

Interactive comment on “The Copernicus Surface Velocity Platform drifter with Barometer and Reference Sensor for Temperature (SVP-BRST): Genesis, design, and initial results” by Paul Poli et al.

Anonymous Referee #1

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The manuscript is very well written and suffers from few problems needing minor revision. I recommend that it be published after addressing this minor concerns. The only significant addition that the paper needs is a discussion of drogue presence, and how the drogue effects the depth of measurements. This is never brought up in the paper (unless I missed it), but is very relevant and important.

Pg. 3: "Based on lessons learnt, ... a new type of drifter has had to be developed ...". This is overly-harshly worded. It's a new sensor package for an existing type of drifter (the SVP drifter).

Pg. 5: "There are fewer large-magnitude differences are smaller at night ..." Unclear; reword. The authors may wish to note Dong et al. (2017) [<http://dx.doi.org/10.1002/2017JC012894>] as well, although those differences are for a larger vertical separation of 5m.

Pg. 7: "Recent adjustments have actually recognized buoys as being cooler than ships in terms of SST". Isn't this believed to be due to the sampling bias introduced by ships avoiding intense storms which mix cooler waters to the surface?

Pg. 11: "What is more, during this period of fairly stable SST, we see that the sensor depth is at its greatest". This is confusing. The text had been talking about period B, when SST is far less stable than A. Are they now talking about period A again? The sensor depth appears to be relatively shallow during period B according to Fig. 9c. This sentence needs to be made more clear.

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Discussion paper

