11A.3   **ASSIMILATION OF SBUV/2 OZONE RETRIEVALS WITH THE
LOCAL ENSEMBLE TRANSFORM KALMAN FILTER**

David D. Kuhl *[1], Istvan Szunyogh [2] and R. Bradley Pierce [3]
[1] University of Maryland, College Park, Maryland, [2] Texas A&M, College Station, Texas, [3] Advanced
Satellite Products Branch, NOAA/NESDIS, Madison, WI

We present results on the assimilation of ozone concentration observations from the Solar Backscatter Ultraviolet (SBUV/2) instrument using the Local Ensemble Transform Kalman Filter (LETKF) data assimilation technique. The SBUV/2 instrument, which is flown on the NOAA 16 and 17 satellites, provides observations of the global ozone concentration in the total atmospheric column, as well as vertical profiles derived from the ratio of the observed backscattered Earth spectral radiance to the incoming solar spectral irradiance. The model we use for the assimilation of the SBUV/2 observations is the 2004 operational version of the National Center for Environmental Prediction (NCEP) Global Forecast System (GFS) model at a reducedT62/L28 resolution. We assimilate the ozone observations multivariately with the other meteorological observations. Thus, the assimilation of ozone observations affects the analysis of the meteorological parameters through the flow-dependent background error covariance matrix of the LETKF.

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*_Corresponding author address:_ David D. Kuhl, University of Maryland, AOSC Department, 3411 CSS, College Park, MD 20742-2425; e-mail: dkuhl@umd.edu.