Review #1.

We thank the referee for the thorough review and valuable comments. Our responses to some of the referee's comments could be found below.

Referee: However, in the present form the paper is neither a validation paper nor a detailed analysis of the Antarctic winter 2012. So, in the first place the authors should decide what the purpose of this paper is and then focus a bit more on the details. At the moment the paper just gives a rough overview and reads more like a conference proceeding.
P23606, L11: From the abstract it becomes not clear if you present a validation study in this paper or if it has been done previously and presented in another paper. Please change the text and be more precise.
P23607, L25: If the main focus is the validation of the OMPS data it should be named first. Otherwise the sentence should be rephrased. What actually is the main focus of the paper? At the moment both, the discussion on the Antarctic 2012 winter and the validation seem to be the main focus of this paper, but they are only superficially discussed.
Authors: Our paper indeed consists of two parts: the first part shows the validation results, and the second part represents the analysis of the 2012 Antarctic ozone hole. We believe that both parts are essential pieces of the present study, and they supplement and support each other. In order to draw any conclusions on the Antarctic ozone hole from the new OMPS data, we need to be sure that these data are reliable and agree with independent measurements of the ozone hole. This was a motivation for the validation part of the paper. The 2012 Antarctic ozone hole was the second smallest in recent years, and we considered the 2012 ozone hole in the context of the 34-year record to explain the causes. In this revised manuscript we have added more details to support each part of the manuscript.

Some specific comments below:
Referee: P26206, L4: Why can you get a more detailed view on the Antarctic ozone hole with OMPS than ever before? What is the difference between OMPS and other instruments? Why is OMPS better?
Authors: Text added. We added a couple sentences to Sect. 2 paragraph 1 to address this question: "The instrumental suite is design to measure total column and the vertical distribution of ozone with high spatial and vertical resolutions. All three ozone sensors measure solar radiance in ultraviolet (UV) and visible ranges. They scan the same part of the atmosphere within a short period of time, making it easy to inter-calibrate instruments and have a consistent record of total and vertical ozone measurements".

Referee: P23608, L5: Add OMPS in brackets to the section title.
Authors: Thanks, we added "The Ozone Mapping and Profiles Suite (OMPS)"

Referee: P26308, L6ff: What is the temporal resolution of the nadir and limb measurements? How many measurements/profiles are derived per day?
Authors: Text added. We added more information regarding the instruments' temporal resolutions in Sect. 2: "[The OMPS TC-NM] makes 400 swaths per orbit with 36 across-track measurements per swath, which allows for full global coverage every day." "OMPS NP obtains 80 measurements per orbit, resulting in full global coverage about every 6 days." "[The OMPS LP] makes about 160–180 measurements per orbit with 14 orbits per day, resulting in full global coverage every 3–4 days."

Referee: Section 3: Why has a three month average been used to validate the profiles by OMPS with other instruments? Generally for validation studies single profiles are used or if averages are used then on a shorter time period than three months. What does the validation of the profiles for the three month period say about the accuracy of the OMPS data shown as columns on a daily basis in figure 7? How accurate are the results presented there? This section should be improved so that it becomes clear what is the purpose of validation analysis and results presented in the paper and how can these be applied to the discussion of the accuracy and reliability of the results for the analysis of the Antarctic winter 2012.
P26311, L 5: Please motivate why this three month period is used.
P26312, L22: As mentioned in my general comment on this section. How can you judge from a validation performed of a profile averaged over a three month period that OMPS provides reasonable estimates of Antarctic ozone concentrations if you are later interested in these on a rather daily than 3-month basis?
P26315, L4-5: You have done some kind of validation analysis, but you have not convinced me as a reader that the quality of the data is sufficient for studies on the Antarctic ozone hole.
Authors: Text added. We have added additional text to clarify the method we used to validate OMPS observations. In the validation process we used single, coincident profiles rather than 3-month averages. We added in Sect. 3, para. 1: "Figure 1 shows the validation of OMPS measurements for 55ºS–82ºS and September–November 2012. The latitudes are chosen because the 220-DU contour of total column ozone can extend to 55ºS and the OMPS LP measurements can only reach poleward to 82ºS. Ozone loss generally starts in late August to early September and lasts until late November or early December. August measurements are not used because of the large area of polar night from which the instruments cannot obtain measurements. For each pair of comparing instruments, measurements are considered to be coincident if they are within ±1 latitude and ±4 longitude. Temporal criteria are different for each pair of instruments: ±0.5 h for OMPS LP vs. OMPS NP, ±1 h for OMPS LP vs. Aura MLS, and ±4 h for SBUV/2 (NOAA 18 and NOAA 19) vs. OMPS NP comparisons." We also included two tables that summarize the validation results and show numbers of considered pairs of observations.

Referee: P26311, L23: I would suggest changing the section title into: "OMPS ozone measurements of the 2012 Antarctic ozone hole – first results"

Authors: Thanks, section title changed.

Referee: P26311, L24-P26312, L4: This text part still deals with validation matters and should be moved to section 3. As above the same question arises here: Why do you look at the agreement of the data on a monthly basis when you later use daily columns for the analysis?
Authors: Structure is unchanged. Even though we still discuss some validation matters, Fig. 3 is mostly aimed to show the size of the 2012 ozone hole as calculated from the data of two independent satellite instruments. We estimated differences for each day in October and provided the range of these differences in the text (-3.6% to 4.9%), but Fig. 3c indeed shows monthly mean differences in October as a summary of the daily comparisons.

Referee: P26315, L13: You are discussing the dynamics of the Antarctic winter 2012 in the conclusion, but in the paper now analysis on the dynamics has been shown. Are you referring to own studies on the dynamics or on studies which have been done by other groups and been published elsewhere. In the former case you should add more details on this analysis in the paper. In the latter case you should add the references.
Authors: Text added. This is mainly based on our own publications concerning how dynamics affects the area of the Antarctic ozone hole (see Newman et al., 2002; Newman et al., 2004). We have added text and references.

Authors: Minor comments and suggestions listed by the referee have been addressed.