

# PREBIOSWOT cruise

## SPASSO Images Analysis

07/05/2018 10:41 UTC

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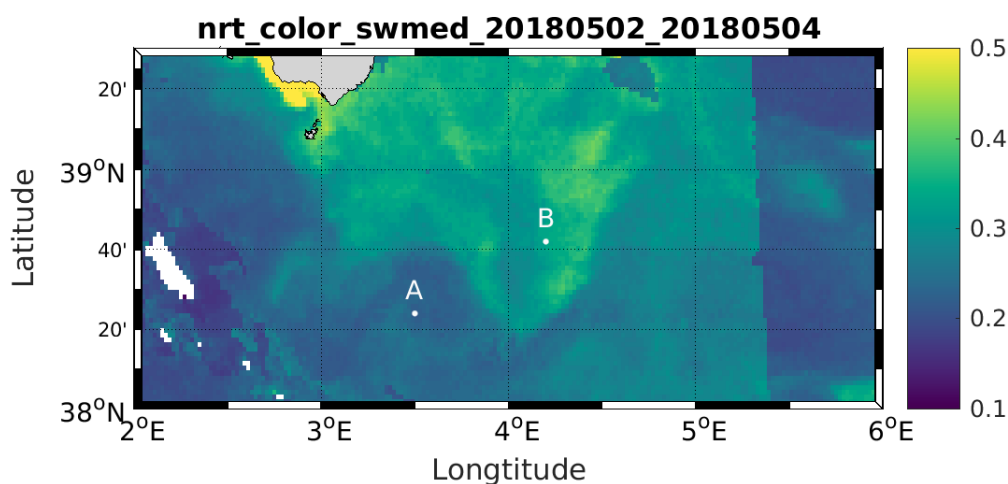
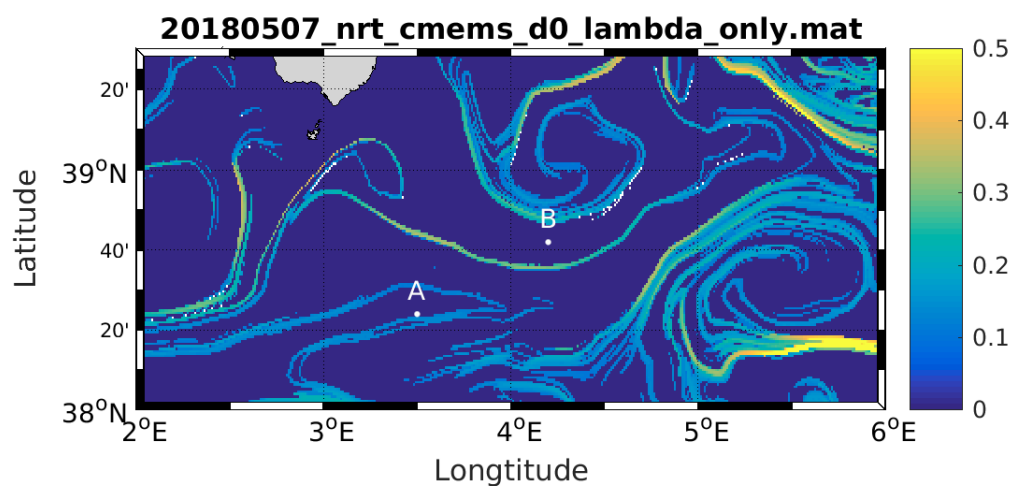
### Executive Summary

The Lagrangian adaptative strategy is going to focus on an oblique NW-SE FSLE that will be crossed orthogonally by a transect with two end points called respectively A (about 3.5°E - 38.4°N ) and B (about 4.2°E - 38.7°N ).

Looking at the SEASOAR transect 6-2, we recommend not to miss the interesting features at depth (between 100 and 200 m) around A, or maybe even south of A.

No Chl data due to cloud coverage but the zoom is made on the last available picture May 3. Note the zoom on the area of interest with A and B positions.

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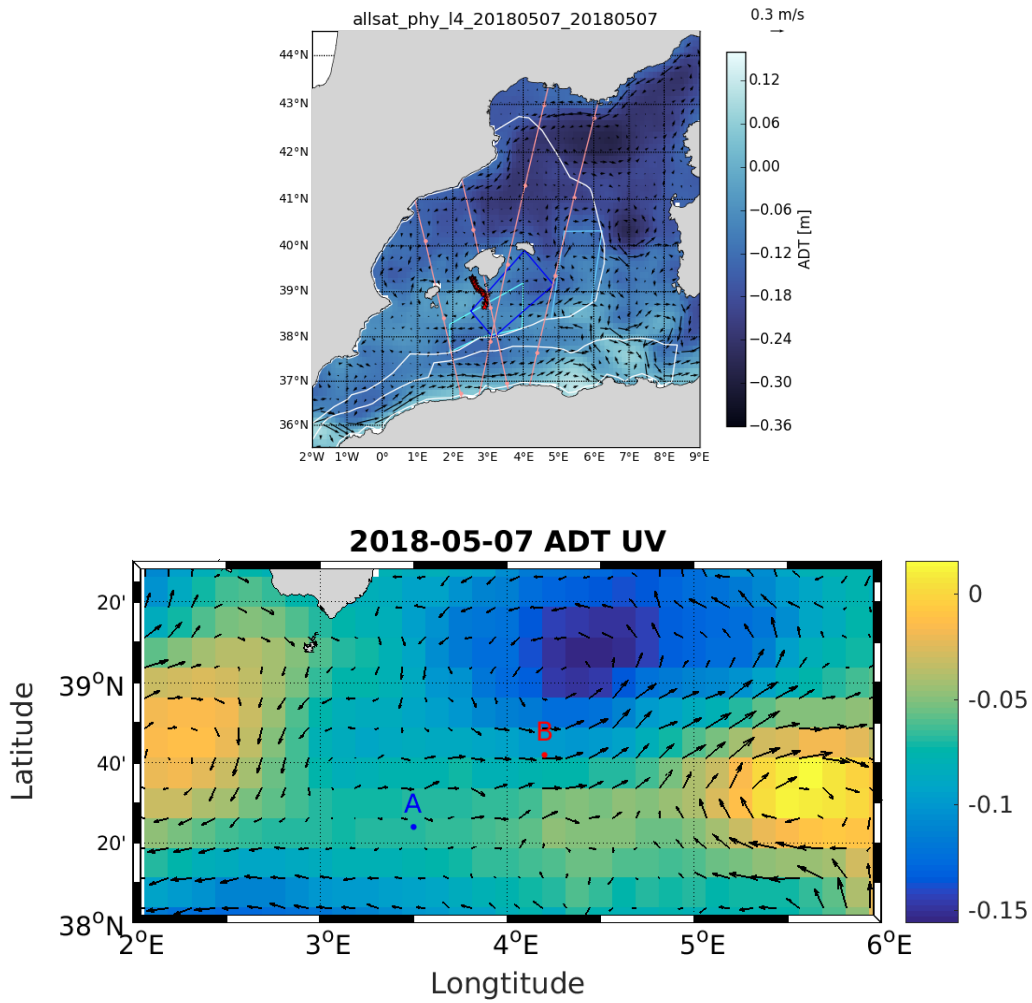


# 1 Ongoing operations and upcoming stations

The BB is finishing the Seasoar study in the 5-7 May box (pale blue box on the unzoned figure) before heading to the central FLSE mentioned in the Executive Summary and in the FSLE section. The GC is accomplishing its Eulerian CTD samplings.

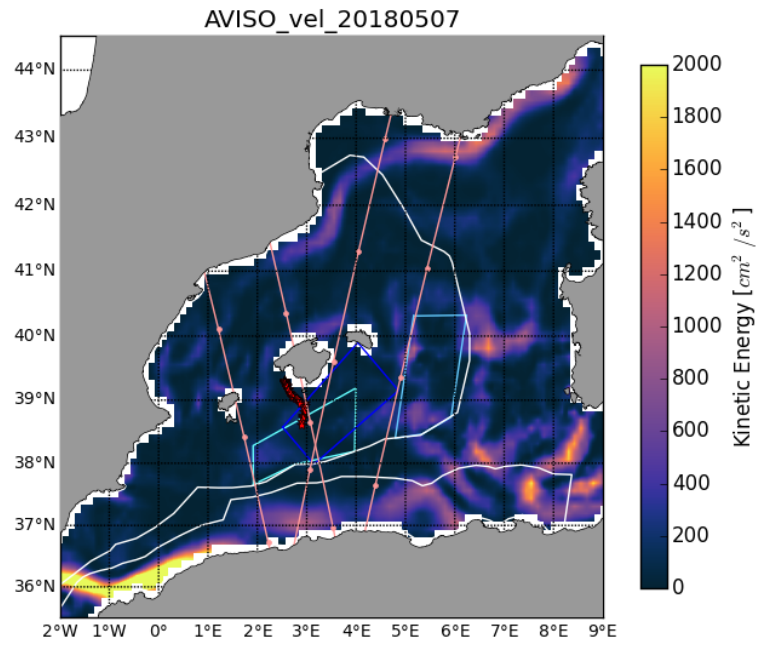
## 2 Daily figures analysis

### 2.1 Altimetry, derived currents and Lagrangian analysis

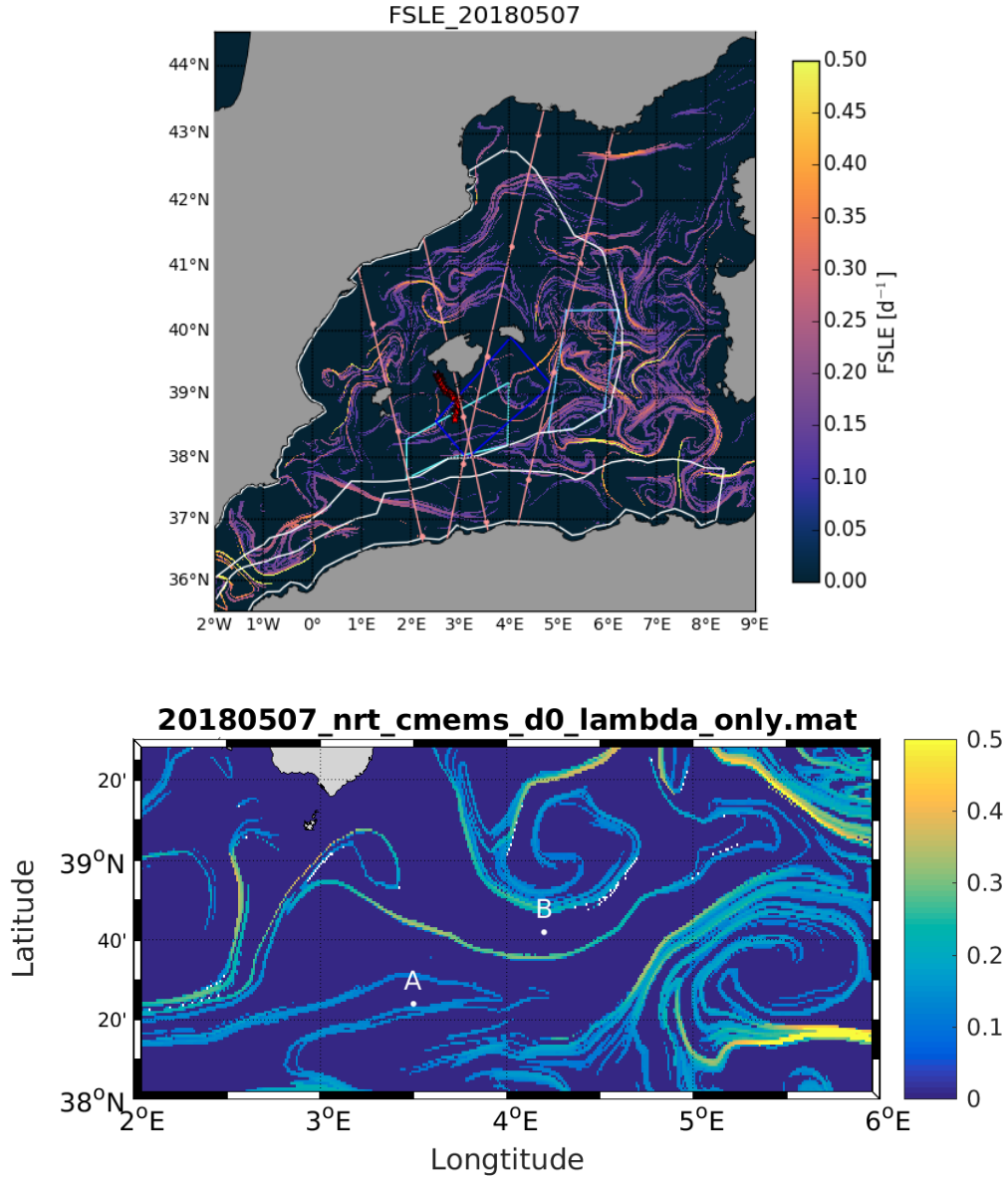


The currents are relatively weak. Section AB crosses eastward currents on the AVISO figure. Nonetheless, in the previous cases when the BB crossed this FSLE, the AVISO currents were not in agreement with the ADCP currents. The ADCP currents were exhibiting currents to the Southeast about A, and towards the Northwest around B.

We still see the anticyclonic structure mentioned in yesterday bulletin and centered at 5.5°E - 38.4°N .

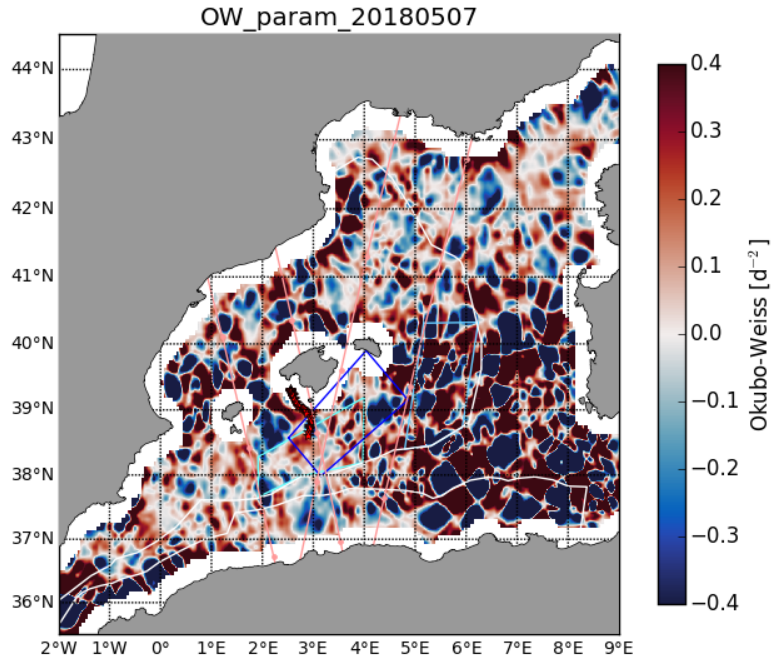


The area has low energy.

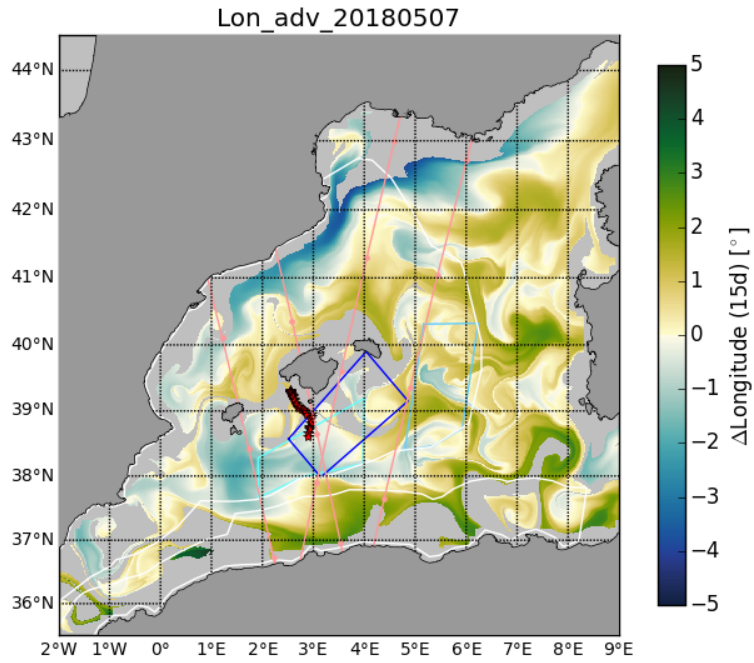
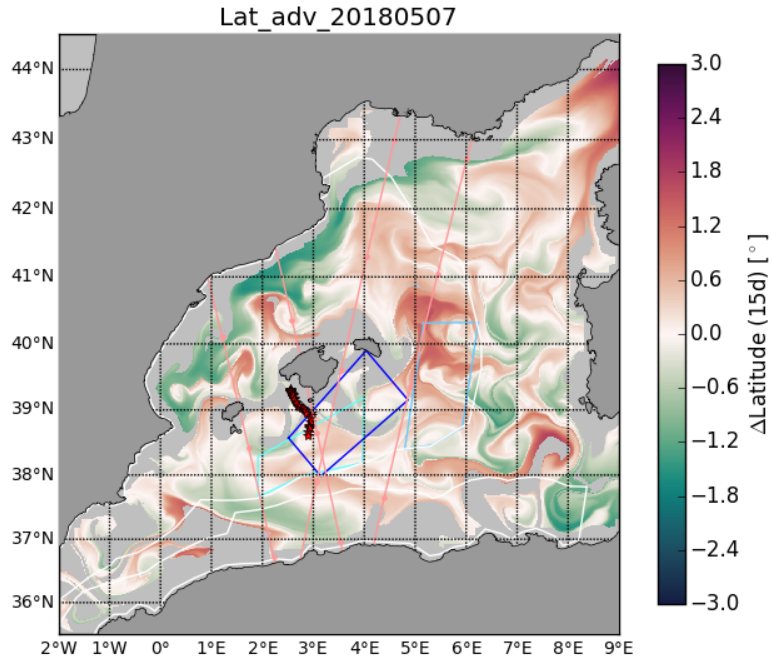


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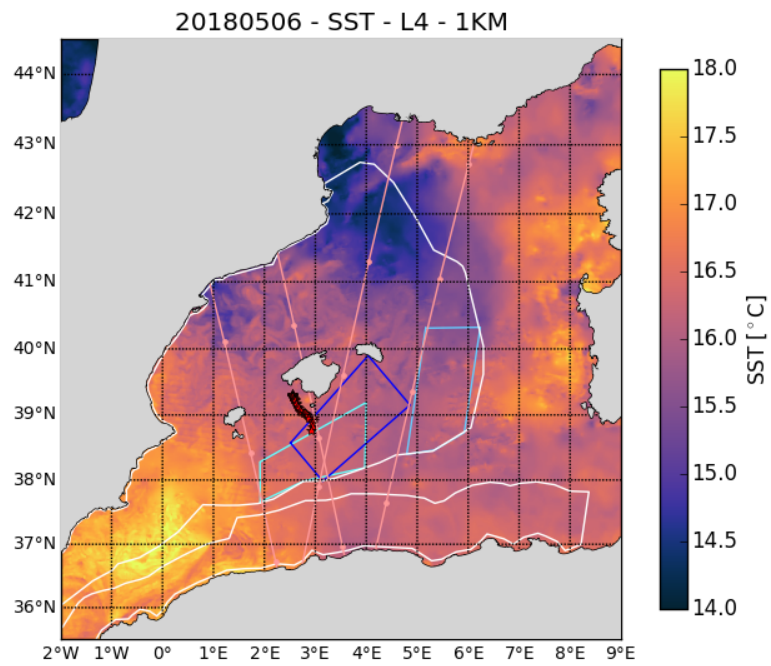
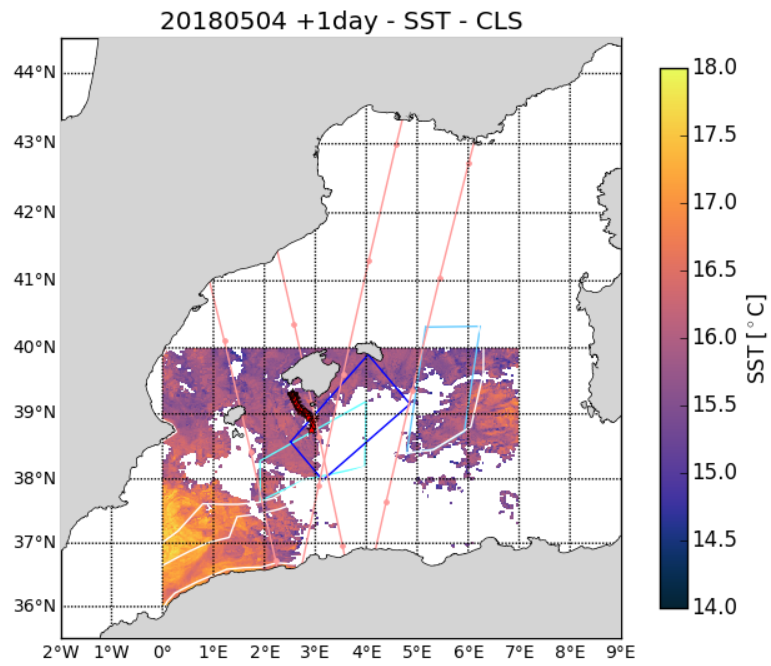
The distorted mesoscale structure mentioned in the last bulletins (located southeast of Ibiza and southwest of Majorqua) is still at the same spot. The BB may cross it on Sunday, as well as the smaller feature between Ibiza and Majorqua.



The Lat\_adv and Lon\_adv images agree with the FSLE structures.

The AB FSLE structure seems to separate waters originating from the southeast on its south-west side around A and coastal waters around B and in between.

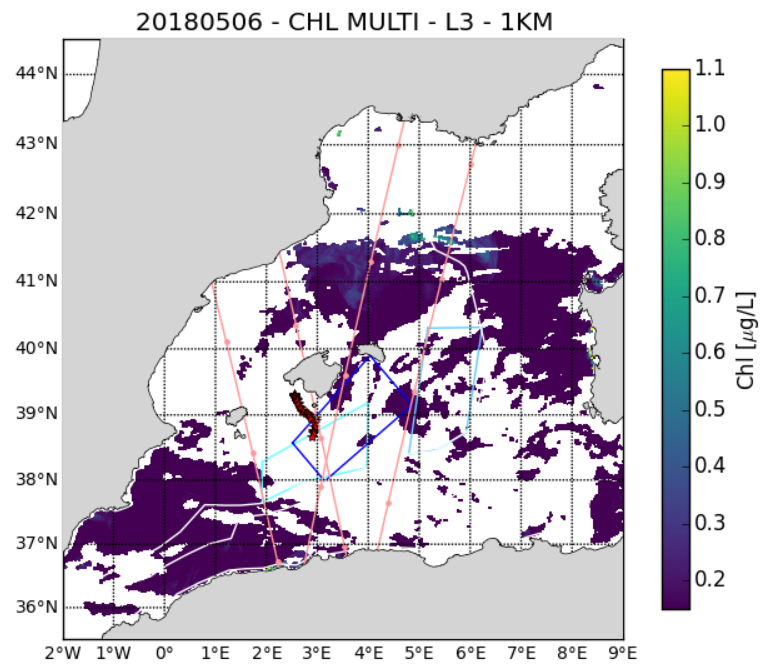
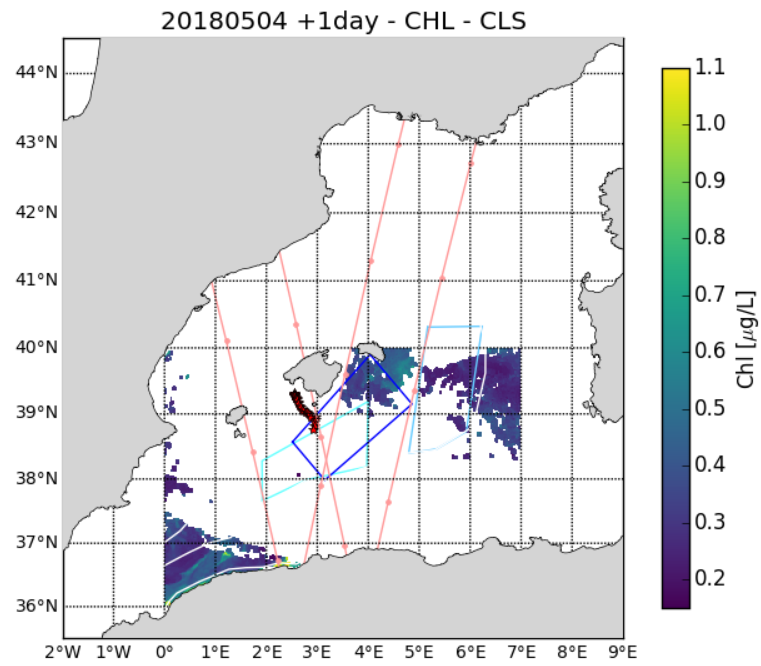
## 2.2 SST analysis



Globally the area has warmed up.



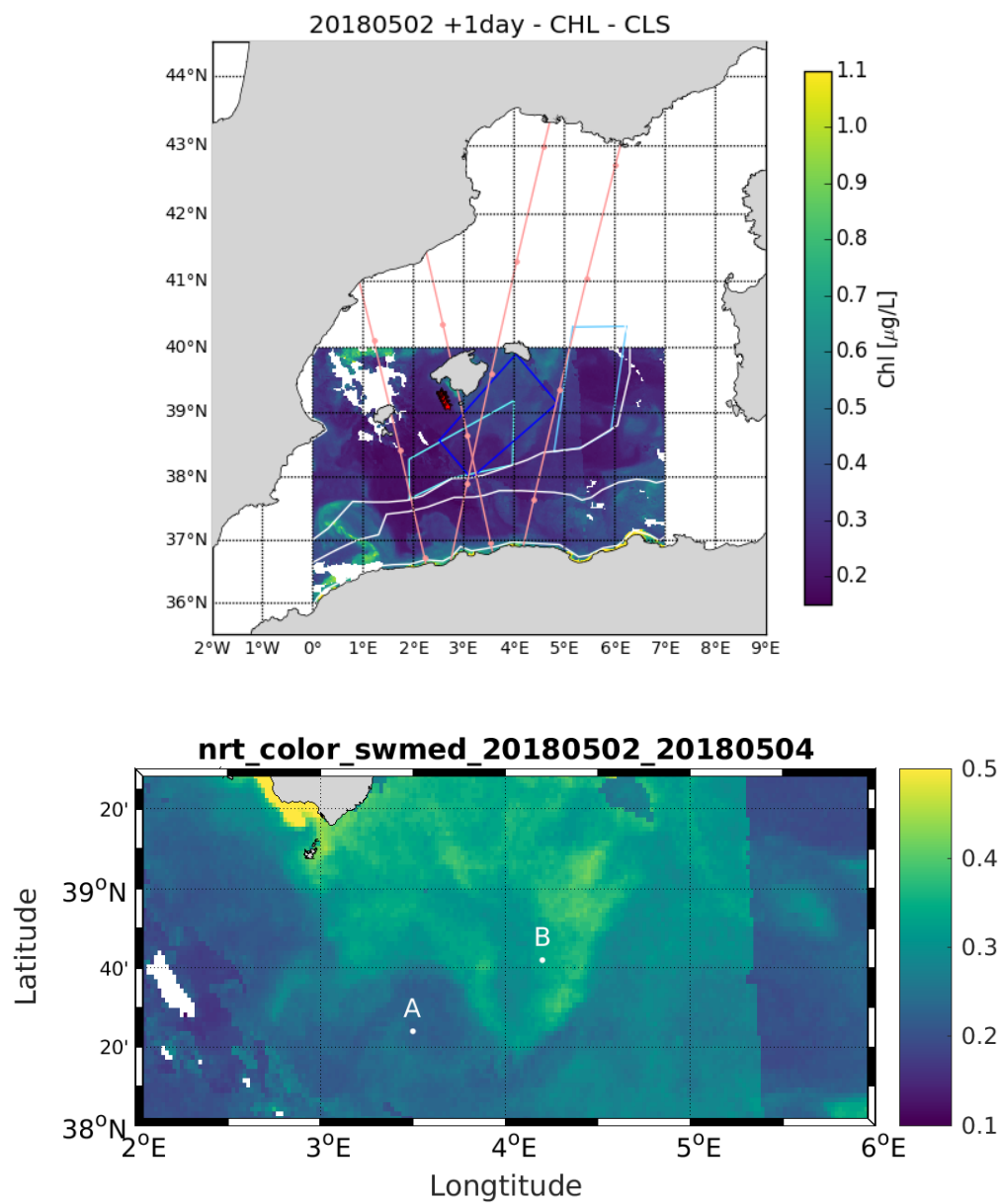
### 2.3 Chlorophyll analysis



No Chl data due to cloud coverage.



The last clear Chl figure is from the May 3 (global and zoom figures shown below).



## Acknowledgements

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. CLS provided the SST and surface CHL concentration composite products. 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.

PREBIOSWOT project webpages

(à définir)

SPASSO PREBIOSWOT webpages

<http://www.mio.univ-amu.fr/SPASSO/PREBIOSWOT/>