Dr. Ross J. Salawitch Jet Propulsion Laboratory Mail Stop 183-601 4800 Oak Grove Drive Pasadena, CA 91109 USA

Tel: 818-354-0442 Fax 818-354-5148

Email: rjs@caesar.jpl.nasa.gov Web: http://remus.jpl.nasa.gov

Very Short Lived Halocarbons: Effect on the Stratospheric Inorganic Halogen Budget

This presentation will focus on current understanding regarding the effect of very short lived (VSL) halocarbons on the inorganic halogen budget of the stratosphere. We will review recent studies that use balloon and satellite measurements of BrO to quantify the effect of VSL compounds and their decomposition products on Br_y (total inorganic bromine). Mechanisms of cross tropopause transport (e.g., source gas versus product gas injection) and the possible critical importance of heterogeneous chemical processing in the TTL will be discussed. Implications for ozone photochemistry and ozone trends of VSL supplied bromine will be presented. Finally, we will also discuss recent measurements of stratospheric HCl that place some constrains on the cross tropopause transport of chlorine from VSL chlorocarbons.