



## **Persistence of low ozone values during Antarctic springs 2006, 2007 and 2008**

M.C. Parrondo (1), M. Yela (1), M. Gil (1), and H. Ochoa (2)

(1) INTA, Área de Investigación e Instrumentación Atmosférica, Madrid, Spain (parrondosc@inta.es), (2) Dirección Nacional del Antártico, Buenos Aires, Argentina

Ozonesoundings data from Antarctic Belgrano Station (78°S, 34°W) carried out since 1999 are used to analyze the onset and build-up of the ozone depletion period at different heights. Large inter-annual variability in the lower stratosphere ozone (12-27 km) is observed during November and December months depending on the vortex strength. In last three years a delay in the recovery is being observed. Values as low as 30 DU in the ozone partial column were found in the 12-20 km layer by the beginning of December. Mean 2008 December 12-20 km partial column remained below 40 DU, lower by 35% than the 2000-2005 mean. We present the relationship between the potential vorticity, timing of the vortex breakup date, the strength of the vortex and ozone concentration at different levels in an attempt to find dynamical features responsible for the observed behavior. If the observed delay in the ozone build-up turns out to be related to global dynamical changes in the stratosphere there might be important implications for the ozone depletion recovery.