

Letter to the Editor of “Ocean Sciences” regarding manuscript os-2019-77

Dear Professor Huthnance,
please find attached a revised version of our manuscript “os-2019-77”, which implements the corrections suggested by Dr Ernesto Rodríguez and yourself.

With respect to the previous version, the following changes have been made:

- In response to Referee comments:

This is an excellent restructuring and clarification of the original paper and I recommend that it be published (almost) as is: the presentation is much cleaner and the main points are no longer obscured.

We thank Dr Rodríguez for this appraisal of our work, and for his remarks and suggestions, which led to major improvements of the article.

I would suggest only fixing typos, of which I found the following:

P10, L12: Directional → directional.

This has been corrected.

P5, L25: should be 100 m s⁻¹, not 10 m s⁻¹.

In fact, “10 m s⁻¹” refers to the ship-borne case, in which the figure is correct. We have clarified this in the text.

P11, L25 (and subsequent): there may be some confusion in the x sign indication of the matrix product $M_{ss-1} \times m_{sv0}$. The x could be taken as a vector cross-product. I suggest replacing with a ., indicating a contraction (or dot product) between an order 2 tensor and an order 1 tensor, leading to a vector as more conventional.

This has been corrected.

P22, L18: m s¹ should be m s⁻¹.

This has been corrected.

- In response to Editor comments:

P9, L9: “techniques, emerges” (add “,”)

This has been corrected.

L30 and L31. Add “,” after “>” and after Qz, OR remove “,” after “elevation”

This has been corrected.

Equation 12. msv components should be between [. .] ?

This has been corrected.

Equation 15 and line after. Please standardise notation as k_M or K_M .

This has been corrected. k_M has been replaced by K_M .

Equation 17. I am puzzled by the disappearance of Q_H , especially as it appears on page 12 line 15.

We have checked that Equation 17 is correct, explicitly introduced the expression of Q_H and Q_z on P9, L30, and corrected the equation on P12, L15, which was indeed incorrect.

P12, L12. “statistics, can be obtained” (add “,”)

This has been corrected.

P14, L16. “others” -> “other”

This has been corrected.

P14, L17-18. “As . . . however” seem incompatible; omit “however”?

This has been corrected.

P17, L8. “Pierres Noires” (WMO #62069) . . buoy; please show in figure 6.

This has been corrected.

Page 29 line 3. Better “affects the magnitude of the computed UWD more at Ku-band than at Ka-band,”? [Word order for “more”]

This has been corrected.

Figure 8, left panel (22/11/2018). The swell appears to be from the NORTH-west.

The figure has been corrected.

Figure 12 caption. In your response to Reviewer 1 “The data shown in figure 12 have been low-pass filtered This has now been stated explicitly in the caption.” Not apparent to me in caption.

We apologize for this mistake, which is now corrected.

Page 48 line 4. Omit second “)”

This has been corrected.

Yours sincerely, and on behalf of all the coauthors of manuscript “os-2019-77”

Dr Louis Marié, PhD.