

**Ice islands of the Eastern Canadian Arctic**  
Project activity report 2013  
Team: A. Crawford, M. Nacke and D. Mueller  
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Ice islands are massive icebergs that can be up to several kilometers long. Two ice islands originating from the Petermann Glacier of Northwest Greenland were targeted for field work in 2013. Petermann Ice Island (PII)-B-a ( $9 \text{ km}^2$ ) was grounded  $\sim 130 \text{ km}$  northwest of Clyde River in August 2013 while PII-A-3 ( $14 \text{ km}^2$ ) was freely drifting along the coast of Baffin Island between Pond Inlet and Clyde River. Fieldwork was conducted in August during ArcticNet's research cruise onboard the *CCGS Amundsen* to deploy tracking beacons and install stakes on the top to measure surface melt. When the ice islands are visited again, re-measuring the length of the stake will tell us how fast the surface is melting. Our team also took photos that will be stitched together to make a digital model of the ice island's shape in 3D. Ice islands have been identified as hazards to navigation and offshore infrastructure. Field work in 2013 was meant to analyze the deterioration of these massive pieces of ice. Fog in the vicinity of the ice islands meant that the helicopter remained grounded and the field team (A. Crawford and M. Nacke) were unable to access PII-A-3. Due to the tragic crash of the helicopter in September a re-visit that was planned for October was cancelled. However, PII-B-a was briefly visited in August 2013 (Fig. 1) and some measurements were made. Numerous ice island fragments are located along the coast of Baffin Island as well as further north. These are potential targets for 2014 field work. We are also planning to conduct field work in 2014 on a grounded ice island near Resolute Bay to determine the effect of its deterioration on the surrounding water column.



Figure 1: PII-B-a (about 3.5 km long), grounded northwest of Clyde River, in August 2013