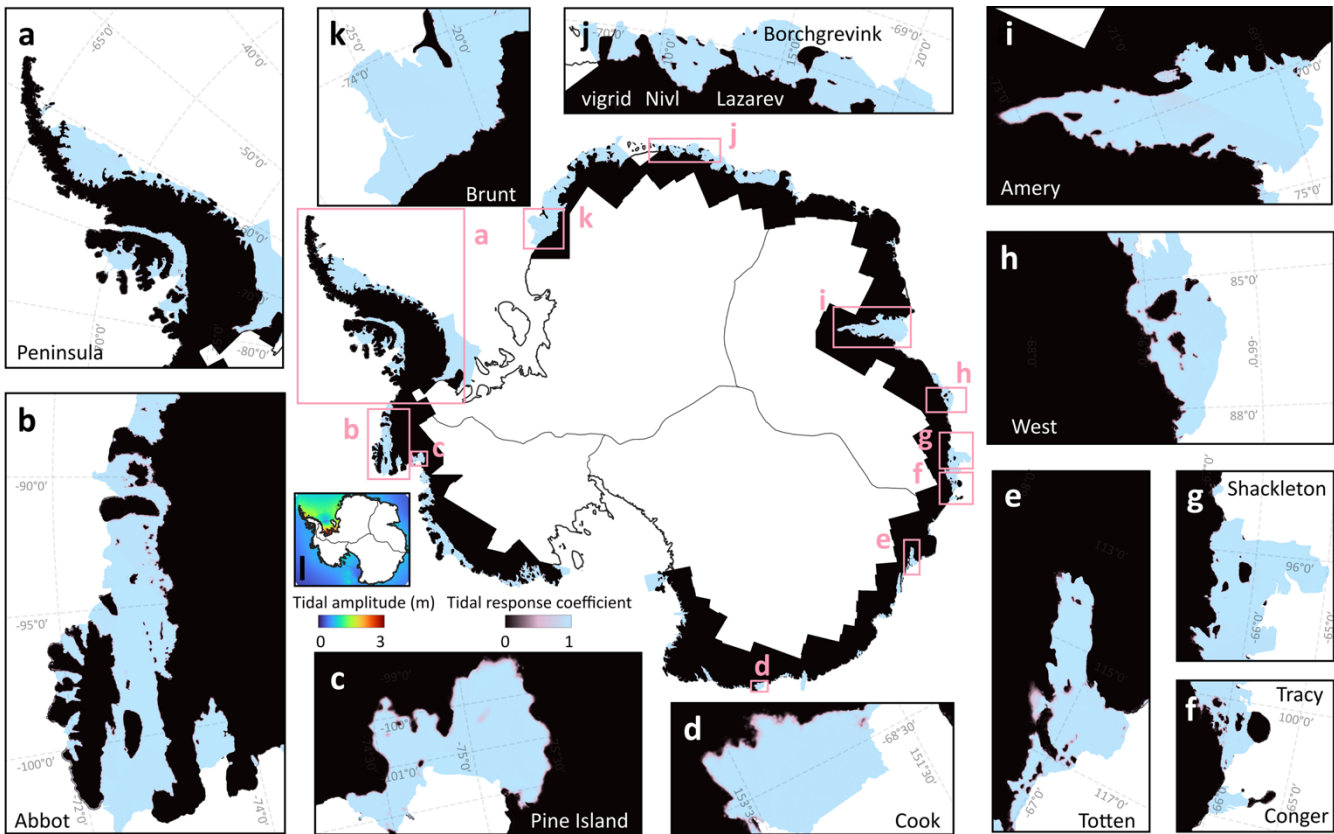




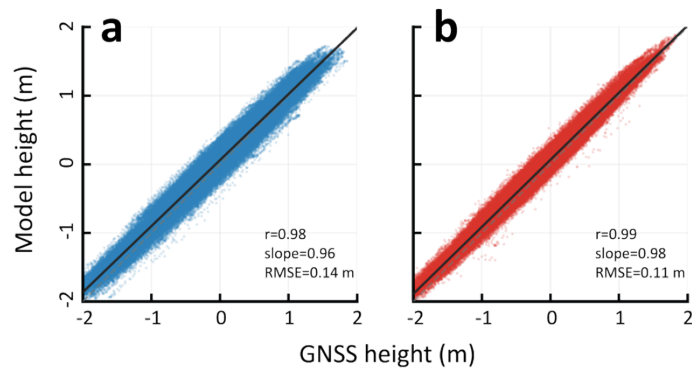


Figure S2. Comparison between GNSS-observed vertical displacement and modelled sea-surface height variability at Brunt Stancomb Ice Shelf. Scatter plots compare GNSS-derived vertical displacement with modelled sea-surface height anomalies derived from the CATS2008 tidal model alone (left) and from the combined CATS2008 tidal model with ERA5-based inverse barometer effect (IBE) correction (right). Each point represents an individual observation. The solid dark line shows the linear regression fit, while the dashed grey line indicates the 1:1 relationship. Incorporating the IBE correction reduces the overall scatter and improves the agreement with GNSS observations, indicating that atmospheric pressure-induced sea-surface variability contributes measurably to the observed vertical displacement signal.