

# FUMSECK cruise

## SPASSO Images Analysis

30/04/2019 09:17 UTC

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### Executive Summary

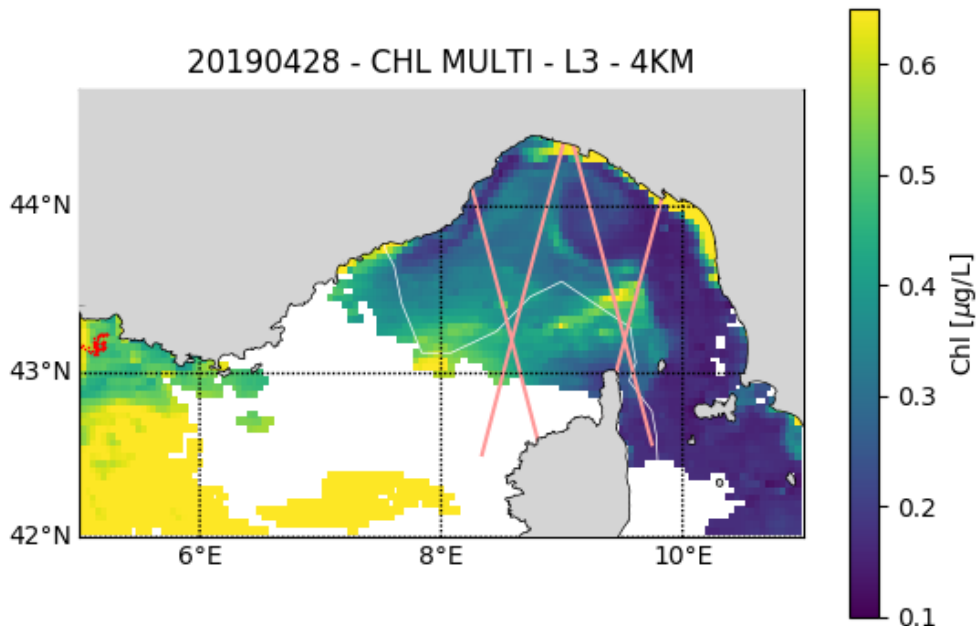
The cruise is scheduled to start tonight, on April, 30, 2019, on board the Téthys II.

A bad news is that the plane flight radar of Nice is non functional so that the plane overflights scheduled for FUMSECK are unfortunately cancelled.

Otherwise everything looks good for the cruise. The weather should be fine until Thursday when the wind may increase a bit.

All the best, enjoy FUMSECK !!!

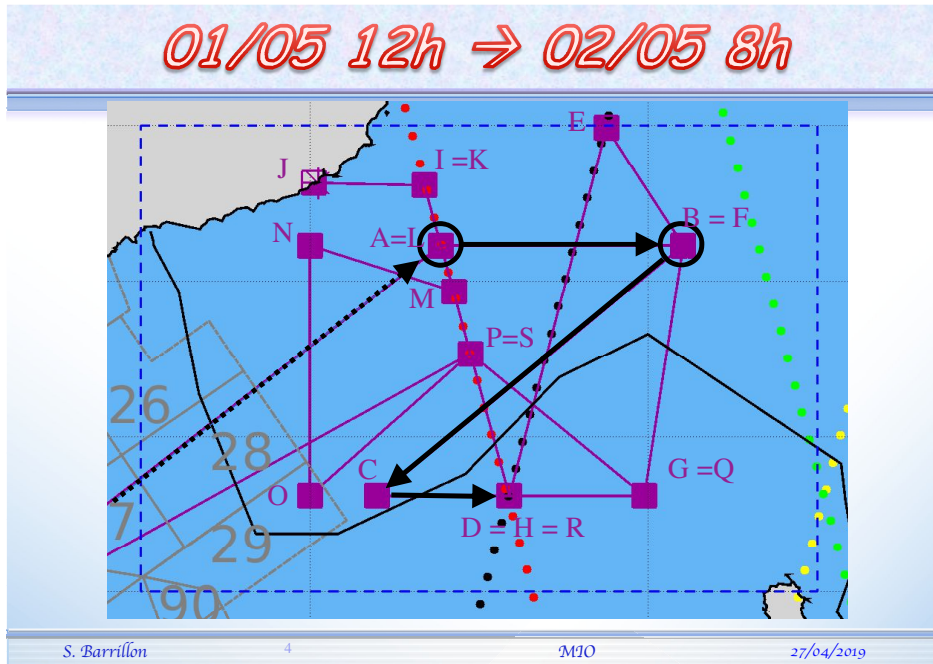
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# 1 Ongoing operations and upcoming stations

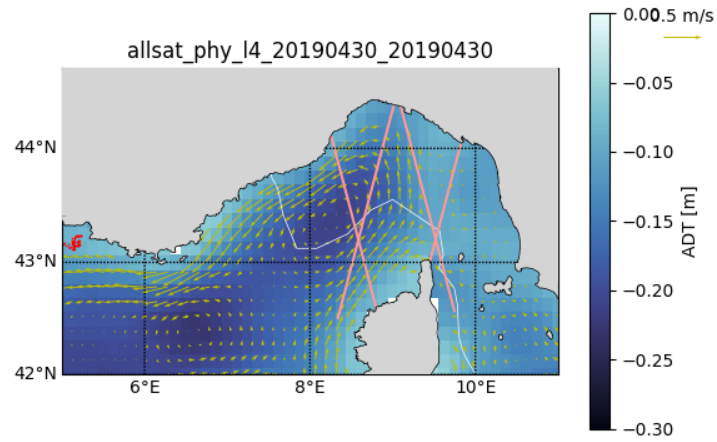
Loading of the material is right now taking place at La Seyne sur Mer.

On May 1st, the plan is to go to station A, then East to station B, southwest to station C, and East again to station D; scheduled to be reached around 8am on May 2nd.

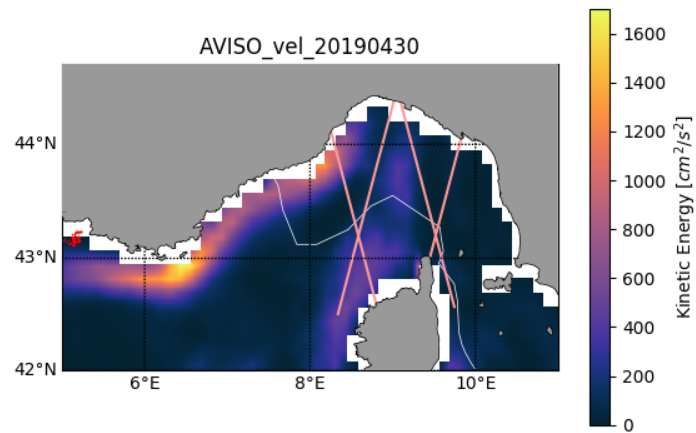


## 2 Daily figures analysis

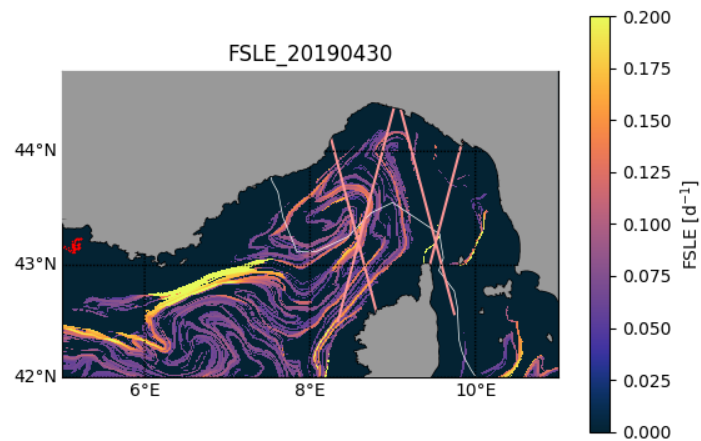
### 2.1 Altimetry, derived currents and Lagrangian analysis



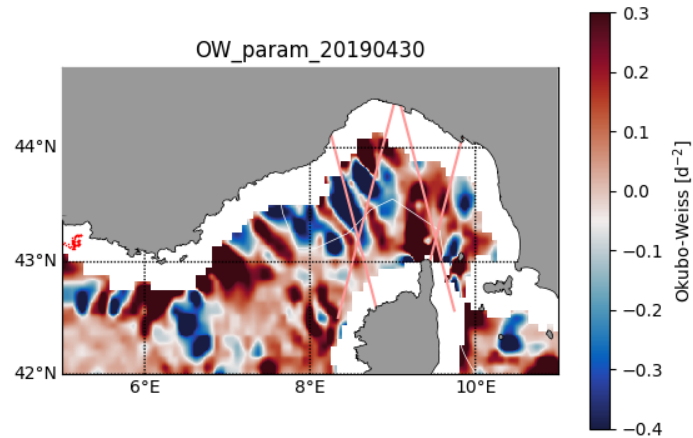
We observe a general cyclonic circulation in the region of interest.



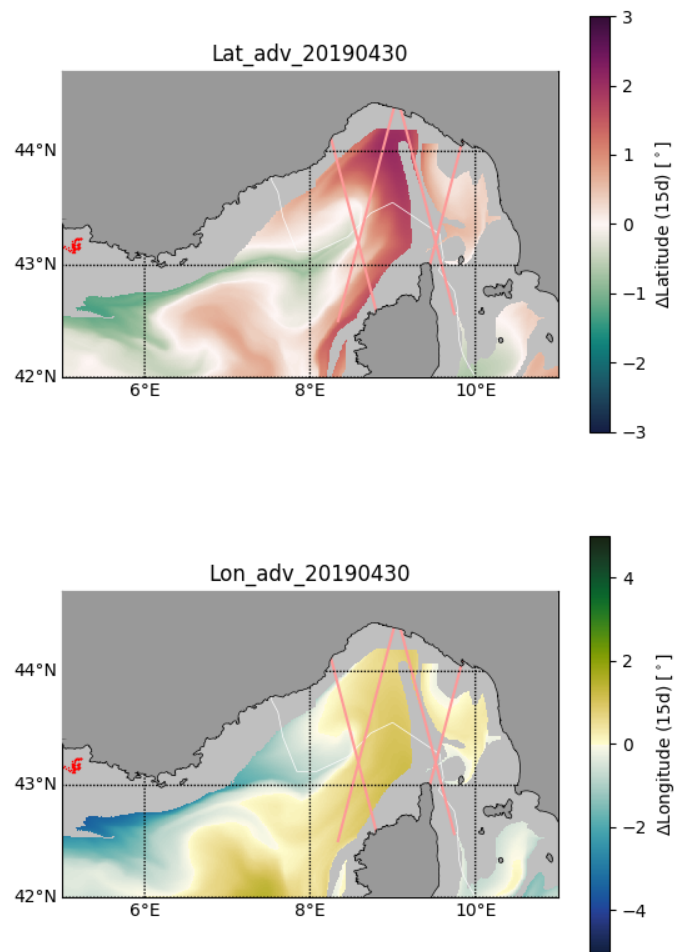
The area has low energy, apart in the cyclonic loop and, especially, along the Northern Current trajectory.



The FSLE structure also corresponds to the cyclonic loop. Notice the structure East of the cyclonic loop, between 43°N and 44°N, in a South-North direction. It can also be seen on the Chlorophyll data and seems to correspond to the western side of the northward west Corsican current. A nice front should be crossed between A and B through it.



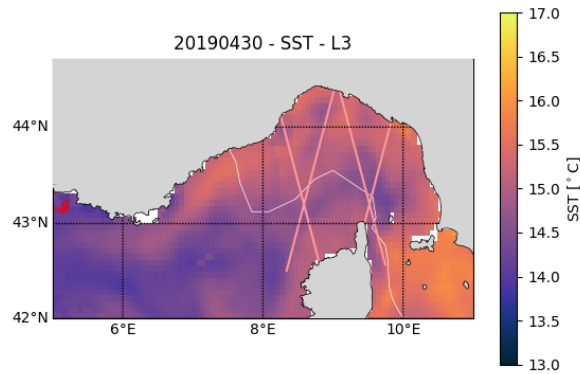
In the OW figure, we can notice the blue (high vorticity, hence eddy-like behavior) bulky feature in the middle of the cyclonic loop, in agreement with the velocity and the FSLE figures.



The Lat\_adv and Lon\_adv images agree with the cyclonic circulation and FSLE structure.

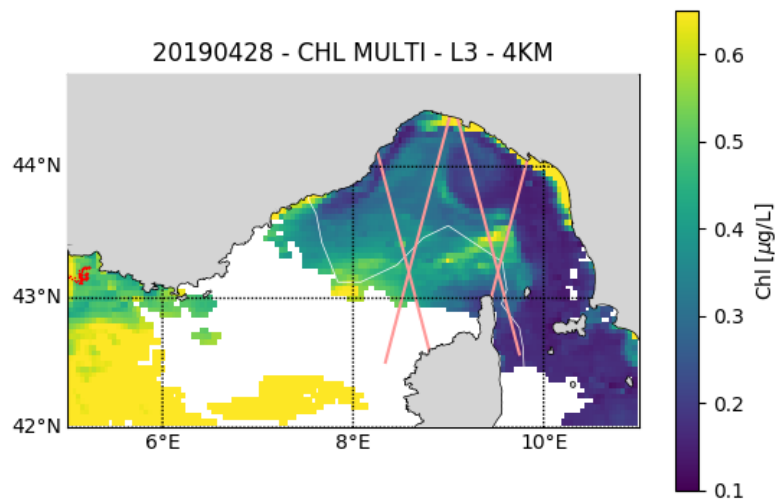
Note: In the Lat\_adv, the red goes North while the green goes south; in the Long\_adv, the green goes east, the blue goes west).

## 2.2 SST analysis



We can notice that we now have a L3 updated and non cloudy picture; and that the zone has slightly warmed up.

## 2.3 Chlorophyll analysis



Notice the Chlorophyll structure zigzagging from the tip of Corsica towards the North. It can also be seen on the FSLE data. A nice front should be crossed through it between A and B.

## 2.4 Glider

The glider is going to be launched at the beginning of the cruise from onboard the Téthys II, if the weather forecast indicates that the conditions are good enough for ensuring the recovery of the glider at the end of the mission.

## Acknowledgements

The FUMSECK cruise is part of the BIOSWOT program.

The altimetry data are the AVISO Mediterranean regional product:

<http://www.aviso.altimetry.fr/index.php?id=1275>.

The derived currents are processed by SPASSO to derive Eulerian and Lagrangian diagnostics of ocean circulation: OkuboWeiss parameter, particle retention time and advection, Lagrangian Coherent Structures. Sea surface temperature (level 3 and 4, 1 km resolution) and chlorophyll concentration (level 3, 1km resolution, MODISAqua and NPPVIIRS sensors combined (after May 27, 2017) into a new product called MULTI) have been provided by CMEMS Copernicus Marine Environment Monitoring Service (<http://marine.copernicus.eu>). Another SST product (level 4, composite, 1 km resolution) is provided by the Jet Propulsion Laboratory (JPL), Pasadena, CA.

Useful links:

FUMSECK is a cruise from the BIOSWOT project

SPASSO FUMSECK webpages