



(a) Simplified map showing the best estimate of true distance between the westernmost Maud Belt and easternmost Grunehogna Craton margin (red arrow). Source map modified from Norsk Polarinstittutt - Temakart Nr. 28 (S. Elvevold & Y.Ohta, 2010). The dashed pink line is the orientation of the seismic profile corresponding to the subglacial topography in (b) after Näslund (1998) and Melvold and Rolstad (2000). Using this seismic profile data and new petrological data, an inferred subglacial metamorphic and structural geology is reconstructed along the estimated true distance (namely the red arrow line representing the shortest distance) between the Maud Belt and GH-Craton. It is proposed herein that the PDJ represents a major Pan-African thrust zone, that was reactivated by subsequent normal faulting to form a graben during