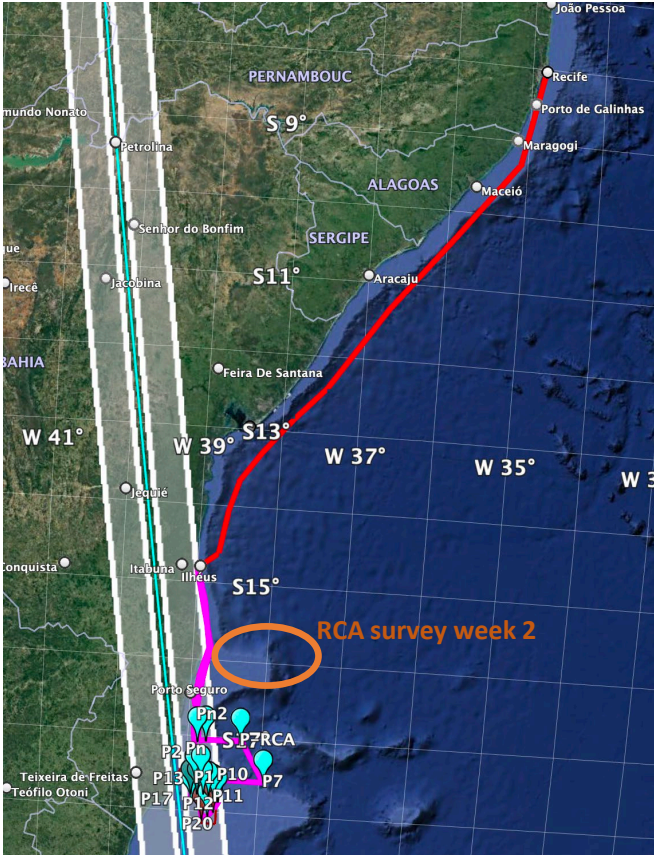


# SWOT-Abrolhos – Leg1 May 2023 and Leg2 Sept' 2023

Fabrice Hernandez (IRD), Alex Costa (UFPE), Angelo Lemos (UFSB), Marcus Silva (UFPE), Pedro Melo (UFPE), Vincent Ventrepotte (CNRS), Ramilla Vieira (CMIV) + More collaborators for Leg2



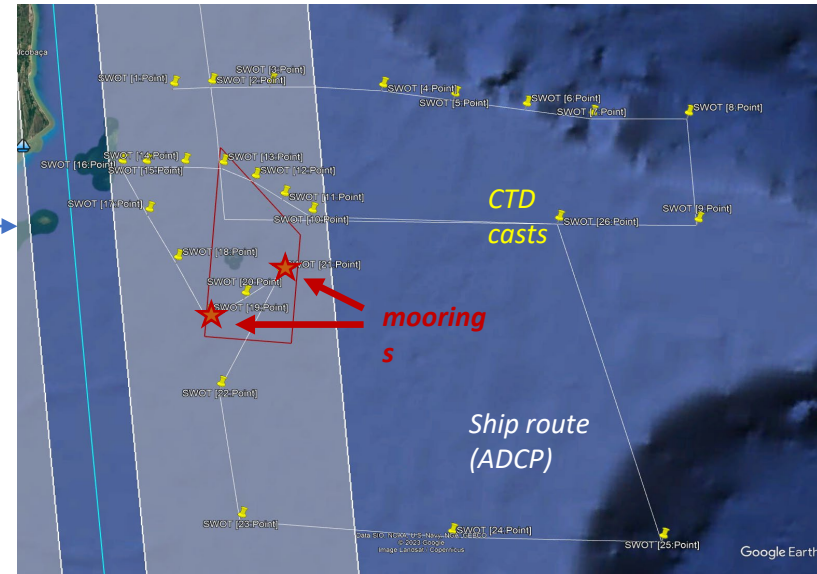
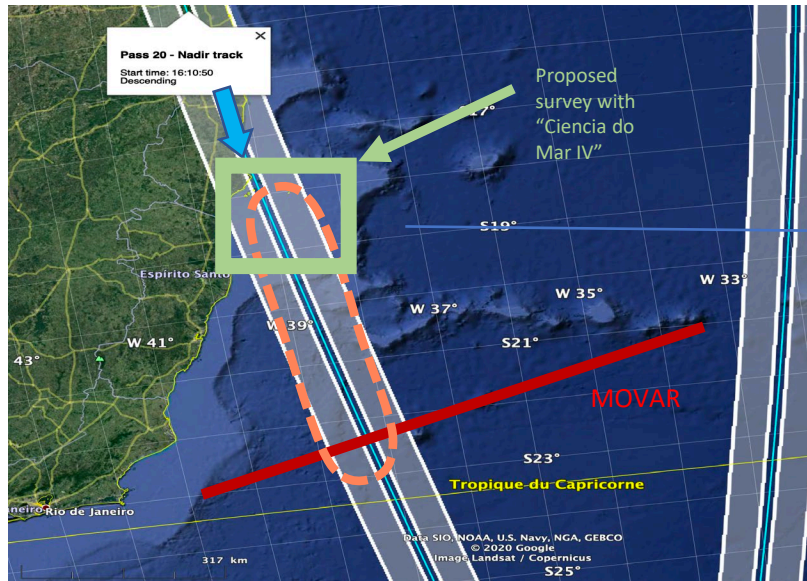
Start in Recife (5/5/2023)  
 Stop at Ilheus (8/5/2023)  
 Abrolhos Bank Survey from the 8/5  
 Royal Charlotte Bank Survey from 15/5



# SWOT-Abrolhos

## Scientific objects

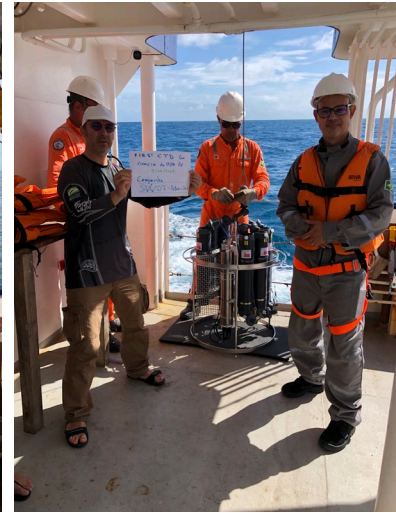
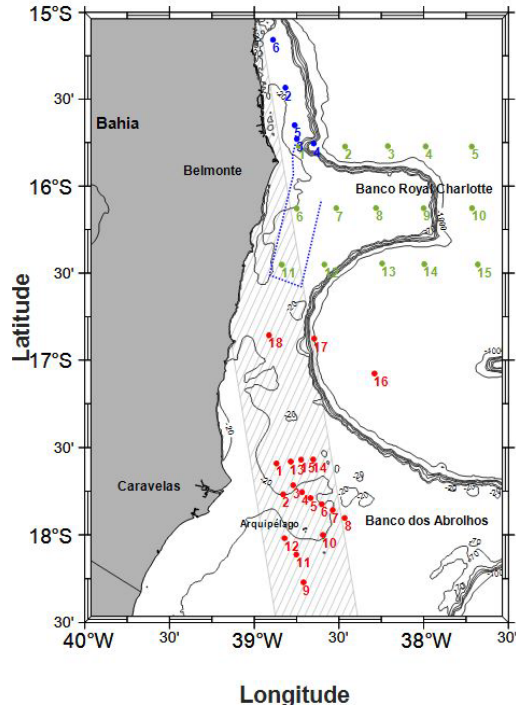
- Partnership with Brazil on satellite altimetry as part of SWOT-Brésil
- Western Boundary (Brazil Current), shelf/ridge interactions, mesoscale/tidal turbulence, coral reefs and shallow dynamics
- Model studies: NEMO 1/36° regional TAPIOCA36 configuration (Tides/NoTides), support of CMEMS forecasts and products
- Characterisation with models, satellite data of IW generation and propagation
- Opportunity of a light surveys with UFPE and UFSB support with the university training ship CMIV (limited shiptime)



# SWOT-Abrolhos

## Measurements done

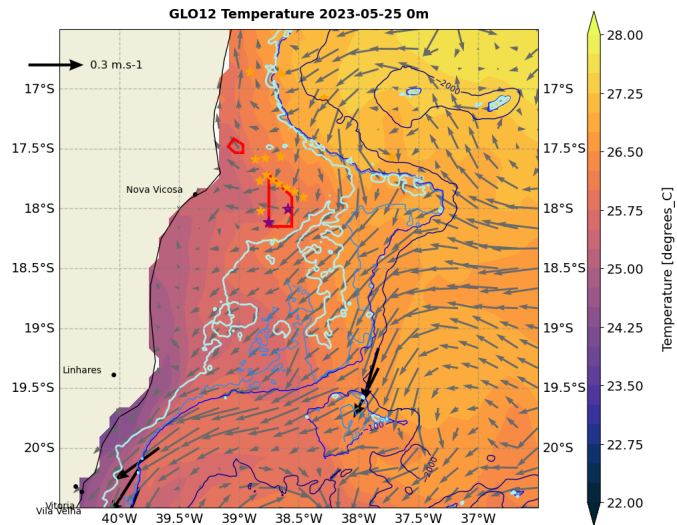
- ShipBoard Mounted ADCP
- CTD Casts + geochemistry
- S4 mooring (u, SWH)
- AWAC ADCP mooring (u, SWH)



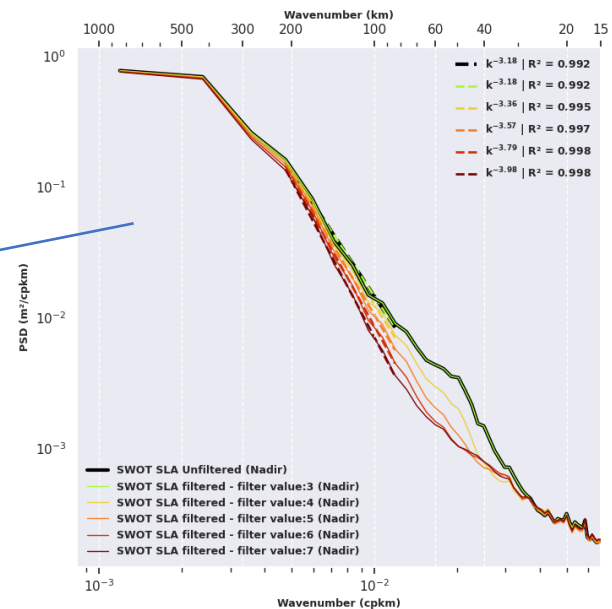
SWOT AdAC campaign - 2

# SWOT-Abrolhos

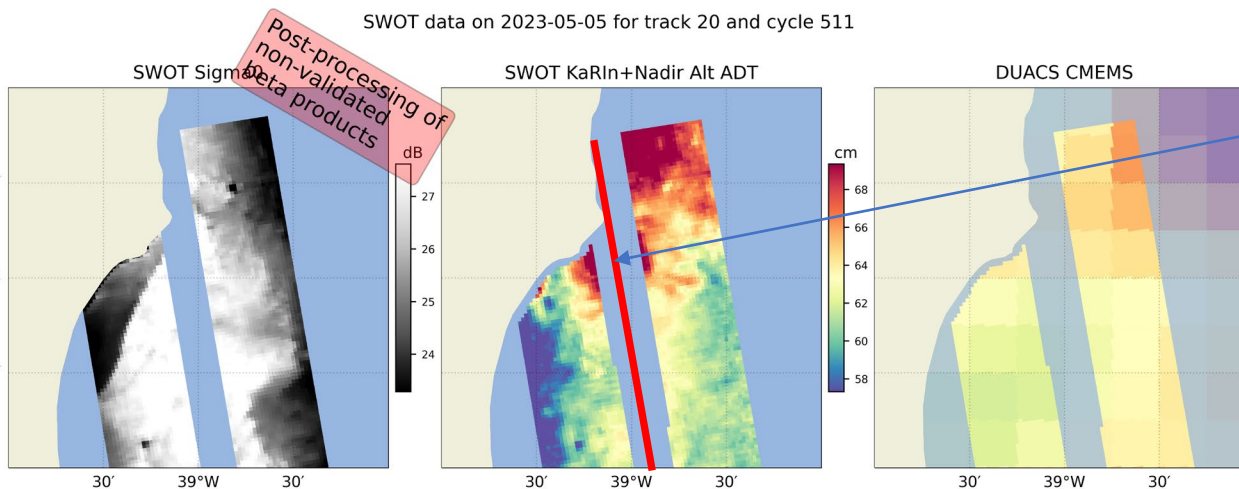
## Preliminary results



Spectral analysis of SWOT 1D repeat nadir Track 20 (A. LeBihan, LEGOS)



SWOT data on 2023-05-05 for track 20 and cycle 511



# SWOT-Abrolhos

## Future perspectives

Leg 2 : 4/9 → 9/9/2023 : Similar survey and CTD casts + Mooring recovery

- SWOT Nadir: comparison to existing nadir altimetry: X-TRACK, S3A, S3B and S6 data analysis
- Water sample analysis (P. Melo, V. Ventrepotte) and comparison to CMEMS forecast
- TAPIOCA36 analysis (A. Le Bihan, C. Cardot, F. Hernandez))
- S-ADCP and M-ADCP data comparison to 1) CMEMS forecast and AVISO, 2) Nadir altimetry, 3) SWOT data (R. Vieira, A. Costa, F. Hernandez)

*A larger campaign in partnership with Brazilian ships is under consideration following AMAZOMIX or designed into the Vitoria-Trindade Ridge IW propagations*