Supplementary Information for: AMOC seasonality in the subpolar North Atlantic

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1 Supplementary figures

These figures duplicate figures in the main text but are calculations from the Viking20x model based only on the OSNAP 6-year period rather than the longer 20-year run.
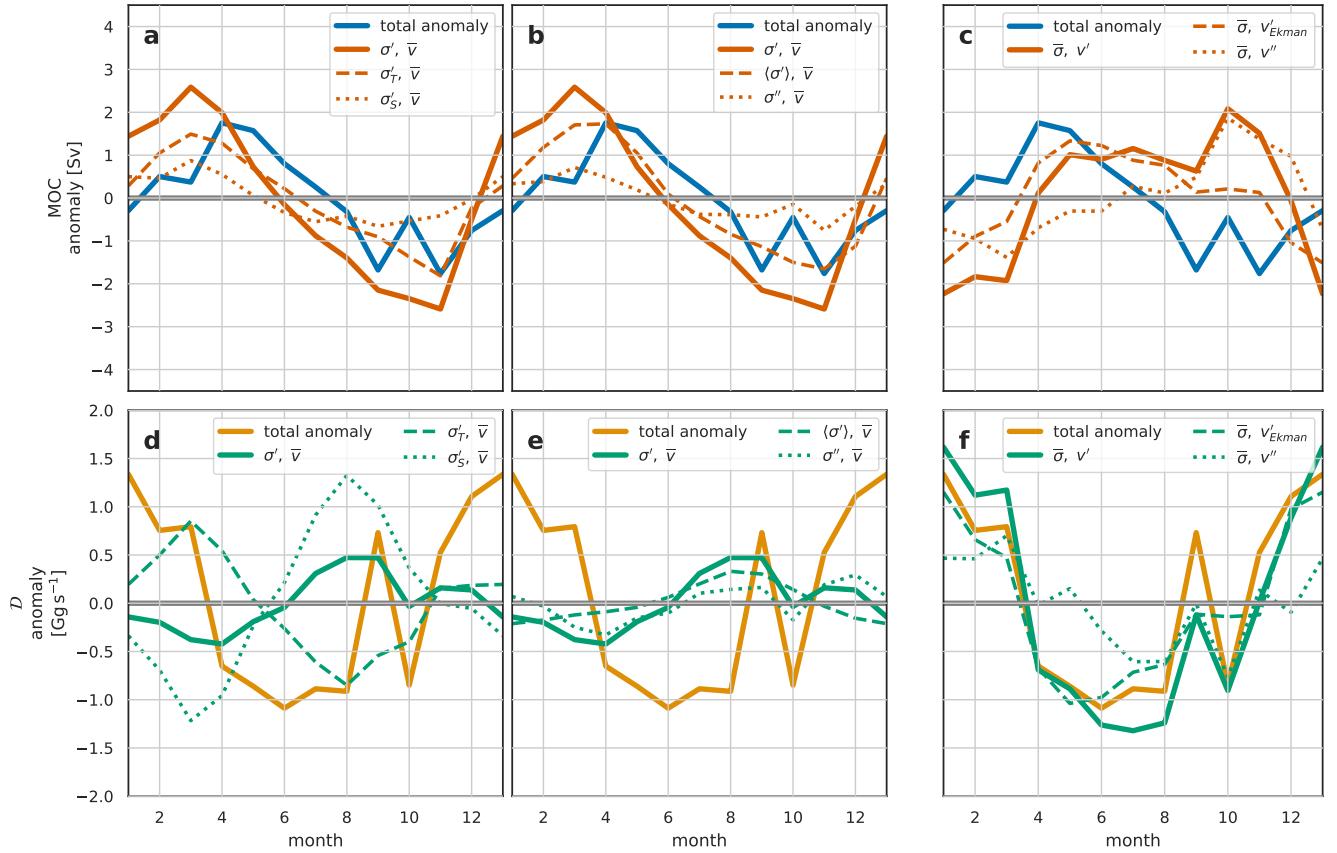
Figure S1. Summary plot of the decomposition of the seasonal cycle for the full OSNAP section of (a-c) MOC_σ and (d-f) density flux $\mathcal{D}$ for the **6-year, 2014 – 2020, run of the Viking20x model** (see main text Fig. 8 for the 20-year equivalent). The left-hand column (a,d) shows the density-driven decomposition into temperature and salinity components; the middle column the density-driven decomposition into zonal mean and remainder; and the right-hand column the velocity-driven decomposition into Ekman and remainder components. The blue line repeated in (a-c) is the total MOC_σ anomaly; the solid orange line is either the total density-driven anomaly component of MOC_σ (a,b), or the total velocity-driven component (c). The dashed and dotted lines in (a-c) are respectively: in (a) the temperature and salinity driven components; in (b) the zonal mean density and density-driven remainder components; and in (c) the Ekman driven and velocity-driven remainder components. Similarly, for (d-f) the repeated yellow line is the total $\mathcal{D}$ anomaly; the solid green line is either the total density-driven anomaly component of $\mathcal{D}$ (d,e), or the total velocity-driven component (f). The dashed and dotted lines in (d-f) are respectively: in (d) the temperature and salinity driven components; in (e) the zonal mean density and density-driven remainder components; and in (f) the Ekman driven and velocity-driven remainder components. Several of the figures following share ths format so it is worth spending a moment to understand it.
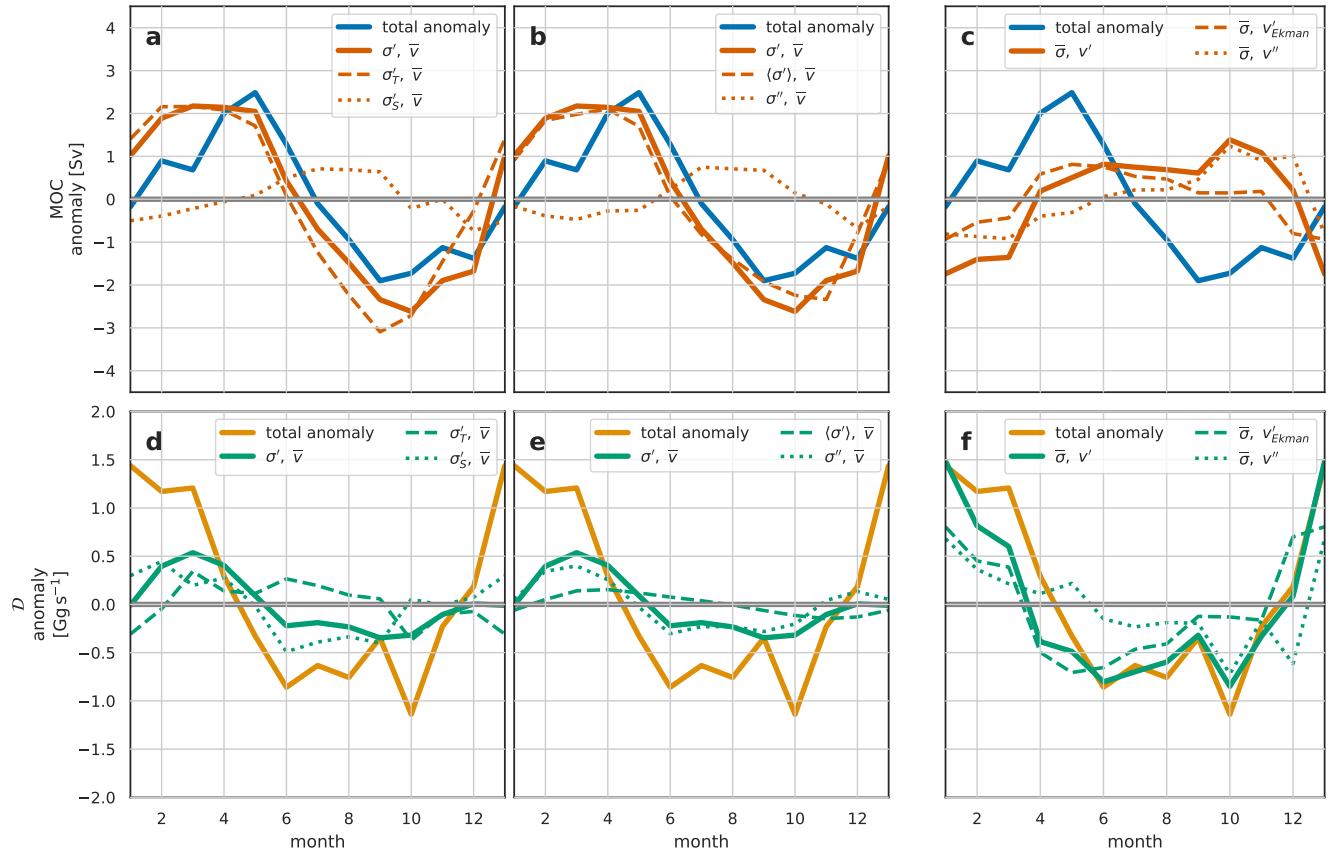
Figure S2. As fo Fig S1 but for the **6-year, 2014 – 2020, Viking20x model** seasonal cycle at OSNAP$_E$ (see main text Fig. 9 for the 20-year equivalent).
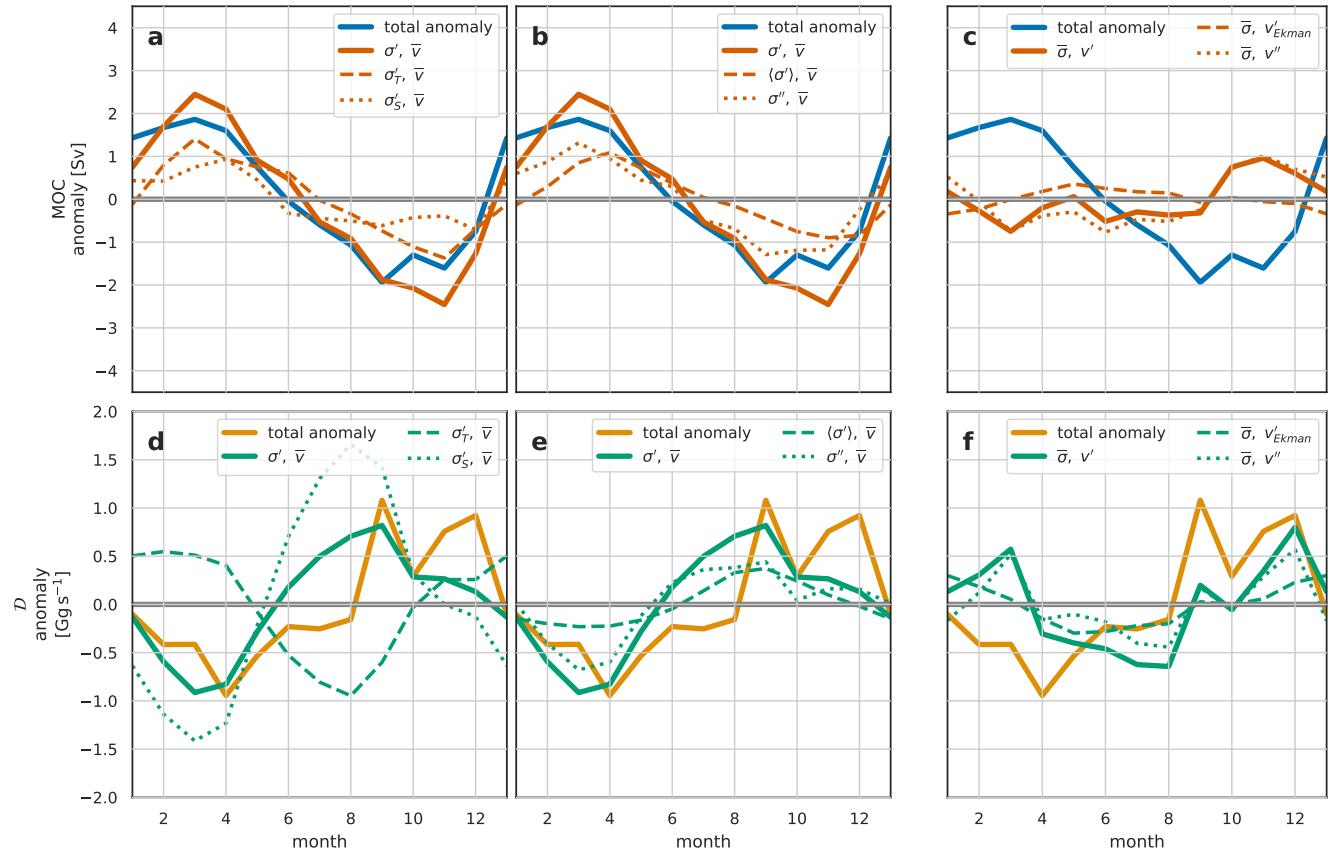
Figure S3. As fo Fig S1 but for the **6-year, 2014 – 2020, Viking20x model** seasonal cycle at OSNAP$_W$ (see main text Fig. 10 for the 20-year equivalent)