

Abstract Submitted  
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**Results from the USIP-UH contribution to the BARREL-4 campaign**<sup>1</sup> CHRISTIAN BEHREND, MICHAEL GREER, EDGAR BERING, SAMAR MATHUR, MARIA LALATA, University of Houston — The Undergraduate Student Instrumentation Project (USIP) at the University of Houston sent a team to the Esrange Space Center near Kiruna, Sweden to participate in NASA/Dartmouth's BARREL-4 campaign in August 2016. One of the USIP experiments sent was a Very Low Frequency (VLF) radio receiver for measuring the VLF emissions associated with electron precipitation. The experiment was intended to complement the BARREL team's primary instrument: a MeV X-Ray Scintillation Counter. The VLF receiver consists of a magnetic air-core loop antenna coupled with a transformer with an integrating pre-amp which outputs to the left channel of a standard music recorder. The right channel recorded a time-code signal in the IRIG-B format generated by a separate time-code encoder circuit. The presentation will include a summary of observations.

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