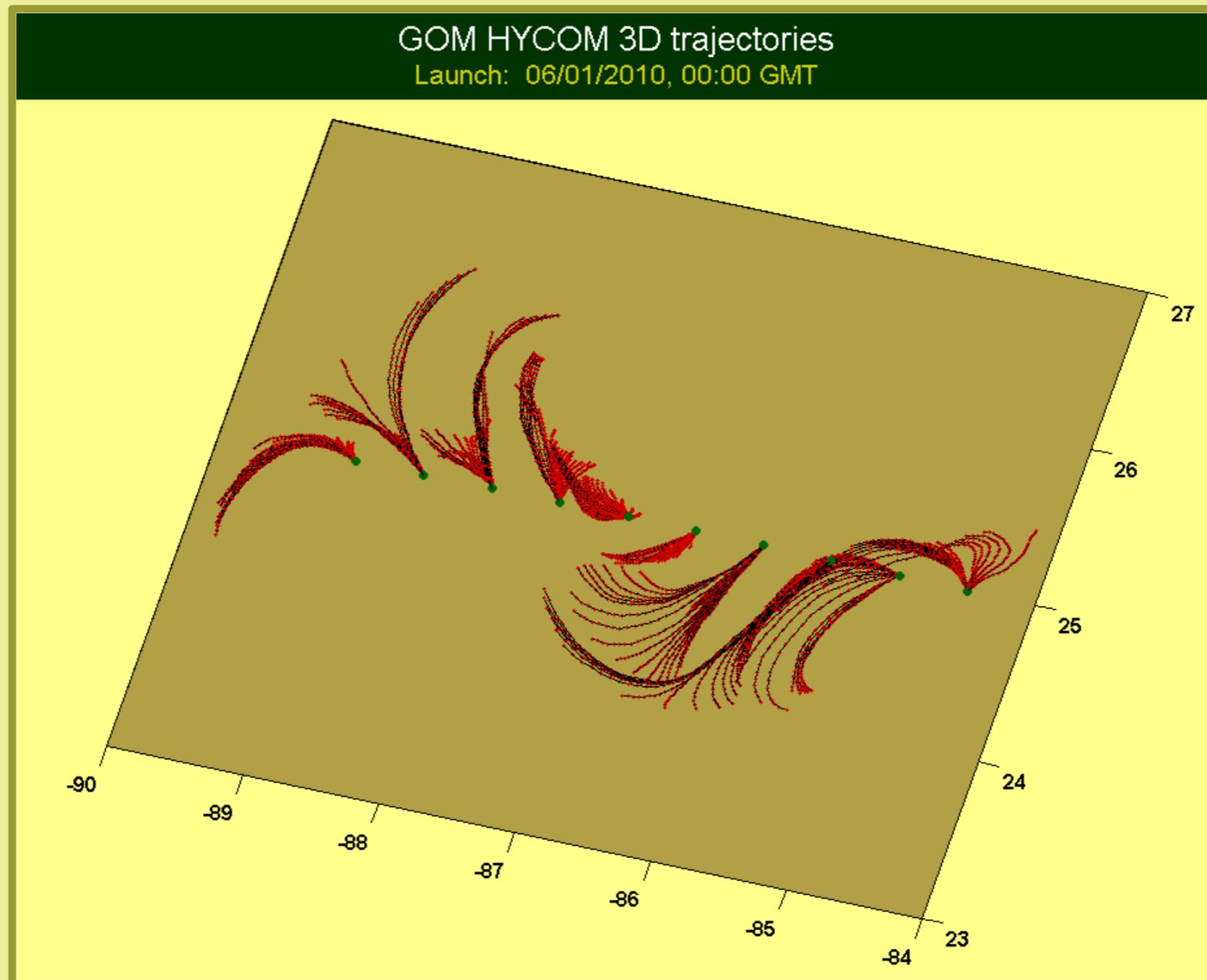


3D Views of GOM HYCOM



B. L. Lipphardt, Jr.

H. S. Huntley

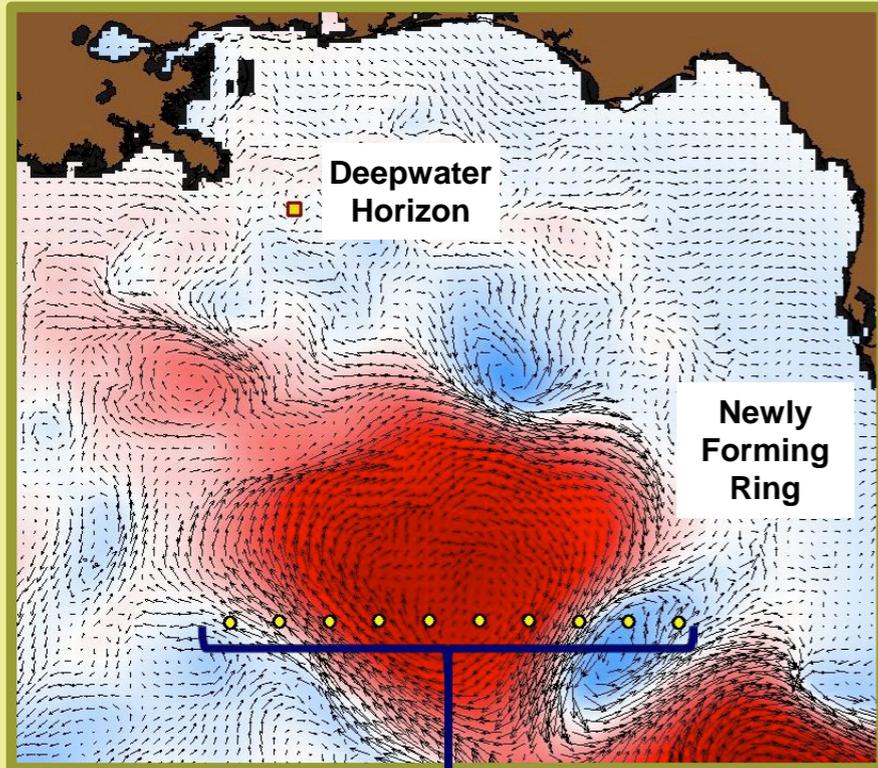
M. Sulman

A. D. Kirwan, Jr.

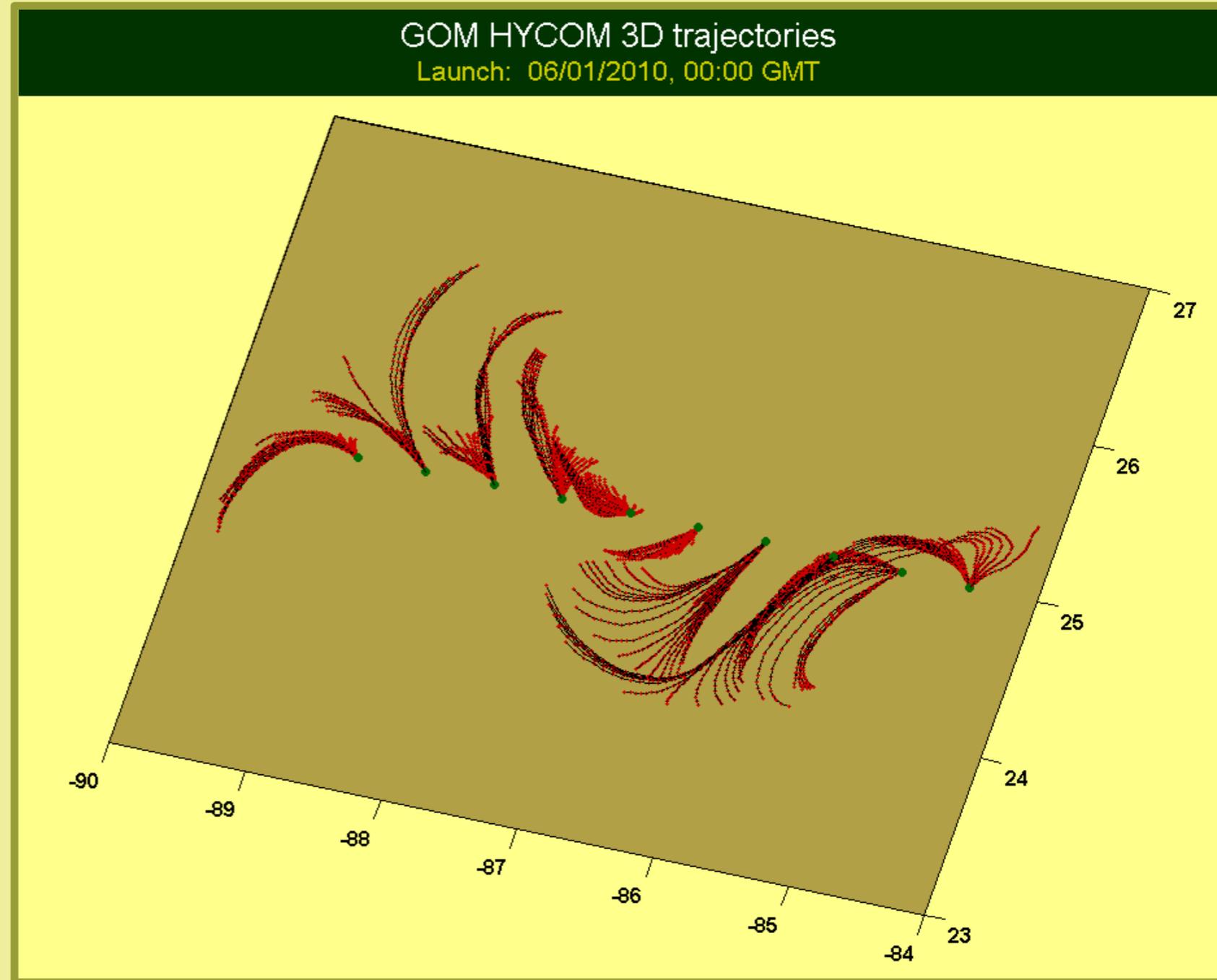
School of Marine Science and Policy



3D Trajectories in a Loop Current Ring

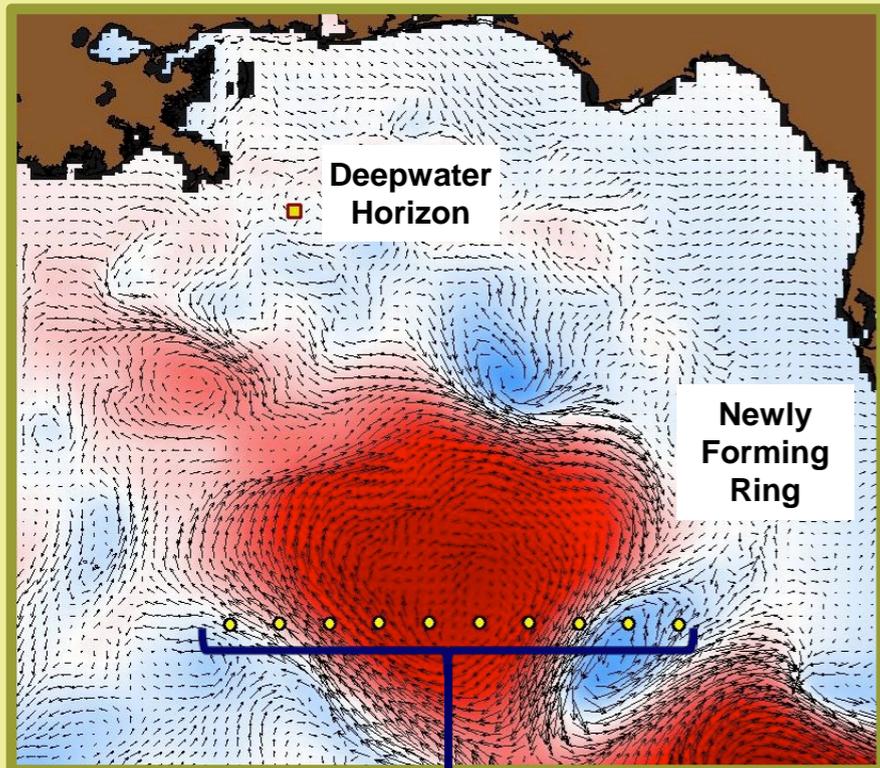


Particles launched along this line

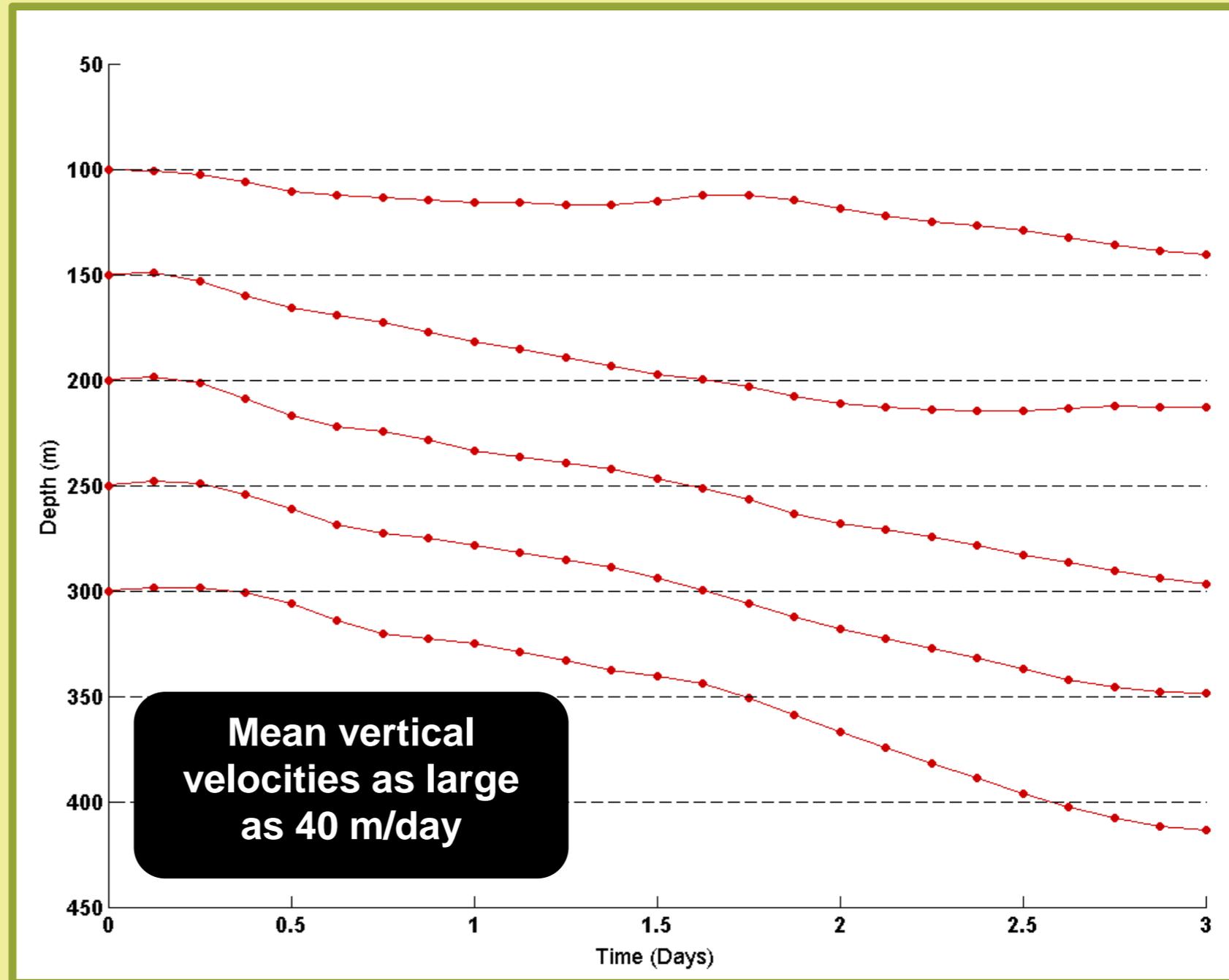


Three day trajectories computed from daily archived (u,v,w) from the GOM HYCOM model

3D Trajectories in a Loop Current Ring

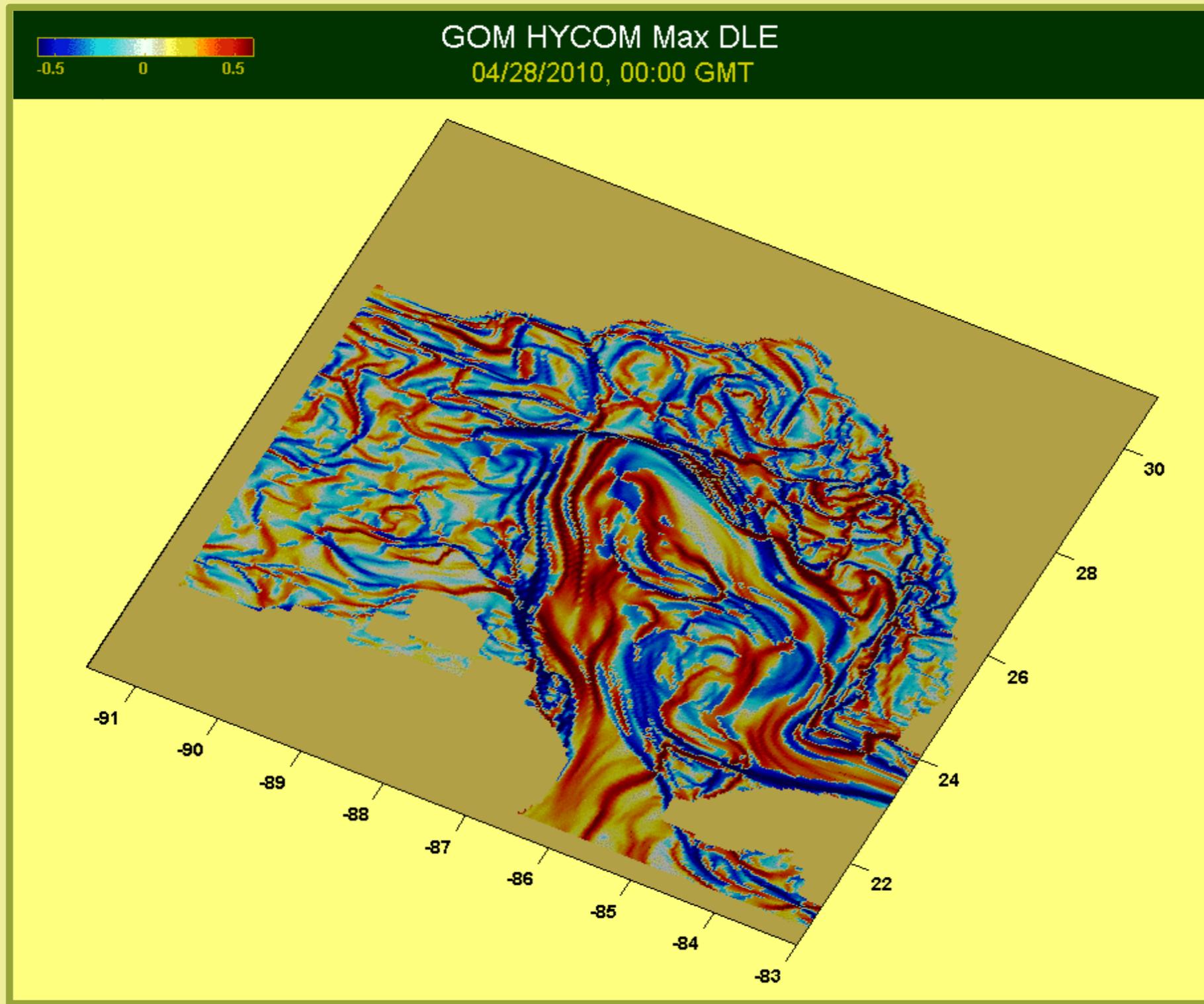


Particles launched along this line



Three day trajectories computed from daily archived (u,v,w) from the GOM HYCOM model

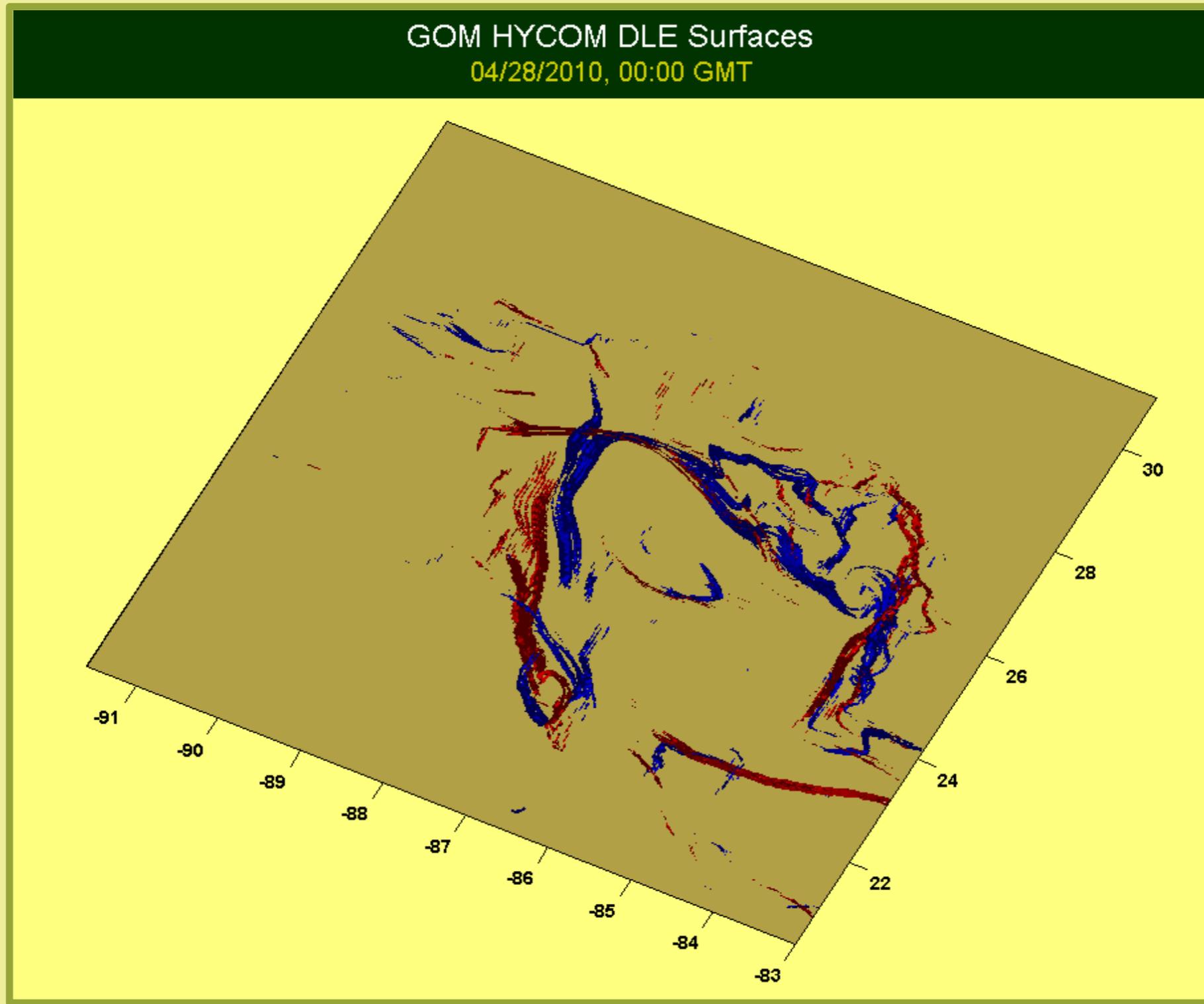
3D DLEs in the Gulf of Mexico



2D DLEs computed at each model depth.

Sections show 2D DLEs “stitched together” in the vertical.

3D DLEs in the Gulf of Mexico

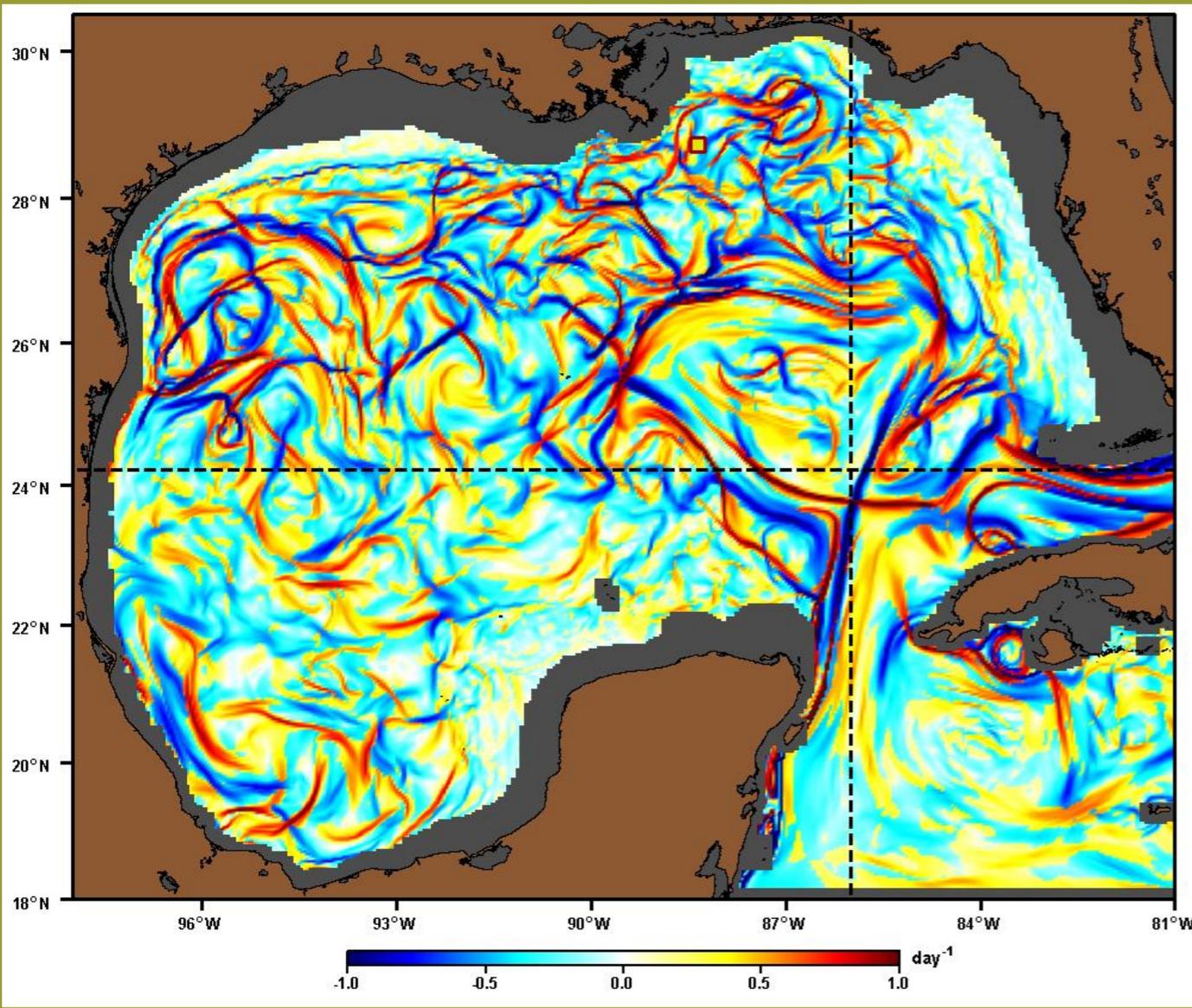


2D DLEs computed at each model depth.

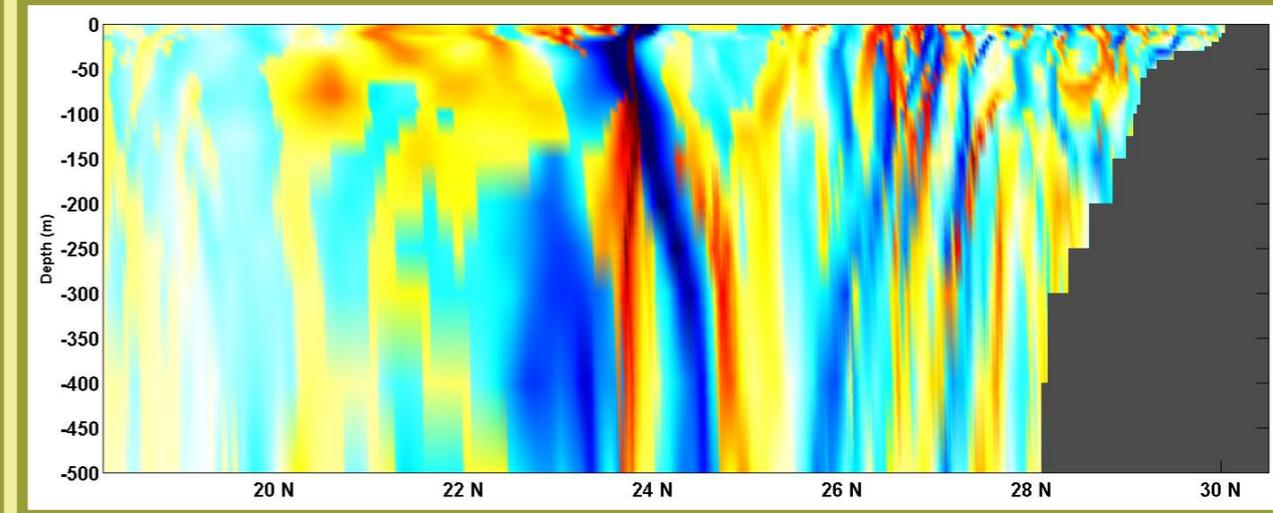
Sections show 2D DLEs “stitched together” in the vertical.

3D DLEs in the Gulf of Mexico

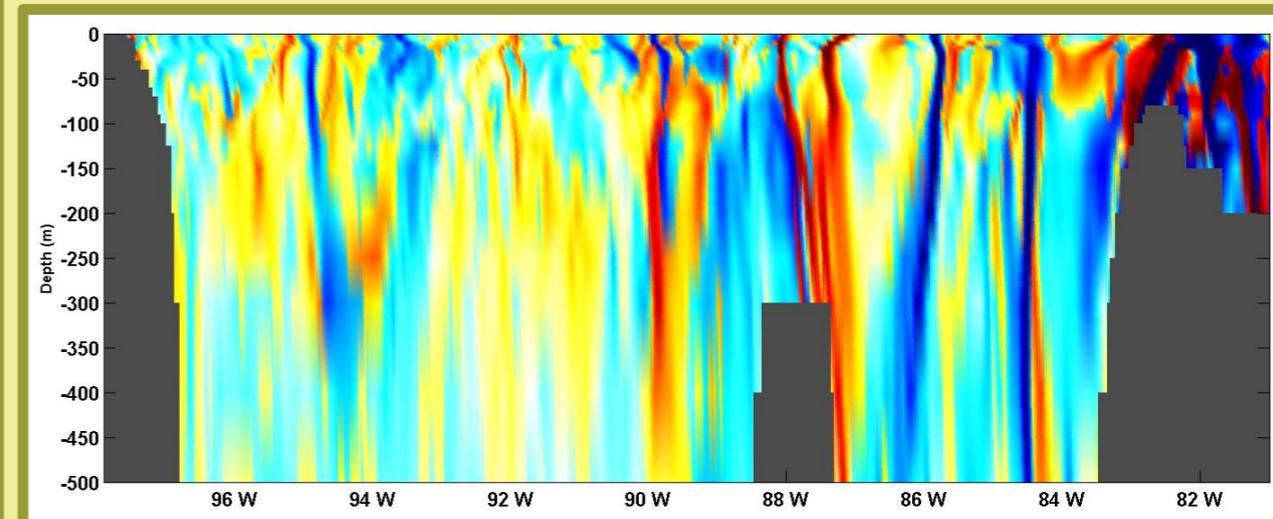
GOM HYCOM at 20m



South-North Section



West-East Section



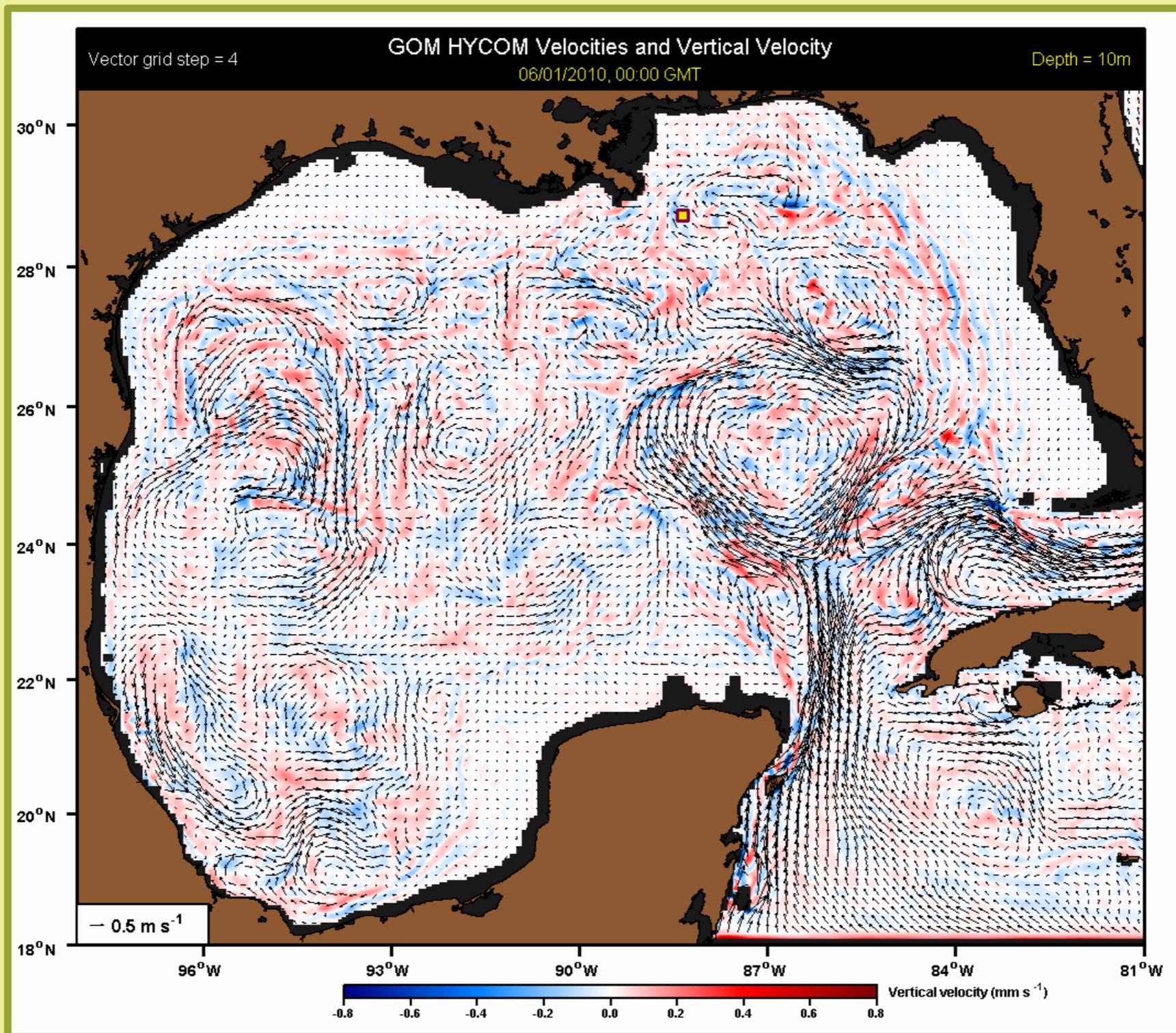
2D DLEs computed at each model depth.

Sections show 2D DLEs “stitched together” in the vertical.

2D vs. 3D DLEs

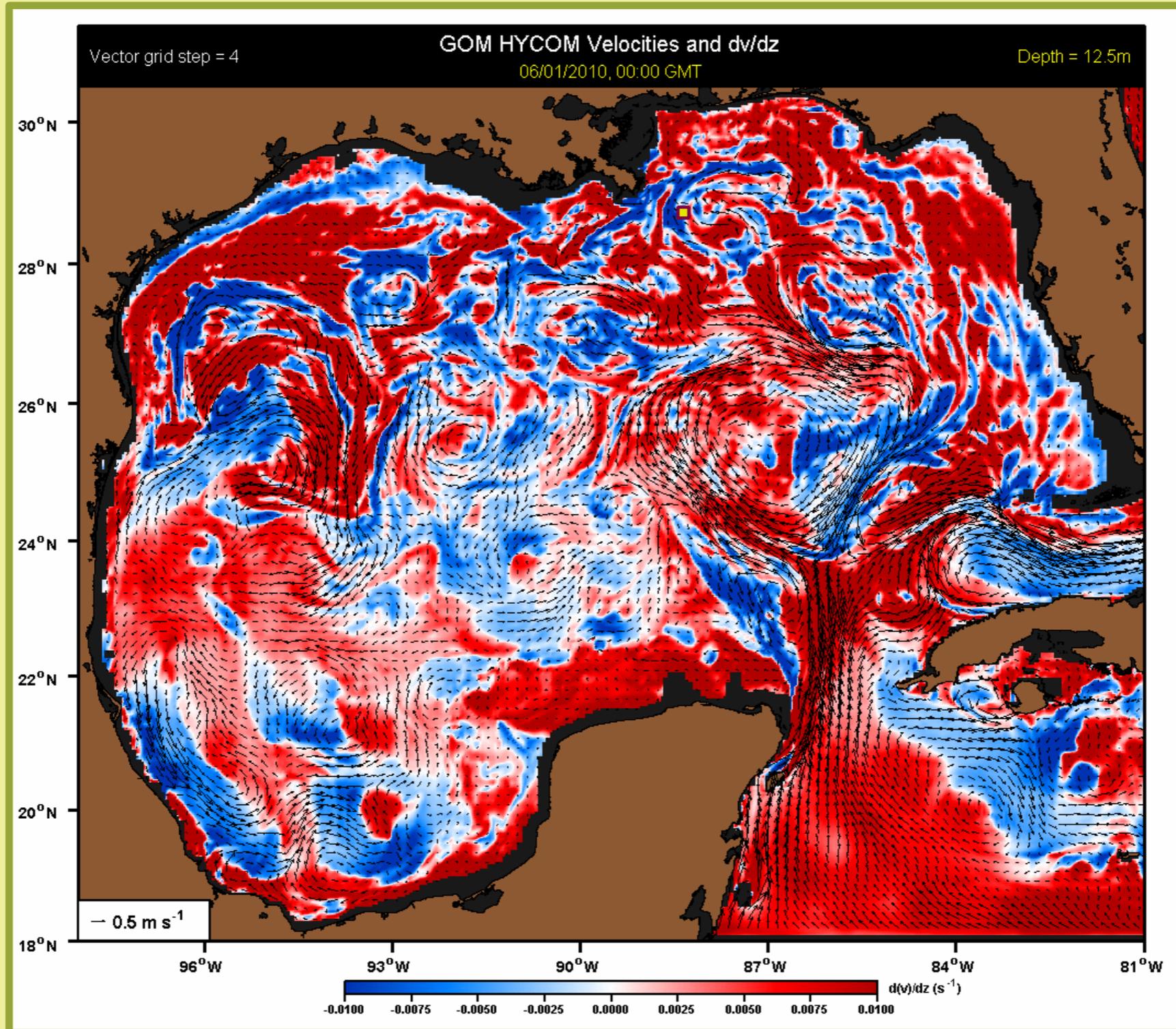
	2D DLEs	3D DLEs
2D trajectories	No w No v_H gradients	No w v_H gradients
3D trajectories	w No v_H gradients	w v_H gradients

GOM HYCOM Vertical Velocities



Maps of vertical velocity moving downward layer by layer through the water column.

GOM HYCOM $d(v_H)/dz$



Maps of vertical gradient of horizontal current speed moving downward layer by layer through the water column.

