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Early Results from the EOS Aura Microwave Limb Sounder (EOS MLS)

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EOS MLS, launched on NASA's Aura satellite on 15 July 2004, makes limb-view measurements of thermal emission at millimeter and sub-millimeter wavelengths from the upper troposphere, stratosphere and mesosphere. It is an enhanced version of the Microwave Limb Sounder launched on the Upper Atmosphere Research Satellite in September 1991, yielding information about more atmospheric species over an extended height range. The instrument is designed to measure OH, HO_2 , H_2O , O_3 , HCl, ClO, HOCl, BrO, N_2O , HNO_3 , CO, HCN, temperature and cloud ice.

This talk will demonstrate early achievements of the instrument in revealing atmospheric structure, including the development of the polar vortex in the Arctic winter.