



Ministry of the
Environment

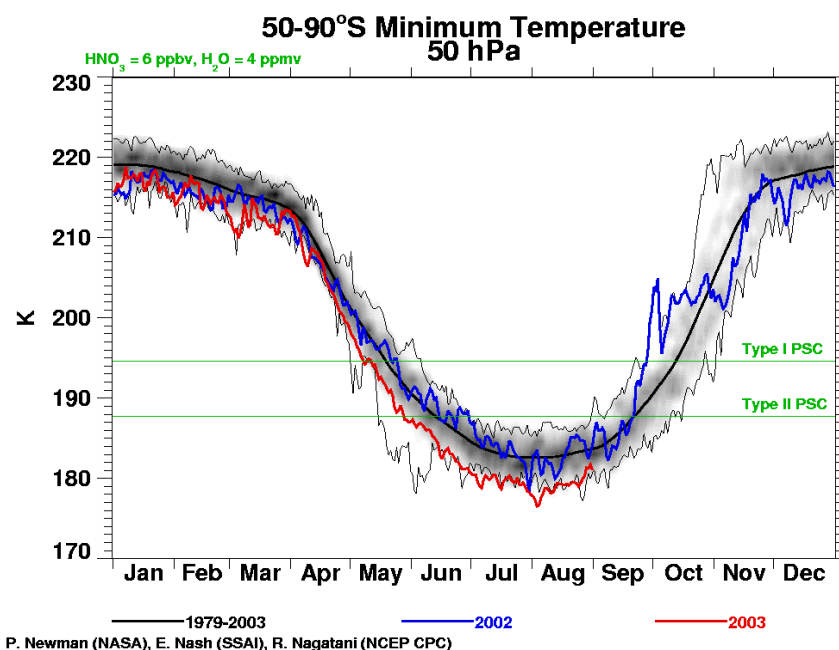
ADEOS-II/ILAS-II

Advanced Earth Observing Satellite-II
Improved Limb Atmospheric Spectrometer-II



National Institute for
Environmental Studies

Fig. 1 Seasonal Changes of Low Temperatures at about 20 km above the Earth's Surface in Antarctica



In the stratosphere over Antarctica in 2003, at about 20 km (air pressure at 50 hPa) above the Earth's surface, temperatures since the second half of June have been in the lowest range (red line) since the ozone hole first became noticeable in the 1980s. It is necessary to pay attention to this because clouds unique to the polar areas, which trigger the ozone hole, occur more frequently in years when the temperature is low. At this altitude, when the temperature drops to -85 degrees C, clouds made up mainly of ice unique to the polar areas are believed to form. These are known as Type-II Polar Stratospheric Clouds (PSCs). In 2003, the lowest temperatures have dropped below -85 degrees C since the end of May.