Geophysical Research Abstracts,
Vol. 10, EGU2008-A-05661, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-05661
EGU General Assembly 2008


# On the influence of the state of the Antarctic Oscillation on surface processes at the South Pole

**W. Neff**

NOAA Earth System Research Laboratory, Physical Sciences Division, Boulder, CO 80305, USA (william.neff@noaa.gov; FAX 303-496-6020

The Antarctic Oscillation (alternatively, the Southern Annular Mode or SAM) has been identified as an indicator of climate change through the effects of stratospheric ozone depletion and/or increases in greenhouse gases. In its high index state it produces a stronger, more tightly confined polar vortex which, to the extent it is more centered over the high terrain of Antarctica, will result in lighter surface winds and stronger inversions. Such conditions have previously been identified with the occurrence of high concentrations of nitric oxide. In this paper, I will explore these effects and describe recent changes in the SAM.