Scientists observe rapid ozone fluctuations over the Antarctic polar vortex edge area

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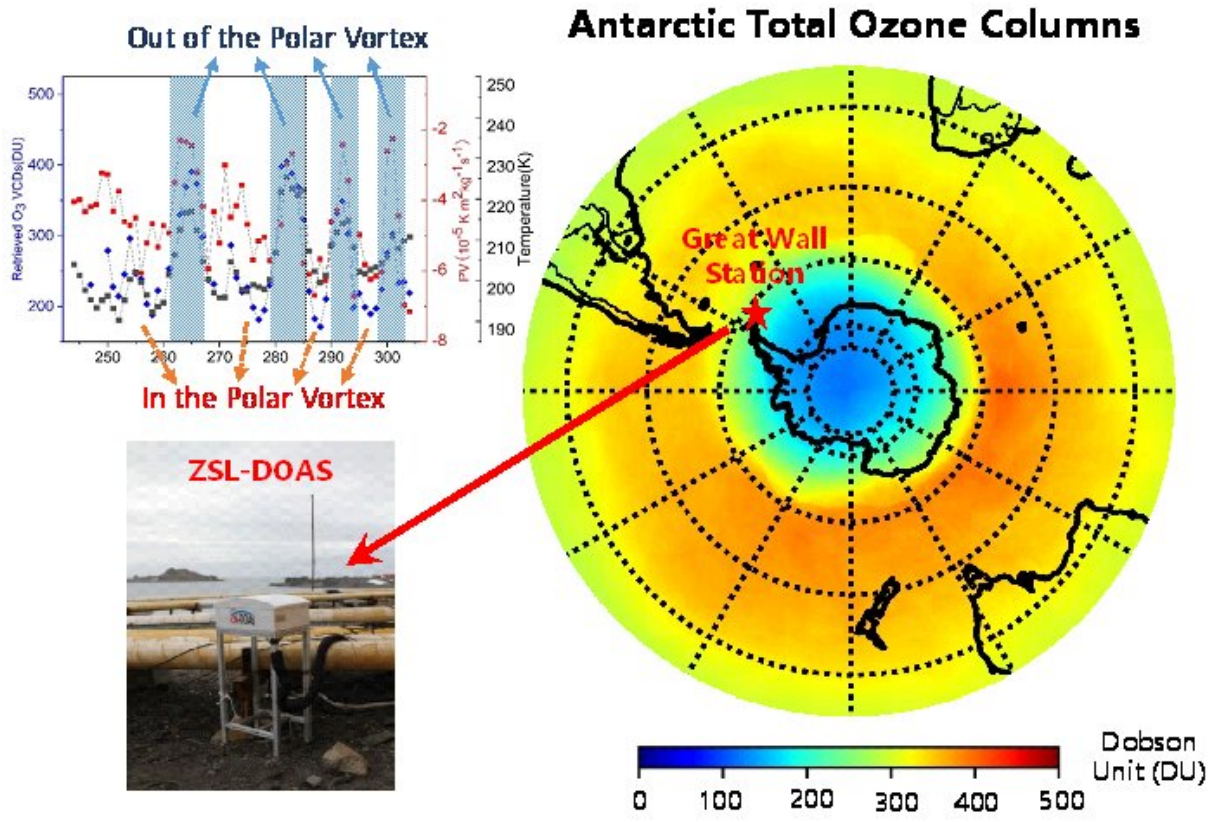

During austral spring, rapid fluctuations of total ozone columns are apparent over the Great Wall Station, Fildes Peninsula (62.22S, 58.96W) in the western Antarctic. Credit: Luo Yuehan

The polar vortex is a large area of upper-atmosphere cyclonic air

circulation surrounding both poles. It is bounded by the polar jet stream and its associated cold air is usually confined to the polar regions. Within the Antarctic circle, and southern polar vortex, ozone quantities are the lowest, globally. A research published in *Advances in Atmospheric Sciences*, led by Dr. Luo Yuhan, corresponding author and Associate Professor at the Hefei Institutes of Physical Science (HFIPS), suggests that the polar vortex plays a key role in Antarctic stratospheric ozone depletion.

"The atmosphere over Antarctica is controlled by a strong polar vortex in winter, making it difficult to exchange with the mid-latitude atmosphere." said Dr. Luo. "The extremely low air temperatures (