

Abstract Submitted
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Laboratory Investigation of Whistler and Lower Hybrid Wave Propagation¹ B. AMATUCCI, D. BLACKWELL, G. GANGULI, G. GATLING, Naval Research Lab, C.D. COTHRAN, D. WALKER, Global Strategies Inc. — An experimental investigation of the generation and propagation of waves on the whistler/lower hybrid branch is underway in the NRL Space Physics Simulation Chamber. The plasma conditions have been scaled to the inner magnetosphere. These studies are carried out in both homogeneous plasma and plasma containing density structuring. In homogeneous plasma, resonance cone propagation of the waves is observed, consistent with theoretical predictions. In plasma containing a density depletion layer, wave ducting within the layer has been observed. Experimental results on the observed whistler/lower hybrid wave propagation characteristics will be presented.

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