

Supplementary material

Forecasting the daily maximal and minimal temperatures from radiosonde measurements using neural networks

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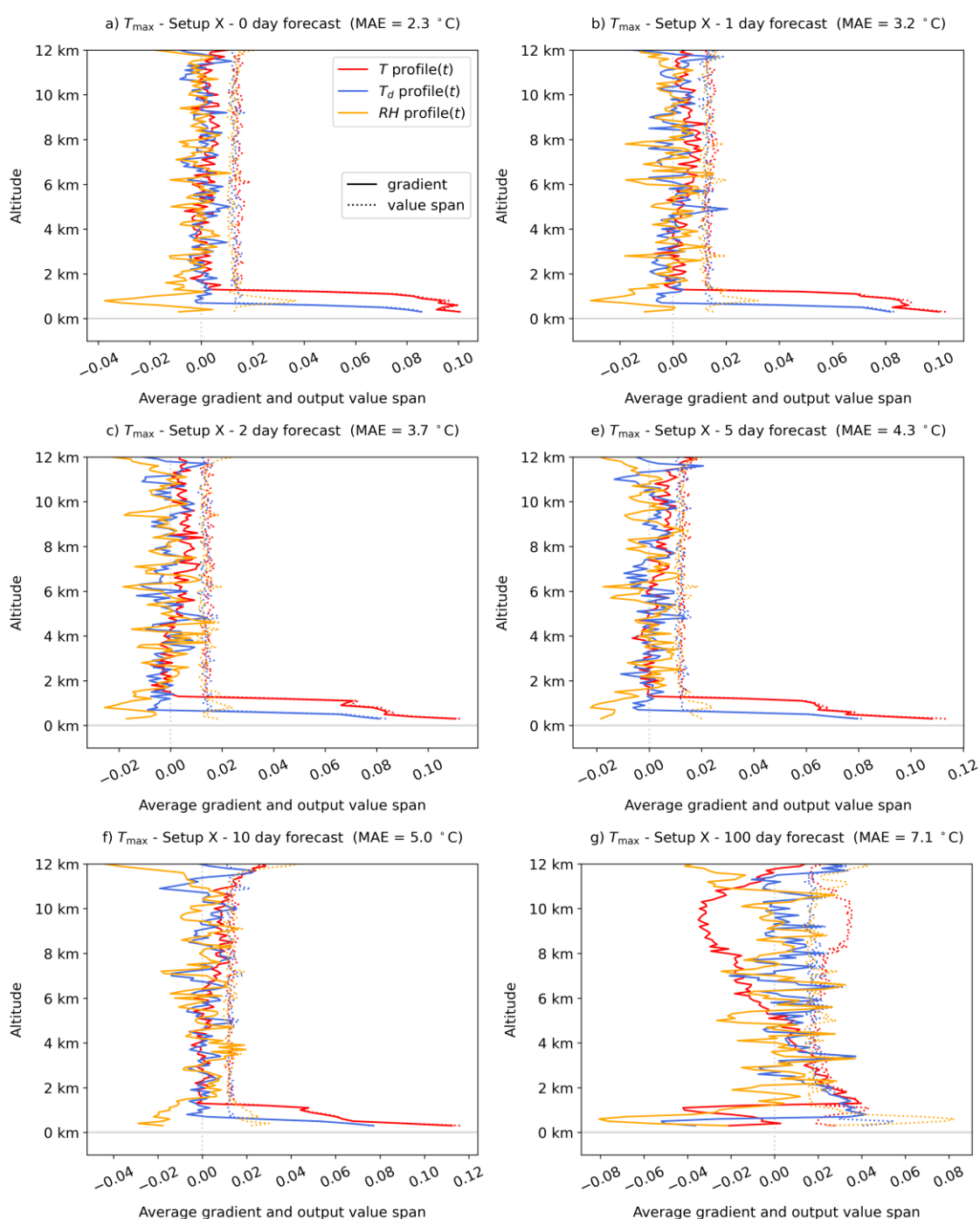


Figure S1. The results of the XAI methods for forecasts of T_{\max} by NN Setup X. The figure is similar to Figure 6 in the main part of the manuscript but shows the results for more forecast days.

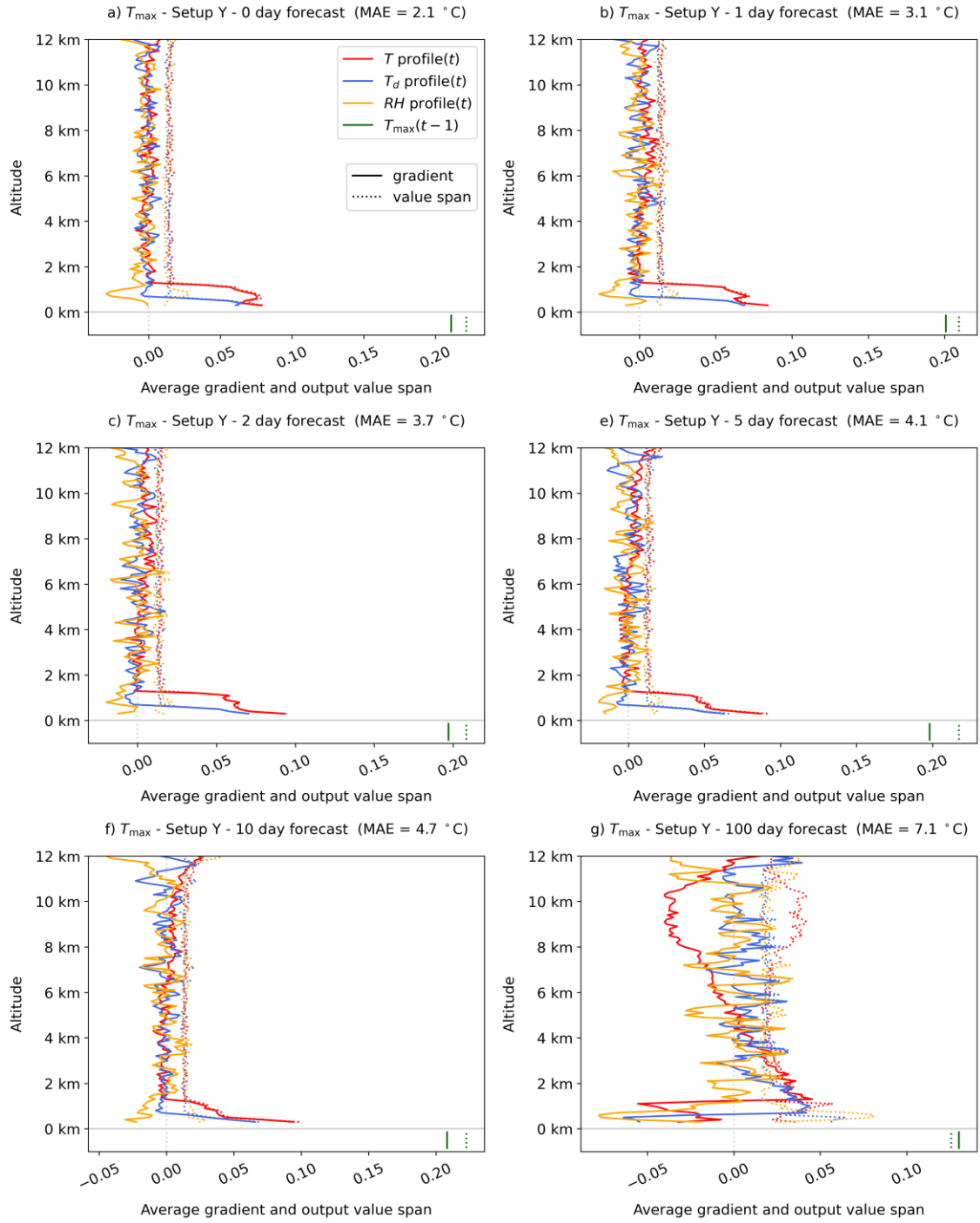


Figure S2. Same as Figure S1 but for Setup Y.

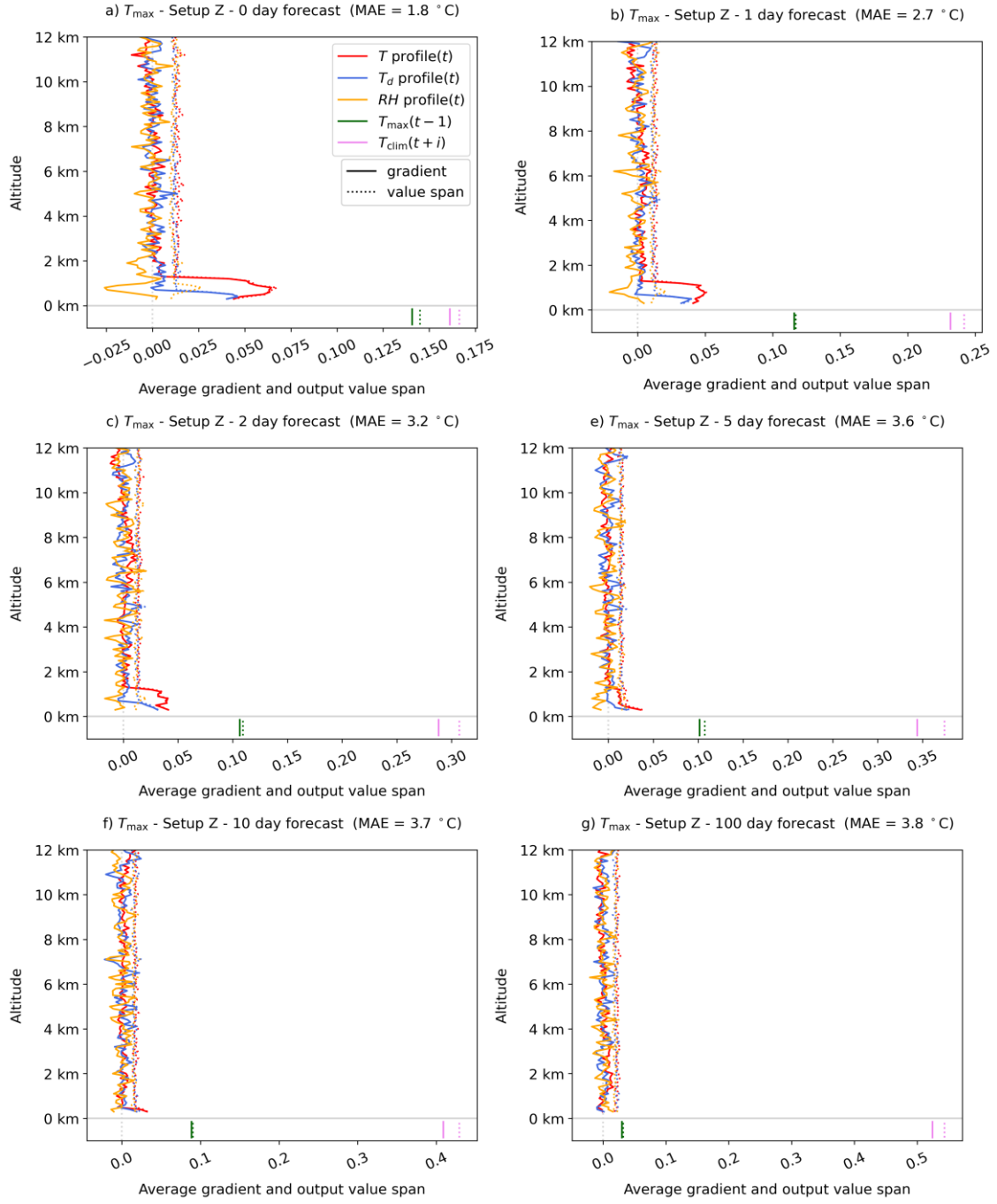


Figure S3. Same as Figure S1 but for Setup Z.

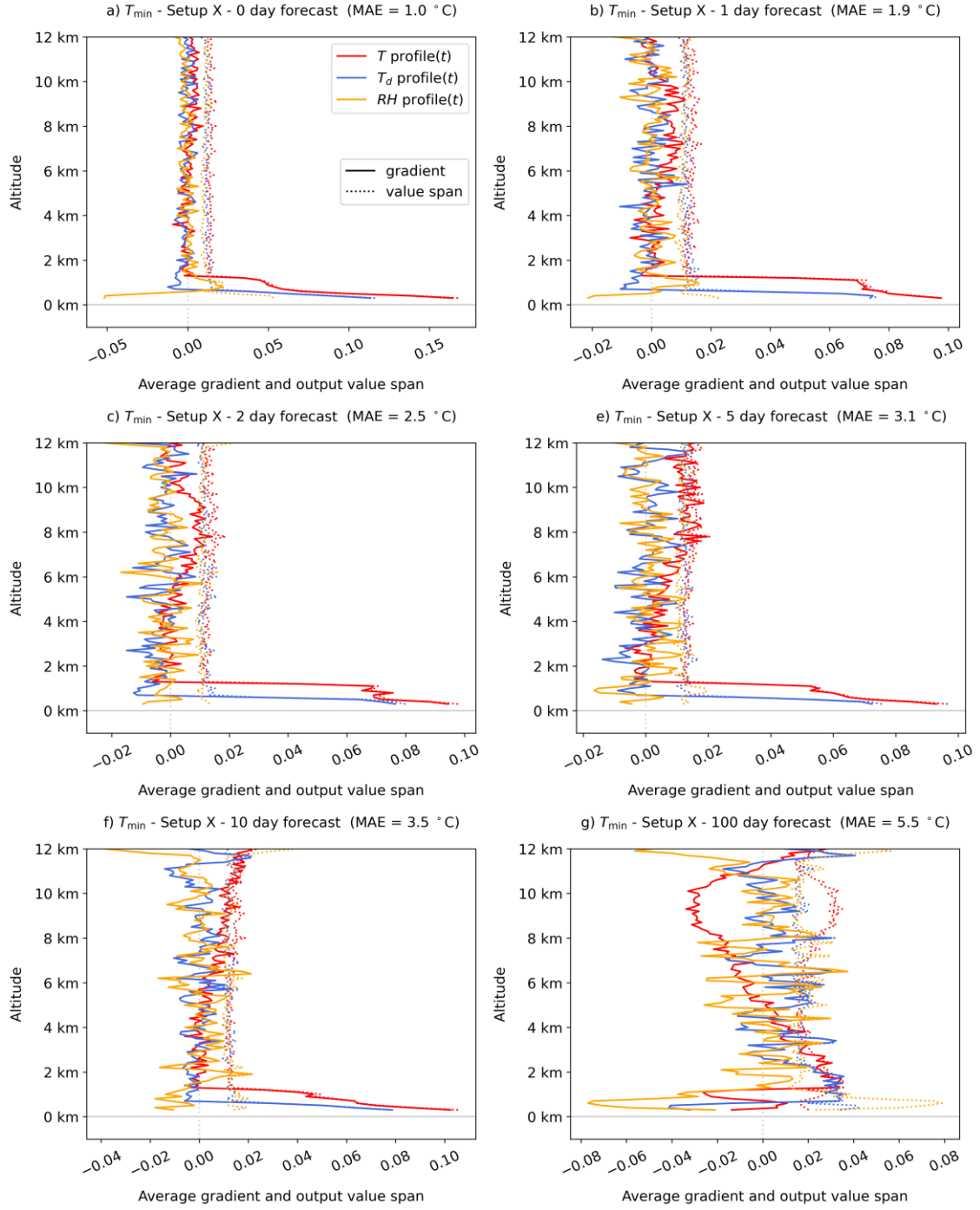


Figure S4. : Same as Figure S1 but for forecast of T_{\min} by NN Setup X.

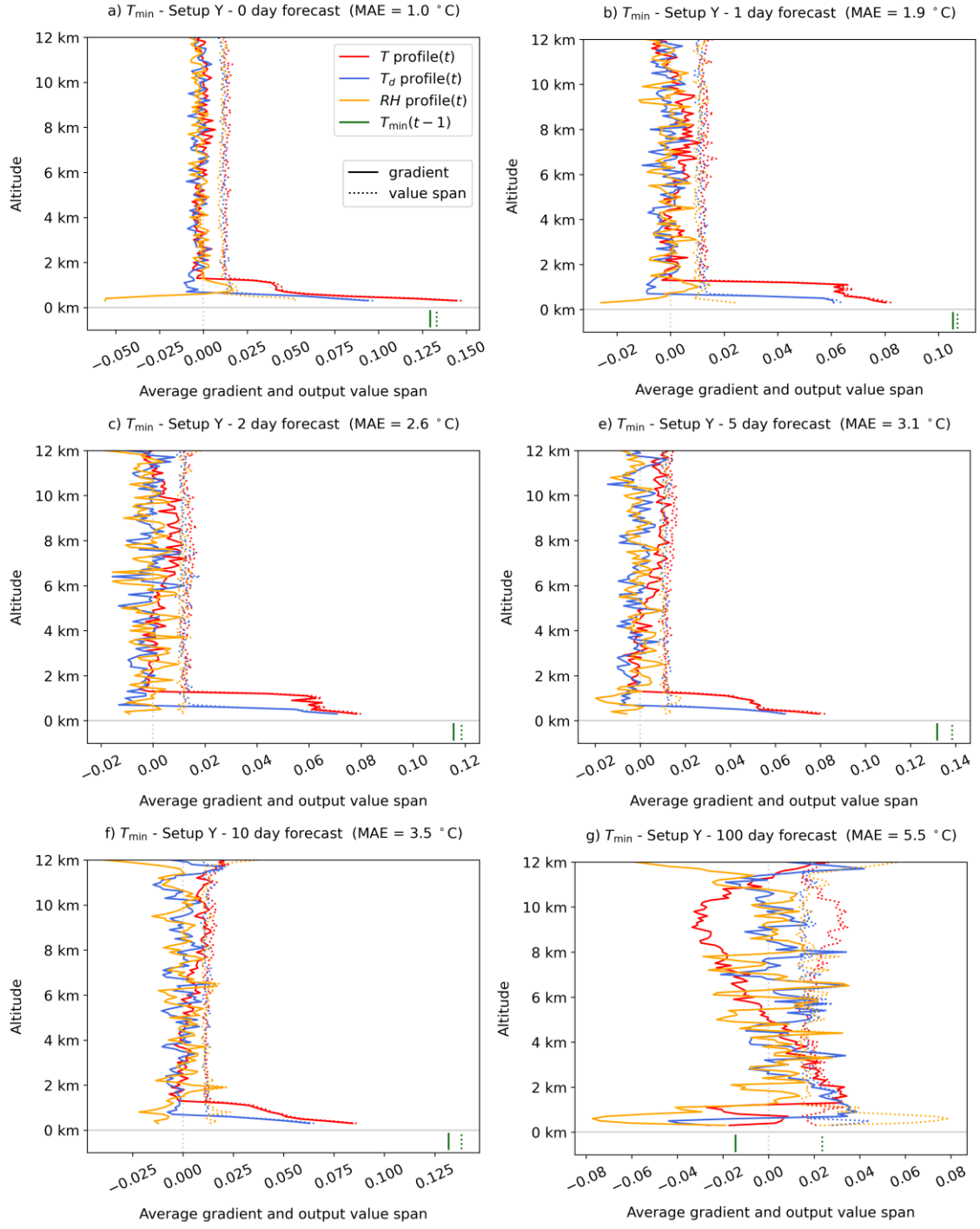


Figure S5. Same as Figure S1 but for forecast of T_{\min} by NN Setup Y.

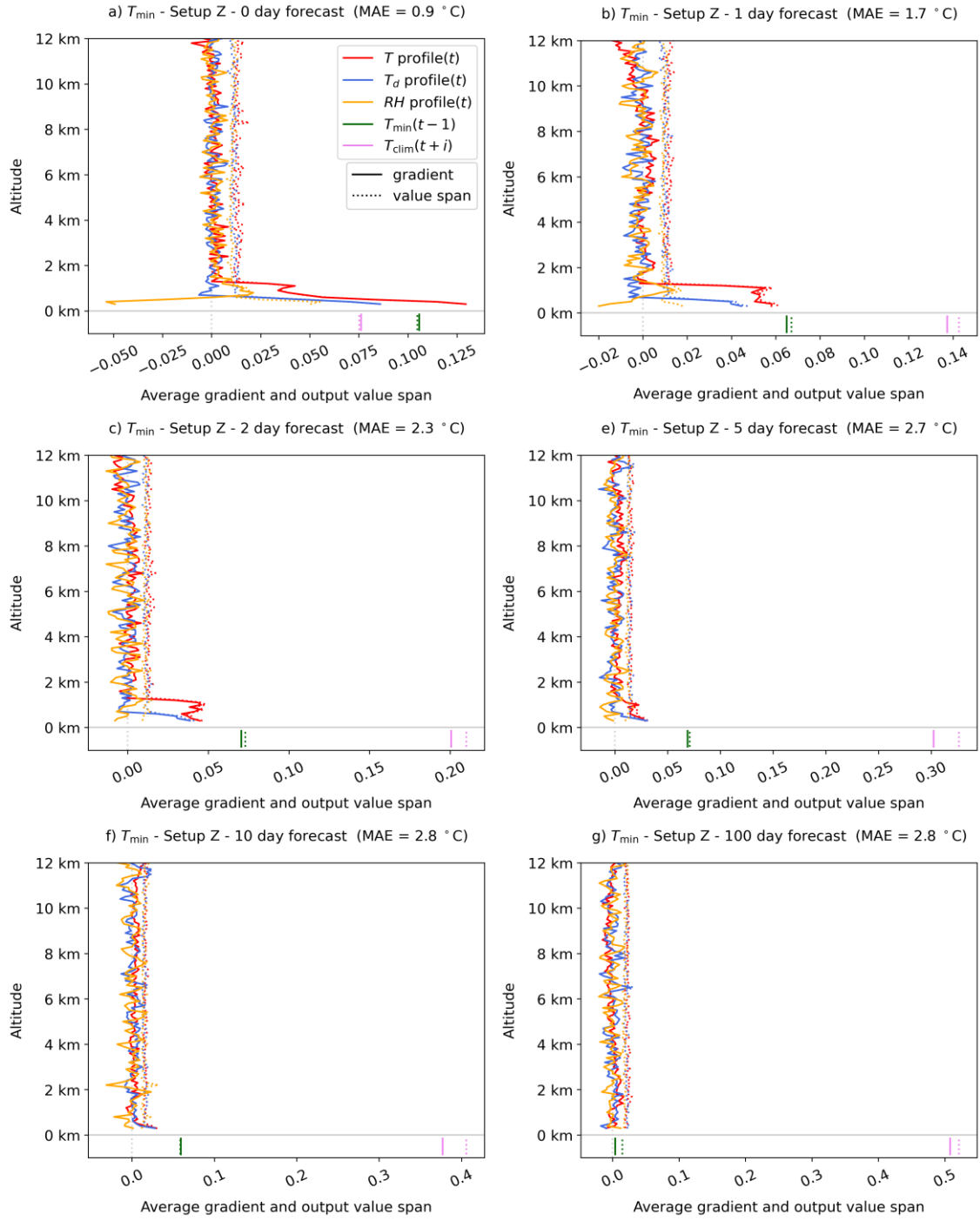


Figure S6. Same as Figure S1 but for forecast of T_{\min} by NN Setup Y..

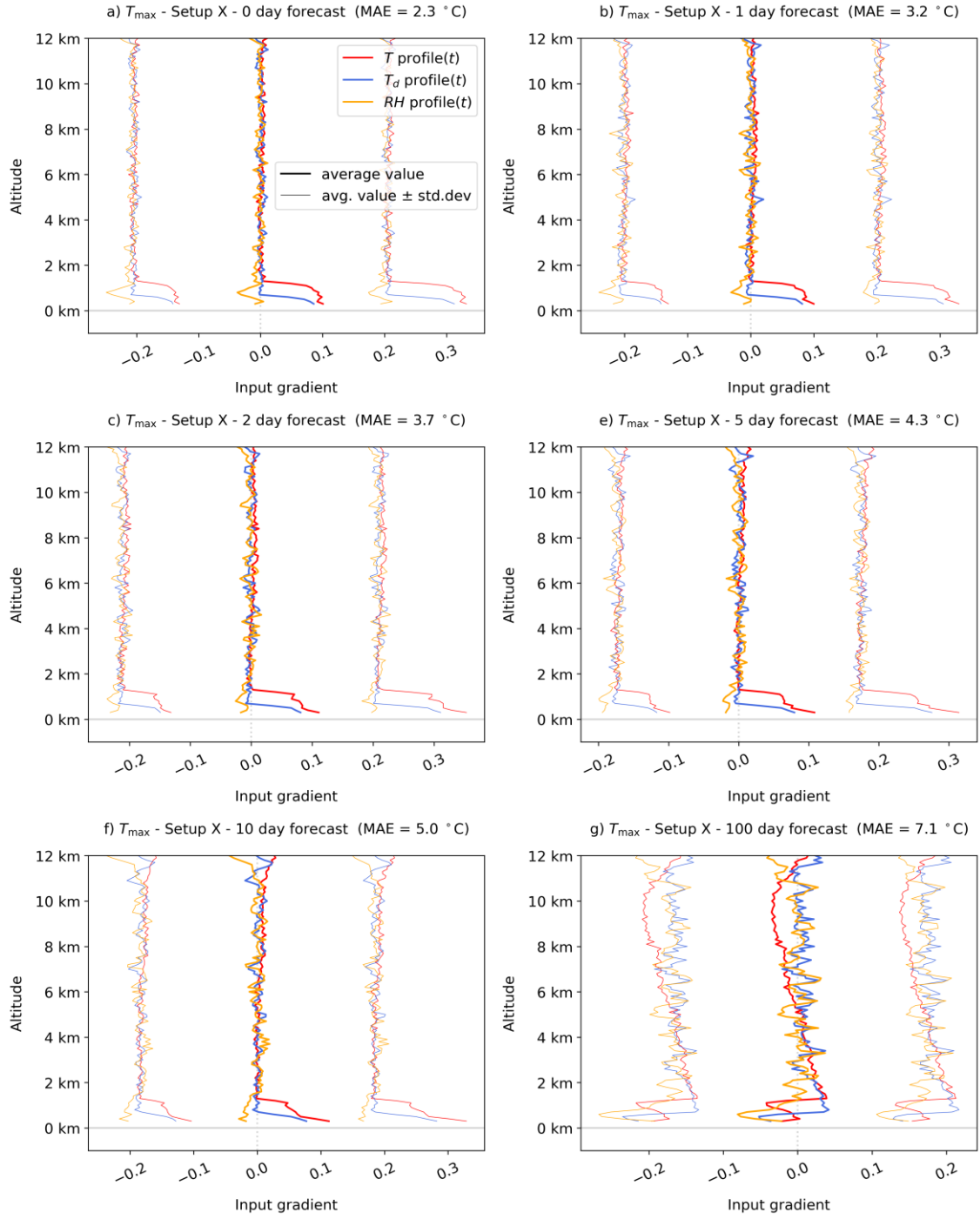


Figure S7. The spread of the input gradient for forecast of T_{\max} by NN Setup X. The thick lines represent the average gradient value. The thin lines represent the spread of the values around the average value according to the standard deviation (average value \pm standard deviation).

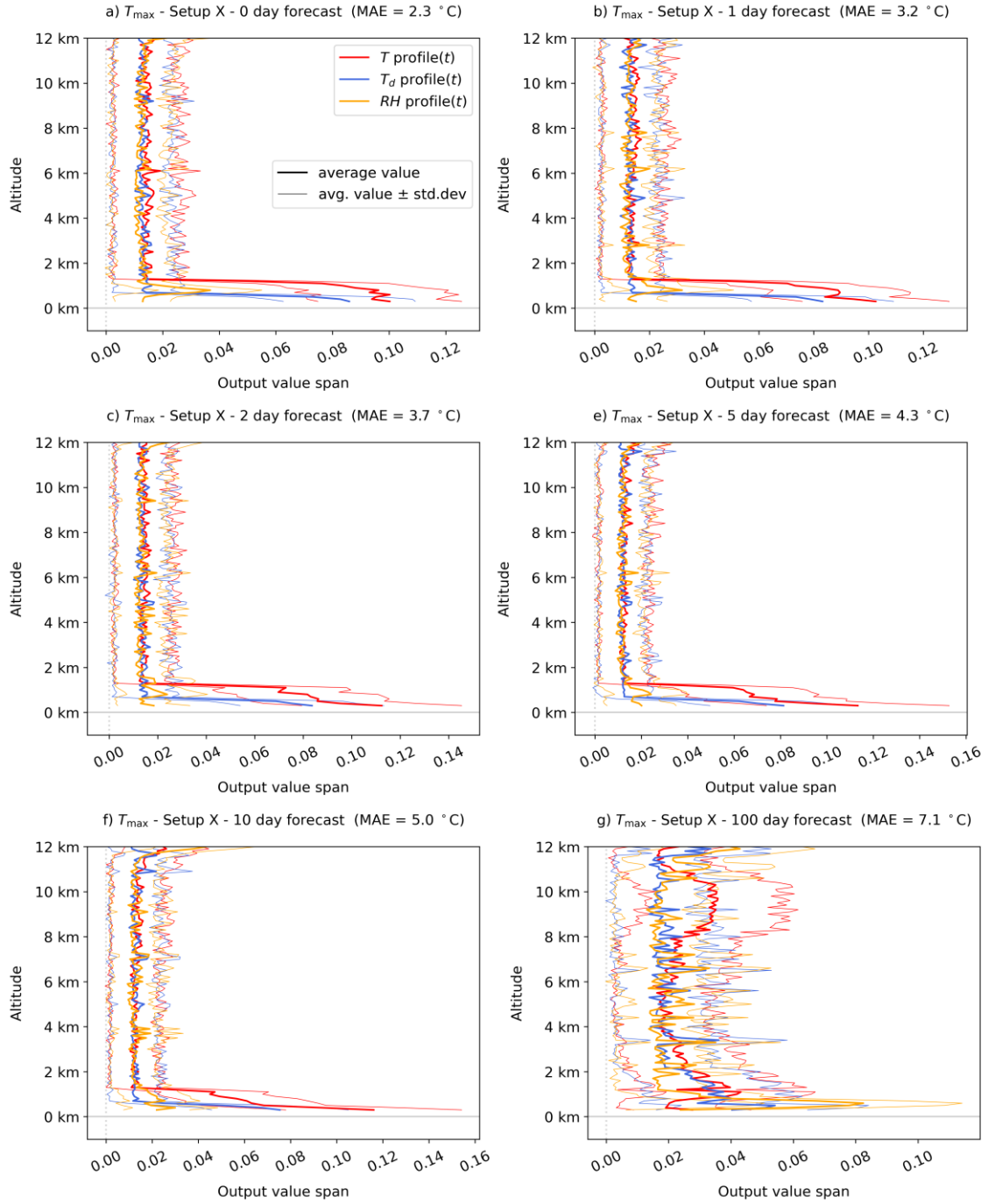


Figure S8. Same as Figure S7 but for output value span instead of input gradient.

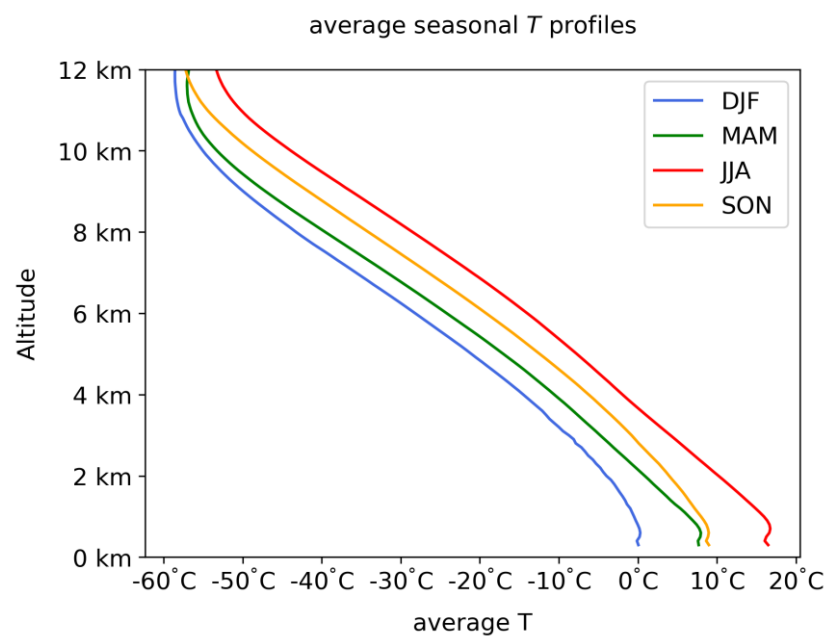


Figure S9. The sesonaly averaged temperature profiles derived from the 3800 radiosonde measurements used in the analysis.