



Frazil ice in the Arctic Ocean observed during a transpolar drift

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During the winter of 2006-2007 frazil ice formation was observed during the transpolar drift of the French polar schooner Tara. Although this came as a complete surprise, massive frazil ice formation was confirmed based on in situ and visual observations taken at Tara from the depth echo sounder and microcats (CTD) basically. In this presentation we will describe the phenomenon as observed and will discuss the importance for the surface mixed layer, the shallow cold halocline, the internal waves occurring across the halocline and the amount of frazil ice and brines formed during this particular winter. We will also suggest ways to parameterize this mechanism in numerical models.