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Sommario/riassunto	<p>Published by the American Geophysical Union as part of the Antarctic Research Series, Volume 67. A high amplitude magnetic anomaly occurs over the Butcher Ridge igneous complex in the Transantarctic Mountains. This sill-like body is approximately 10 km long where exposed. It ranges from basalt to rhyolite in composition and has been suggested as evidence of a large mafic intrusion at depth. A single NW-SE aeromagnetic profile flown across Butcher Ridge gave an 8-km-wide positive anomaly with maxima of about 700 and 1000 nT which are associated with topographic peaks that the aircraft cleared at about 300 and 600 m respectively. The observed amplitude of the Butcher Ridge anomaly is too great to be caused by a typical sill of Ferrar Dolerite, examples of which are widely exposed along the Transantarctic Mountains. Models that fit the observed data indicate magnetizations comparable to the Jurassic Dufek layered mafic intrusion in the Transantarctic Mountains near the Weddell Sea. Model calculations show that the upper, and most magnetic part of the inferred intrusion must be greater than about 2 km thick and that the entire intrusion is probably substantially thicker. We interpret the source of the Butcher Ridge magnetic anomaly to be a layered mafic intrusion, syntectonic with the Jurassic Transantarctic (failed) rift, marked by the Ferrar Dolerite. The magnetic evidence for a buried</p>

mafic body beneath the Butcher Ridge igneous complex is the first evidence of possible Jurassic cumulate rocks in the Transantarctic Mountains bordering the Ross Embayment-Byrd Subglacial Basin.

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