

Interactive comment on “Unusual chlorine partitioning in the 2015/16 Arctic winter lowermost stratosphere: Observations and simulations” by Sören Johansson et al.

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We thank referee 2 for valuable comments and suggestions. Our answers are given below. The original referee comment is repeated in **bold**, changes in the manuscript text are printed in *italic*.

<Minor Comments/Typos>

1) P.6, L.1: CALIPSO satellite was launched 2006 → CALIPSO satellite was launched in 2006

C1

We changed the manuscript according to the referee's suggestion.

2) P.6, L.6: McKenna et al., 2002b, a → McKenna et al., 2002a, b

We changed the manuscript according to the referee's suggestion.

3) P.6, L.8: initialized 1 November 2015 → initialized on 1 November 2015

We changed the manuscript according to the referee's suggestion.

4) P.6, L.18: comparison of CLaMS results to GLORIA and MLS → comparison of CLaMS results with GLORIA and MLS

We changed the manuscript according to the referee's suggestion.

5) P.7, L.1: analyses has been initialized 1 July 2015 → analyses has been initialized on 1 July 2015

We changed the manuscript according to the referee's suggestion.

6) P.17, Figure 8 caption: Colorbars → Color bars

7) P.17, Figure 8 caption: colorbar → color bar

We changed the spelling according to the referee's suggestion.

8) P.24, L.15: Fig. 12a1 → Fig. 12(a1)

9) P.24, L.15: Fig. 12b1 → Fig. 12(b1)

10) P.27, L.17: Fig. 12b2 → Fig. 12(b2)

11) P.27, L.19: Fig. 12e2 → Fig. 12(e2)

We changed the format of the figure references according to the referee's suggestion.

12) P.28, L.11: which is nearly all ClO at this time → which consists of ClO and Cl2O2 at this time

We changed the indicated text to: *which consists mainly of ClO, with small contribu-*

C2

tions from Cl_2O_2 at this time. We think it is important to stress that the main part of ClO_x is ClO and only minor parts of ClO_x along this trajectory is Cl_2O_2 .

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