Atmospheric drivers of Antarctic sea ice extent summer minima

Bianca Mezzina[1], Hugues Goosse[1], François Klein[1], Antoine Barthélemy[1], François Massonnet[1]

[1] Earth and Climate Center, Earth and Life Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium

Correspondence to: Bianca Mezzina (bianca.mezzina@uclouvain.be)

Supplementary material

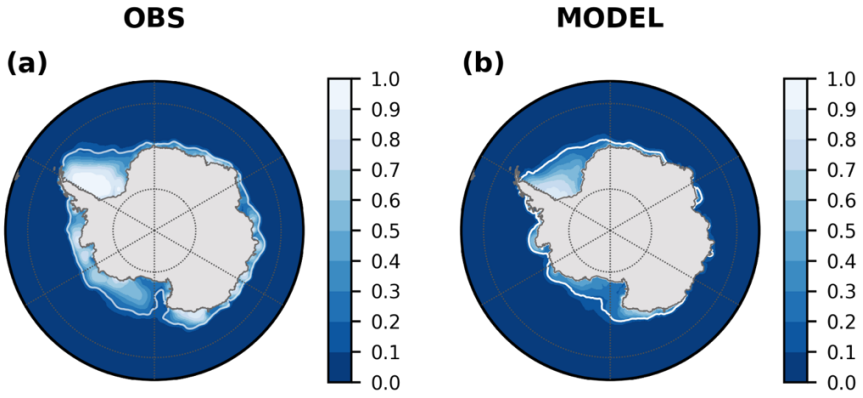

Figure S1: JFM climatology of the SIC in the (a) observations and (b) model. The solid line indicates SIC=0.15.

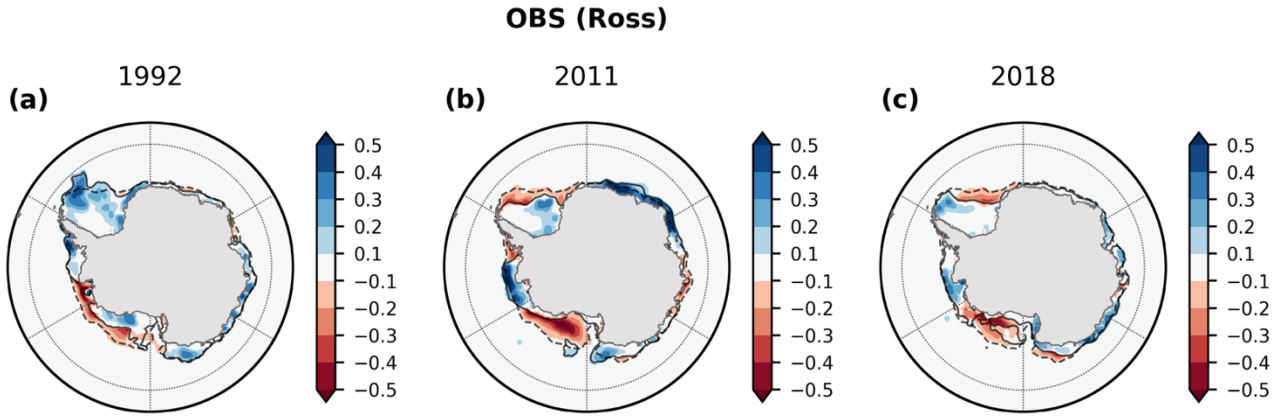

Figure S2: Shading: observed SIC anomalies in JFM in the years with SIE minima in the Ross Sea. Contours: sea ice edge (SIC=0.15) in the respective years (solid line) and in the climatology (dashed line).

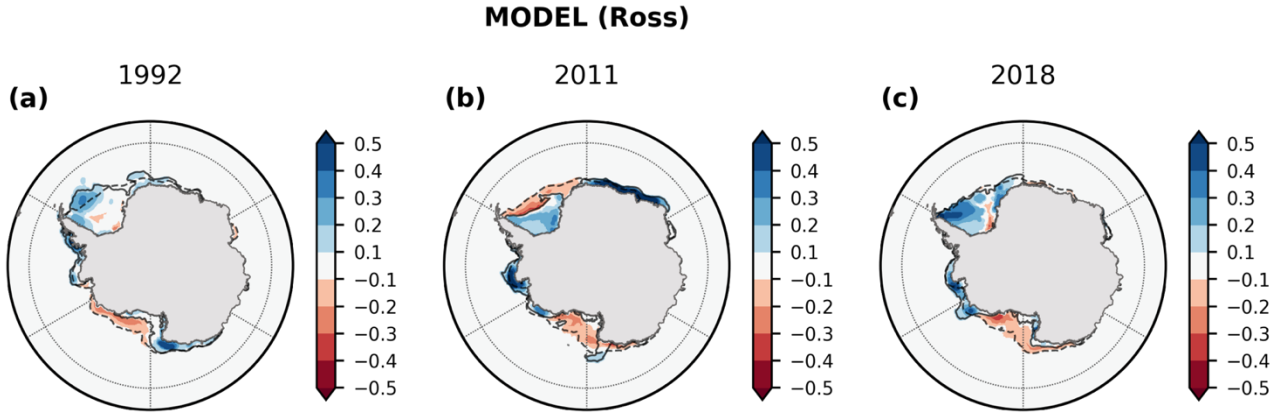

Figure S3: Same as Fig. S2, but for the model.

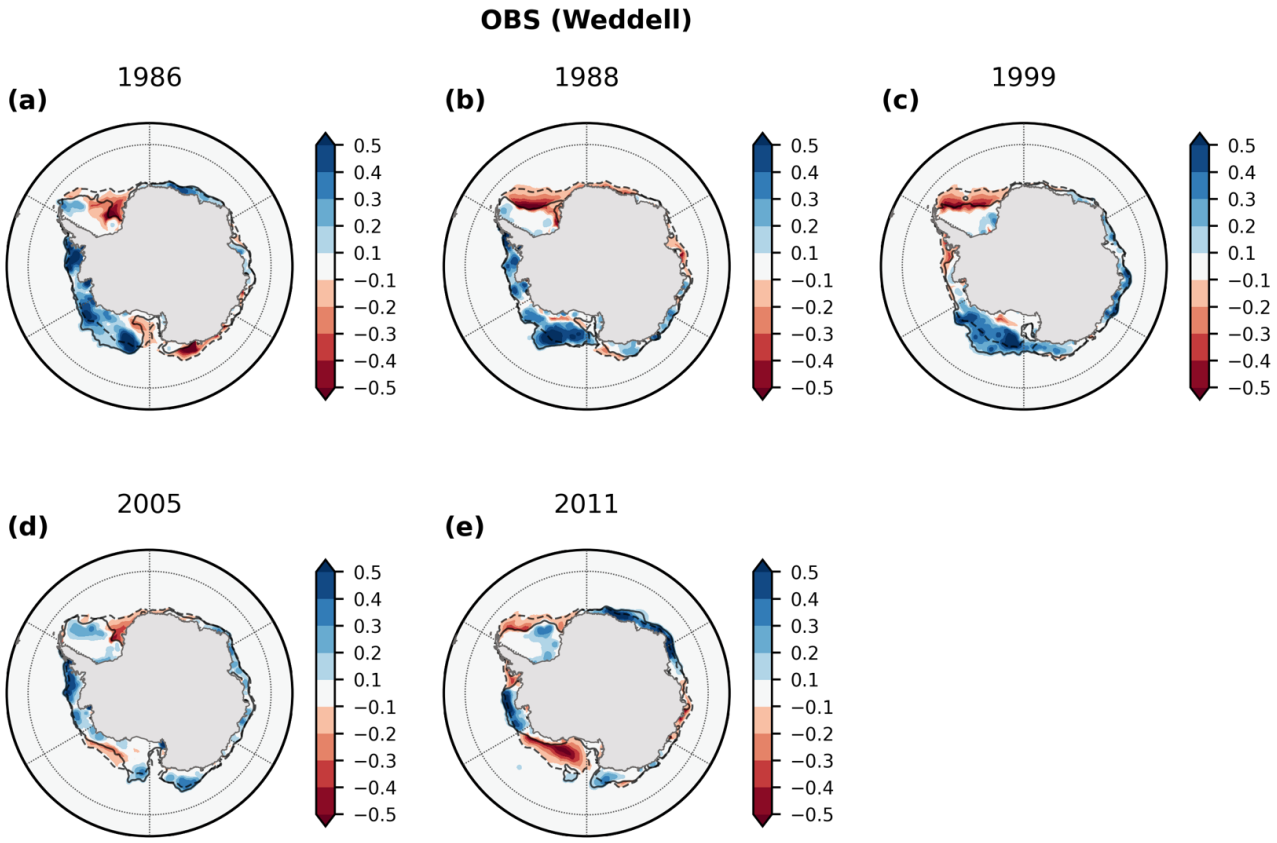

Figure S4: Shading: observed SIC anomalies in JFM during the years with SIE minima in the Weddell Sea. Contours: sea ice edge (SIC=0.15) in the respective years (solid line) and in the climatology (dashed line).

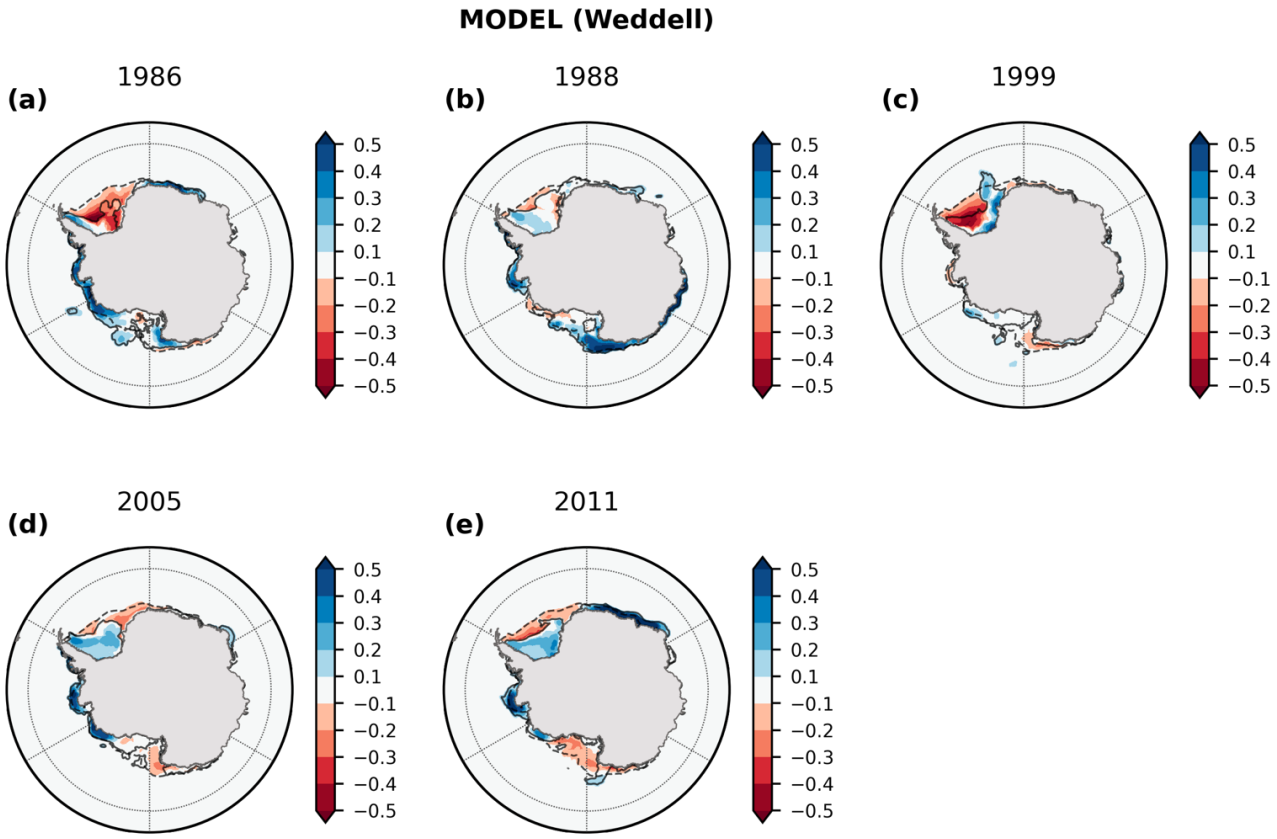

Figure S5: Same as Fig. S4, but for the model.

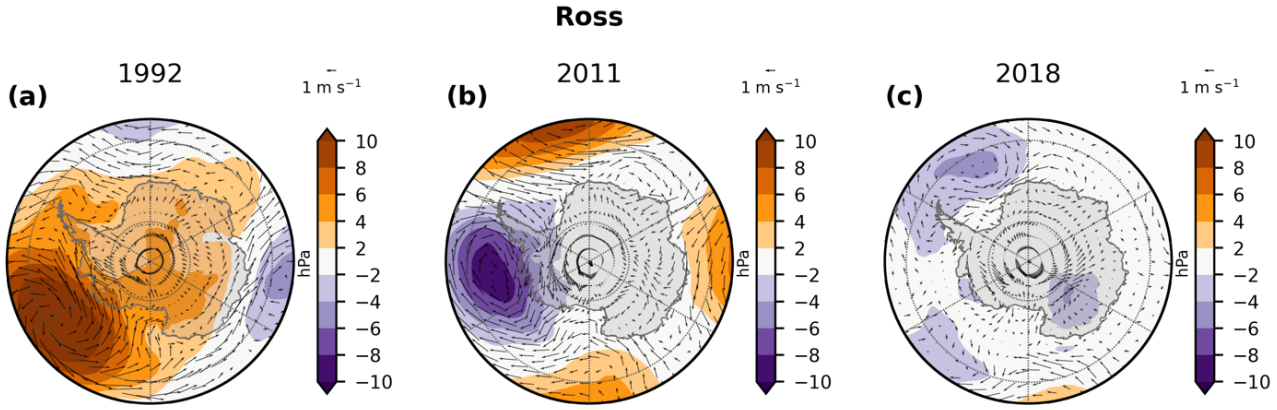

Figure S6: SLP (shading) and 10-m wind (arrows) anomalies in the years with SIE minima in the Ross Sea during the previous spring (OND).

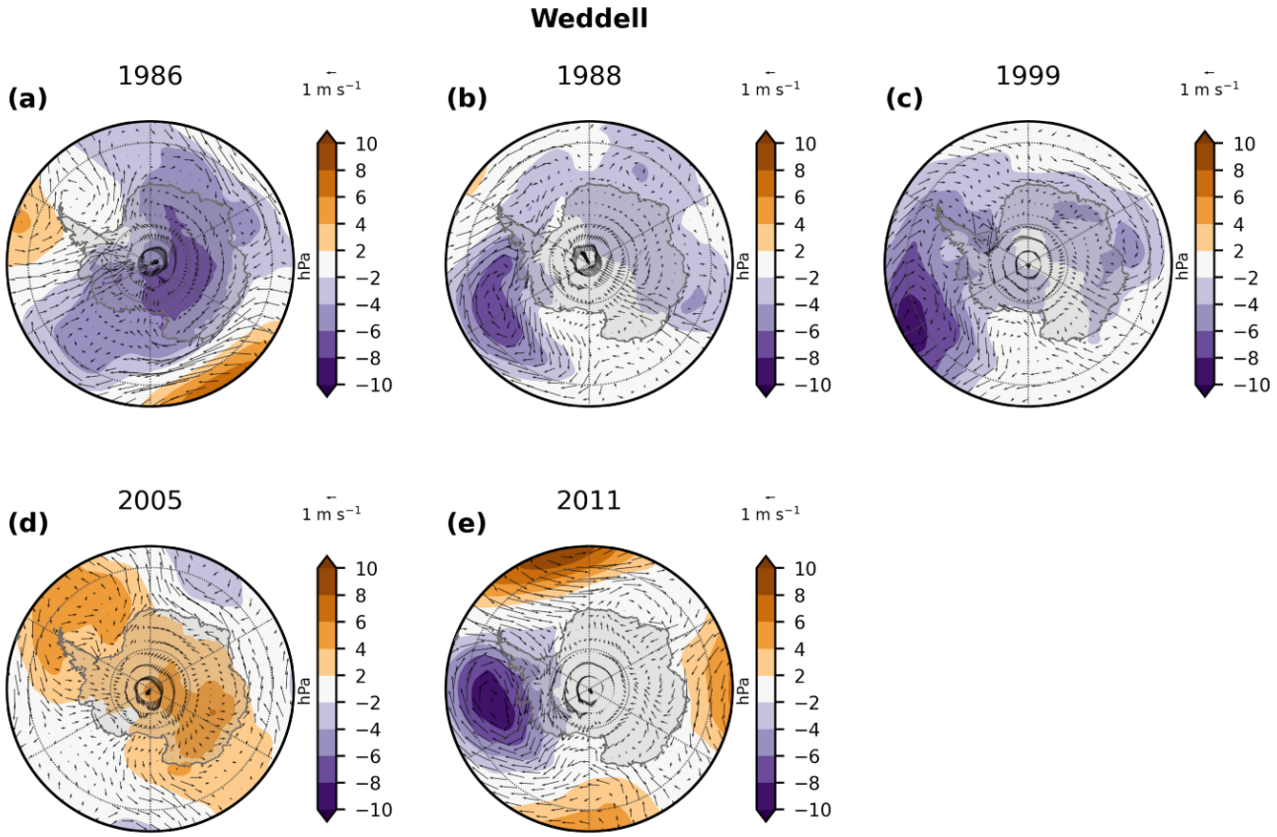

Figure S7: SLP (shading) and 10-m wind (arrows) anomalies in the years with SIE minima in the Weddell Sea during the previous spring (OND).

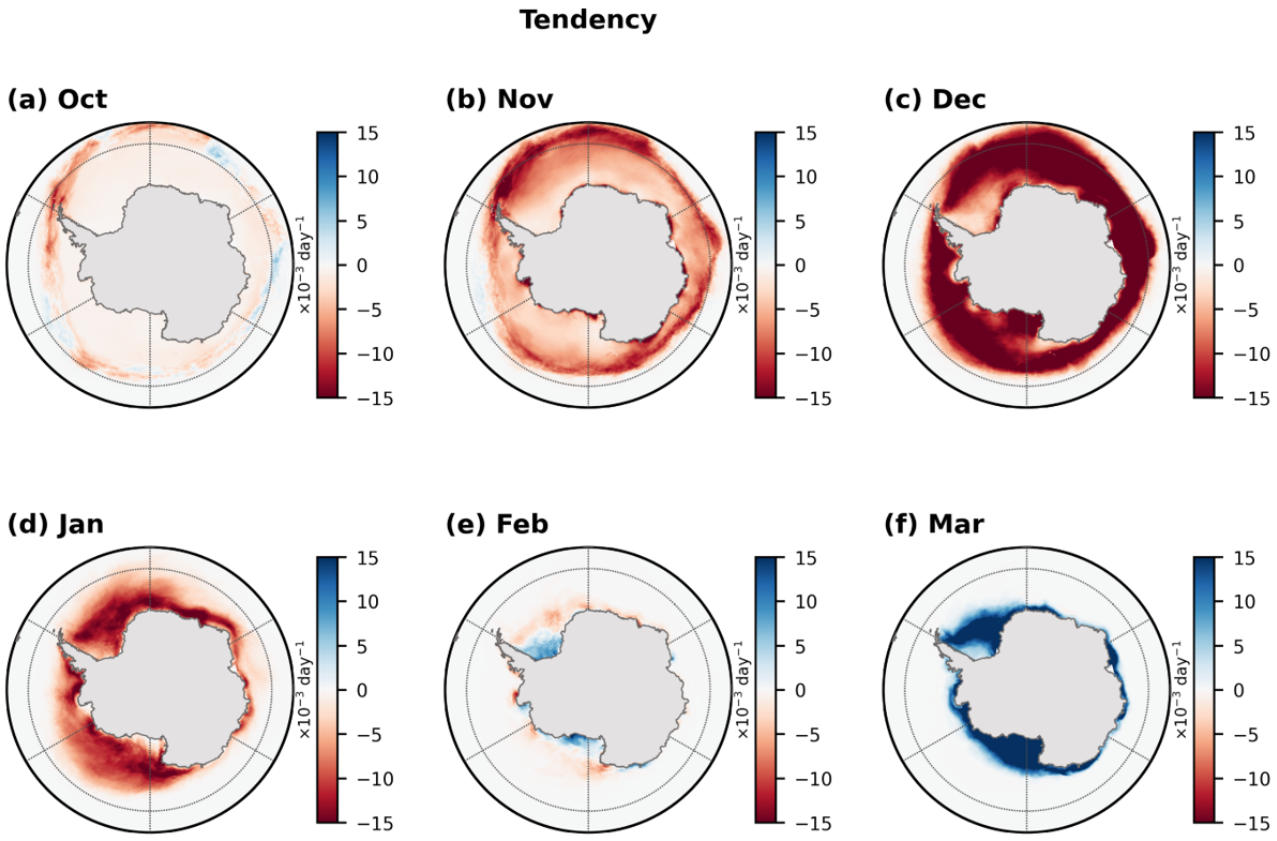

Figure S8: Monthly climatology of the late spring and summer tendency term of the model's SIC budget.

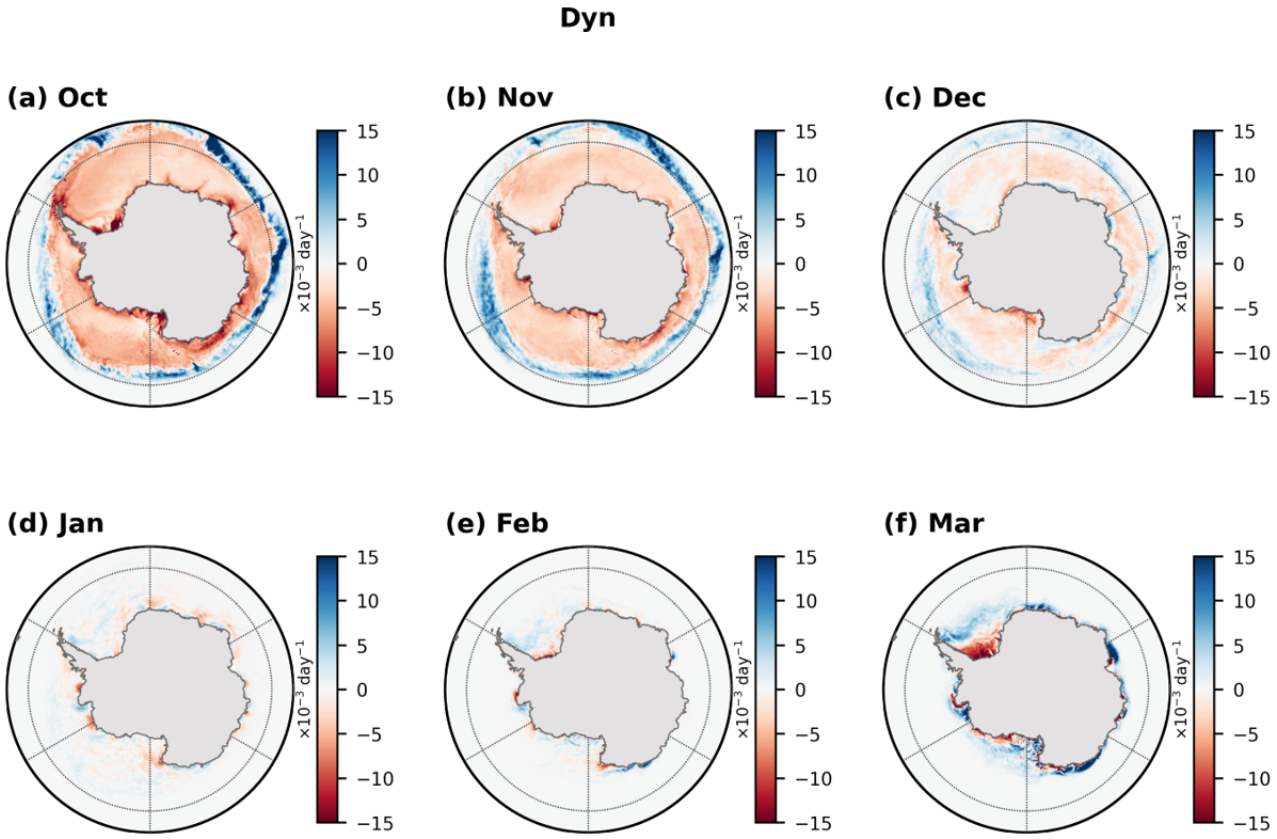

Figure S9: Monthly climatology of the late spring and summer dynamic term of the model's SIC budget.

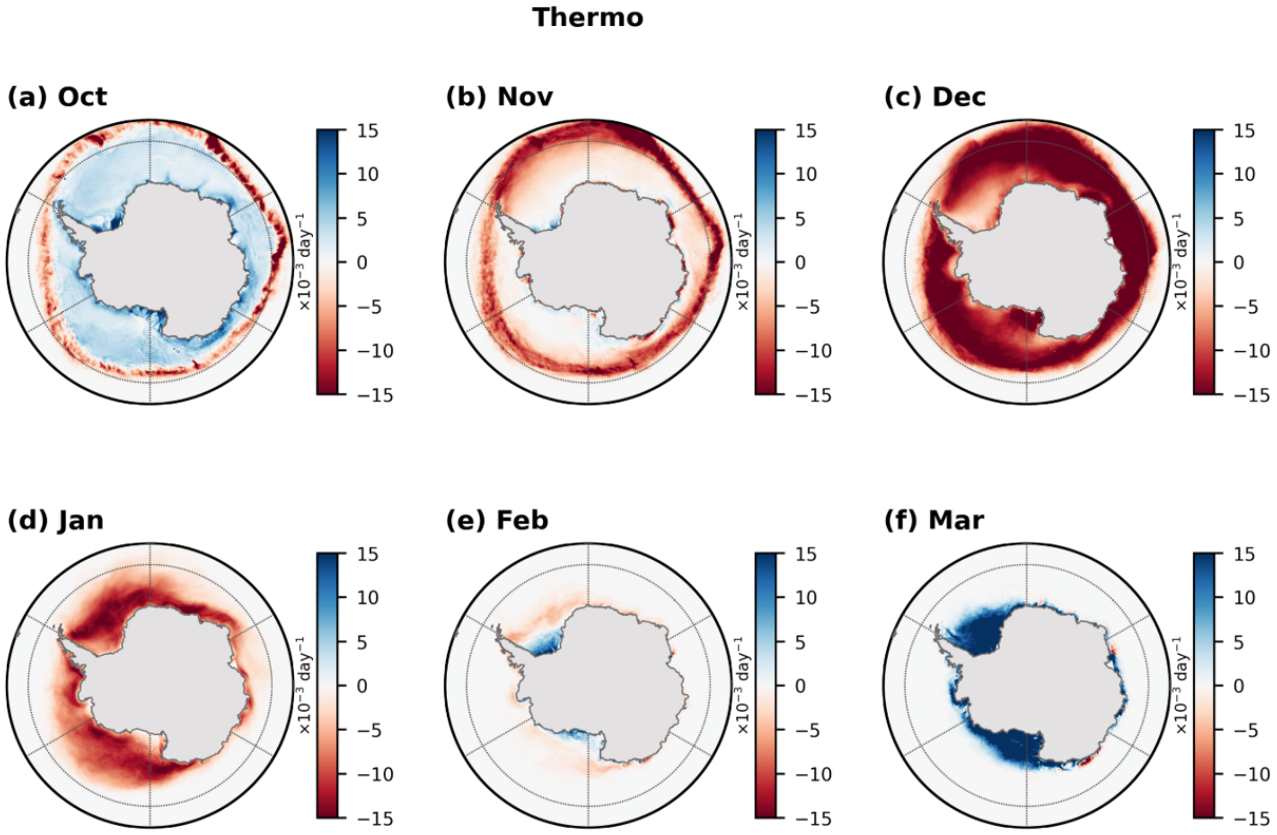

Figure S10: Monthly climatology of the late spring and summer thermodynamic term of the model's SIC budget.