PREBIOSWOT cruise SPASSO Images Analysis

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Executive Summary

This is the third bulletin test before the cruise starts. The beginning of the cruise is scheduled for April 28, 2018.

A meteorological depression is crossing the area of study hence the cloud coverage prevents us from obtaining Chlorophyll and temperature maps in the CLS products. Notice the recently changed images of Lat_adv and Long_adv, done by Stéphanie. Following the Lat_adv image, we would recommend staying in the area between 37.5 and 38.5°N and between 2 and 4°E; which should correspond to the remnant of the filament previously followed. Over this area, the Lon_adv shows a east-west zonal shear with the Northern part coming from the North (see Lat_adv).



1 Ongoing operations and upcoming stations

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2 Daily figures analysis

2.1 Altimetry, derived currents and Lagrangian analysis



The SWOT area is very calm.



A high velocity structure is located South-East of the SWOT transect.





Both the FSLE and the OW figures show weak activity in the SWOT area.





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The CLS product has cloud coverage in the area of study. The CMEMS composite image shows

a warming of the zone around 5-6°E longitude from the African coast to around 40°N .



2.3 Chlorophyll analysis

The anticyclonic eddy which had appeared SW (see last bulletin) is still associated with a local Chl increase. This eddy seems to stay at the same spot, potentially stopped there in its eastward translation by currents coming from the northeast.





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/