



## **Internal layering structure of ice sheet along a traverse route from Zhongshan station to Dome A, East Antarctica, determined from airborne radio echo sounding**

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We present the airborne radio echo sounding data from the 32nd Chinese National Antarctic Research Expeditions (CHINARE 32, 2015/16) along a transect with a length of ~1250 km from Zhongshan station to Dome A, East Antarctica. Four sectors of radargram, named as Slope area, Plateau area, Ice stream area and Dome area, were imaged to provide information on spatial variability in isochronic layering architectures. The result shows that the pattern of isochronic layers near the ice sheet surface, in general, is controlled by accumulation, which appears to be mainly connected with surface topography. A series of reflection anomaly, however, can be seen in the Dome area. These unconformities are resulted from persistent wind scour on surface. At the bottom of the ice sheet, the geometry of isochronic layers impact significant relationships with the basal topography. While in the upstream area of the ice stream, internal layers will be largely disturbed by the ice-flow, especially in the Gamburtsev mountains.