

Geometry of ice-stream retreat in the easternmost Amundsen Sea Embayment, West Antarctica

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Abstract

The study of ice-sheet behaviour is needed to better our understanding of glacial dynamics under the influence of a changing climate. Marked differences in palaeo-ice stream growth, retreat and pathways, have been reported to exist between the easternmost (east of Burke Island) and western Amundsen Sea Embayment, West Antarctica. Previously collected seismic reflection and bathymetric data have suggested a slower retreat of the ice-stream east of Burke Island than west of it, which is interpreted to be the result of smaller, colder drainage basins and less meltwater production. In order to verify this hypothesis a set of high-resolution seismic reflection profiles was collected across a grounding zone wedge east of Burke Island during cruise PS104 with RV *Polarstern* in February/March 2017. First results of this survey will be presented.