

Interactive comment on “Collocating satellite-based radar and radiometer measurements – methodology and usage examples” by G. Holl et al.

Anonymous Referee #2

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Review for “Collocating satellite-based radar and radiometer measurements – methodology and usage examples” by G. Holl, S. A. Buehler, B. Rydberg, and C. Jimenez

The authors study collocations between the MHS aboard NOAA-18 and the CPR aboard the CloudSat. On the basis of the collocations, the authors (1) have compared the NOAA NESDIS MSPPS MHS IWP products to the CloudSat CPR IWP product, (2) have investigated the relationship between IWP and brightness temperature of MHS channel 5 (190 GHz), (3) have developed a new IWP product using the collocations to train an Artificial Neural Network method. Most important, the collocations described in the article are available for public use, which is of great interest for the community of

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the microwave remote sensing of clouds. The technique is right and the presentation is clear. In my opinion, the manuscript should be published after a minor reversion.

Specific comments: 1. onboard should be on-board or aboard, please go through the whole manuscript.

2. Page 822, line 5. The CloudSat.
3. Page 825, line 1-2, the full name of NOAA should appear early.
4. Page 826, line 9, MetOp-A.
5. Page 826, line 19. AAPP.
6. Page 827, line 12. Check this sentence.
7. Page 828, paragraph 4-5. There is reduplicated information.
8. Page 830, line 20. A MHS pixel.
9. Page 830, line 23-24. So we confirm that. . .
10. Page 831, line 1. Divide . . . into. . .
11. Page 831, line 24. Give a little bit information on the powerful workstation.
12. Page 832, line 13. LTAN was already defined before.
13. Page 834, line 16. Reduces the reliability of the . . .
14. Page 835, line 21. Threshold.
15. Page 837, paragraph 3. Give some information on the CloudSat auxiliary data.
16. Page 838, line 17-18. The simulated BTs are slightly higher than the observed ones. Can you give some explanations?
17. Page 839, line 20. Over ocean.

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18. Page 840, paragraph 6. In page 839, the ANN training is fixed over the ocean within 20 degrees of the equator. But, here measurements within 30 degrees of the equator are used.

19. Page 843, line 1. Thin clouds are not visible by MHS channels 3-5. The authors mentioned this fact several time. It is better to specify what kind of thin clouds, such as IWP less than 100 g/m^2 ?

Interactive comment on Atmos. Meas. Tech. Discuss., 3, 821, 2010.