

Reply to Referee #2

Dear Referee #2,

We would like to thank you for your time and valuable comments. In our opinion they have helped a lot in improving the clarity of the paper. We will answer all your comments, following the same order that you used. Text in blue refers to text added/modified in the new version.

Thanks again

The authors

[p.3 l.7] The position number, 8, of the mast could be specified here for clarity.

We have now specified it.

[p.3 Figure 1] The right-hand scale should be labeled, presumably “height [m]”.

We have added this to the caption.

[p.17 l.2] It is not clear what is referred to by “this effect.” Presumably it means equivalent scatter in the advection results relative to the persistence and ARIMA models.

Please clarify.

We have modified the text in the new version:

For wind speeds above 8 m/s a high scatter between the advection models and the observations is also found.

[p.18 l.1] This conclusion that the RMSE is smaller for stable cases than for neutral cases was not immediately apparent from the full set of results in the table. If this is referring to a comparison of the errors from the best fit models for each case, rather than the full set of results, please clarify that.

This has been modified in the new version as follows:

However, in quantifying the errors for the best fitted advection model in both stable and neutral cases, the RMSE of the stable cases is in general smaller than those of the neutral periods, because during stable conditions the inflow is less turbulent.

Minor typographical comments:

[p.2 l.16] I believe the comma belongs before the word “especially” rather than after it.

This has been implemented in the new version.

[p.2 l.18] No comma is needed after the word “Oregon”

This has been implemented in the new version.

[p.3 l.16] The word “see” should be “sea”

This has been implemented in the new version.

[p.4 l.12] The word “azimutal” should be spelled “azimuthal” in English.

This has been implemented in the new version.

[p.7 Figure 5] The word “temparatures” should be spelled “temperatures” in English.

This has been implemented in the new version.

[p.7 l.22] The word “to” should be added between the words “Due the”

This has been implemented in the new version.

[p.9 l.2] The word “method” is recommended to replace the word “way”

This has been implemented in the new version.

[p.11 l.14] To keep the subject of the sentence consistent for clarity, it is recommended to replace the first phrase with “But because r_{12} might not be parallel with $v_1(t)$ ”

This paragraph has been reformulated. Please see Reply to Referee 1.

[p.14 l.23] I believe the comma belongs before the word “namely” rather than after it.

This has been implemented in the new version.

[p.15 l.2] The word “it” should be removed from “as it can”

This has been implemented in the new version.