Supplement of Ocean Sci., 18, 1645–1663, 2022
https://doi.org/10.5194/os-18-1645-2022-supplement

Ocean Science Open Access EGU

Supplement of

Seasonal variation in eddy activity and associated heat/salt transport in the Bay of Bengal based on satellite, Argo, and 3D reprocessed data

Wei Cui et al.

Correspondence to: Jungang Yang (yangjg@fio.org.cn)

Supplementary Material

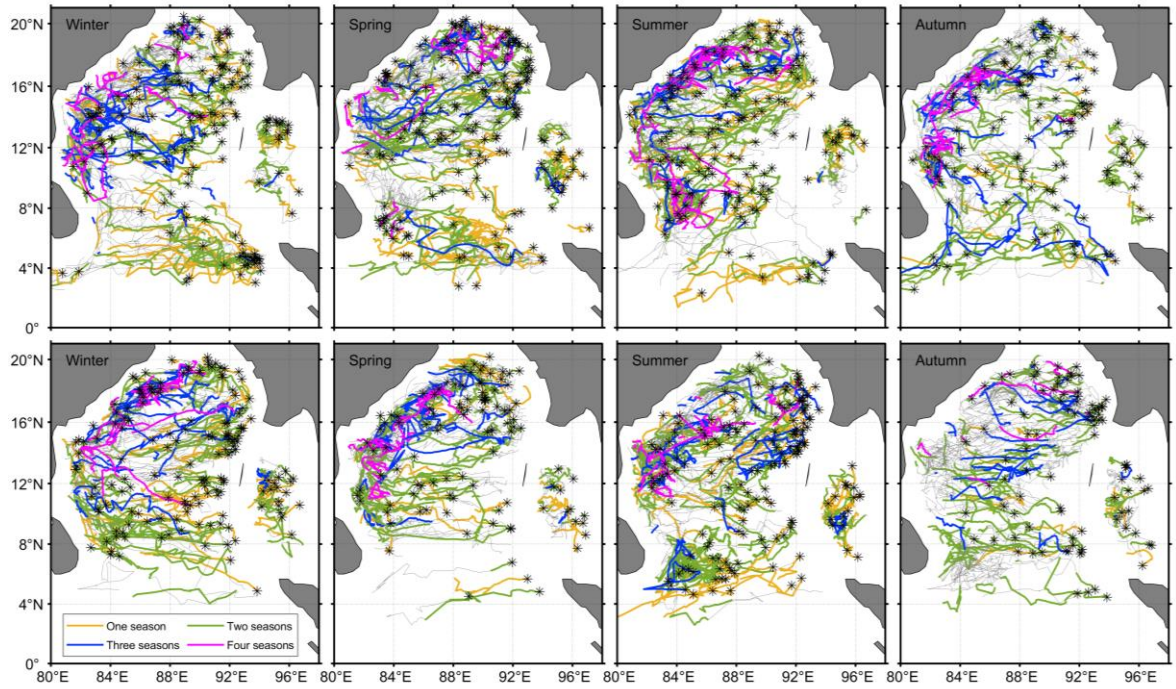

Figure S1: The trajectories of the cyclonic (upper panels) and anticyclonic (lower panels) eddies with lifetimes ≥ 30 days in different seasons based on daily SLA fields spanned a 26-year period from January 1993 through February 2019. The locations where eddy trajectories appear are indicated by asterisks. The part of an eddy trajectory in the season is marked with a color line, and the part out of the season is marked with a thin gray line. The existence of eddy trajectories in different seasons is indicated by different colors. For example, an eddy trajectory is marked in green, indicating that the trajectory exists within two seasons.

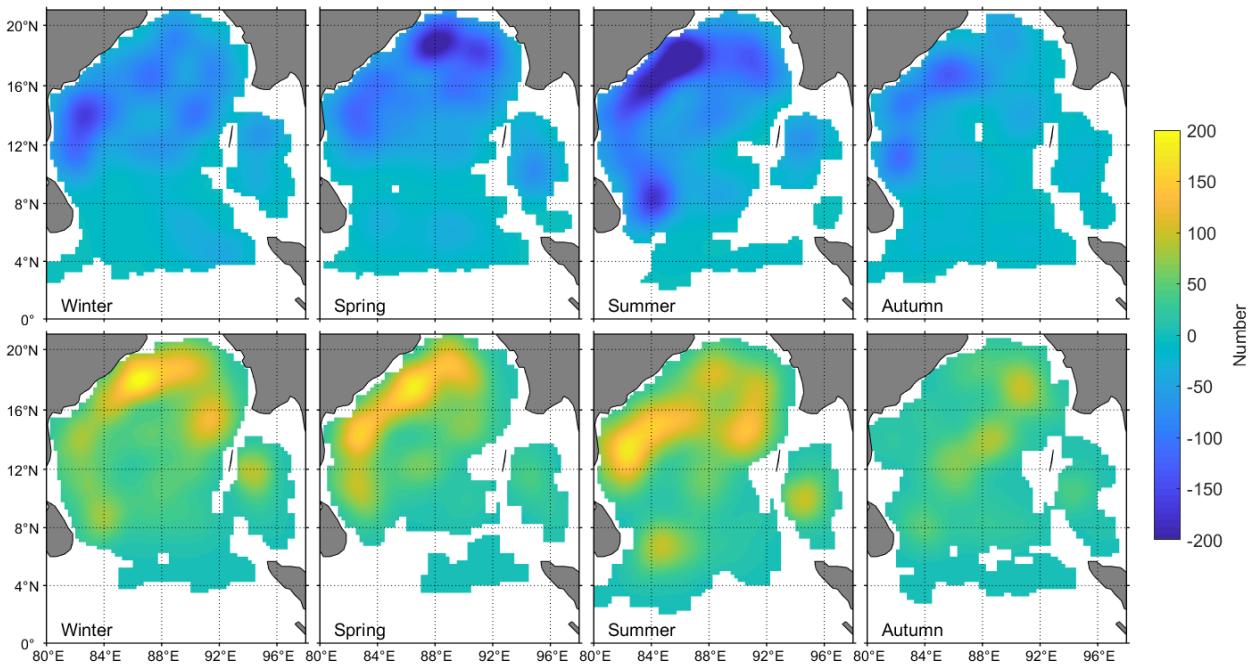

Figure S2: Seasonal geographic distributions for the numbers of eddy interiors that passed through each 1°×1° region for cyclonic (upper panels) and anticyclonic (lower panels) eddies with lifetimes ≥ 30 days based on daily SLA fields spanned a 26-year period from January 1993 through February 2019. Negative values represent the number of cyclonic eddies, and positive values represent the number of anticyclonic eddies.

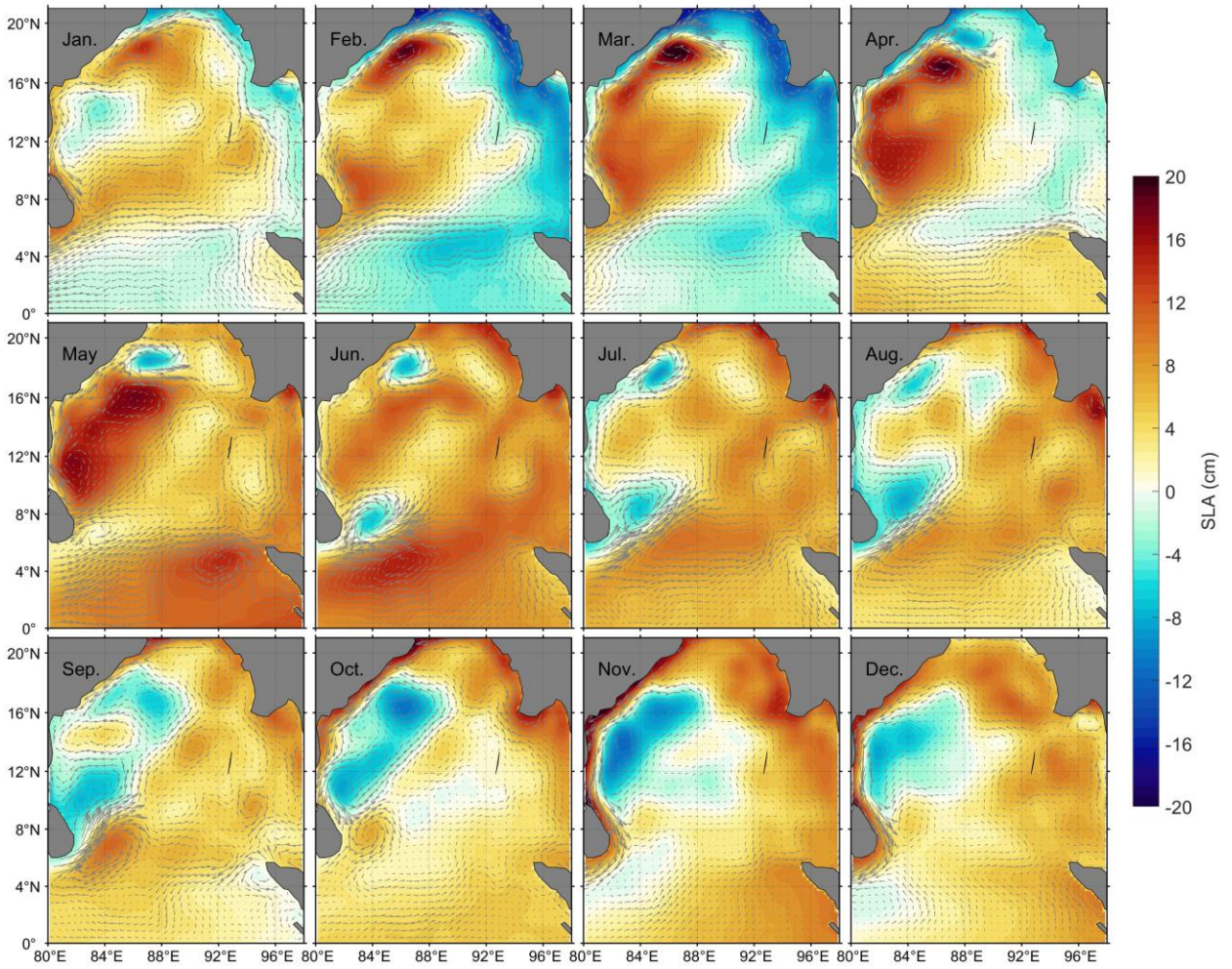

Figure S3: The 26-year monthly averaged sea level anomaly (SLA, color shading) and geostrophic current anomaly (arrows) fields in the Bay of Bengal.

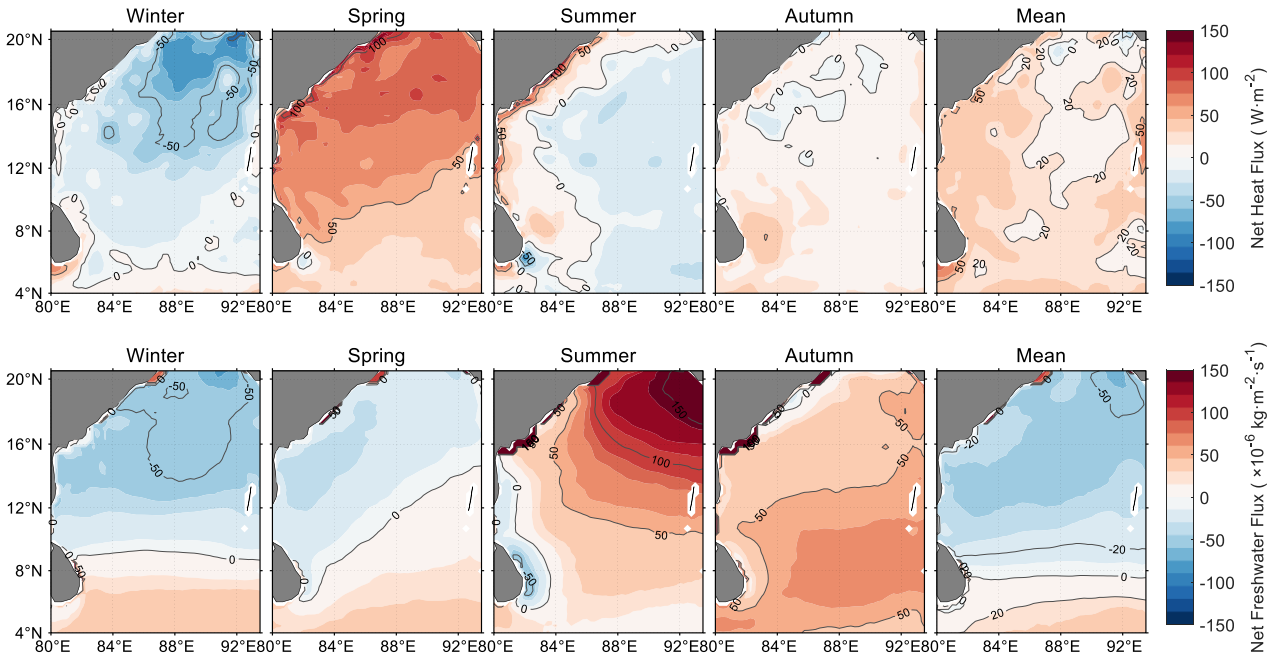

Figure S4: The Air-Sea net heat flux (upper panels) and net freshwater flux (bottom panels) at surface in different seasons in the Bay of Bengal. The flux is positive (negative) if it points downwards (upwards) into (from) the ocean. The data were derived from the long-term monthly means of the ORAS5 global ocean reanalysis monthly data provided by the European Centre for Medium-Range Weather Forecasts (ECMWF), which has a spatial resolution of 0.25° (available on http://cds.climate.copernicus.eu/).