

Responses to Editor's Comments and Suggestions (The answers are shown in blue)

Dear Dr. Peter,

Thank you very much. According to your very carefully comments, we have corrected the paper in the revised version.

Best regards,

Youhua

Minor comments:

P2, L29: "Canada. 1988" becomes "Canada, 1988"

Thank you. This has been corrected.

P2, L2: "et al, 2009; Schuur et al, 2009; Schaefer et al, 2011" becomes "et al., 2009; Schuur et al., 2009; Schaefer et al., 2011"

This has been corrected.

P2, L9: "°Ca⁻¹" becomes "°C a⁻¹"

This has been corrected.

P2, L31: "of the MAGT is almost impossible" becomes "of MAGT are almost non-existent"

This has been corrected.

P3, L6: "resolutions." Becomes "resolutions, from which mean annual land surface temperature (MAST) can be determined." MAST is used later on in the text on page 6, but the acronym is not defined until page 8. Early on, the link has to be explicitly drawn between LST and MAST in terms of how LST will be used to determine MAST used in the model.

Thank you very much. This has been corrected.

P3, L8: "(Wan et al, 2002; 2004; 2008)." Becomes "(Wan et al., 2002, 2004, 2008)."

This has been corrected.

P3, L13: "demonstrated the high correlation" becomes "demonstrated a high correlation"

This has been corrected.

P3, L20: "the permafrost thermal state" becomes "the thermal state of permafrost"

This has been modified.

P3 L24: datasets is not capitalized base on the rest of your style

This has been corrected.

P3, L25: "based on the MAAT" becomes "based on a MAAT"

This has been modified.

P5, L16: “LST on MAAT during this period are unknown. This will” becomes “LST on estimating MAAT during this period are unknown, and will”

[This has been modified.](#)

P5, L24: “A linear regression model is used to evaluate the rates of MAAT change in the QTP over the past 50 years, and the statistical significance is evaluated using Student’s t-test.” Becomes “The statistical significance of the regression model is evaluated using Student’s t-test.”

[Thank you. We just modified the last part of this sentence because of the meaning of the first part is still needed.](#)

P6, L4: “type in the past” becomes “typed over the past”

[This has been modified.](#)

P6, L10: Ran et al., 2017 has not been published and cannot be cited. Please remove all citations and the reference from your list at the end of the paper.

[Thank you. This has been corrected.](#)

P7, L19 and 20: in each case, “Zou et al., (2016)” becomes “Zou et al. (2017)”

In addition to these changes, all references to this paper, and the reference itself need to be updated to the paper actually published in The Cryosphere in 2017, not the Discussion paper from 2016. Discussion papers cannot be cited as a reference.

[Thank you. This has been corrected.](#)

P6, L22: Delete Ran et al., 2017 citation.

[This has been corrected.](#)

P8, L7: “mean annual land surface temperature (MAST)” becomes “MAST”

[This has been modified.](#)

P10, L31: “in earlier” becomes “for earlier”

[This has been modified.](#)

P11, L10: “results may result” becomes “results may stem”

[This has been modified.](#)

P11, L21: Should “a greater degradation” becomes “a greater spatial degradation”?

[This has been modified.](#)

P11, L22: Change “smaller” to “less”

[This has been modified.](#)

P12, L7: Change “accepted” to “acceptable”

[This has been corrected.](#)

P12, L11: Change “thermal degrades” to “thermally degrades”

[This has been corrected.](#)

P12, L12: Change “This indicates” to “This suggests”

[This has been corrected.](#)

P14, L9: Capitalize journal title.

[This has been corrected.](#)

P14, L12: Journal titles is not complete.

[This has been corrected.](#)

P 14, L14: Capitalize journal title.

[This has been corrected.](#)

P14, L23: Capitalize “glaciology”

[This has been corrected.](#)

P16, L18: Insert space after “China.”

[This has been corrected.](#)

P17, L13: Delete this reference (Ran et al., 2017). It is not published.

[This has been removed.](#)

P17, L29: Capitalize journal title

[This has been corrected.](#)

P18, L5: Capitalize journal title

[This has been corrected.](#)

P18, L1P19, L9: Spell out the journal title

[This has been corrected.](#)

P20, L3: This paper has since been published. Please update the reference (date, DOI, etc.), and any citations in the text. Please note that The Cryosphere requires cited literature to have been published, and articles under review in The Cryosphere Discussion are not considered to be published.

[Thank you. This has been updated.](#)