Interactive comment on “The Radio Occultation Processing Package ROPP” by I. D. Culverwell et al.

Anonymous Referee #2

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General comments:

- In my opinion section 1 (Introduction) should also notice other RO processing systems where ROPP is one of them.

- In addition when mentioning NWP and climate monitoring in section 1 some more references should be added:
  - For NWP mention e.g., some centers which are using RO data in their assimilation procedures (e.g., Cucurull and Derber (2008), Healy and Thépaut (2006), Aparicio and Deblonde (2008)).
For climate monitoring cite e.g., Steiner et al. (2011) and/or the RO-trends papers of Steiner et al. (2013) and Ho et al. (2012).

Regarding the structure of the paper I suggest combining sections 3 to 8 into one section called something like “... detailed view on ROPP ...”.

I suggest integrating section 11 in the Introduction.

In my opinion section 9 is somehow overrepresented. I suggest either integrating it into the overview section (section 2) or into section 3.

Minor comments:

Please explain all acronyms at their first occurrence.

Cite tools which are used by ROPP at their first occurrence, i.e., in the overview section: e.g.: the 2D-Operator (Healy2007), or the different tropopause height definitions (e.g. WMO 1957) and methods and not later in the text.

p. 162 line 14: I would not state that the ROPP netcdf format is the “general format for radio occultation data” – I strongly recommend removing the “general”.

Thépaut with accent aigu on the é (e.g., page 165 line 21).

p. 163 line 13, 14: Please rewrite these two sentences.

p. 165 line 12, 13: Please rewrite these two sentences.

p. 163 line 21: Please specify more precisely how the combination of GO and WO bending angle is done.

p. 166 line 16, 17: It would be nice to see the difference between the two forward modeled bending angles in a plot.
• p. 163, line 24, 25: Introduce LC.

• p. 172: last word on line 3: typo: log → lot

• p. 189 Figure 5: The top panels do not have upper axis descriptions for specifying the \((o - b) / o\) part of the plot.

• p. 189 Figure 5: Top right panel: add the closing bracket of the unit.