

Reply to Anonymous Referee #1 review of the manuscript acp-2025-3963

Evaluation of factors affecting total ozone column and its trend at three Antarctic stations in the years 2007–2023

David Tichopád on behalf of all co-authors

We sincerely thank Anonymous Referee #1 for the very positive and encouraging evaluation of our manuscript. We appreciate the careful reading and the supportive comments. As the reviewer indicates that all concerns have been satisfactorily addressed and recommends publication as is, no further changes were made to the manuscript.

Reply to Anonymous Referee #2 review of the manuscript acp-2025-3963

Evaluation of factors affecting total ozone column and its trend at three Antarctic stations in the years 2007–2023

David Tichopád on behalf of all co-authors

We very thank Anonymous Referee #2 for the positive evaluation of the revised manuscript and for appreciating the additional analyses included in this version. All comments have been addressed, and the manuscript has been revised accordingly. Detailed responses to each point are provided below.

L131: OMI retrieves

Corrected

Line 194: suggest moving new sentence on net QBO signal down one sentence (Line 197) to keep the reasoning for using multiple QBO EOFs together.

Corrected

Line 242: Figure 3 -> Figure 3a

Corrected

Line 327: the wording here is a bit confusing. Suggest: According to the study by Klekociuk et al. (2015) the 2013 early winter temperatures were anomalously low in the polar stratosphere, with a concomitant strong and stable polar vortex supporting the potential for strong ozone depletion.

Corrected

Line 469: sections 4.2 -> section 4.2

Corrected

Line 473: with a statistically significant negative effect (to keep consistent with previous wording)

Corrected