

Abstract Submitted  
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**Observations of Large Amplitude, Narrowband Whistlers at Stream Interaction Regions** AARON BRENEMAN, University of Minnesota, C. CATTELL, K. KERSTEN, L. WILSON III, S. SCHREINER, L. JIAN, P. KELLOGG, K. GOETZ — We present the first solar wind observations of large amplitude, narrowband waveforms in the whistler frequency range 10-100 Hz. Amplitudes range from a few to  $>40$  mV/m peak-to-peak, one to three orders of magnitude larger than any previous observations of whistler mode waves in the solar wind. The whistlers are obliquely propagating with a large electrostatic component and are right-hand elliptically polarized in the spacecraft frame. They occur in groups that are strongly correlated with stream interaction regions. The groups persist from a few seconds to minutes and are observed at 88% of SIRs and 17% of shocks from available data. A more detailed look shows that the whistler groups are observed near sudden disturbances of the solar wind magnetic field and plasma. Test particle simulations indicate that these whistlers may play an important role in the dynamics of solar wind electrons within SIRs and near some shocks.

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