

FREE TROPOSPHERIC MEASUREMENTS OF BIOMASS BURNING EMISSIONS BY THE ATMOSPHERIC CHEMISTRY EXPERIMENT (ACE)

CURTIS P. RINSLAND, *NASA Langley Research Center Mail Stop 401A, Hampton, VA 23681 U.S.A. (c.p.rinsland@larc.nasa.gov)*; CHRIS D. BOONE, B. F. BERNATH, *Department of Chemistry, University of Waterloo, Waterloo, Ontario, Canada (cboone@acdbox.uwaterloo.ca and bernath@uwaterloo.ca)*; LINDA CHIOU, *Systems and Applied Sciences Corporation, Hampton, VA U.S.A (l.s.chiou@larc.nasa.gov)*.

The Atmospheric Chemistry Experiment (ACE) was successfully launched in August 2003 to monitor the chemical composition Earth's atmosphere with measurements obtained primarily in solar occultation mode. The primary instrument is a Fourier transform spectrometer (FTS) covering the infrared from 750-4400  $\text{cm}^{-1}$  simultaneously with a maximum optical path difference of 25 cm (0.02  $\text{cm}^{-1}$  resolution). We describe free tropospheric measurements of biomass burning products such as HCN, CO,  $\text{C}_2\text{H}_6$ ,  $\text{CH}_3\text{Cl}$ , HCOOH and 1.02  $\mu\text{m}$  extinction and their interpretation based on other satellite measurements and back trajectory calculations.