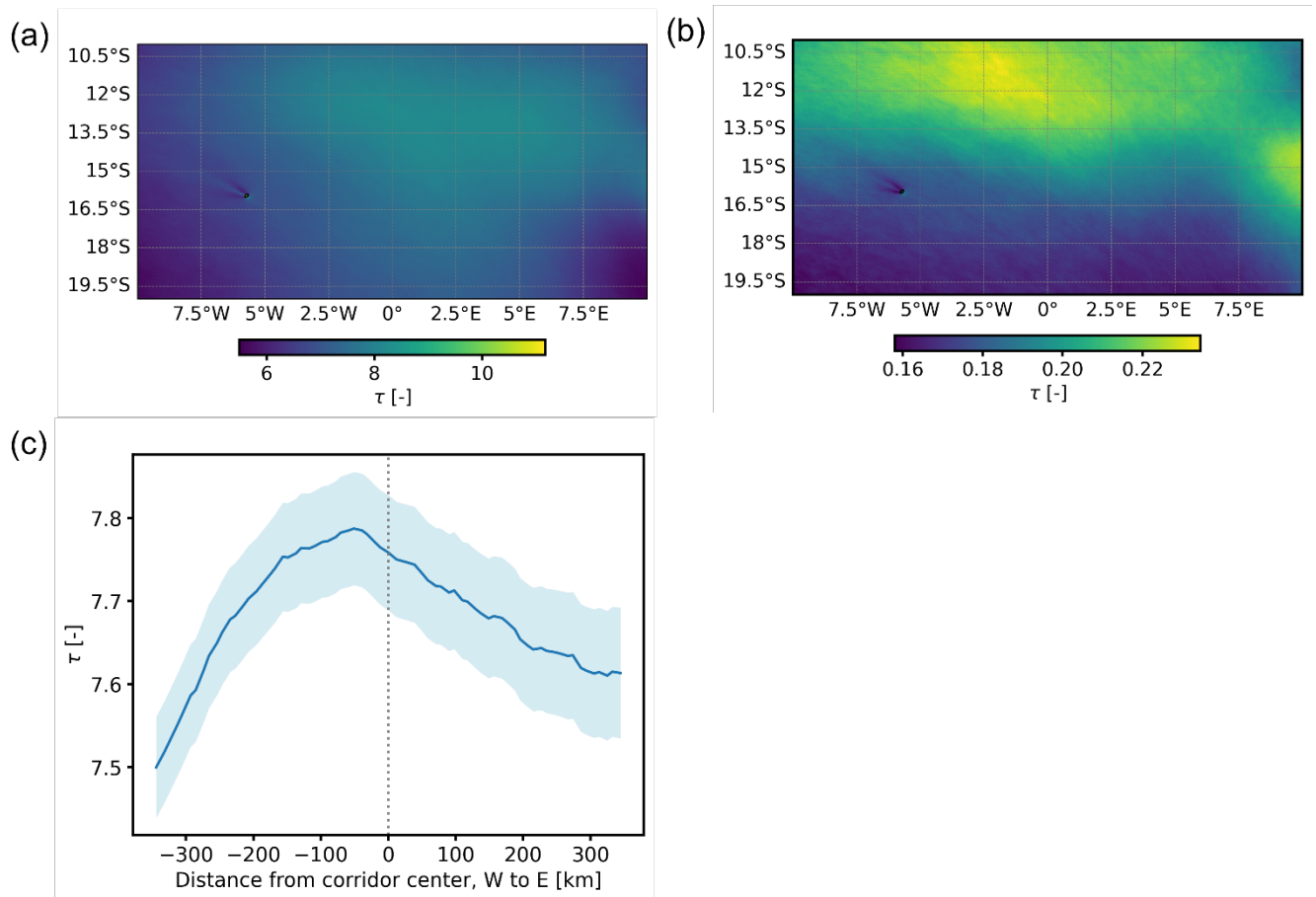
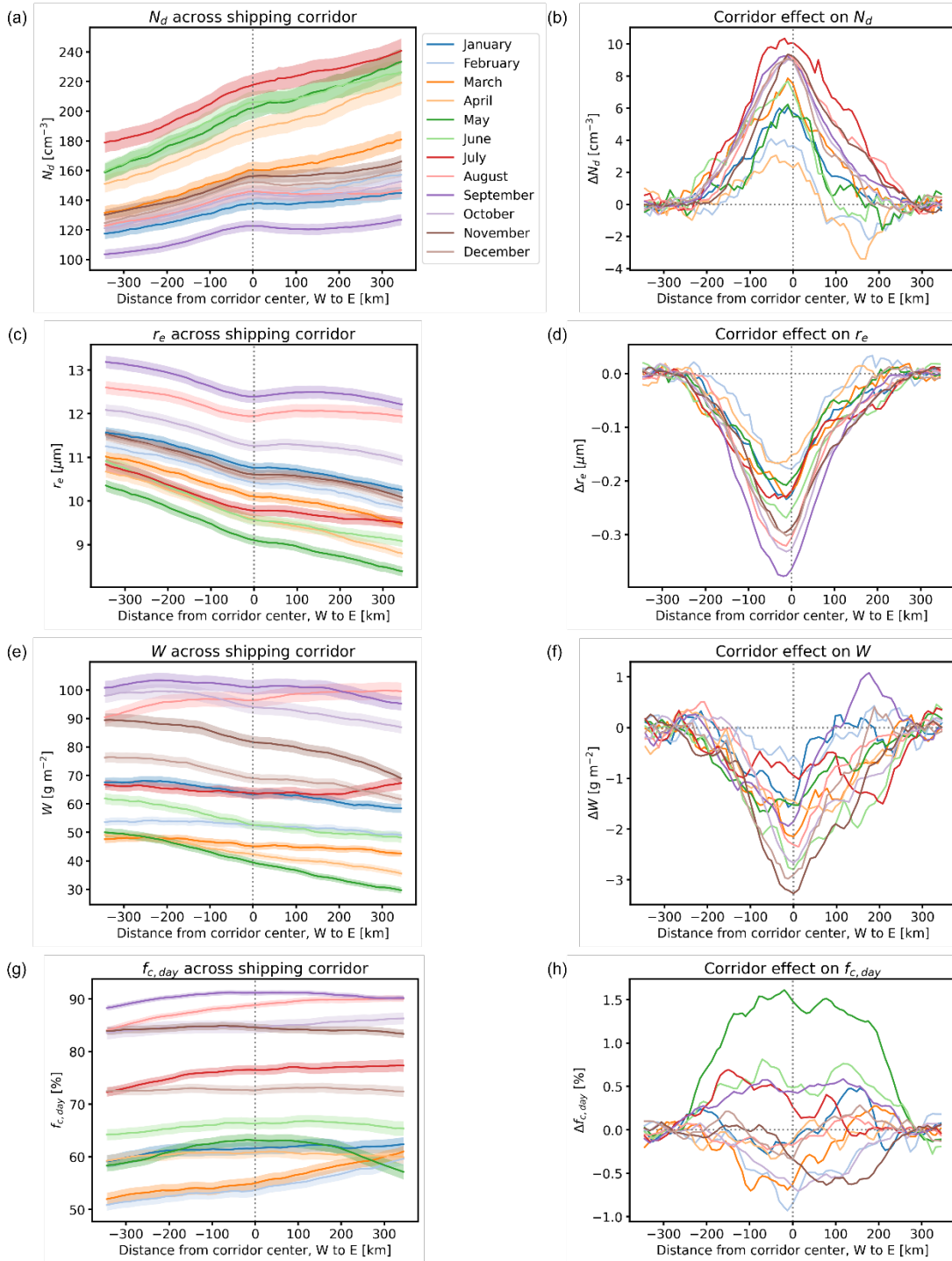


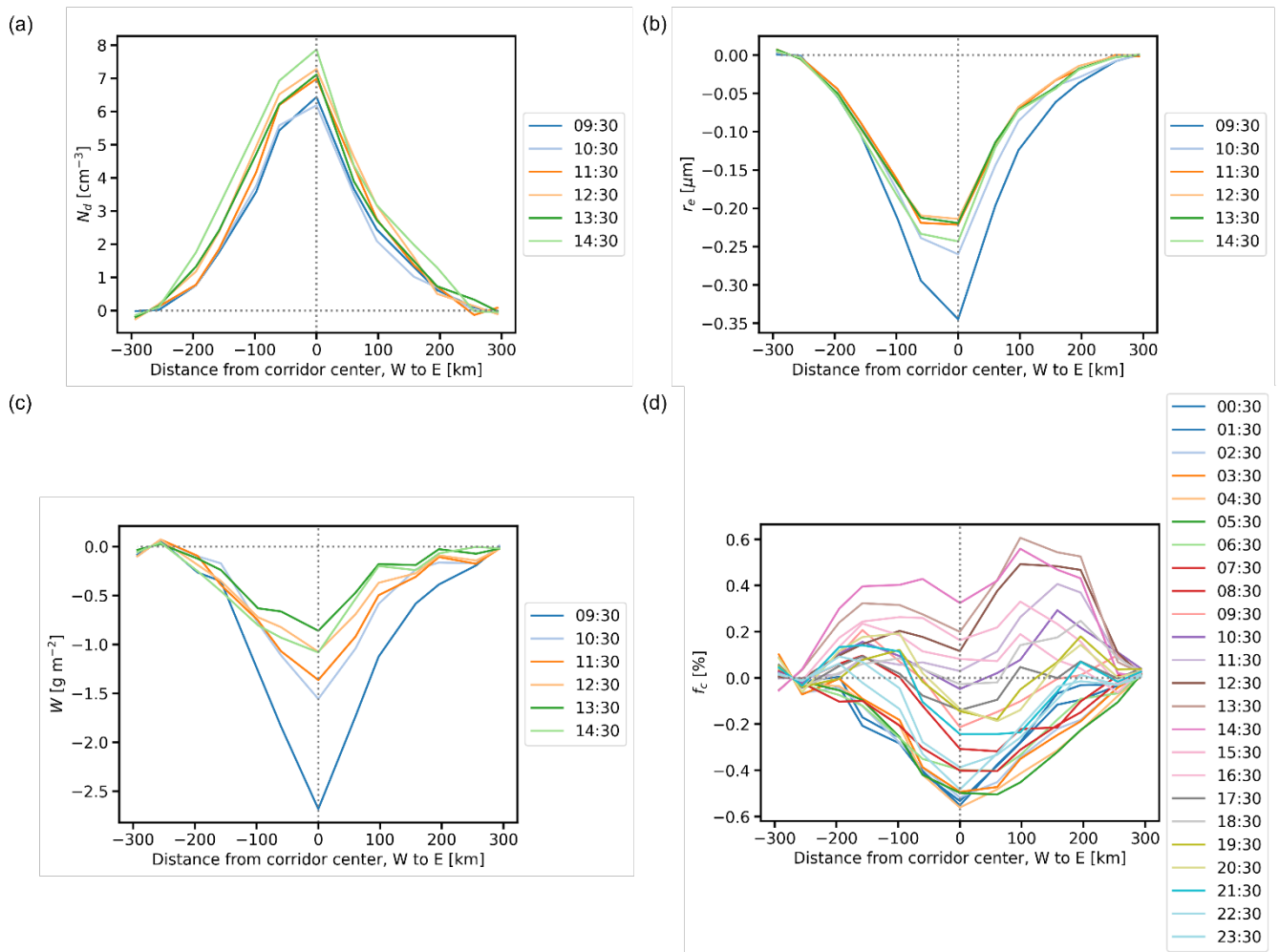
Figure S1: Propagated uncertainties of monthly time series average N_d (a), r_e (b), W (c) and $f_{c, \text{day}}$ (d) over the study region.



5 **Figure S2: (a), (b) Maps of monthly time series averages of liquid cloud optical thickness τ and corresponding propagated uncertainties over the study region. (c) Across-corridor average distribution of τ , with the propagated uncertainties in light blue shade.**



10 **Figure S3: Monthly cross-corridor average distributions of N_d (a), liquid r_e (c), W (e) and $f_{c, \text{day}}$ (g), with the uncertainties shown in shades. Plots (b), (d), (f) and (h) show the corresponding monthly profiles of corridor effects, with uncertainties omitted for clarity.**



15 **Figure S4: Hourly cross-corridor average distributions of corridor effects on N_d (a), liquid r_e (b), W (c) and f_c (d). Vertical dotted lines denote the corridor center.**

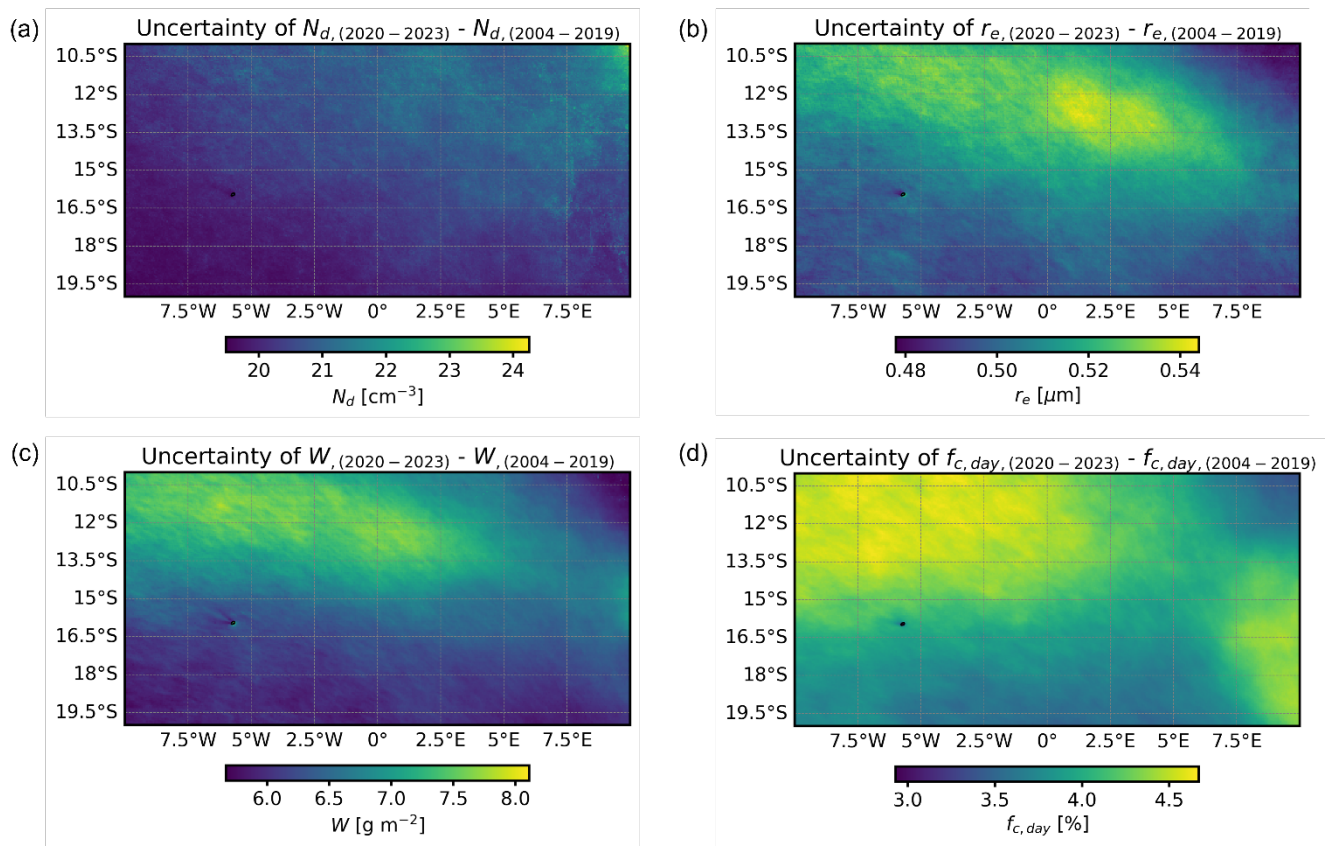


Figure S5: Maps of uncertainties of the differences between the after and before 2020 averages for N_d (a), liquid r_e (b), W (c) and $f_{c,day}$ (d).

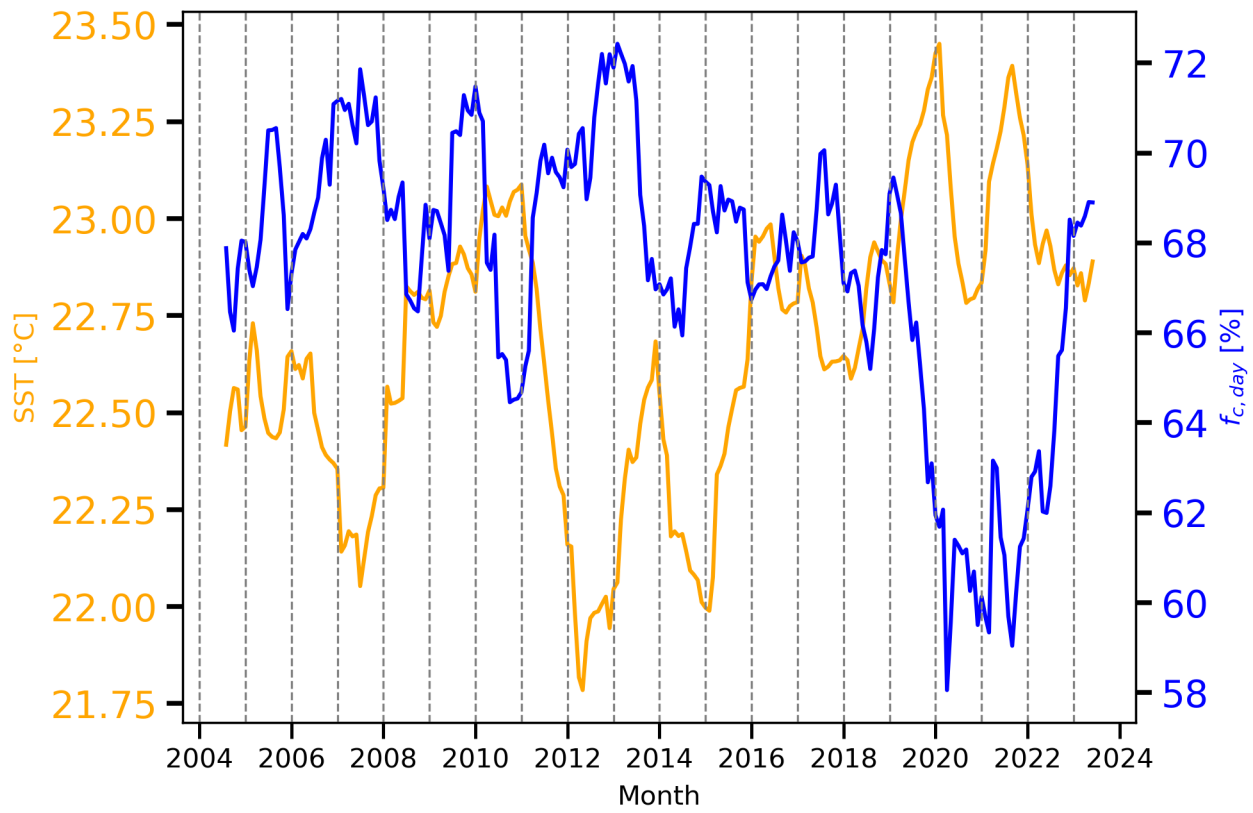


Figure S6: Time series of monthly averaged $f_{c, day}$ and SST during 2003-2024 over the study region, deseasonalized using a 12-month running average. The bands of propagated uncertainties are omitted for clarity.