



Preliminary results of a radio echo sounding survey of the Recovery Glacier, Antarctica

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The Recovery Glacier is draining about 8% of the East Antarctic ice sheet and feeds into the Filchner Ice Shelf. This ice shelf might be subjected in future to increasing basal melting (Hellmer et al., 2012) forcing potentially grounding line retreat. Compared to other areas in Antarctica this glacier is been surveyed very sparse and hence does not allow modeling studies yet. As many large and small subglacial lakes are present underneath this ice stream at different locations along the flow, the question of the influence of the lakes on ice stream genesis and ice stream dynamics arose. For investigating this influence by observation and subsequent modelling, an airborne campaign of the Alfred Wegener Institute was carried out in January 2014, covering the Recovery Ice Stream and two smaller glaciers merging with it, the Ramp Glacier and the Blackwall Glacier. The radar system uses a carrier frequency of 150MHz and a 600ns pulse. The survey includes several flights along flow lines in order to assess the basal roughness of the ice stream. Here we present the first preliminary data analysis.