

PREBIOSWOT cruise

SPASSO Images Analysis

08/05/2018 11:08 UTC

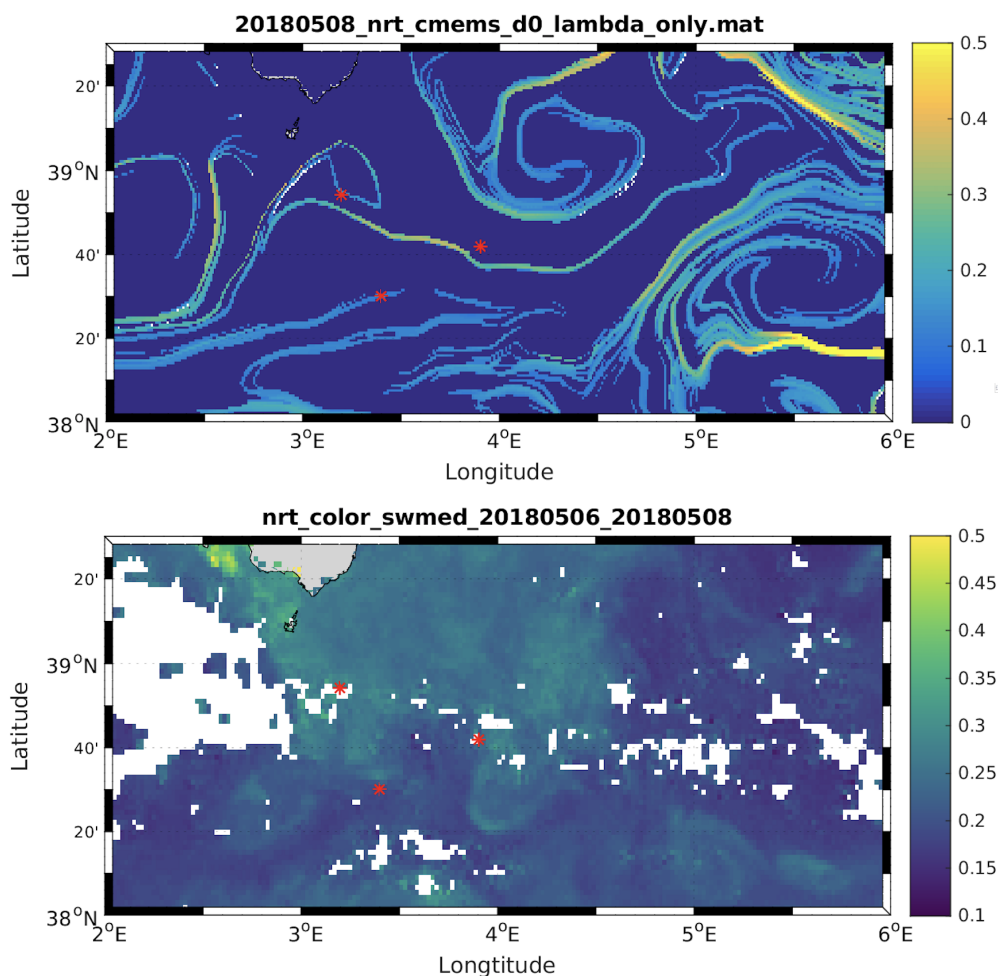
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Executive Summary

The strategy for the BB has been adapted. 3 different areas will be sampled starting today until Sunday (stars in the zoomed plots), with a back and forth strategy between the points.

The Lagrangian adaptative strategy is going to focus on an oblique NW-SE FSLE that will be crossed by the first transects between point A (about 3.4°E - 38.5°N) and B (about 3.9°E - 38.7°N) and crossed again by the following transects between A and C (about 3.2°E 38.9°N).

The CLS Chl figure is clearing up. It seems to show a nice contrast between A and C, although weaker than the last clear Chl figure.

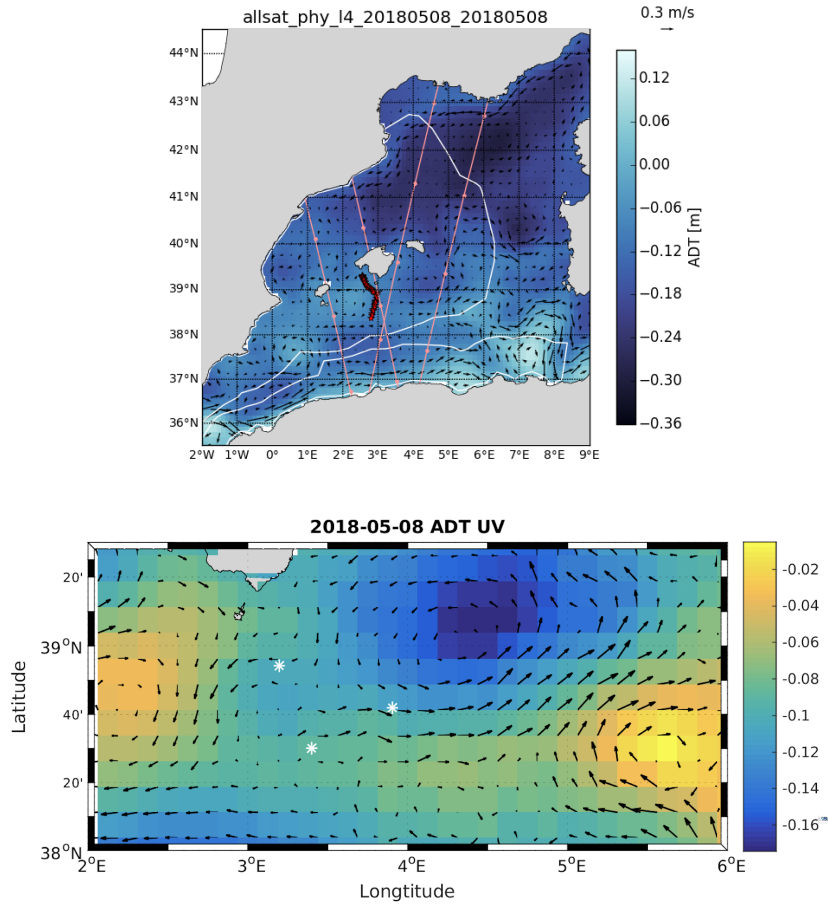


1 Ongoing operations and upcoming stations

The strategy for the BB has been adapted. 3 different areas will be sampled starting today until Sunday (stars in the zoomed plots), with a back and forth strategy between the points, and with the season undulating first in the range 0-250m and then between 0-400m. The overlapping with the GdC area (between 2.5-3.5°E and 38-39°N) is improved and the 3 different areas cover quite well the satellite Chl patch observed in the last clear CHL figure by CLS.

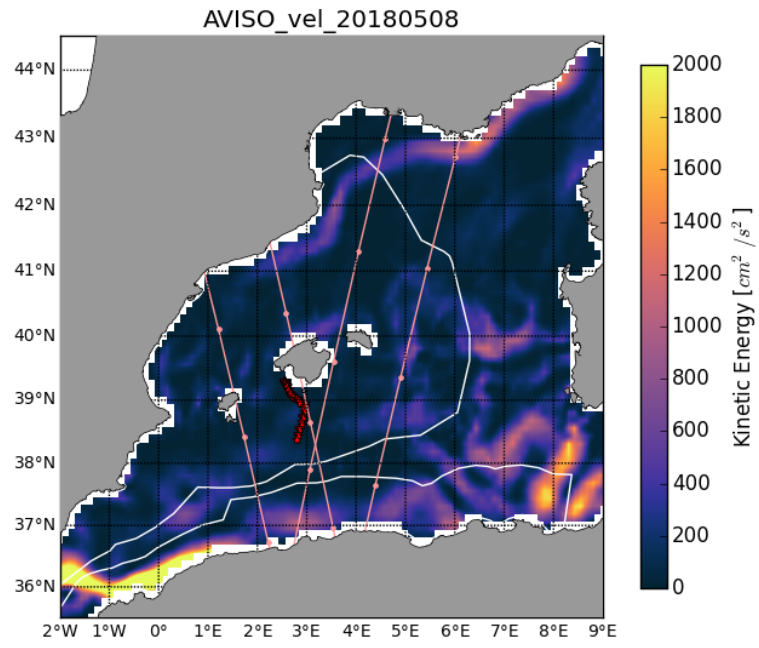
2 Daily figures analysis

2.1 Altimetry, derived currents and Lagrangian analysis

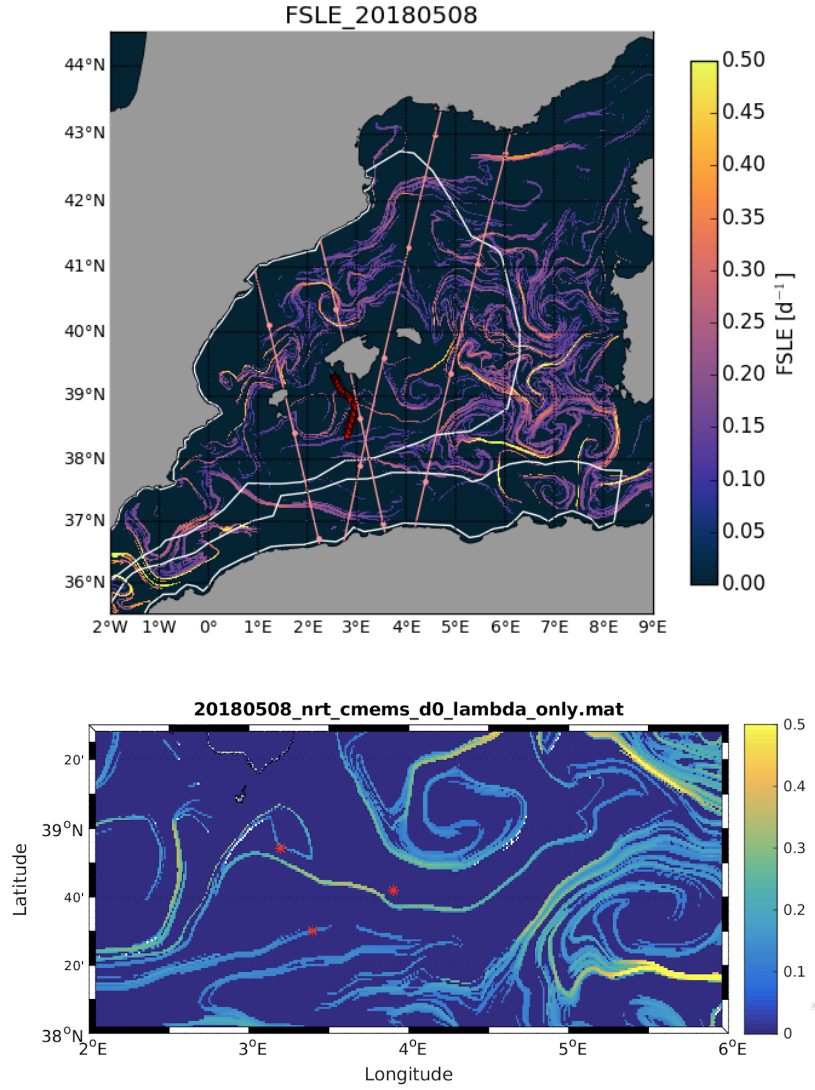


The currents are relatively weak in the chosen area. Section AB crosses eastward currents. Nonetheless, in the previous cases when the BB crossed this FSLE, the AVISO currents were not in agreement with the ADCP currents. The ADCP currents were exhibiting currents to the Southeast about A, and towards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

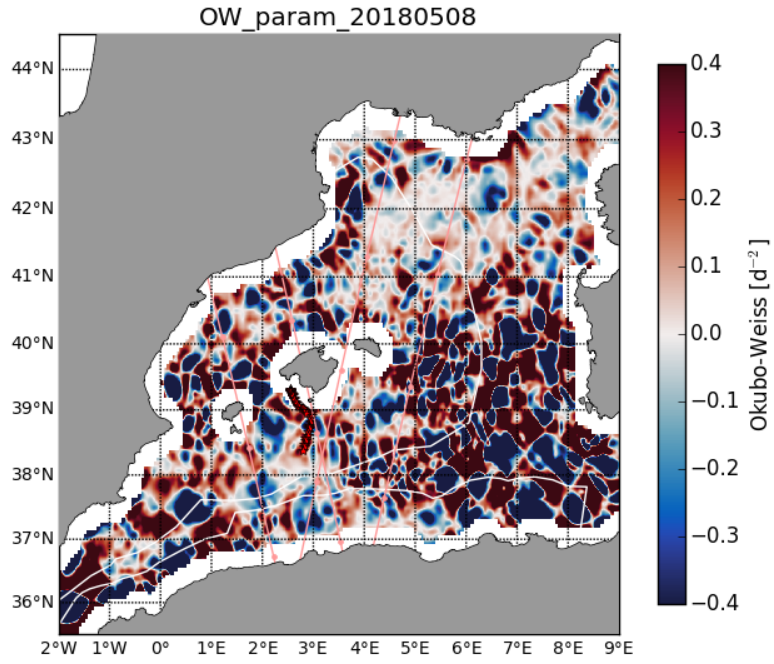
The anticyclonic structure mentioned in the last bulletins and centered at 5.5°E - 38.4°N is still visible.



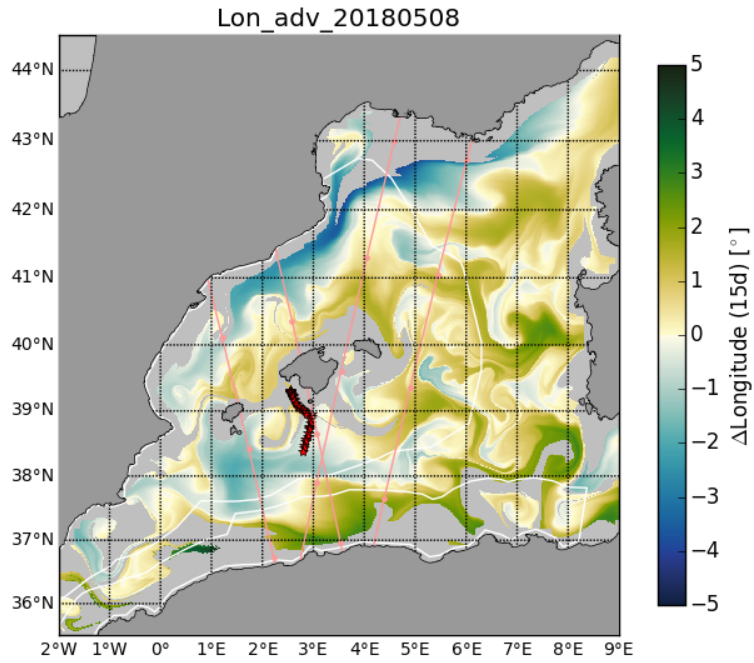
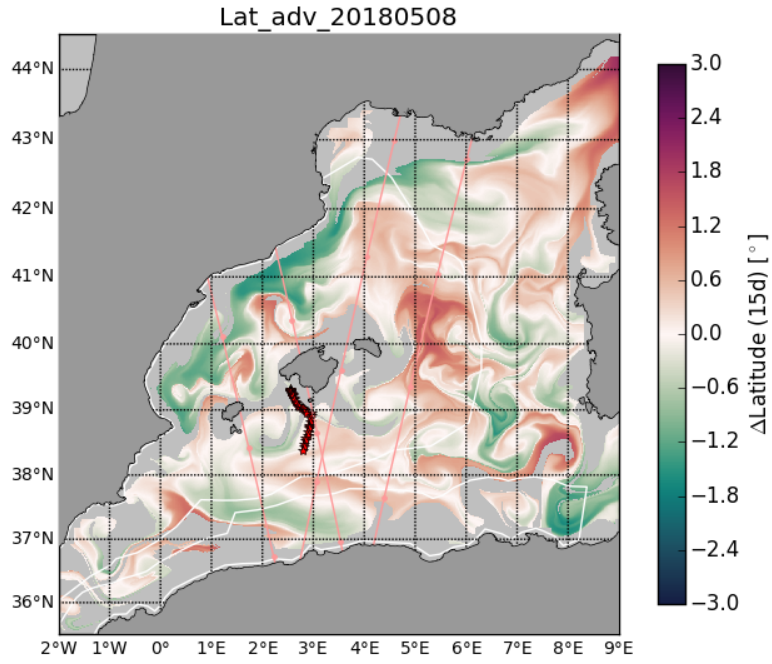
The area has low energy.



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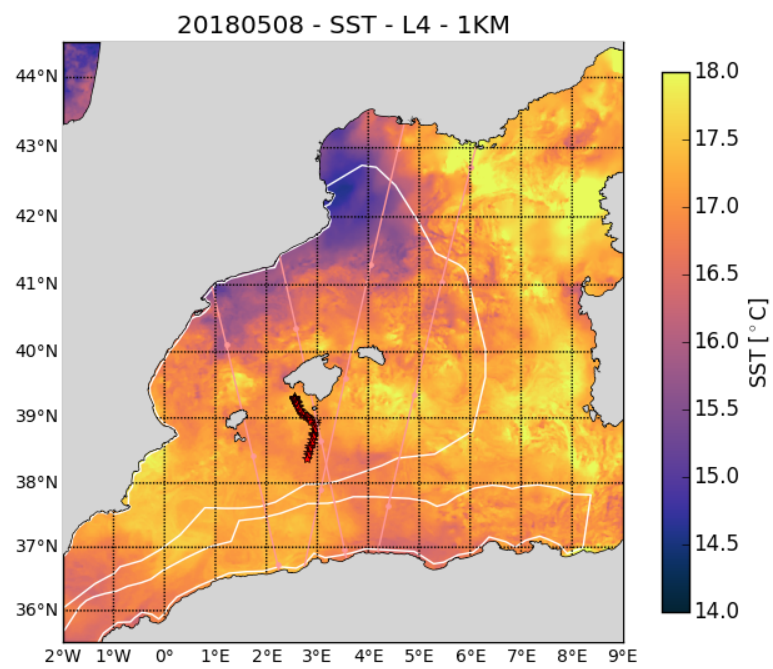
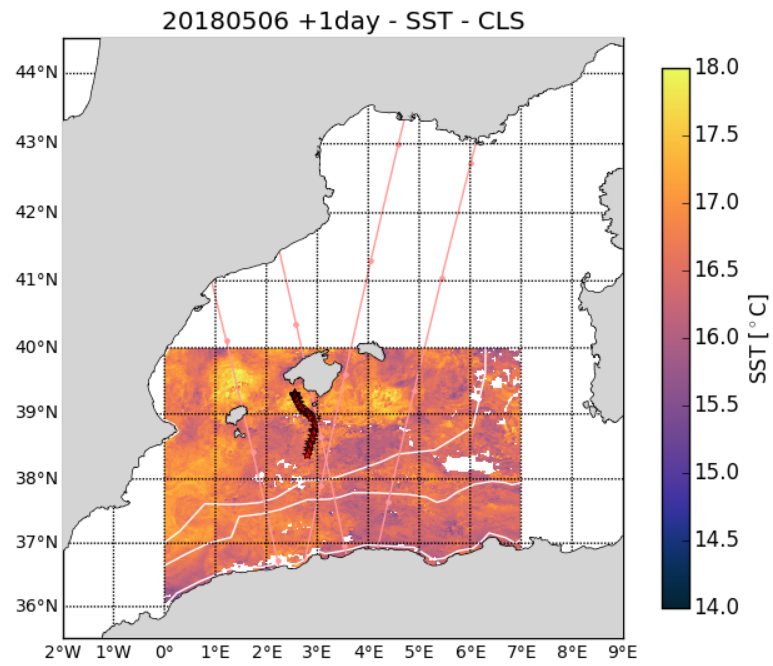
The distorted mesoscale structure mentioned in the last bulletins (located southeast of Ibiza and southwest of Majorqua) is still at the same spot. The BB may cross it on Sunday, as well as the smaller feature between Ibiza and Majorqua.



The Lat_adv and Lon_adv images agree with the FSLE structures.

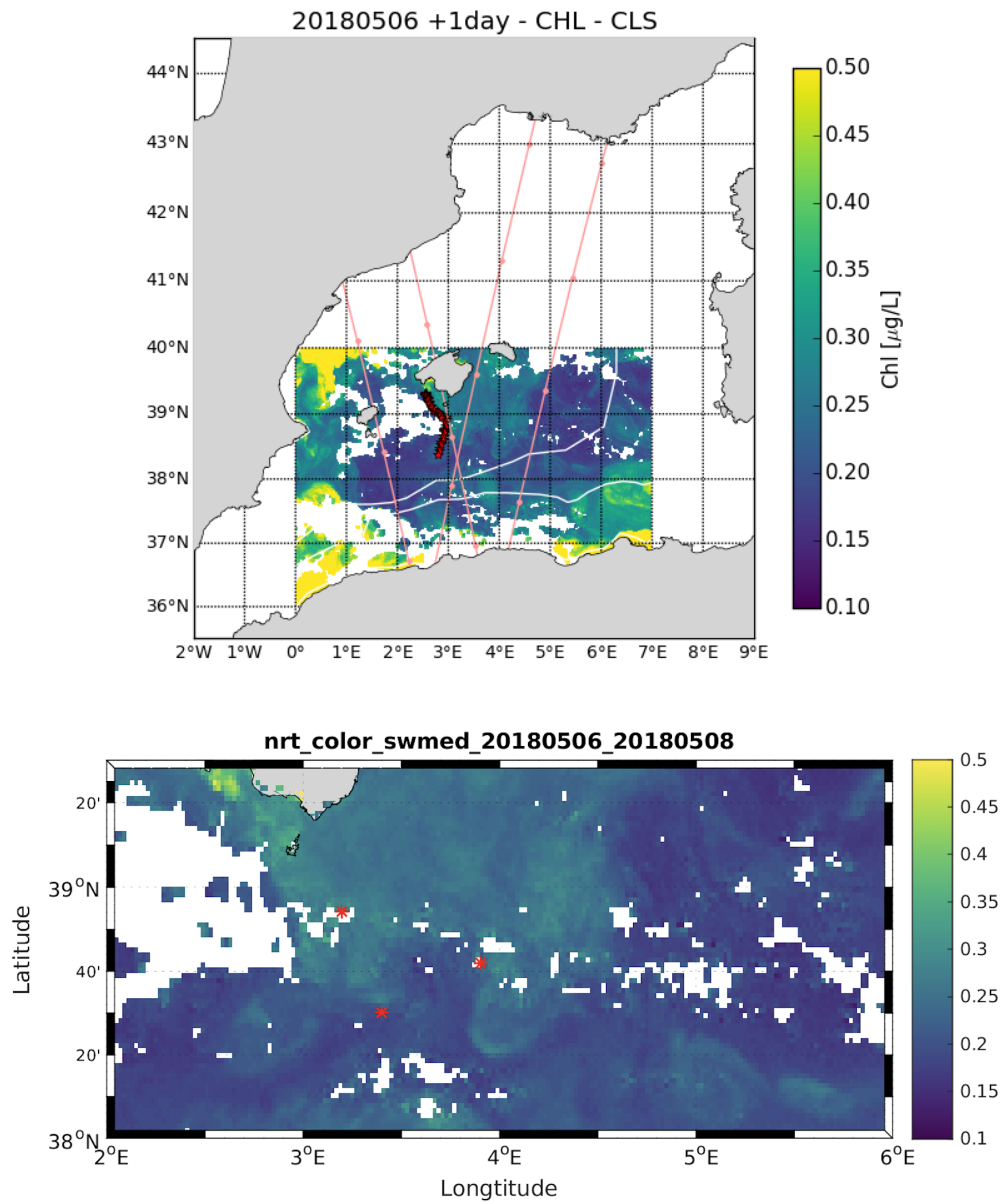
The FSLE structure that will be crossed by the BB transects seems to separate waters originating from the southeast on its south-west side (around A) and coastal waters on its north-east side (around B and C).

2.2 SST analysis

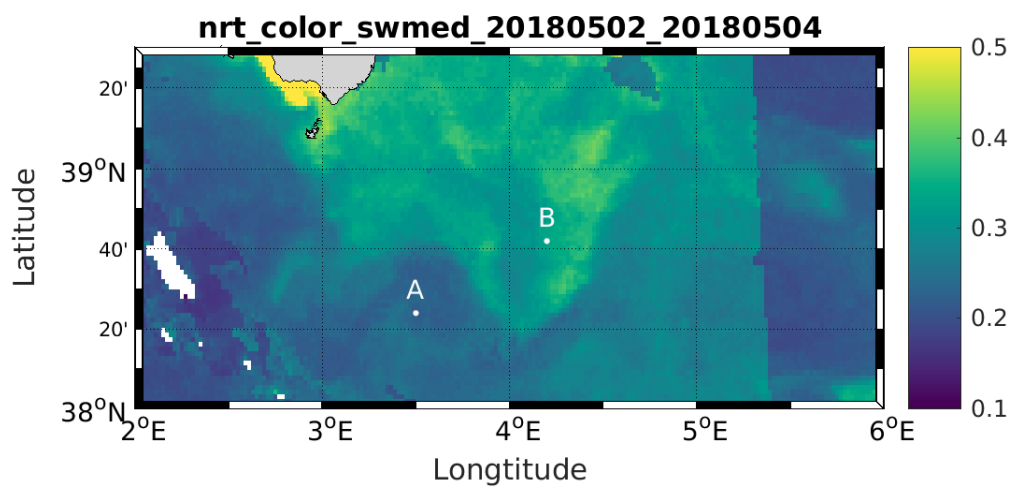
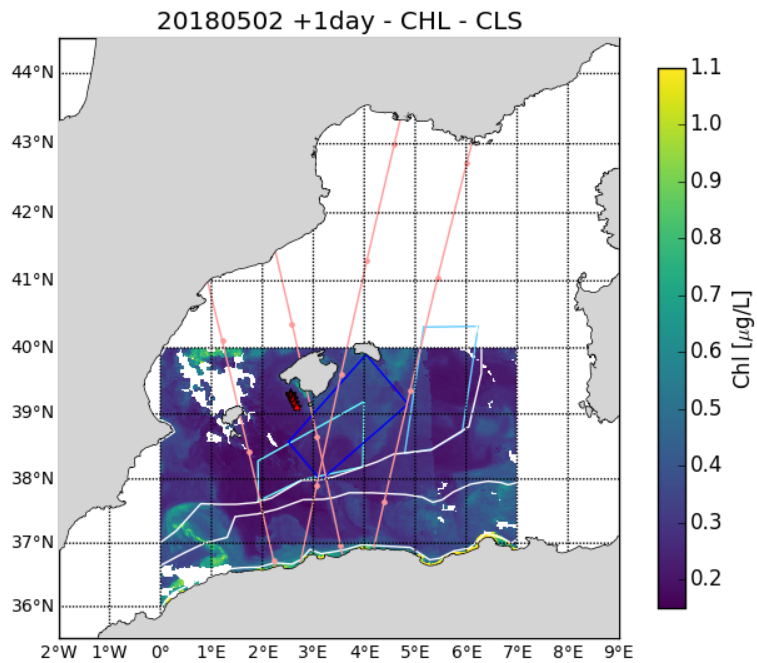


Globally the area has warmed up.

2.3 Chlorophyll analysis



The CLS Chl figure is clearing up. It seems to show a nice contrast between A and C, although weaker than the last clear Chl figure (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/>