Fig. A1.: The isolated effect of biases in sea surface alkalinity (top row), temperature (middle) and salinity (bottom) on surface dissolved inorganic carbon at equilibrium with atmospheric CO₂ (DIC$_{eq}$). Each plot shows the difference between the modeled DIC$_{eq}$, computed using mean (1990–2000) fields, and the DIC$_{eq}$ distribution obtained by replacing (in isolation) the modeled alkalinity (GLODAP), sea surface temperature (Hurrell et al., 2008) and salinity (Garcia et al., 2006) with the respective observationally-based climatology.
Fig. A2.: Mean profiles of salinity normalized preindustrial dissolved inorganic carbon from the Southern Ocean (south of 44ºS) from GLODAP (solid line, Key et al., 2004), CORE1850 (dashed), and CPLD1850 (dotted).
Fig. A3.: Regression of sea-air CO$_2$ flux anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized SAM index.
Fig. A4.: Regression of surface ocean pCO₂ anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized SAM index.
Fig. A5.: Regression of upper-100-m dissolved inorganic carbon (DIC) inventory anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized SAM index.
Fig. A6.: Regression of sea-air CO$_2$ flux anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized NAO index.
Fig. A7.: Regression of surface ocean $pCO_2$ anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized NAO index.
Fig. A8.: Regression of upper-100-m dissolved inorganic carbon (DIC) inventory anomalies and components from the ocean-ice hindcast (left column) and coupled model (right column) versus the standardized NAO index.
REFERENCES

