

Stratus Cloud Amount (Klein and Hartmann 1993)

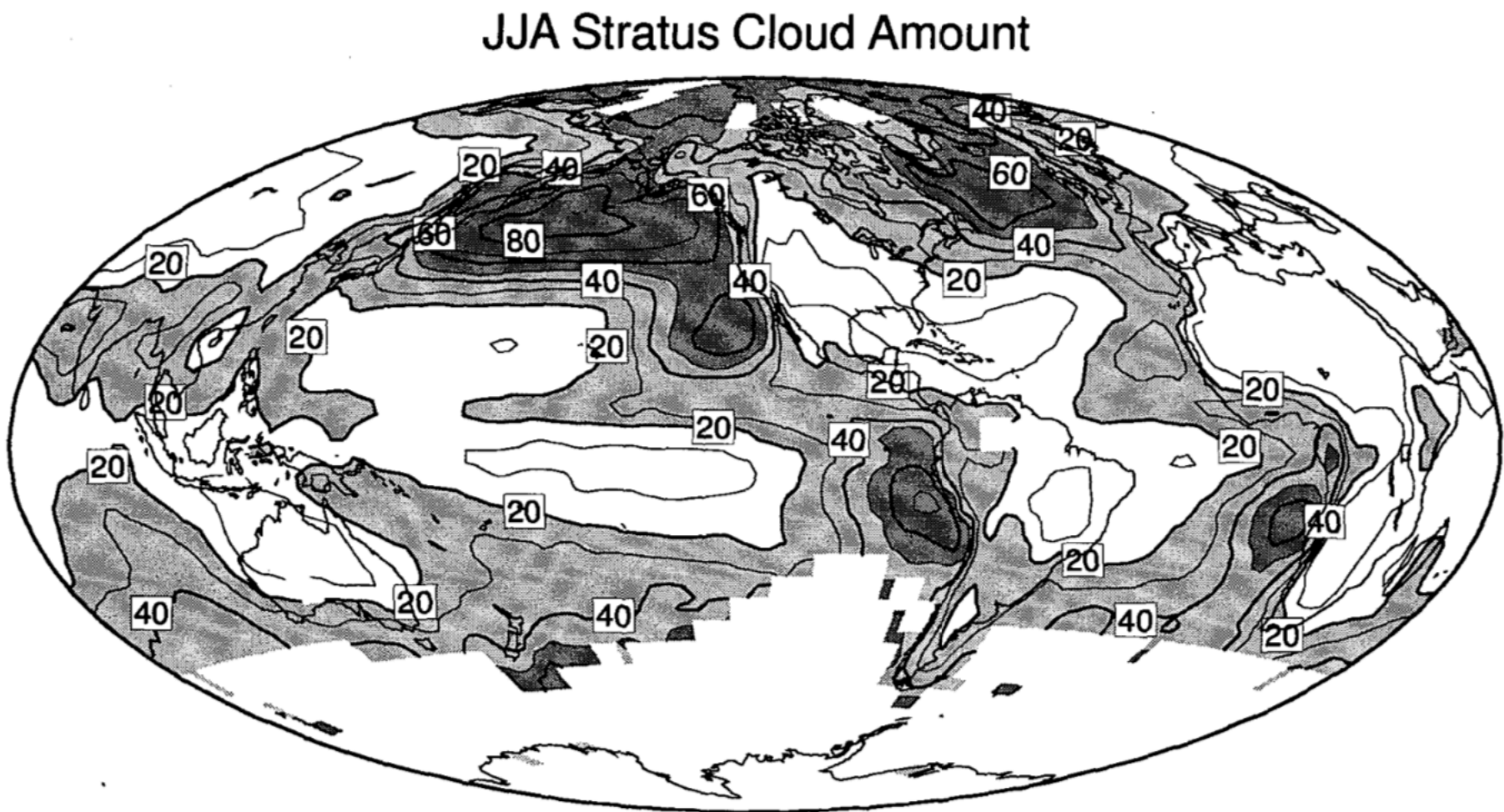


FIG. 2. The average stratus, stratocumulus, and sky-obscuring fog cloud amount in percent as seen by surface-based observers (a) annually; (b) for June, July, and August; and (c) for December, January, and February. Missing data indicates regions where fewer than 100 observations (for the ocean) or 200 observations (for land) have been recorded in a given season. Contour interval is 10%.

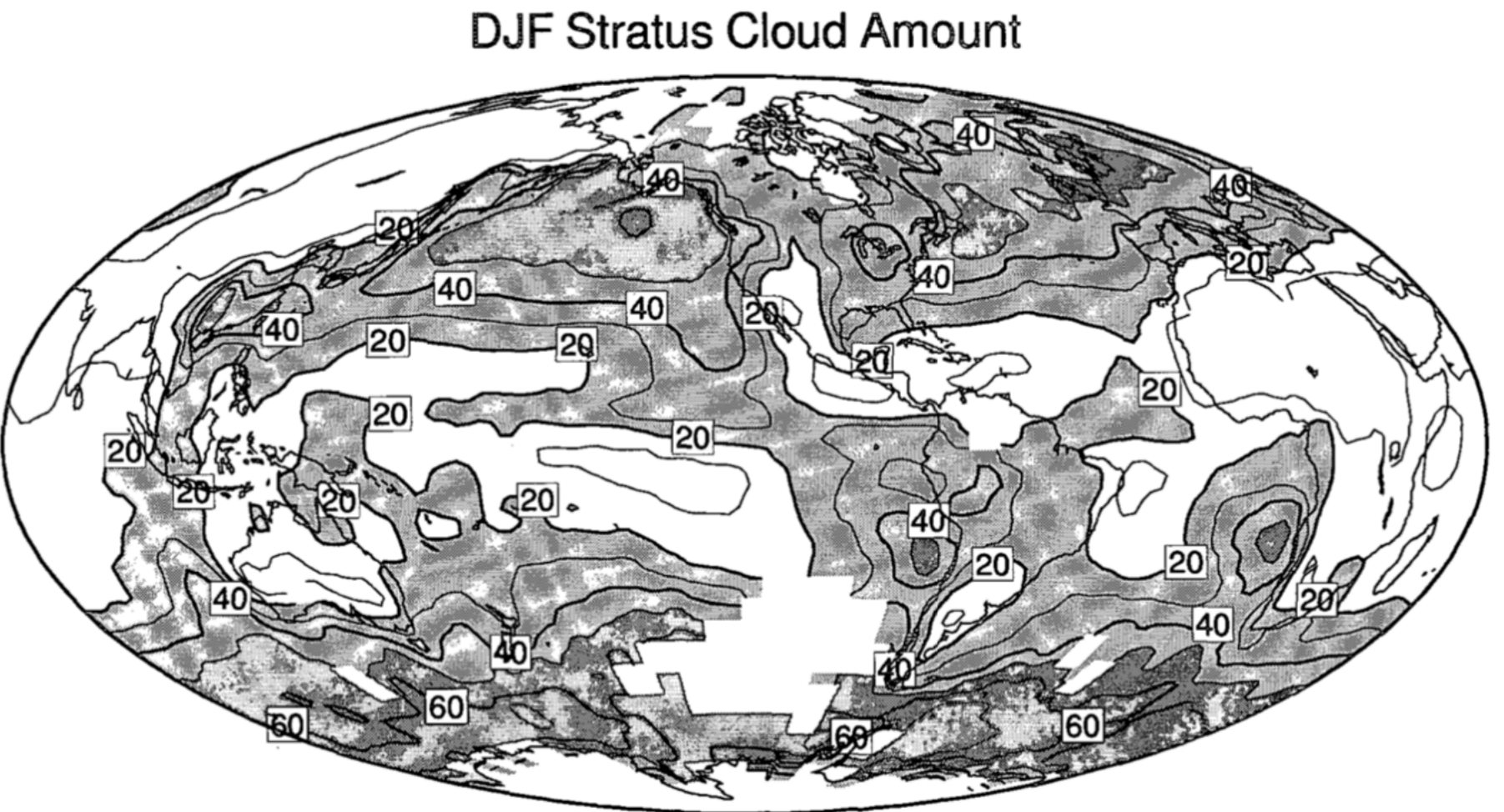


FIG. 2. (Continued)

Climatology of Stratocumulus (Norris 1998)

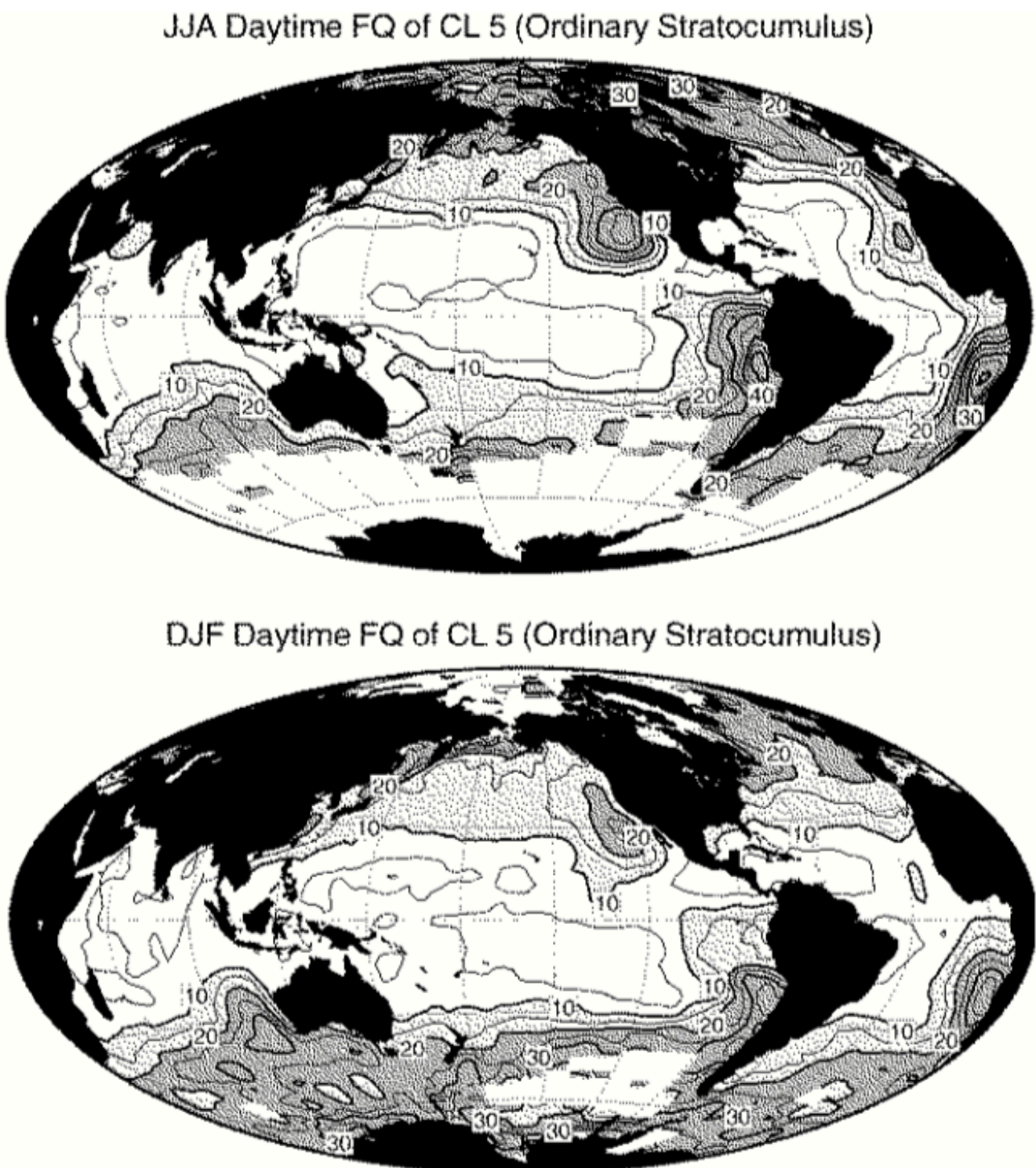


FIG. 7. Climatological JJA (top) and DJF (bottom) daytime FQ of C_L 5 (ordinary stratocumulus). Contour interval is 5%. Shading indicates FQ above 10% (light) and 20% (dark).

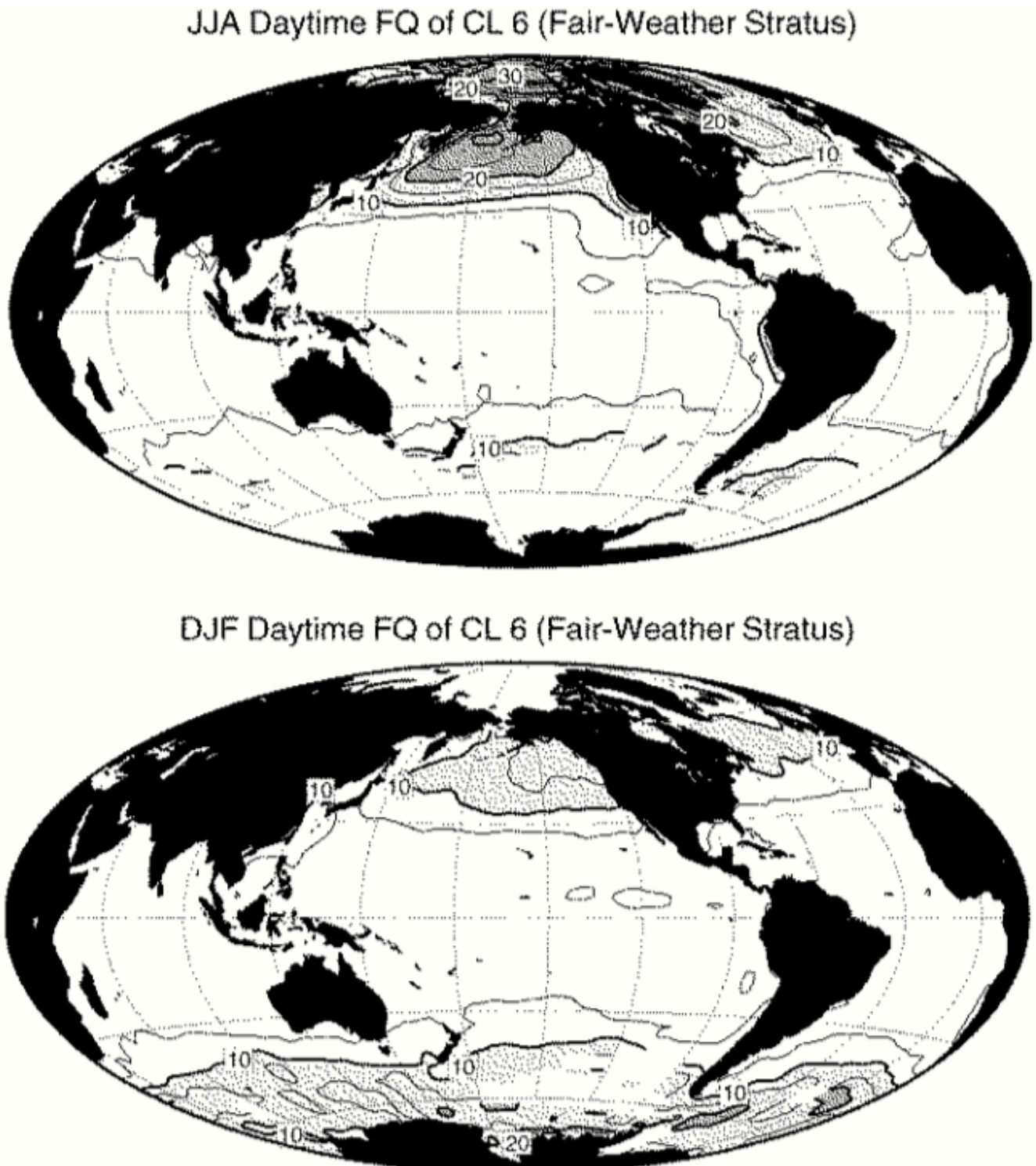


FIG. 8. Climatological JJA (top) and DJF (bottom) daytime FQ of C_L 6 (fair-weather stratus). Contour interval is 5%. Shading indicates FQ above 10% (light) and 20% (dark).

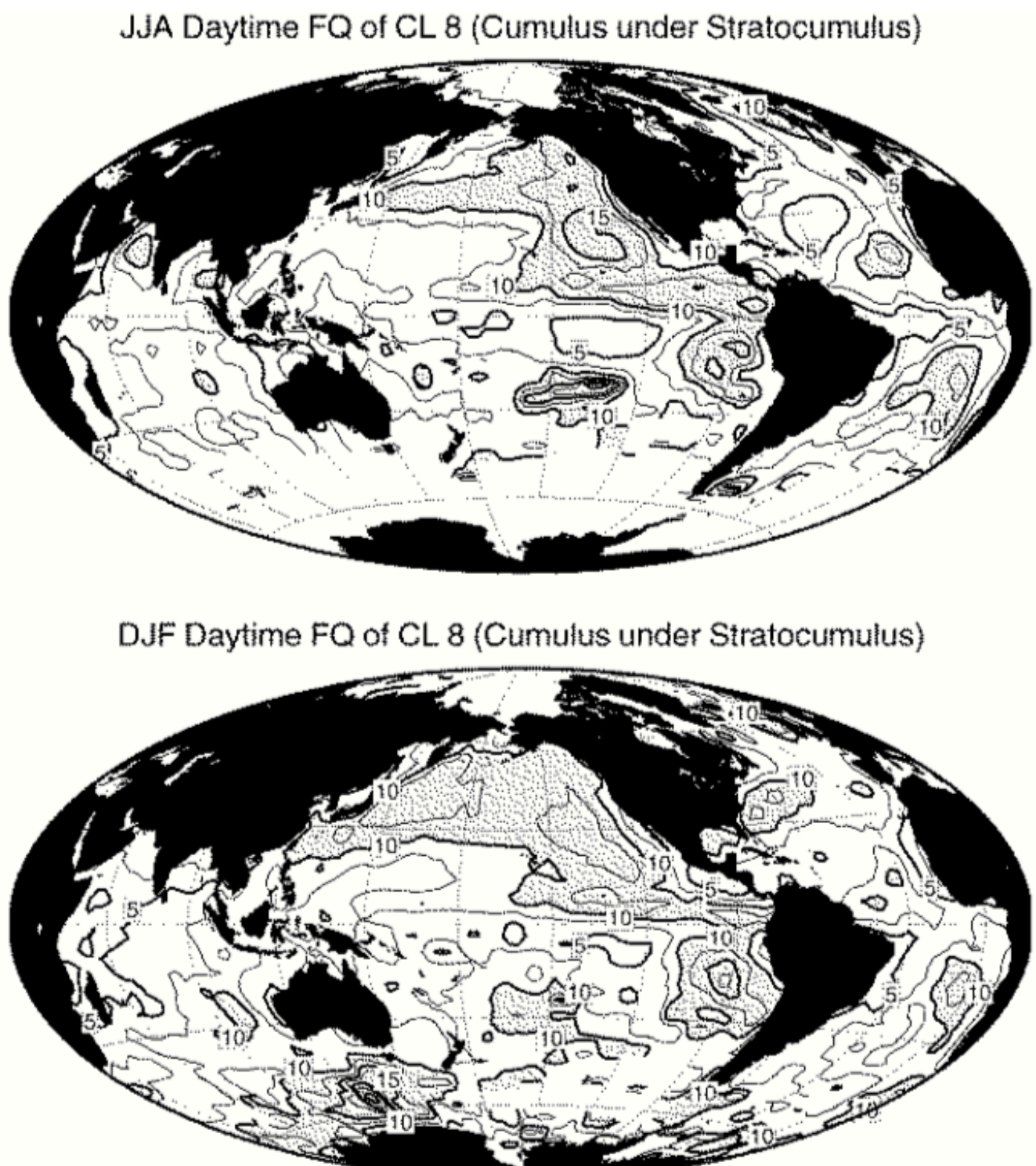


FIG. 9. Climatological JJA (top) and DJF (bottom) daytime FQ of C_L 8 (cumulus-under-stratocumulus). Contour interval is 2.5%. Shading indicates FQ above 10% (light) and 20% (dark).

Cloud Radiative Forcing (Klein & Hartmann, 1993, Zelinka et al., 2017)

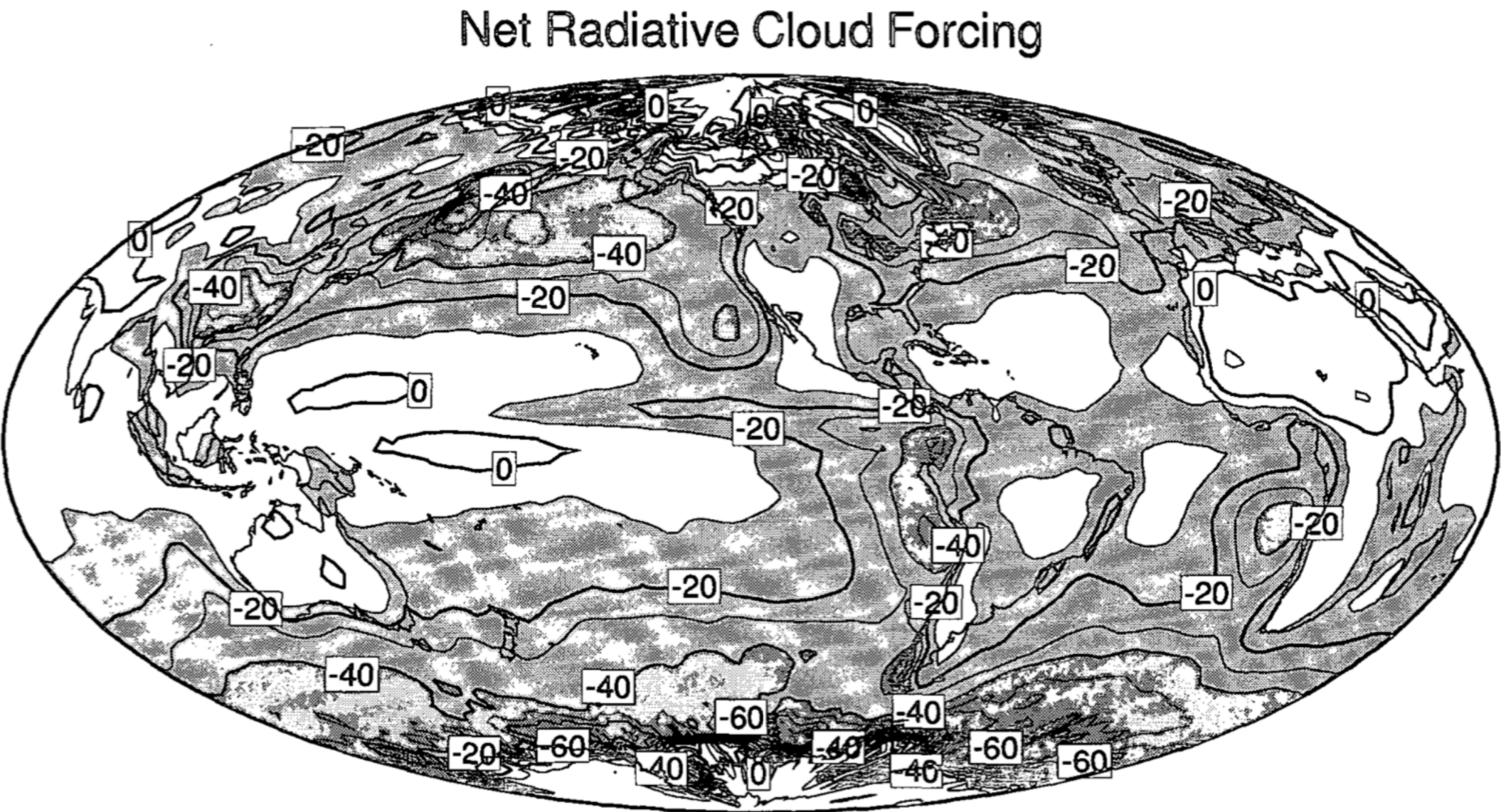


FIG. 1. Net radiative cloud forcing as seen by the Earth Radiation Budget Experiment (in W m⁻²) for February 1985 through January 1987. Contour interval is 10 W m⁻².

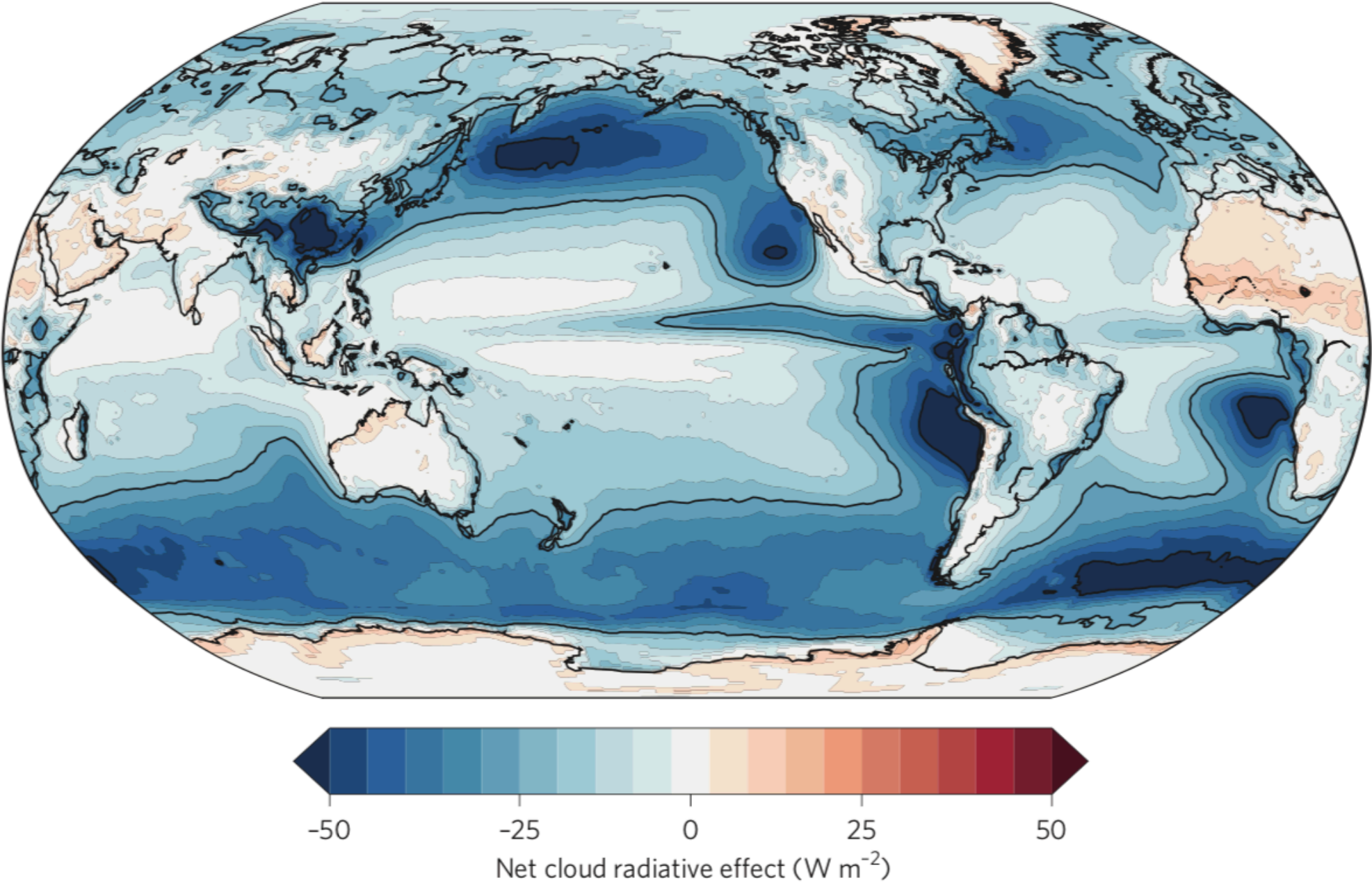


Figure 1 | Geographical distribution of the annually averaged net cloud radiative effect at the top of the atmosphere, computed over 2001-2016 from CERES EBAF Ed4.0 (ref.1). Cloud radiative effect is computed as the difference between all-sky and clear-sky net radiative flux at the top of the atmosphere. Black contour lines are displayed for the -50 W m⁻² and -25 W m⁻² values.

Lower Tropospheric Stability (Klein & Hartmann 1993)

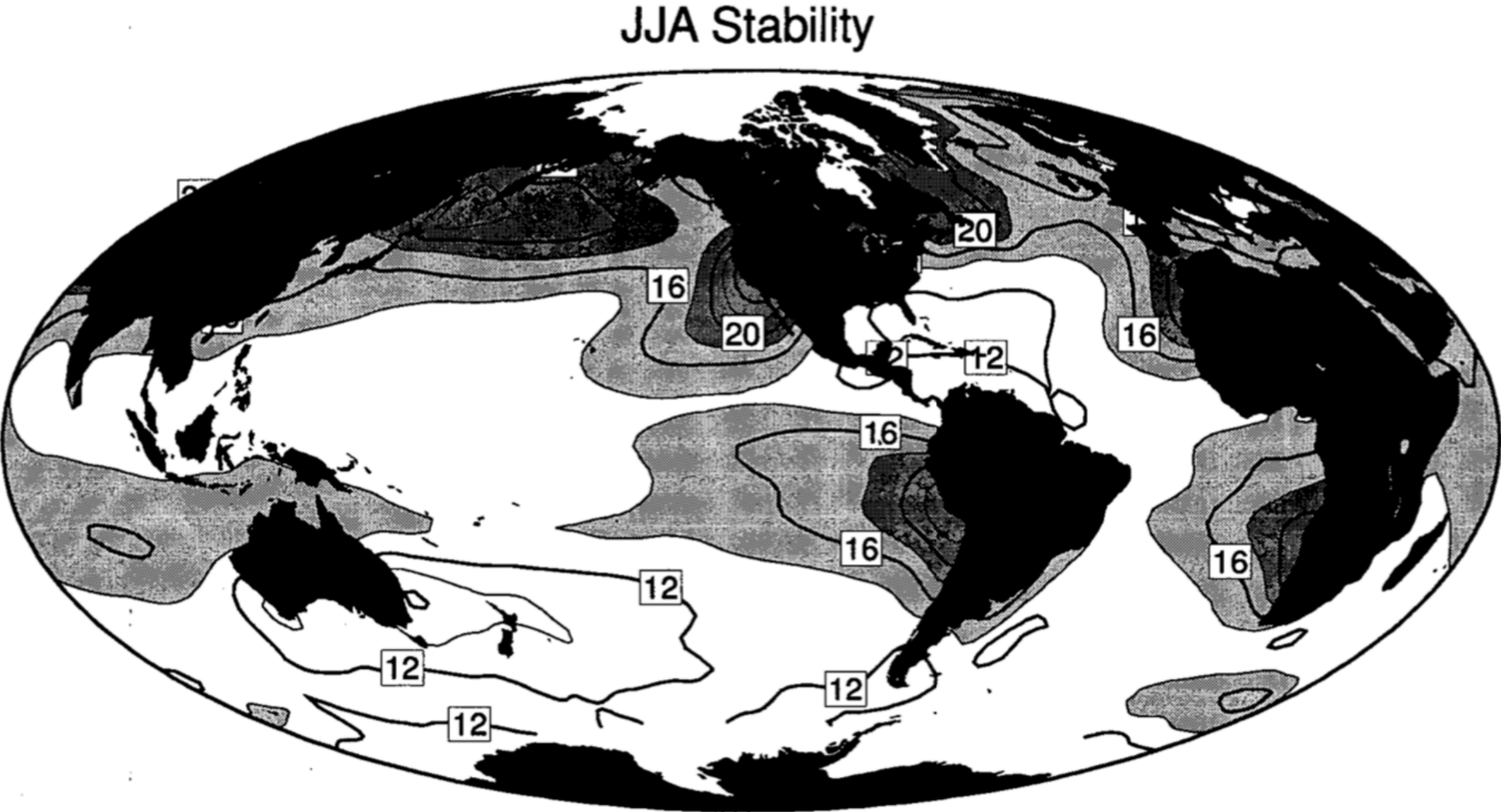


FIG. 14. Climatological values of lower-tropospheric static stability for the June, July, and August season in degrees Celsius. Contour interval is 2°C.

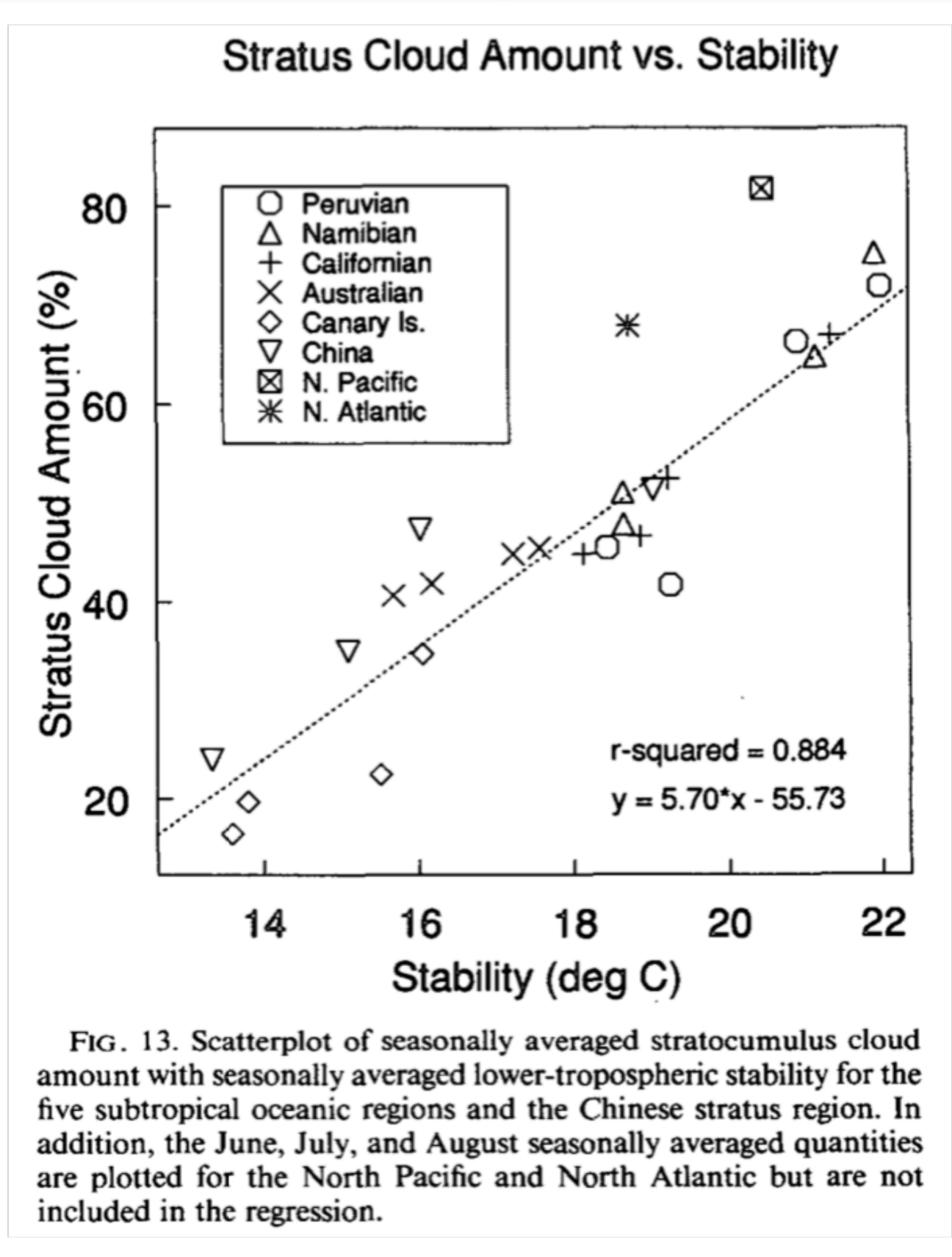


FIG. 13. Scatterplot of seasonally averaged stratocumulus cloud amount with seasonally averaged lower-tropospheric stability for the five subtropical oceanic regions and the Chinese stratus region. In addition, the June, July, and August seasonally averaged quantities are plotted for the North Pacific and North Atlantic but are not included in the regression.

Coupled model biases (Richter 2015)

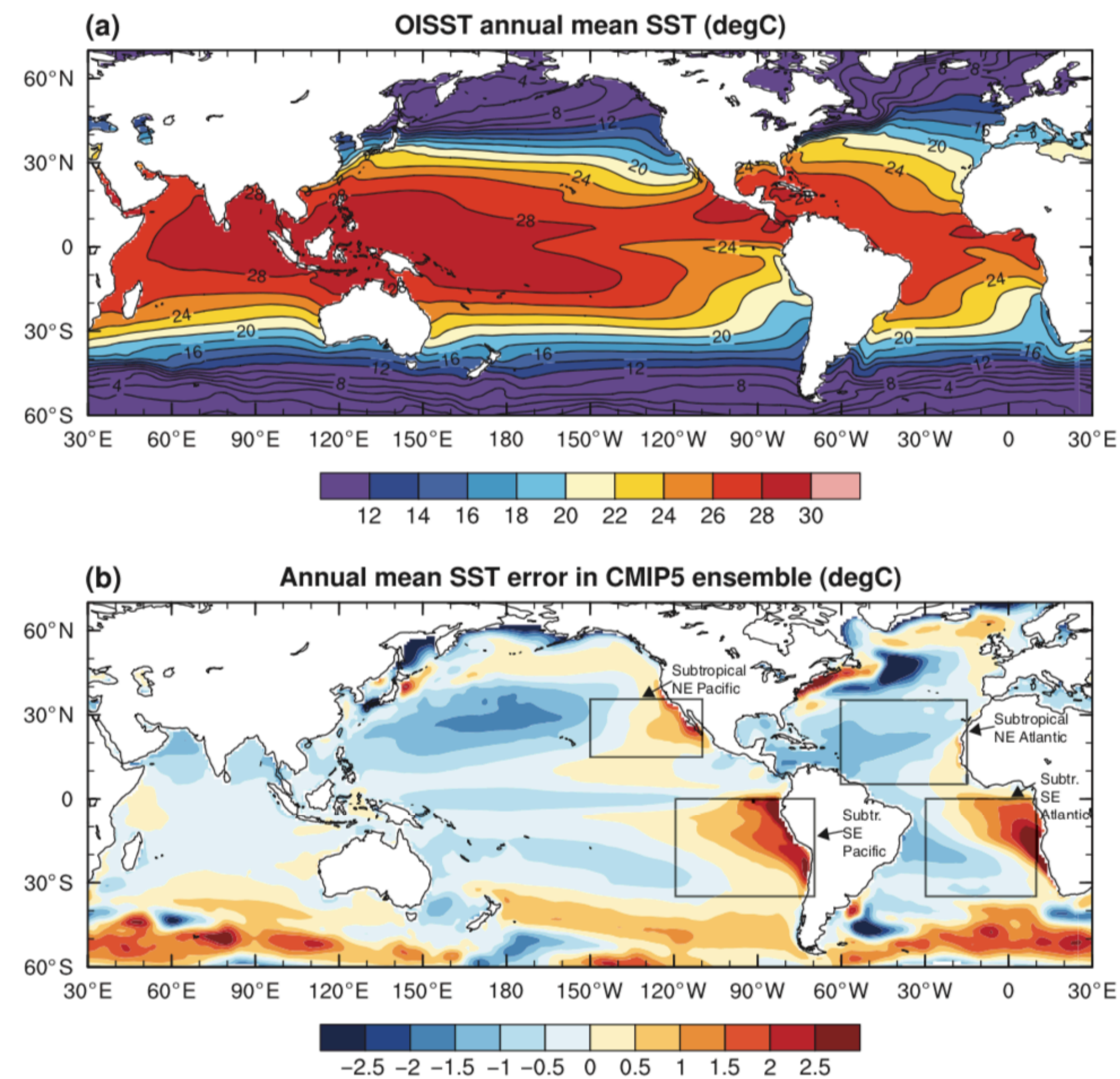


FIGURE 1 | (a) Observed annual mean sea-surface temperature (SST) from the optimally interpolated (OI) SST data set.¹ (b) Annual mean bias of the CMIP5² ensemble relative to OISST. See Table 1 for a list of models. The gray boxes denote the regions discussed in this article and their longitudinal and latitudinal extents correspond to the ranges plotted in Figures 2 and 3, respectively. The text labels refer to the naming used in Figure 2.

Stratocumulus Structure (Stevens 2005)

