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Discussions

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Interactive comment on "Exploring atmospheric blocking with GPS radio occultation observations" *by* L. Brunner et al.

Anonymous Referee #2

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The paper is a feasibility study, discussing the identification of blocking events in radio occultation data. Two case studies are presented that show the detection of blocking over Russia and Greenland. The authors make the point, that a methodology that does well in the NH (where it can be verified well) should work equally well in the SH where other data is sparse.

The paper is suitable for ACP and is well written. However, the size and subdivision of figures requires some additional attention. Most figures are extremely hard to read and the authors should re-evaluate the number of figures per panel. Figure 1 is illegible in its current form. Figure 2 could do with larger labels. Figure 3 would benefit from simplified/bigger legends. Figures 4 to 6 would benefit from larger labels. Most important is to deal with Figure 1.

Minor comments:

P35801, top: Around here it would be useful to tell the reader what RO data is used in reanalysis products.

P35801, line 5: "in use" should read "used"

P35804: "empty grid points" are presumably "bins in which no measurements exist"; do remind the reader if RO data is used in ERA-Interim

P35804, line 20: "found" should read "exist"

P35805: "dense enough" seems a rather arbitrary description; is there an objective metric? (Which part of Figure 1 reveals this?)

P35809, line 4: What does "anomalously constant" mean?

Conclusions: Present tense sounds better to me. RO events are presumably independent measurements?

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 35799, 2015.