Brief communication: Indication of high basal melting at EastGRIP drill site on the Northeast Greenland Ice Stream

Ole Zeising^{1,2} and Angelika Humbert^{1,2}

¹Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung, Bremerhaven, Germany ²University of Bremen, Department of Geosciences, Germany

Correspondence: Ole Zeising (ole.zeising@awi.de)

Abstract. Lubrication of ice sheet base is facilitated by basal melt water. In-situ basal melt rates are important from various perspectives as they indicate the heat budget, the hydrological regime and the role of sliding in glacier motion. Here, we present basal melt rates at the recent deep drill site EastGRIP, located in the North East Greenland Ice Stream, that are based on analysis of autonomous phase sensitive radar measurements. We find basal melt rates of $(0.16 - 0.22) \pm 0.01 \text{ m a}^{-1}$ over two years.