Geophysical Research Letters

Supporting Information for

A surface "super-convergence" pathway connecting the South Indian Ocean to the subtropical South Pacific gyre

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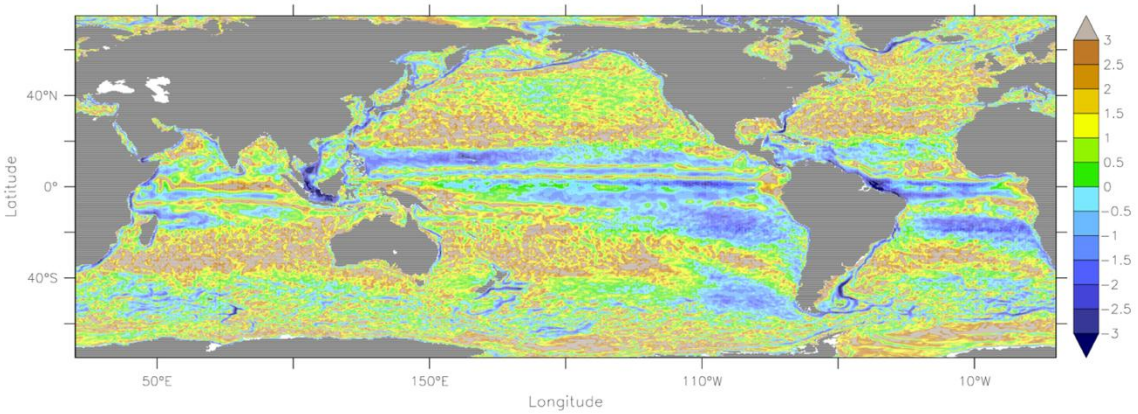

Figure S1. Ratio (in log) of the EKE/MKE where EKE is the Eddy Kinetic Energy and MKE the Mean Kinetic Energy of the C-GLORSv5 surface currents over the 1985-2013 period.

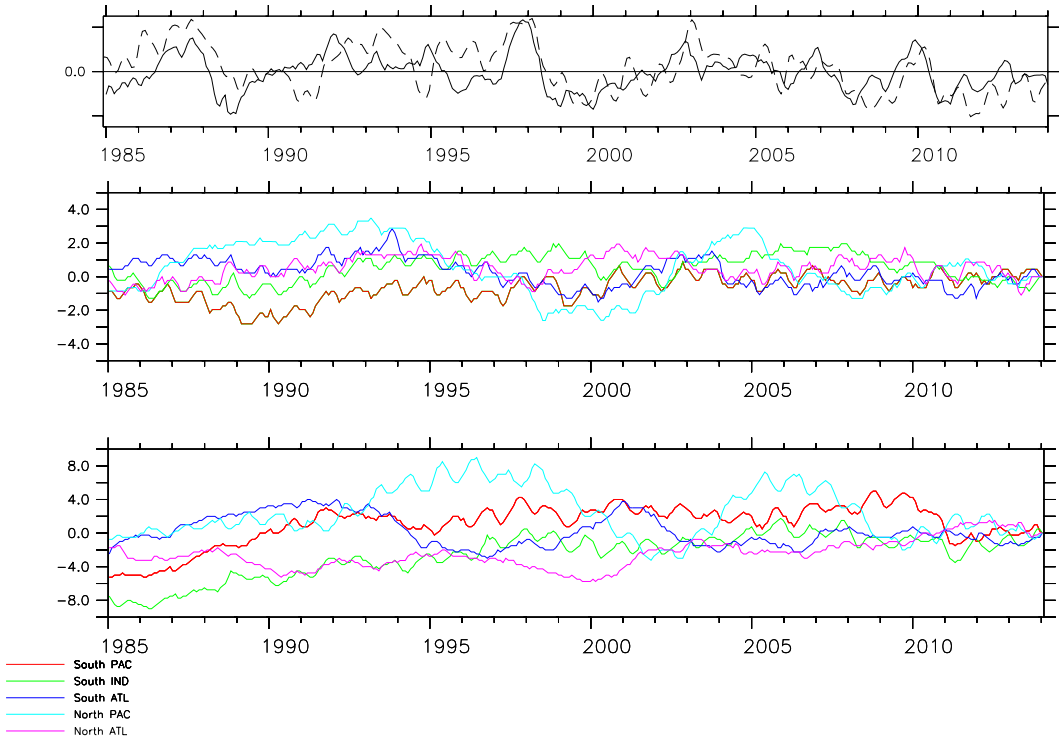

Figure S2. Timeseries of Nino3.4 SST and PDO (dashed) indices (top), and of the latitude (middle) and longitude (bottom) of the mass centers of the five subtropical convergence areas. Each series is displayed as relative to the final time step.

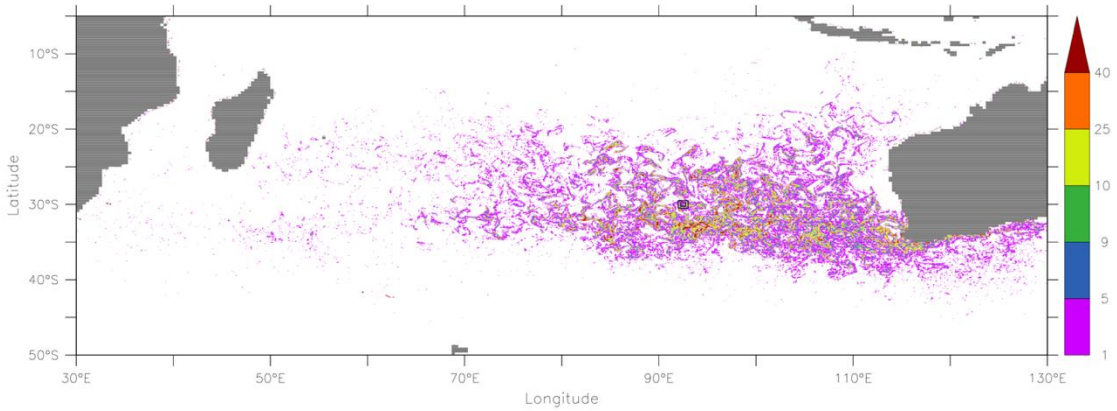

Figure S3. Number of particles per ¼° cell resulting from the initially homogeneous experiment in the South Indian Ocean using the surface currents of the Hycom model (1/12°). Black thick boxes indicate the position of the center of mass, near 30S-92E, at the end of the experiment, i.e., after a 10-yr period.

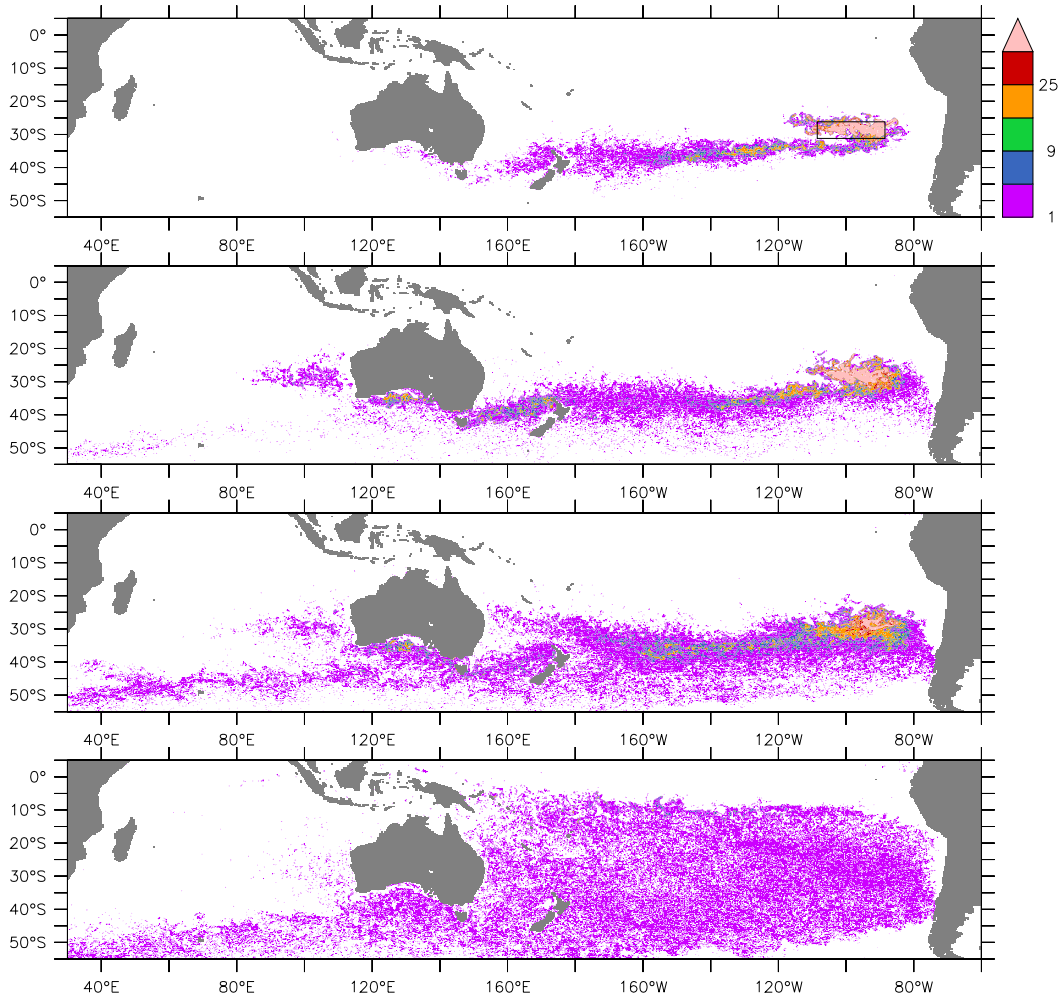

Figure S4. Number of particles per ¼° cell in Jan. 2004, Jan. 1995, Jan. 1990 and Jul. 1985, from top to bottom, that transit toward the core of the subtropical Pacific Ocean gyre for December 2013. Note that the increments in color bar are not uniforms.

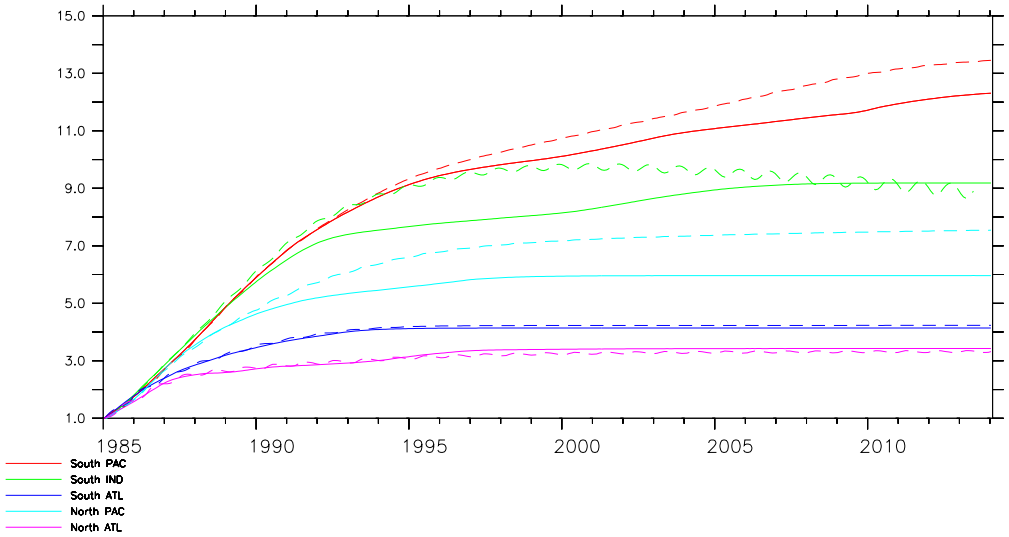

Figure S5. Timeseries of the number of particles per ¼° cell averaged over the five subtropical convergence areas (large black boxes in Fig. 1d) under the mean currents (thick lines) and the mean seasonal currents (dashed lines) of the 1985-2013 period. At the initial time step concentration is constant and equal to unity.