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Earth System Science Data Discussions

Interactive comment on "High-resolution in situ observations of atmospheric thermodynamics using dropsondes during the Organization of Tropical East Pacific Convection (OTREC) field campaign" *by* Holger Vömel et al.

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High-resolution in situ observations of atmospheric thermodynamics using dropsondes during the Organization of Tropical East Pacific Convection (OTREC) field campaign by Vömel et al. is a concise and clear description of the dataset and of the instrument used to obtain the data. I recommend publication after one important and a few minor concerns are addressed:

Biggest concern: There is minimal mention of the data formats in which the dataset

is presented. There is also no mention of how problematic data as mentioned in Section 3.2 are noted in the dataset, if they are. It would be useful to have a little more explanation of this in Section 6.

1. Lines 87-88: It would be good to know some of the details of this removal: How does ASPEN define "outliers?" How does ASPEN define "suspect data points?"

2. Lines 91-94: Is a similar correction not necessary for moisture measurements?

3. Line 95: How is the smoothing done?

4. Line 100: Since this value has a direction, it should be velocity, not speed.

5. Line 117: Does paroscientific refer to the company, or something else?

6. Lines 120-124: How do these values correspond to the expected accuracy or the sensor? Are the values meaningful, or are they within the noise of the sensor?

7. Line 129: Does this issue impact sondes other than the NRD41, like the RD41? This would be important in looking at other dropwindsonde datasets.

8. Lines 136-137: How do you know that these data are erroneous, rather than just taken within a small-scale feature by chance?

9. Line 144: Should this read "within 3% RH" rather than 3%?

10. Line 179: Remove "may."

11. Line 259: "a multitude of other meteorological research questions" is mentioned, but it would be good to surmise as to what some of them might be.

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