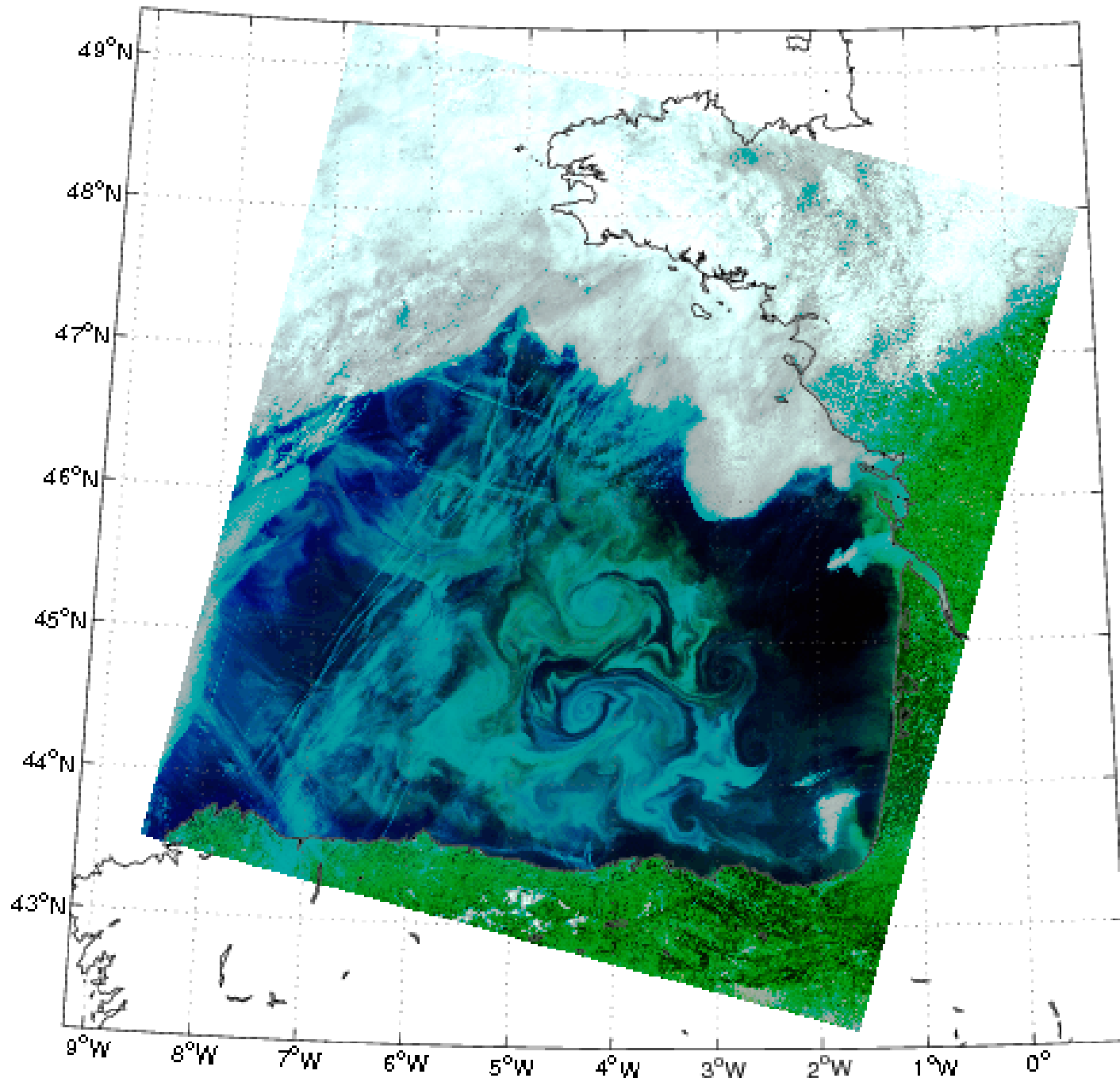
A satellite image of the Bay of Biscay, showing the coastline of France and the Atlantic Ocean. The image displays several large, swirling cyclonic eddies in the water, characterized by their distinct spiral patterns. The colors range from dark blue to light green, indicating different water masses and depths. The text is overlaid on the left side of the image.

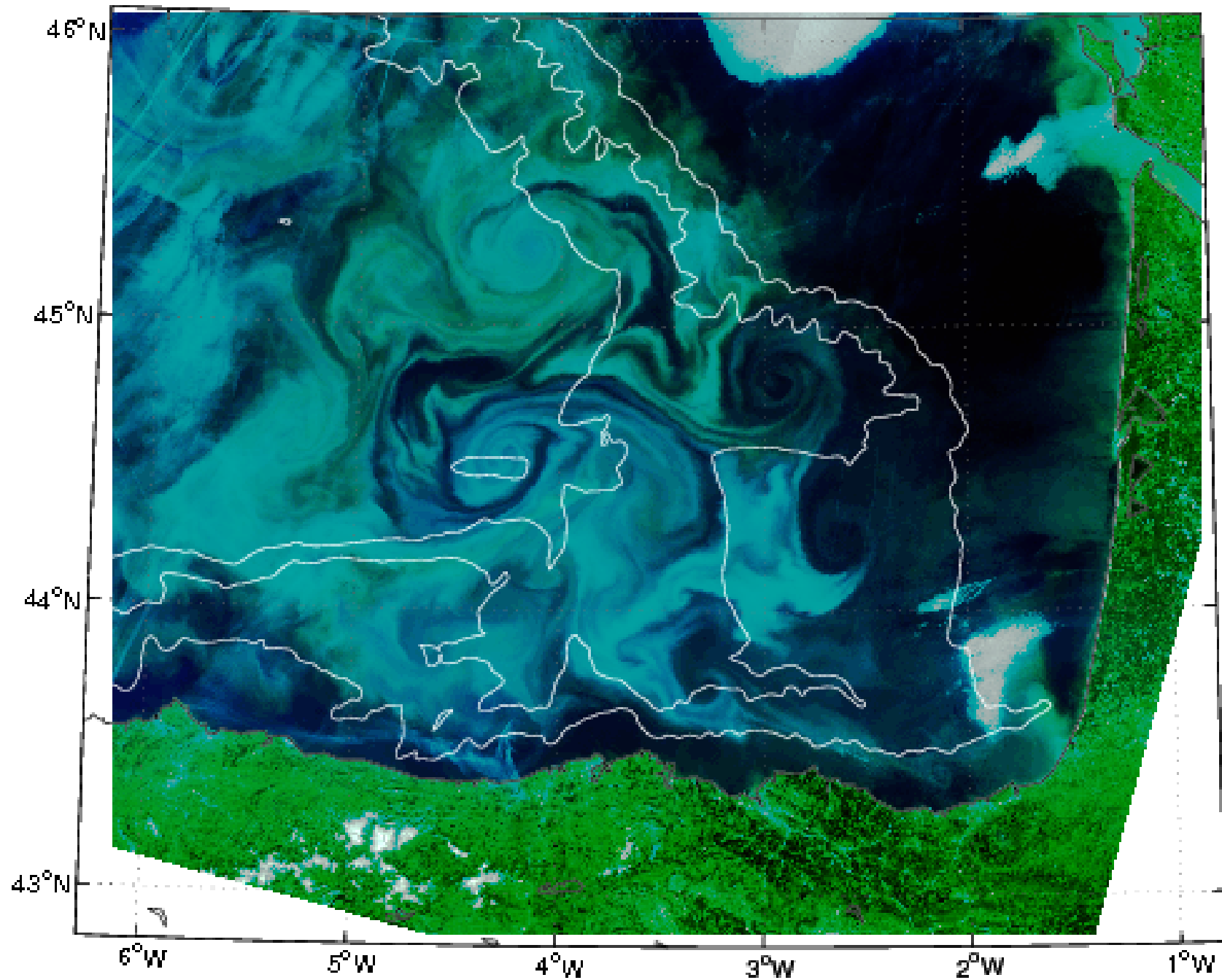
**(Three) cyclonic eddies  
in the Bay of Biscay  
in 2005-2006**

**B. Le Cann (CNRS/Brest)  
A. Serpette (SHOM/Brest)  
P. Miller (PML/Plymouth)**

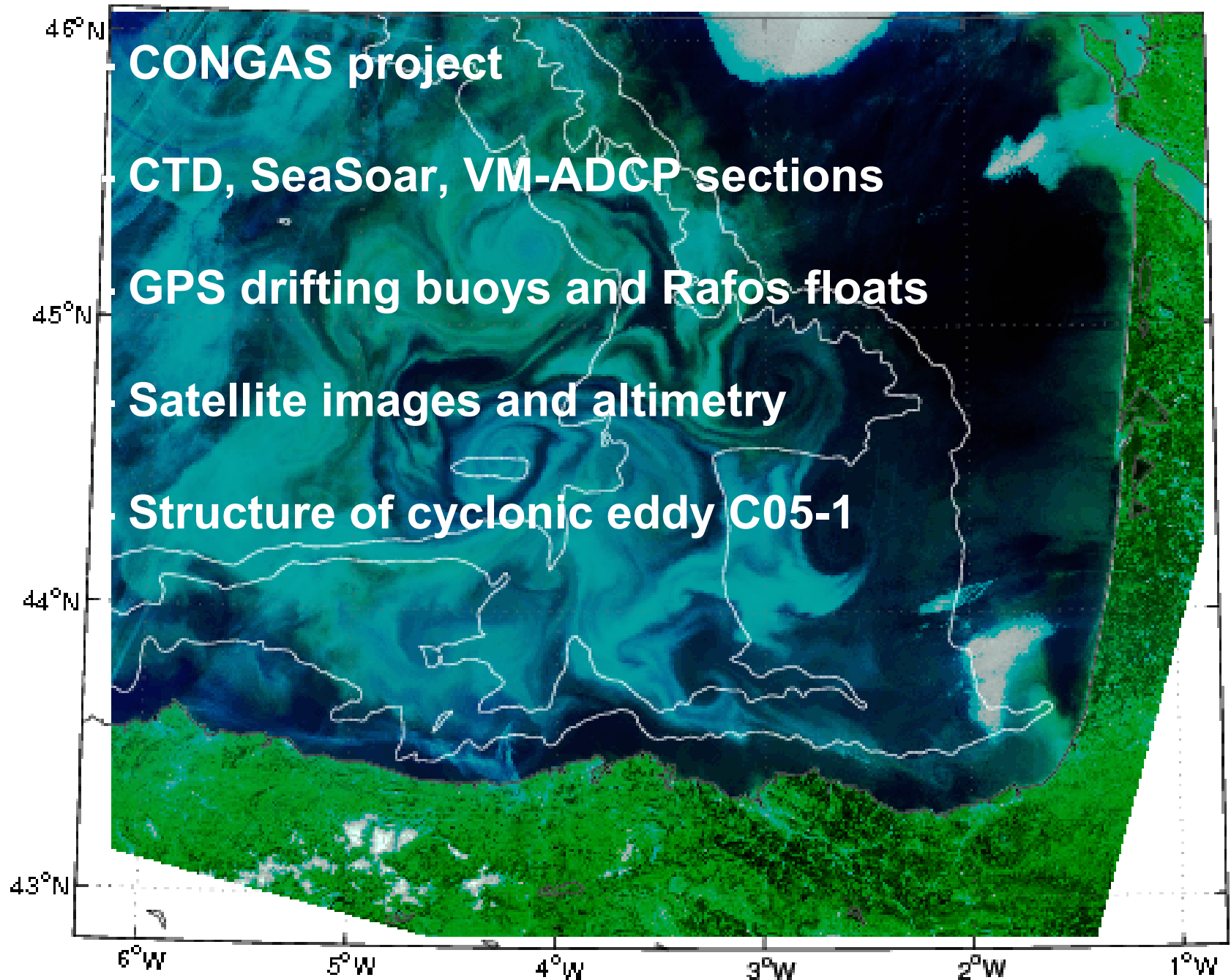
MERIS image ; 20050429



MERIS image ; 20050429

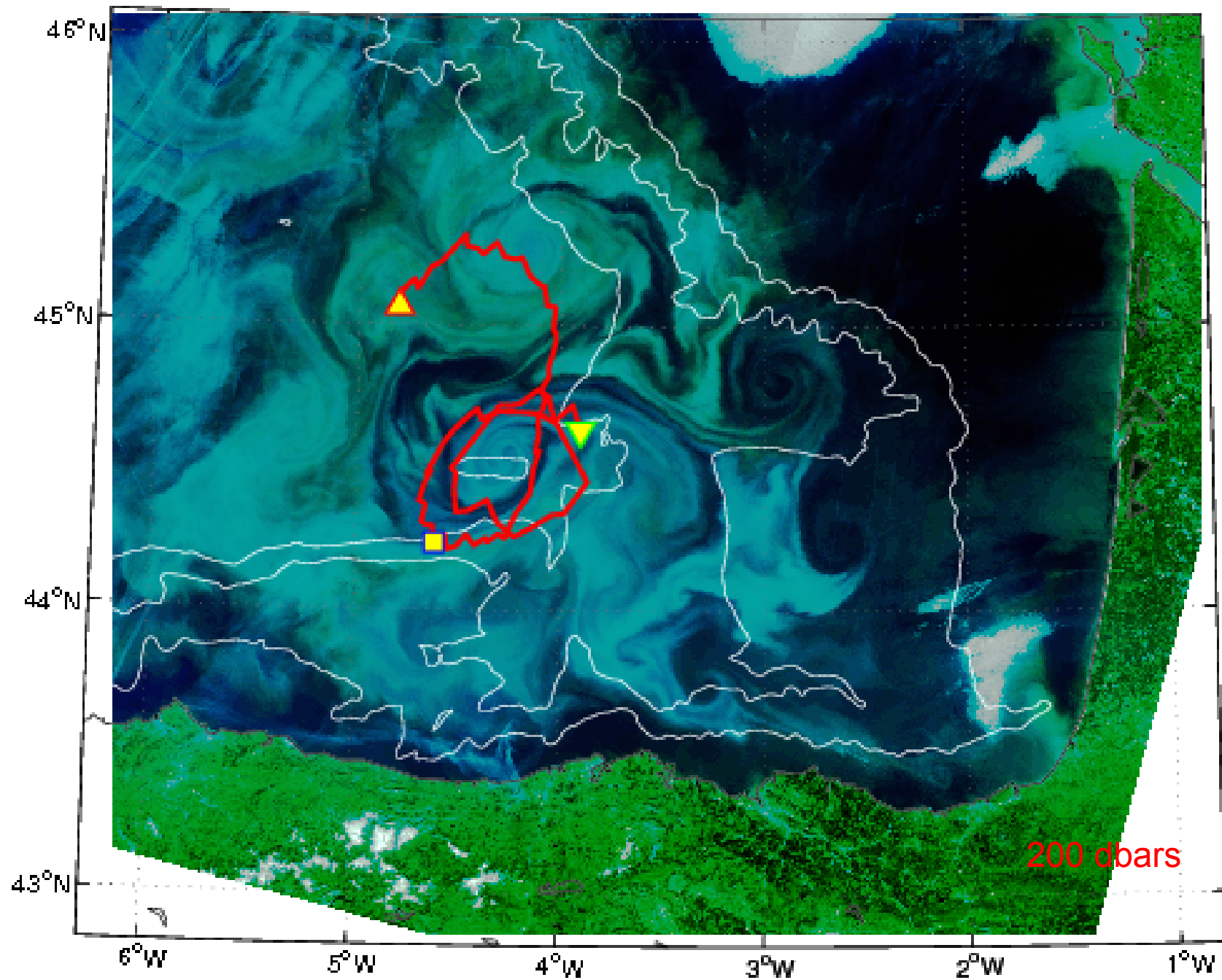


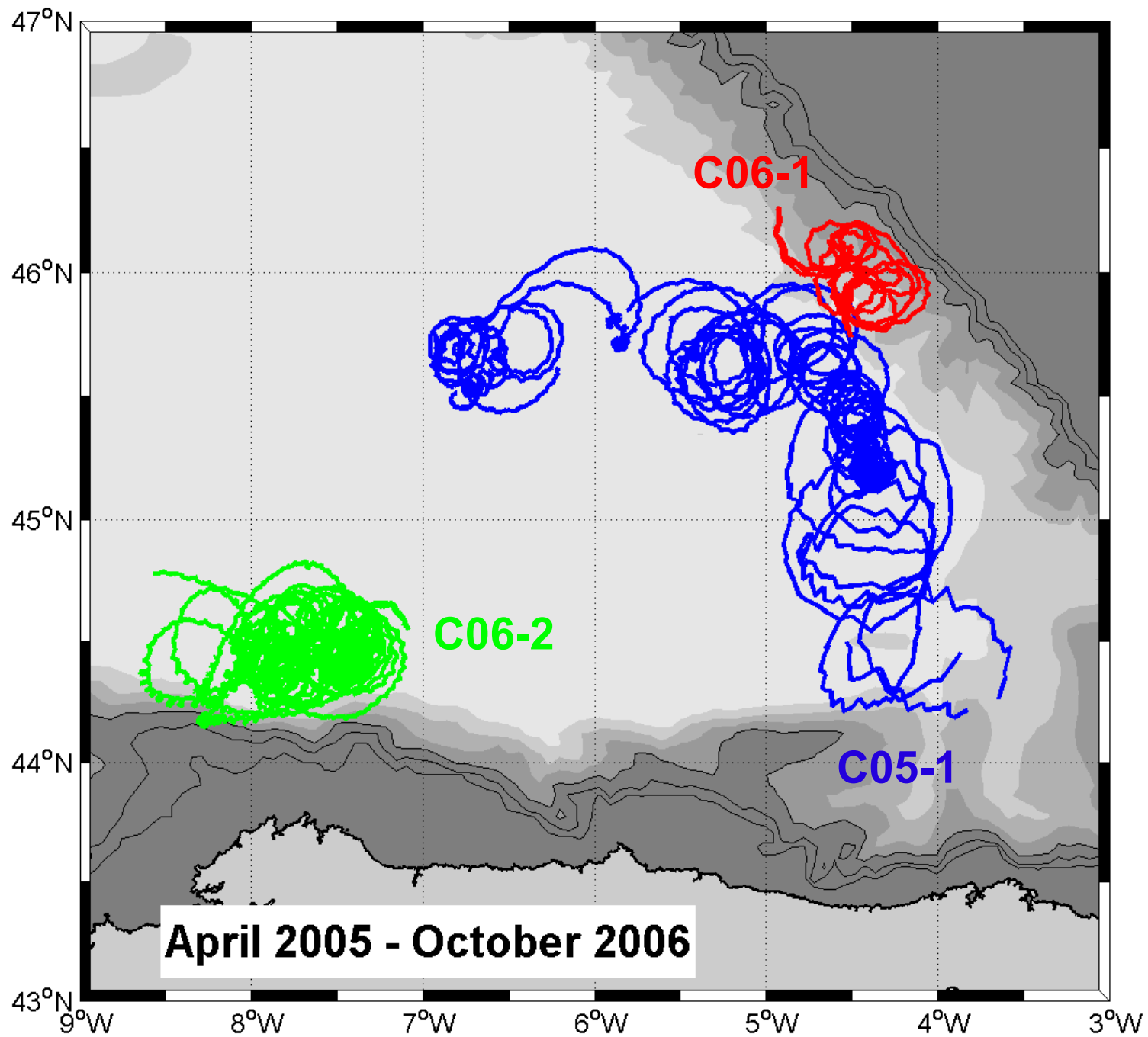




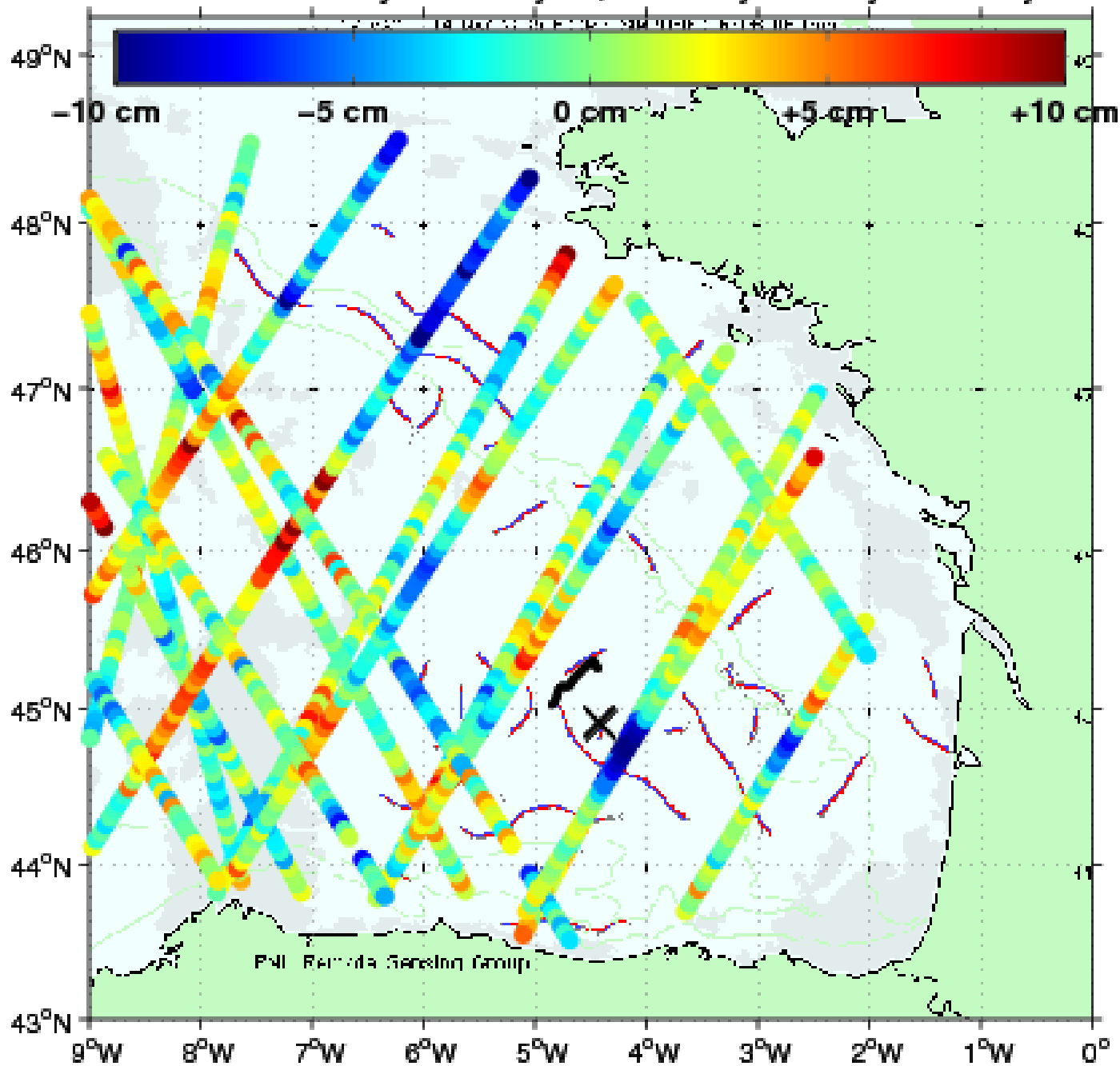


MERIS image ; 20050429



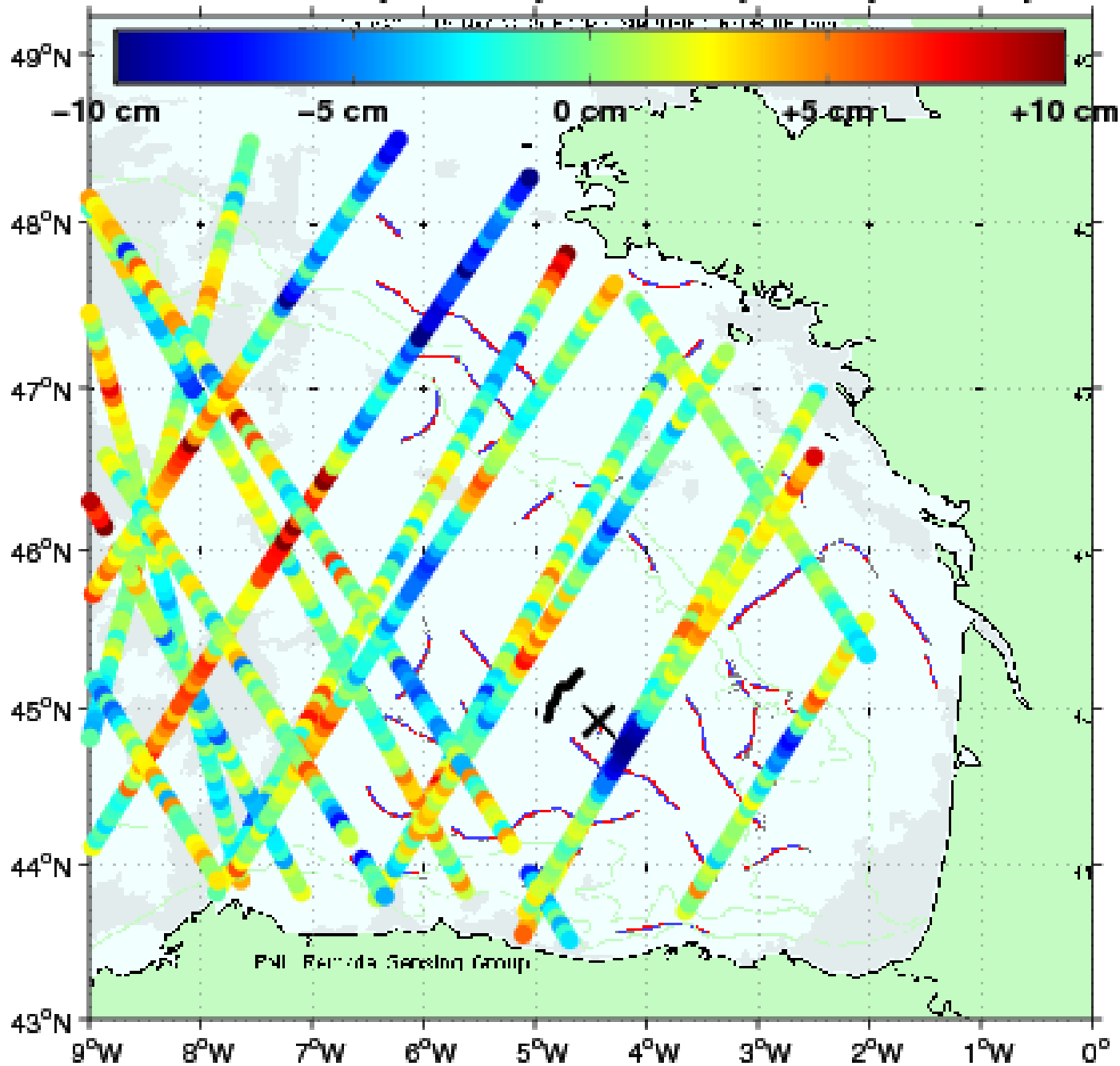


SST fronts: 12may05-14may05 ; Altimetry : 11may05-18may05

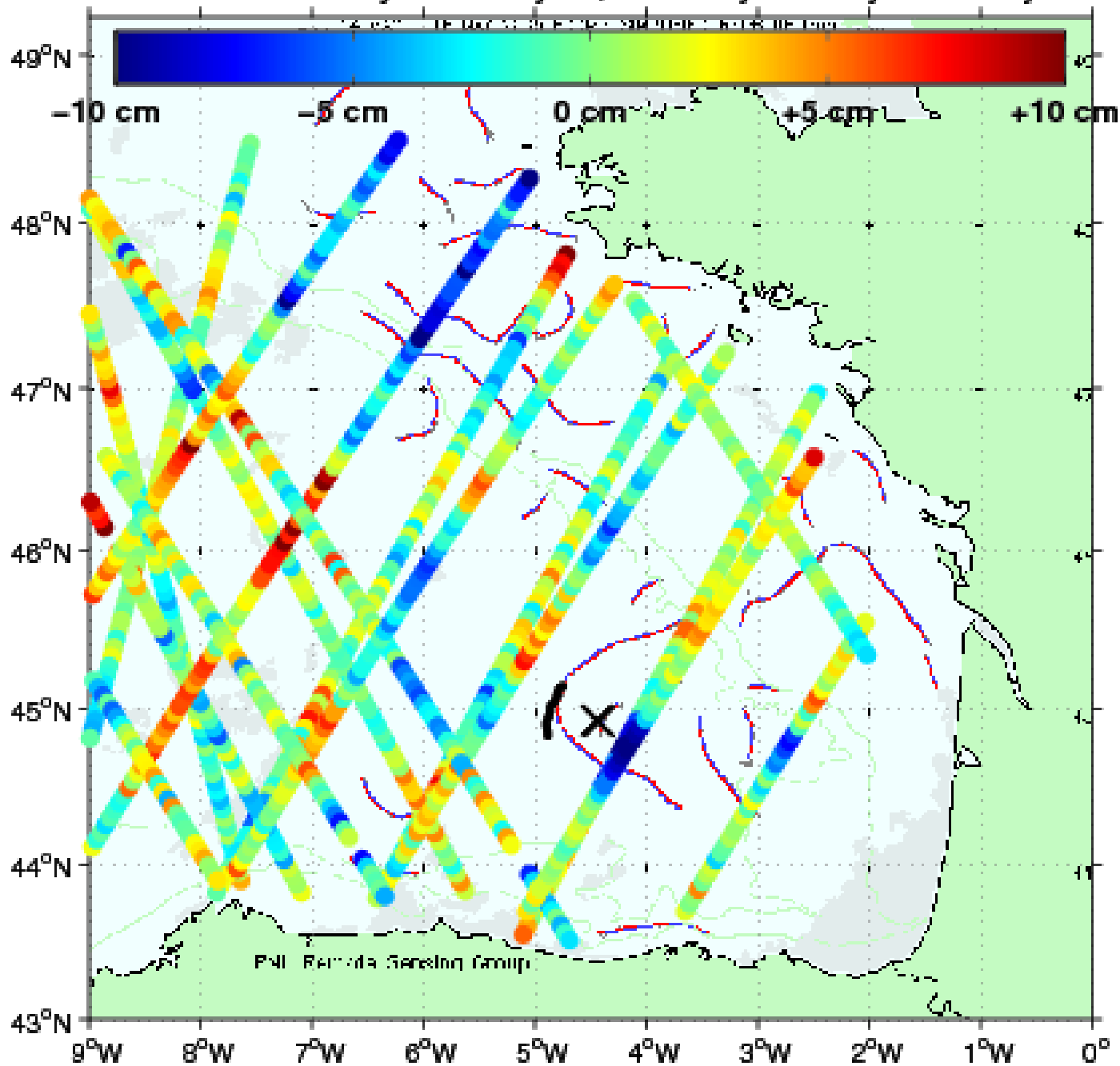




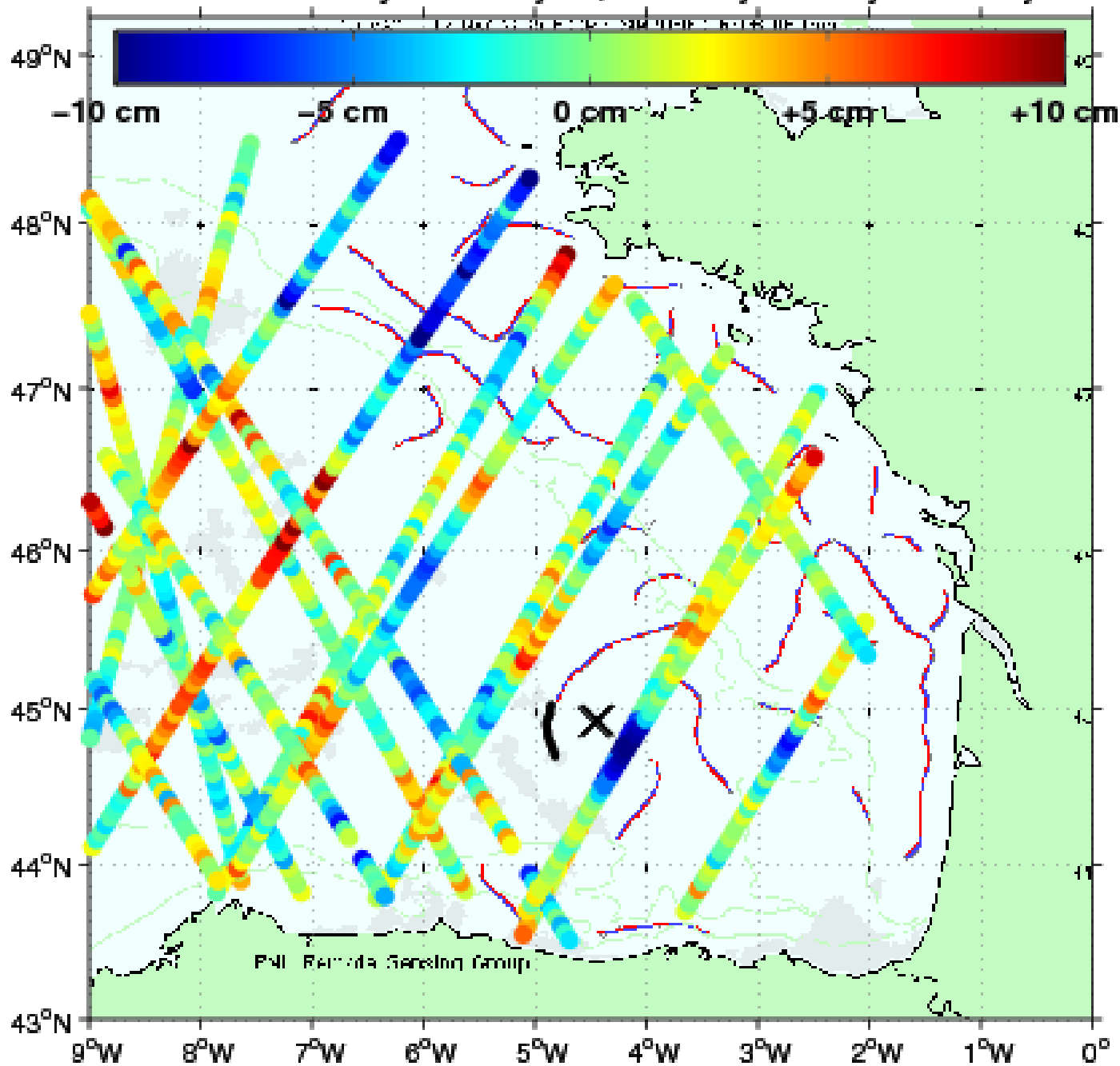
SST fronts: 13may05-15may05 ; Altimetry : 11may05-18may05



SST fronts: 14may05-16may05 ; Altimetry : 11may05-18may05

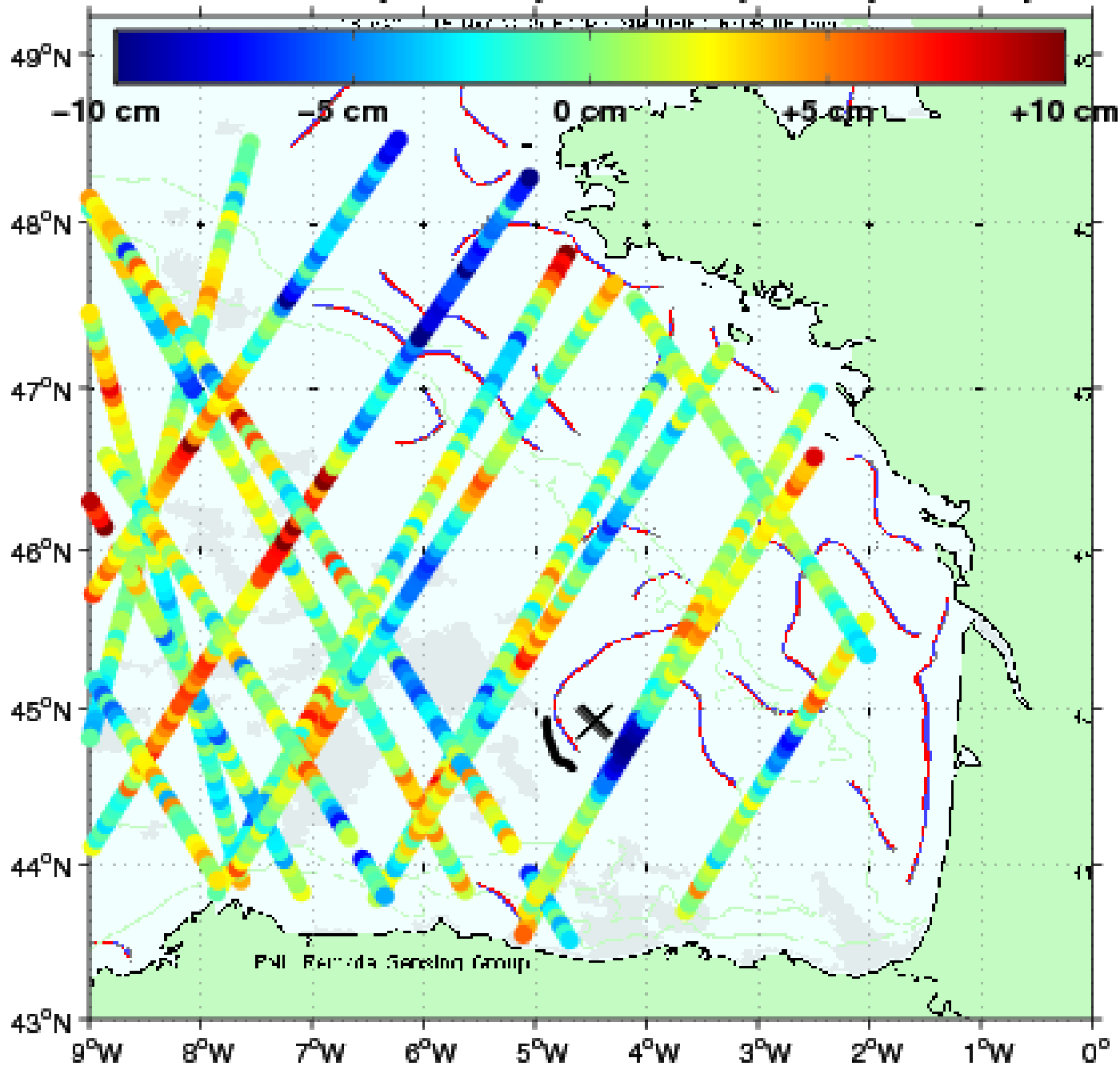


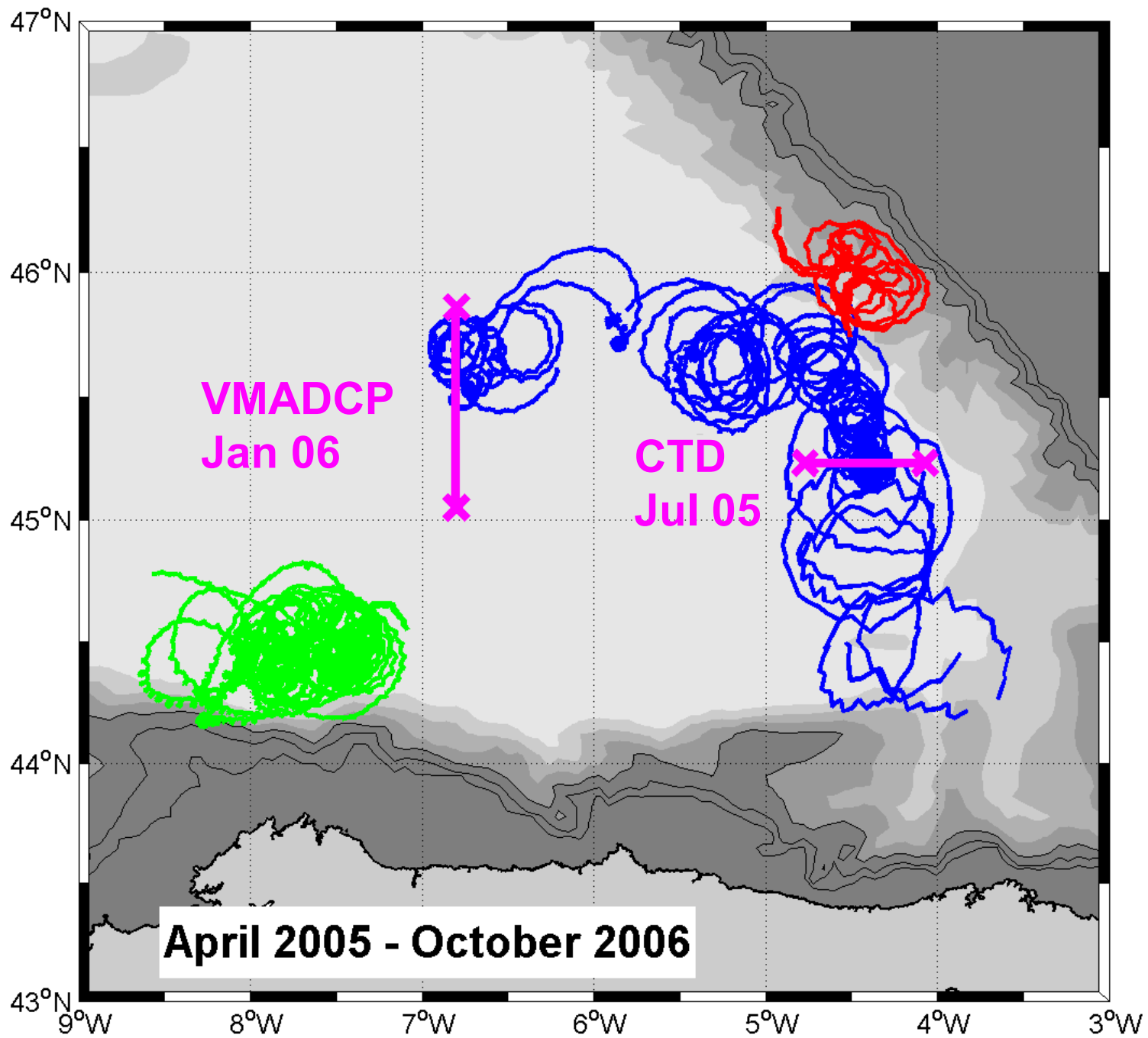
SST fronts: 15may05-17may05 ; Altimetry : 11may05-18may05

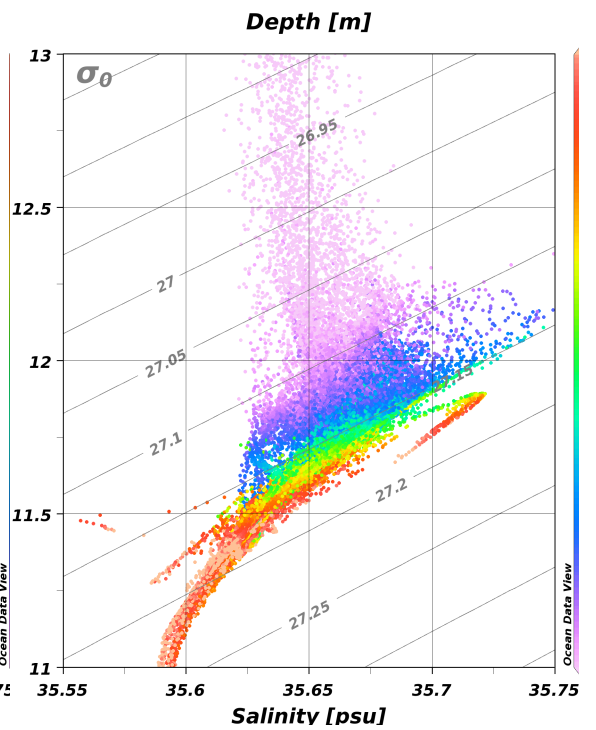
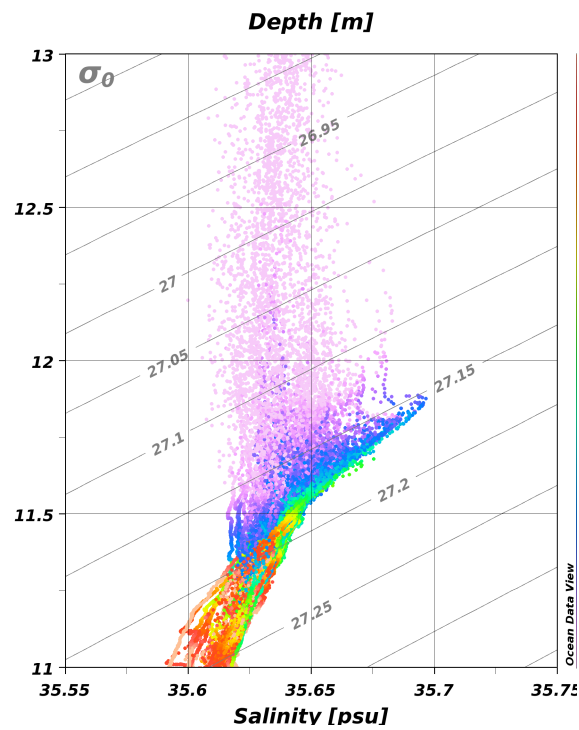
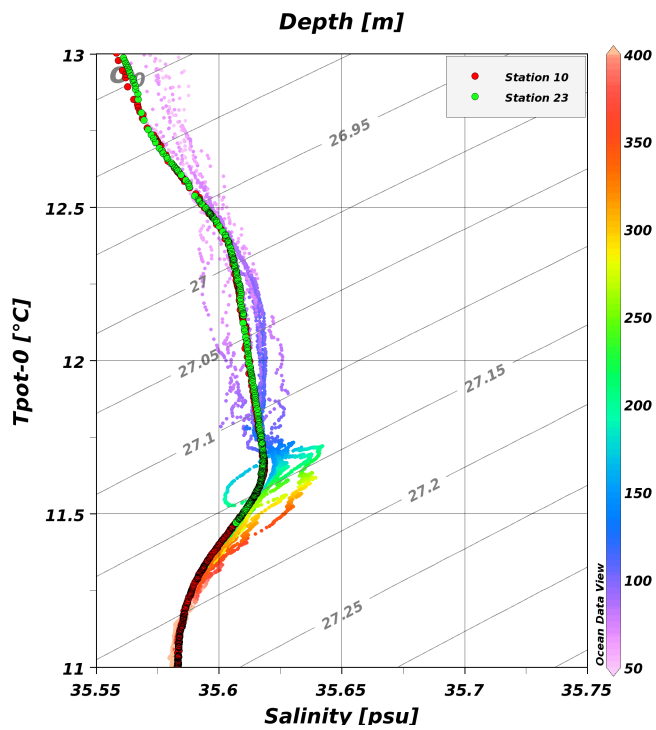




SST fronts: 16may05-18may05 ; Altimetry : 11may05-18may05





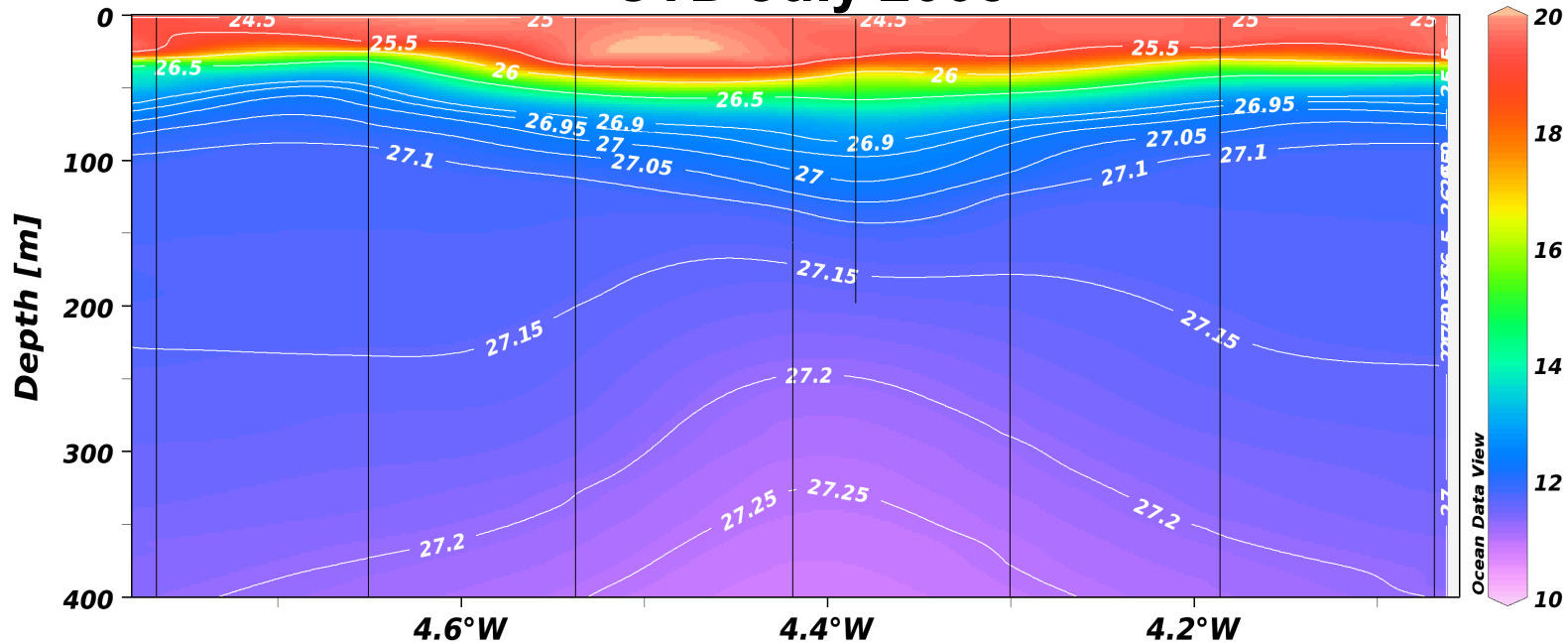




*Sigma\_theta\_00*

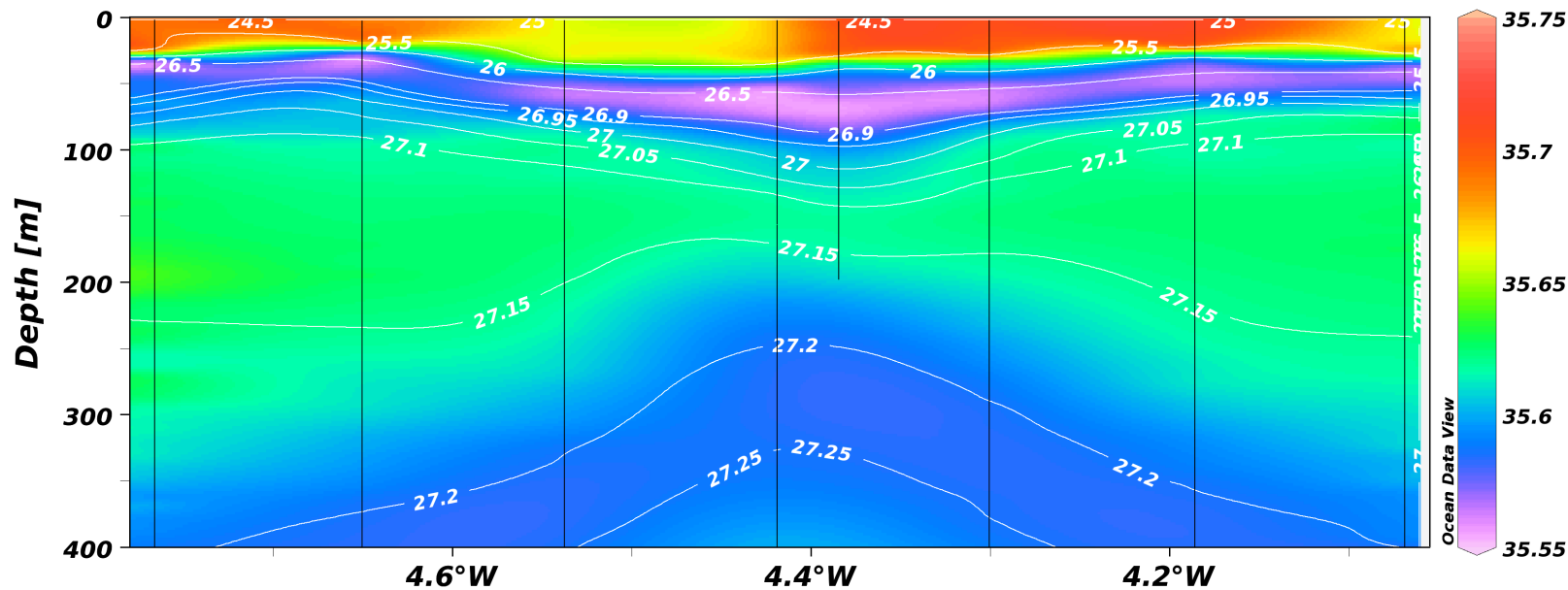
# CTD July 2005

*Temperature [°C]*



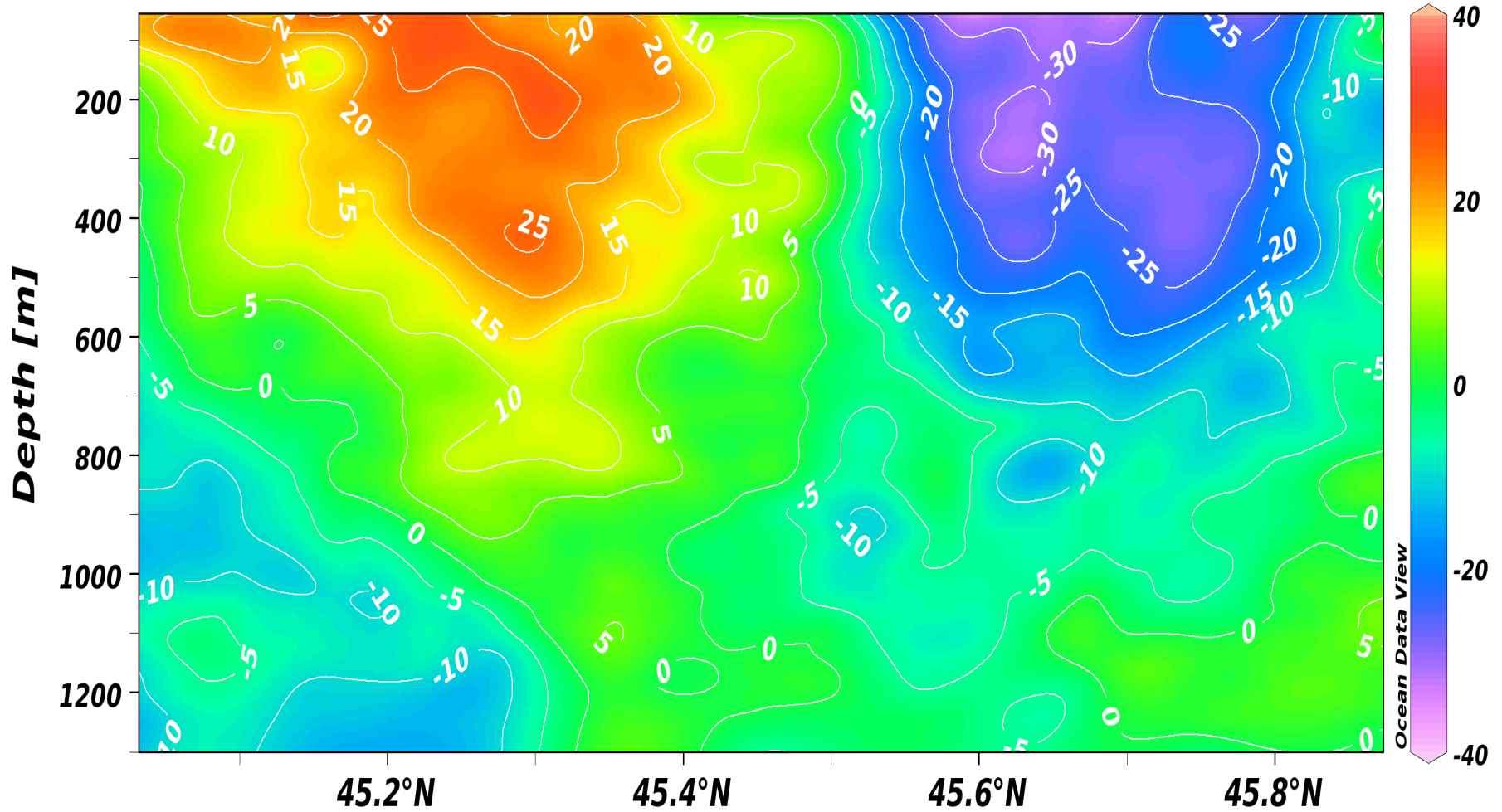
*Sigma\_theta\_00*

*Salinity [psu]*

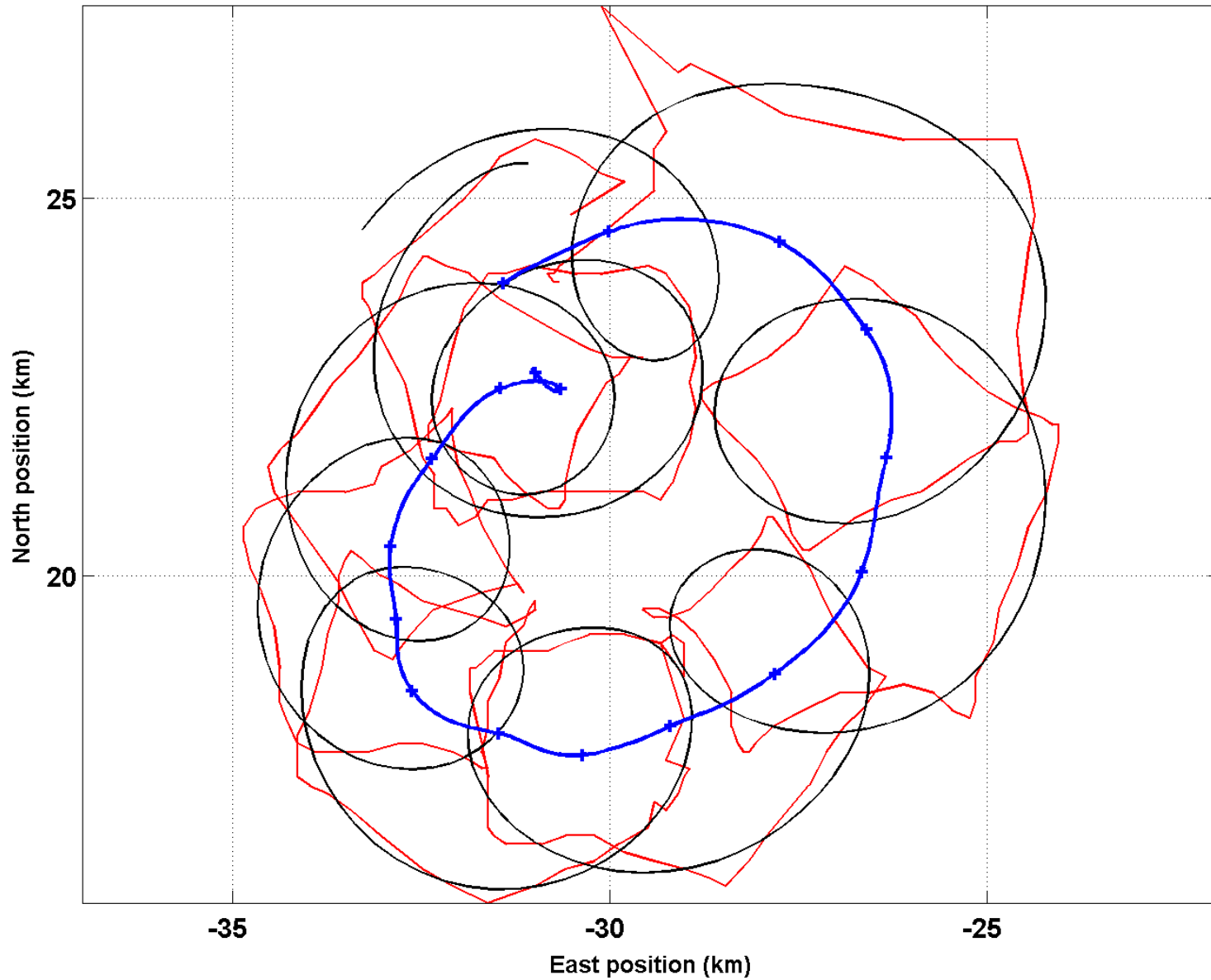


# Eastward velocity at $\sim 7^\circ\text{W}$ ; VM-ADCP 38 kHz; Jan 2006

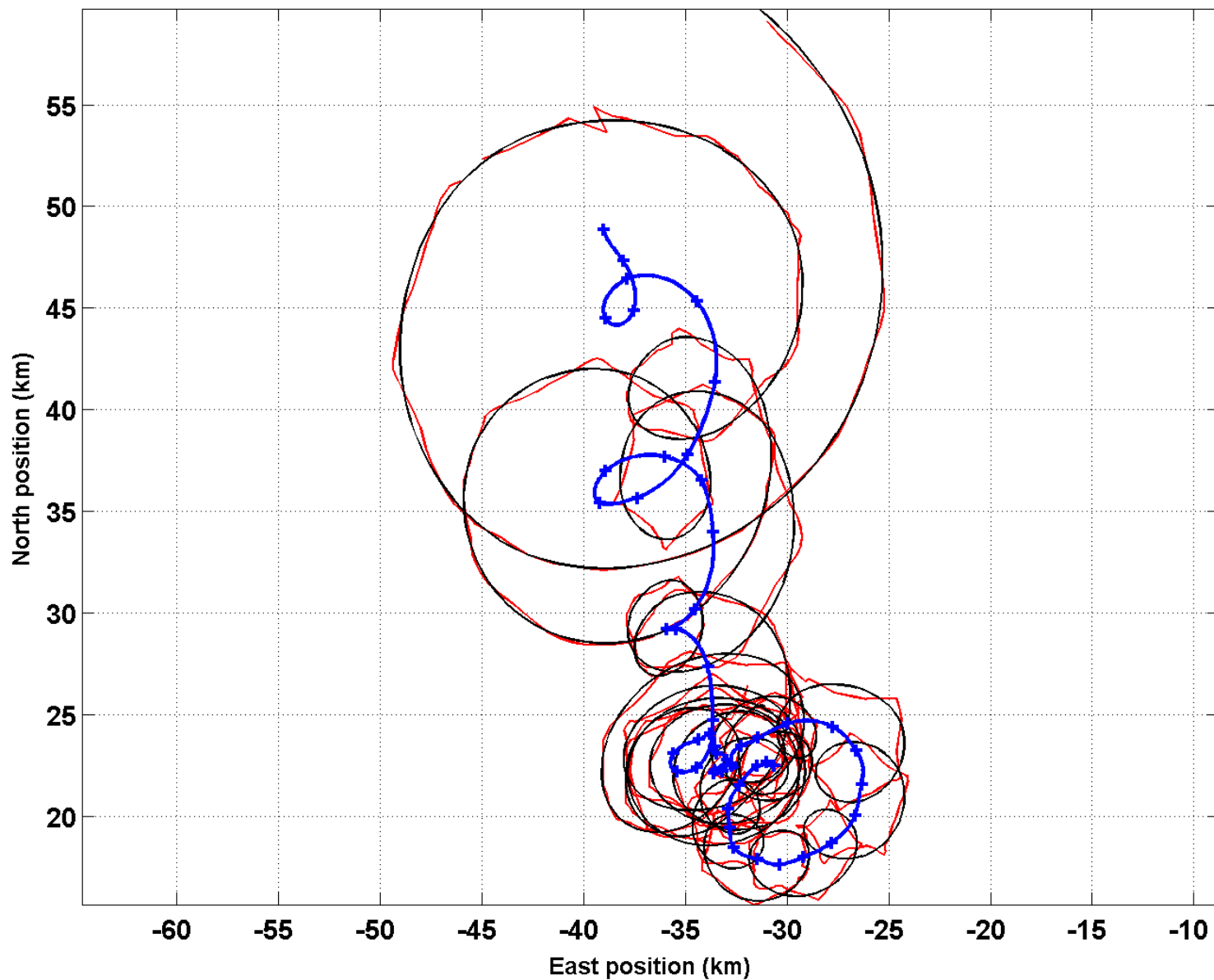
$U$  [cm/s]



C05-1 cyclone center trajectory (15 days) ; CONGAS20051-62464 ; July-August 2005

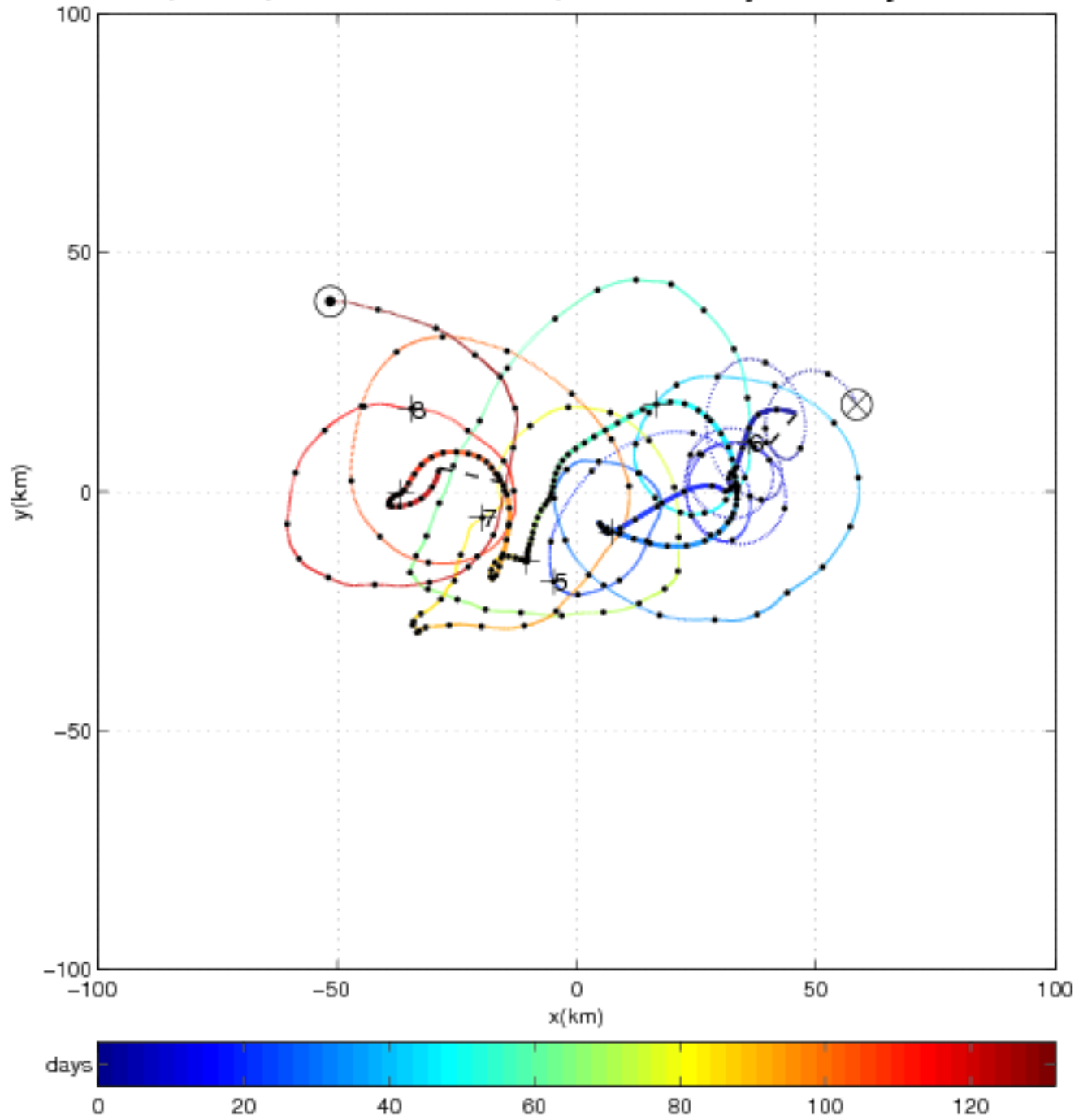


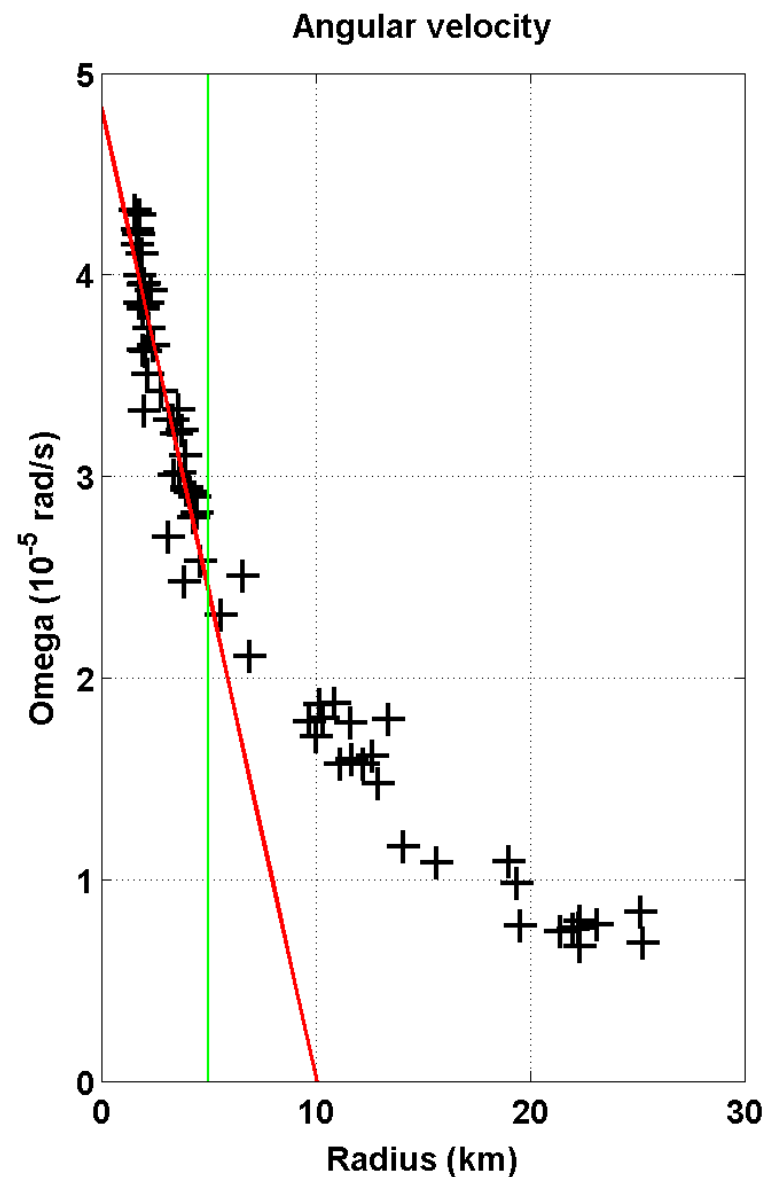
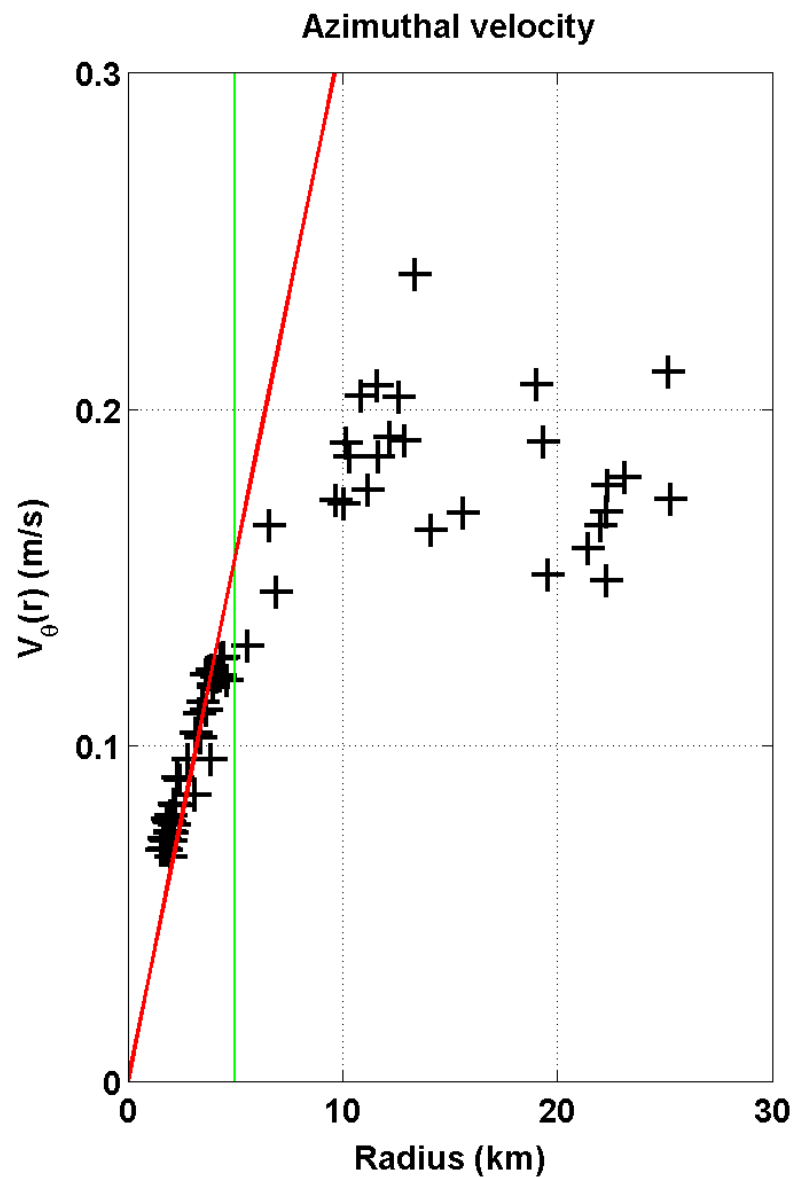
C05-1 cyclone center trajectory (50 days) ; CONGAS20051-62464 ; July-August 2005



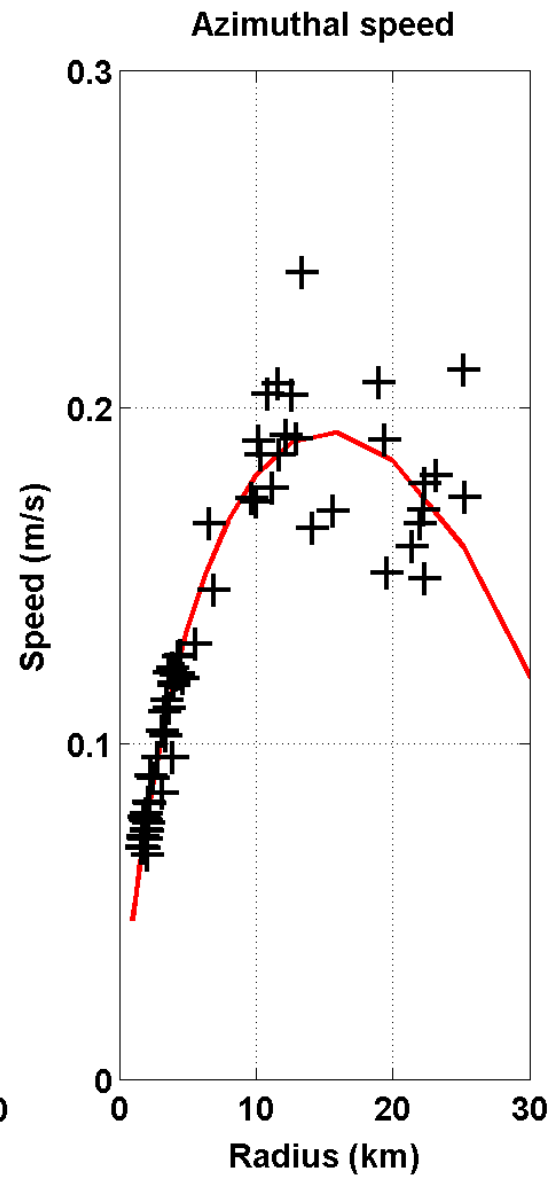
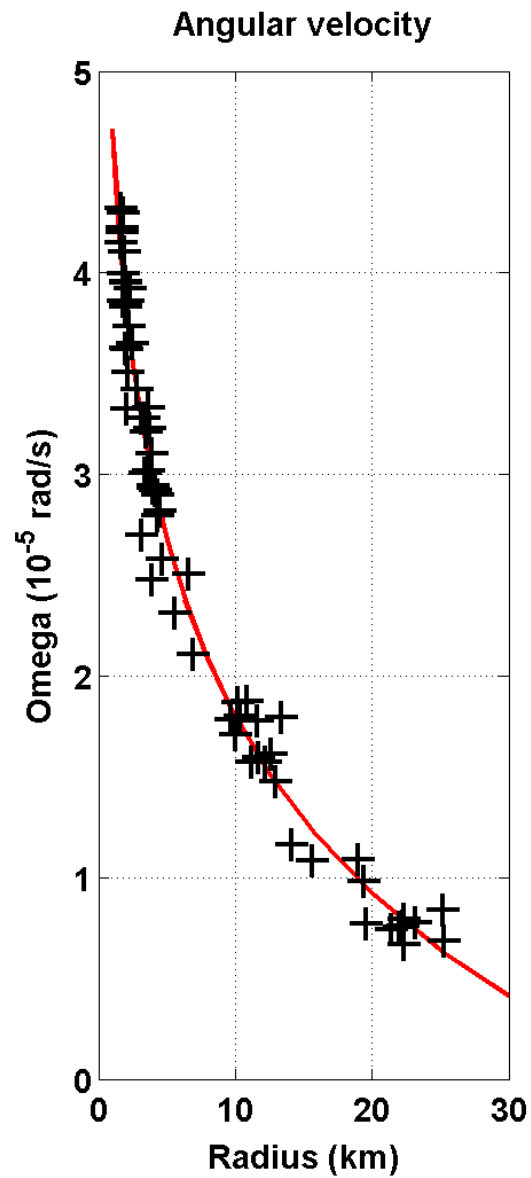
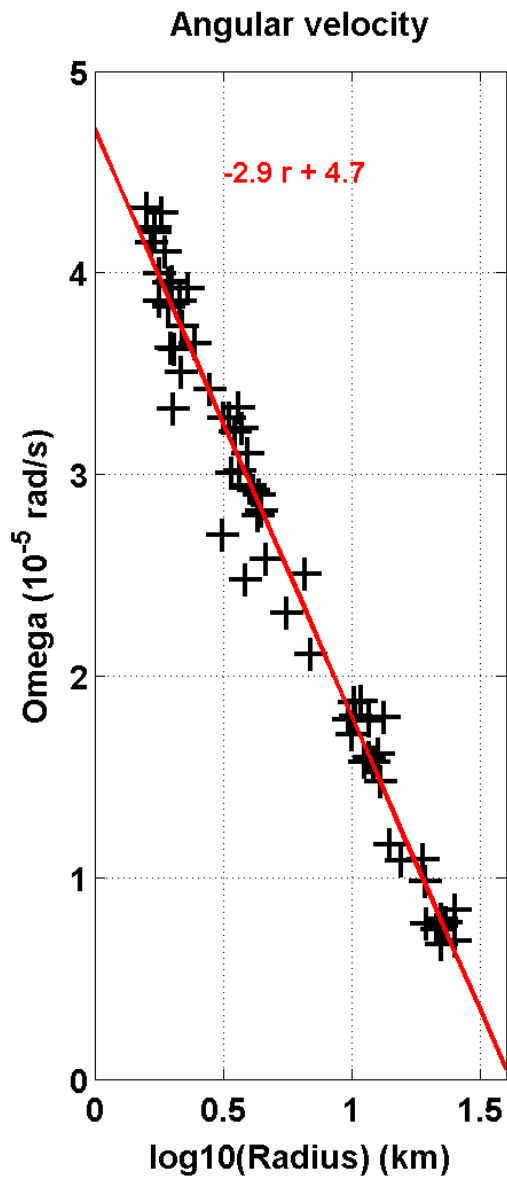
Drogue at 200 m

CONGAS C06-2 ; 64341 ; 2006/5/10 - 2006/9/18 ; Float and Eddy center trajectories



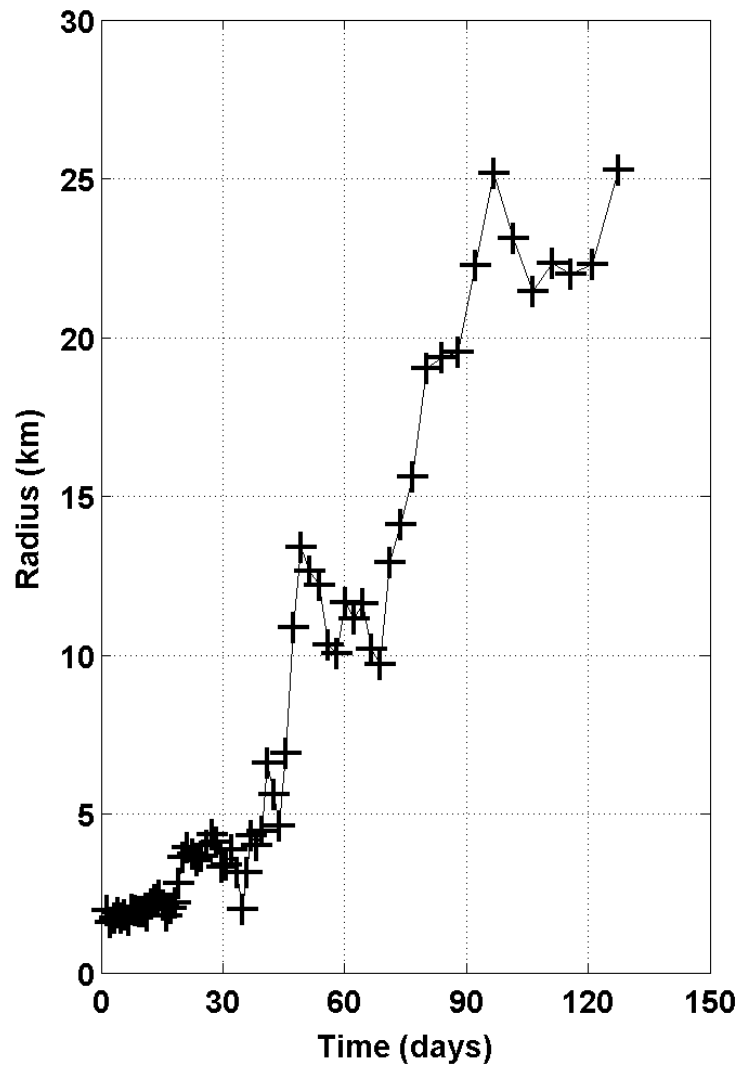


CONGAS C05-1 ; CONGAS20051\_62464 ; 2005/7/9 - 2005/11/22 ; Kinematic properties

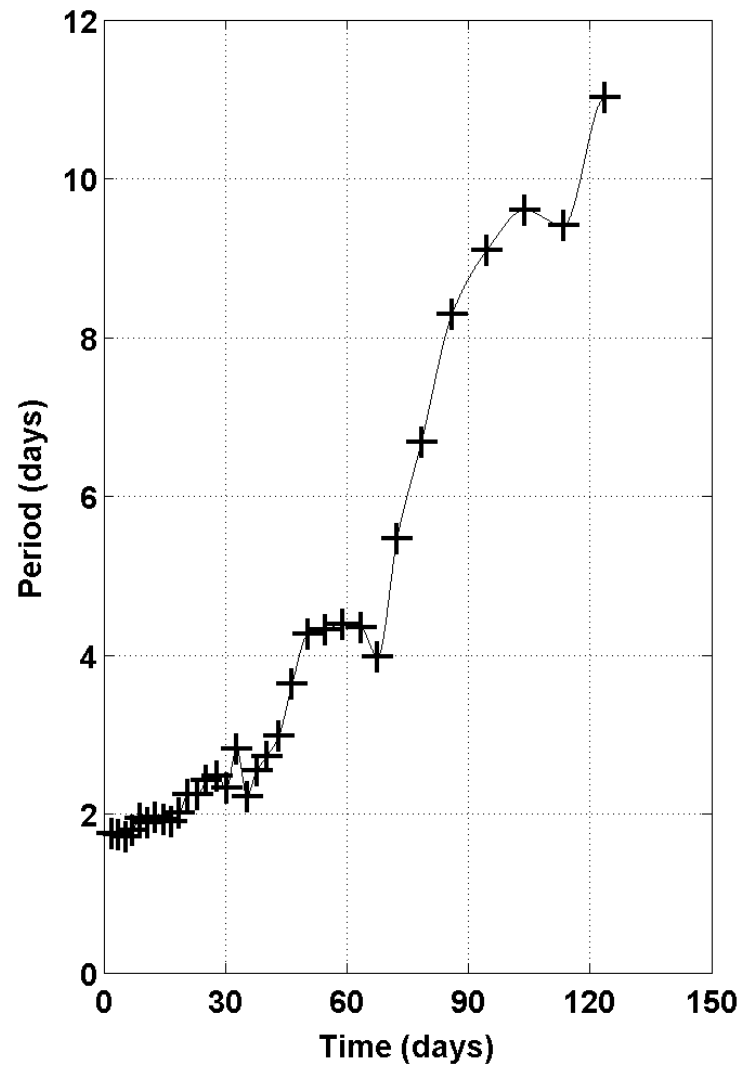


CONGAS C05-1 ; CONGAS20051\_62464 ; 2005/7/9 - 2005/11/22 ; Kinematic properties

Float distance to Eddy center



Float rotation period





## Summary, discussions and conclusions (1)

- 3 Central Water *cyclonic* eddies observed in 2005-2006 (cold winters with deep ML (~ 300 m or more))
- Formation near continental slope in late winter: mechanisms?
- Early merging?
- ~ 80 km in diameter, from surface down to ~ 800 m deep, centered ~ 200m deep
- Lifetime ~ 1 year, possibly more
- "Pinching" of isopycnals in the core: mechanisms?

## Summary, discussions and conclusions (2)

- Core relative vorticity  $> \sim 0.5 * f$
- NO apparent solid body rotation near center
- Eddy track first northward; then westward at  $\sim 1 \text{ km / day}$
- Vortex *center* describe *cyclonic* loops: mechanisms?
- Implications?