

## **Operational use of the AIRS Total Column Ozone Retrievals along with the RGB Airmass product as part of the GOES-R Proving Ground**

**M. Folmer, B. Zavodsky, and A. Molthan**

The Red, Green, Blue (RGB) Air Mass product has been demonstrated in the GOES-R Proving Ground as a possible decision aid. Forecasters have been trained on the usefulness of identifying stratospheric intrusions and potential vorticity (PV) anomalies that can lead to explosive cyclogenesis, genesis of mesoscale convective systems (MCSs), or the transition of tropical cyclones to extratropical cyclones. It has also been demonstrated to distinguish different air mass types from warm, low ozone air masses to cool, high ozone air masses and the various interactions with the PV anomalies. To assist the forecasters in understanding the stratospheric contribution to high impact weather systems, the Atmospheric Infrared Sounder (AIRS) Total Column Ozone Retrievals have been made available as an operational tool. These AIRS retrievals provide additional information on the amount of ozone that is associated with the red coloring seen in the RGB Air Mass product. This paper discusses how the AIRS retrievals can be used to quantify the red coloring in RGB Air Mass product. These retrievals can be used to diagnose the depth of the stratospheric intrusions associated with different types of weather systems and provide the forecasters decision aid tools that can improve the quality of forecast products.