

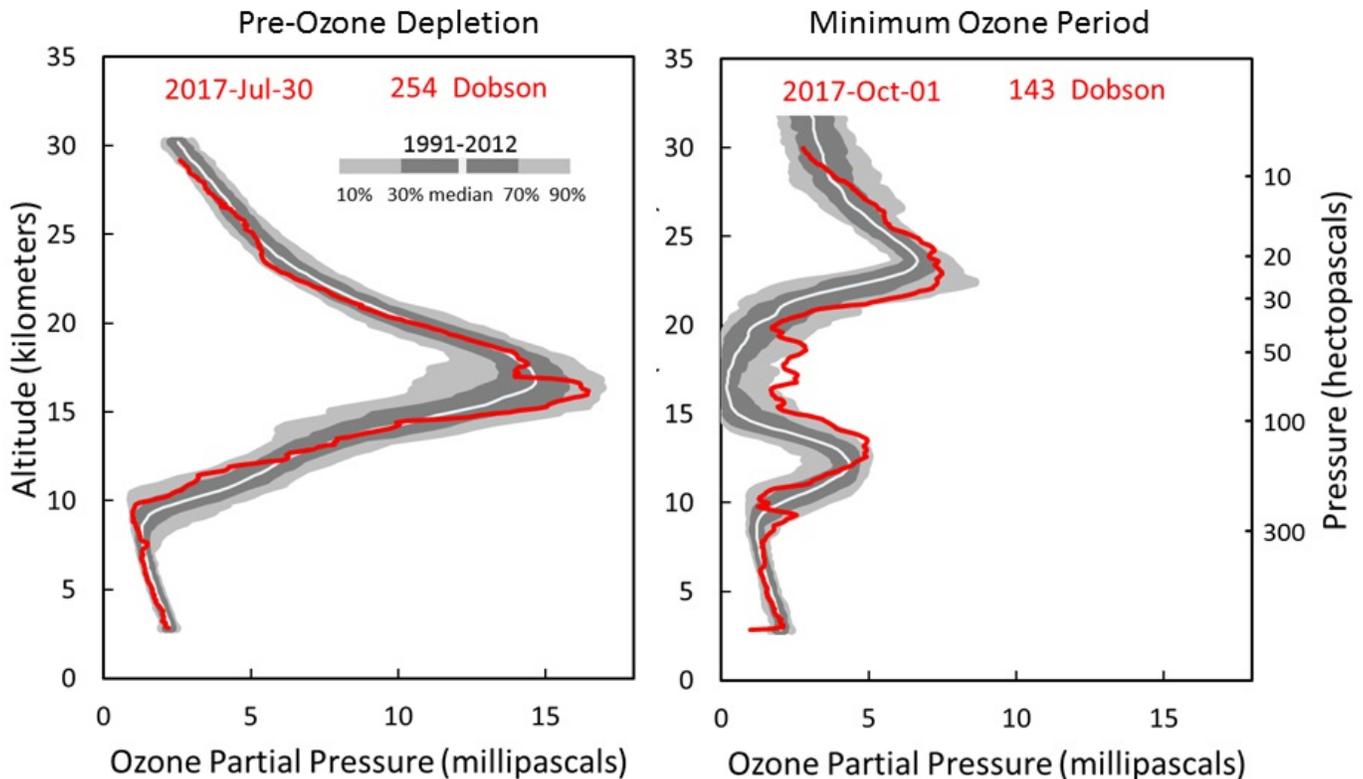
## South Pole Ozonesondes in 2017 Continue to Show Less Severe Ozone Loss

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The 2017 minimum total column ozonesonde profile measured at South Pole station was 136 Dobson Units (DU) measured on September 25th. This was 24 DU above the average yearly minimum, placing 2017 as the 28<sup>th</sup> lowest ozone minimum profile observed in the 32-year South Pole record. Total column ozone and size (area < 220 DU) measured by satellites, ground-based instruments, and ozonesondes have provided the broad view of the yearly ozone hole. These observations have recently shown that the ozone hole is in recovery or healing stages. Another important indicator is the measured September loss rate measured by South Pole ozonesondes within the 14-21 km altitude range. The ozone loss rate, since 1991, has been on a slight upward trend and appears to be on the way to breaking out from the severe depletion range of 3 to 4 DU/day. A loss rate less than 3 DU/day will fall into the 2-3 DU/day range observed during the 1986-1990 period, just after the discovery of the ozone hole. Trends in ozone and temperature in 2 km layers will be highlighted to show where the greatest changes have occurred within the main depletion layer over South Pole.



**Figure 1.** Selected ozonesonde profiles showing the normal ozone profile in July (before sunrise and rapid depletion begins) and the ozone profile in early October when the yearly minimum occurs. In 2017, the lowest total column ozone profile of 136 Dobson Units was observed earlier than normal on Sept 25 due to a weakened polar vortex.