

Abstract Submitted  
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**Laboratory Studies Of Whistler And Lower Hybrid Wave Propagation**<sup>1</sup> BILL AMATUCCI, DAVE BLACKWELL, GEORGE GATLING, GURU GANGULI, Plasma Physics Division, Naval Research Laboratory, Washington, DC, CHRIS COTHRAN, DAVE WALKER, Advanced Technology Division, SFA Incorporated, Crofton, MD — An experimental investigation of the generation and propagation of whistler and lower hybrid waves is underway in the NRL Space Physics Simulation Chamber. These studies are carried out in both homogeneous plasma and plasma containing density structures. 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 related to the propagation characteristics of whistler/lower hybrid waves under these conditions will be presented.

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