

Reply to reviews for Manuscript ESSD-2025-100-R1

General comments:

I thank both reviewers for taking the time to review the revised version of the manuscript. R1 recommended accepting the manuscript, while R3 provided minor comments that improved the manuscript. Following the comments provided by R3, I changed the size of the text on Figs. 5 and 6 to improve their readability and included all the suggested style corrections.

Finally, R3 raised the following questions:

Line 206 -212 Why are there systematic differences in the MAE values? Does the difference in MAE values reflect the variability in the magnitude of the temperature values or the variability over time in the temperature values during certain seasons?

Lines 213 – 220 Is a higher value performance indicator a reflection of more stable weather or better measurement accuracy? I.e. is there a reason for the systematic difference?

In order to address these questions, I added the following to lines 213-215:

The fact that the MAE exhibits lower values in summer for both Tmin and Tmax reflect a more "stable" spatial variation of temperature for that season; this occurs because during autumn and winter Mexico experiences cold fronts, which can not be related to elevation and affect only parts of the country

And the following to lines 223-225:

Heterogeneity of the climate variables affect the computed performance indices, and a more dense coverage improve their estimation, as indicated by better performance values between 1975-1985.