

Dear Dr. Peng and Associate Editor,

We thank you and the two anonymous reviewers for constructive comments toward improving our manuscript “OBSrange: A new tool for the precise remote location of Ocean Bottom Seismometers”. Our response to each reviewer comment is in red below. Based on reviewers’ suggestions, the main improvements made to the manuscript and/or OBSrange code include

- 1) the ability to account for refraction through the water column using an automatically selected sound-speed profile appropriate for any deployment region, drawn from the 2009 World Ocean Atlas database;
- 2) a correction for a known horizontal shipboard GPS-transponder offset;
- 3) a discussion of water depth and its effects on uncertainties, optimal survey size, and the ray-bending correction;
- 4) a more complete reference to the ellipsoid correction and demonstrations of its importance for reducing travel-time misfit for both real and synthetic data
- 5) a new Figure 1 detailing coordinate systems and conventions referred to in the body of the code.

All together, the revisions entail 8 new supplementary figures. We have also uploaded for this round of reviews a preliminary User Manual (README.pdf), which outlines the basic structure of the code (inputs, options, outputs) and will be included in the OBSrange package upon its official release.

Regards,

J. Russell, Z. Eilon, & S. Mosher