

Supporting Information for “Oceanic mesoscale cyclones cluster surface Lagrangian material”

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Contents of this file

1. Figure S1 shows the number of drifters per bin in the North Atlantic Ocean at their release and after 150, 300 and 450 days of drifting.

2. Figure S2 shows a snapshot of synthetic particles’ positions, vorticity computed from the model outputs and eddy contours as detected by py-eddy-tracker.

Additional Supporting Information (Files uploaded separately)

1. Movie S1 (map_drifters_eddies_NASTG_2000.mp4) shows SVP drifters (green trajectories) and mesoscale eddies (blue and red disks for cyclones and anticyclones, respectively) for year 2000 in the North Atlantic Ocean. NB: disk sizes are not to scale.

2. Movie S2 (movie_cyclonic_trap.mov) shows an example of how particles cluster in a cyclonic front before the latter rolls up into an eddy that ends up trapping those particles. Particles belonging to the eddy are coloured in pink.

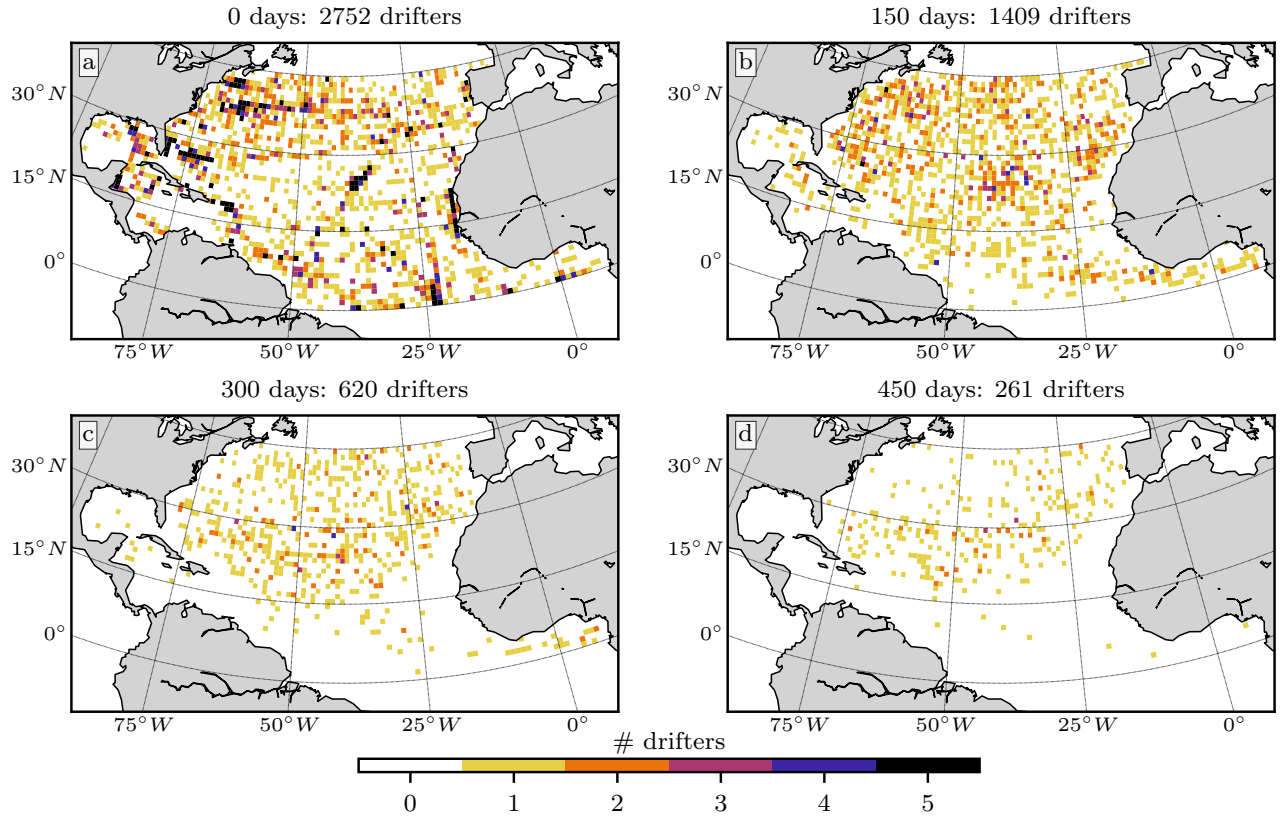


Figure S1. Number of drogued drifters per $1^\circ \times 1^\circ$ bin (a) at release and after (b) 150, (c) 300 and (d) 450 days. Total number of drifters in the area is shown above each panel.

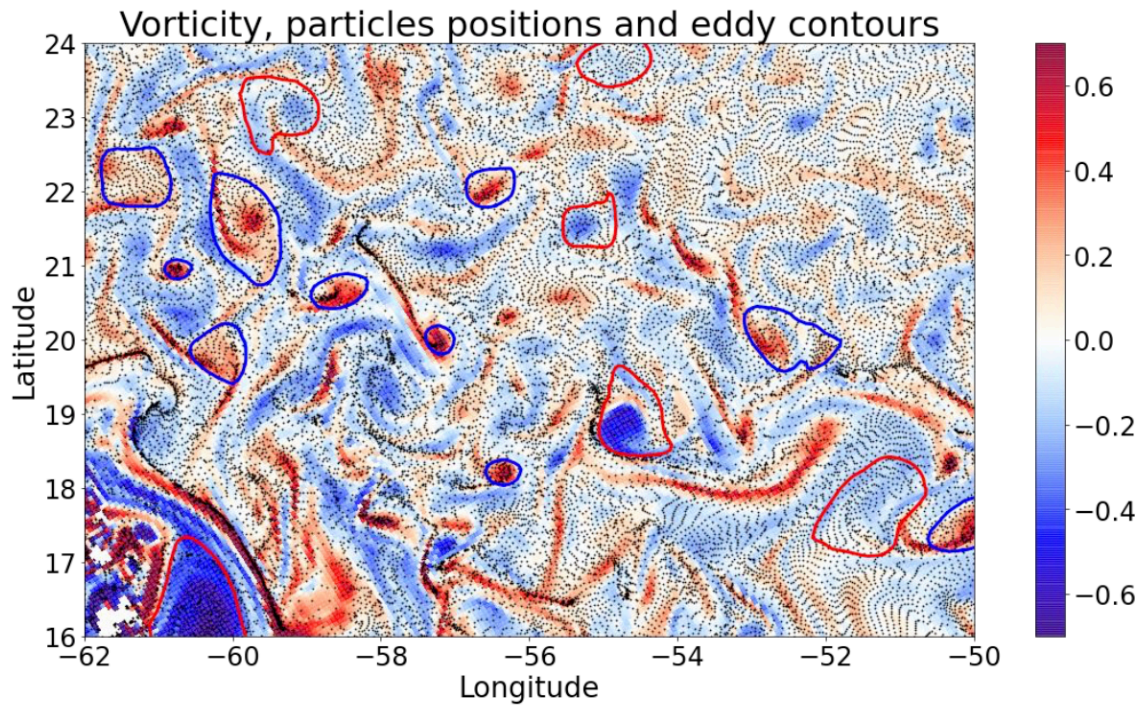


Figure S2. Snapshot of particles' position (black dots) superimposed on vorticity non-dimensionalised by the local Coriolis frequency (blue-to-red shading) and eddy contours detected by py-eddy-tracker (blue for cyclones and red for anticyclones).