

abstract of invited paper for COSPAR 1996
(for session C4.3: trace constituents models anti comparisons with latest data)

Trace gas measurements by the Microwave Limb Sounder Experiments:
results from the Upper Atmosphere Research Satellite and plans for the future

by

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The Microwave Limb Sounder (MLS) experiment on the NASA Upper Atmosphere Research Satellite (UARS) is the first application of atmospheric limb sounding from space at microwave wavelengths. Its measurements in the stratosphere include ozone, water vapor, chlorine monoxide, nitric acid, temperature, pressure and geopotential height. Upper tropospheric water vapor is also measured. Measurements are of thermal emission, are performed continuously, and are not degraded by stratospheric aerosols or ice clouds (including polar stratospheric clouds). Highlights from the first four years of UARS observations will be presented, and plans for follow-on experiments discussed.