic processes control the rate of submarine melting and, hence, influence the stability of the outlet glacier.

Recent Results

(1) This project is now in its third field season and has demonstrated that oceanic variability (including changes in the upper limb of the AMOC) is rapidly transmitted to Greenland’s glaciers and have the potential to affect glacier stability.

(2) A paleo reconstruction from a major glacial fjord shows that glacier retreat is strongly tied to oceanic variability.

Bibliography

