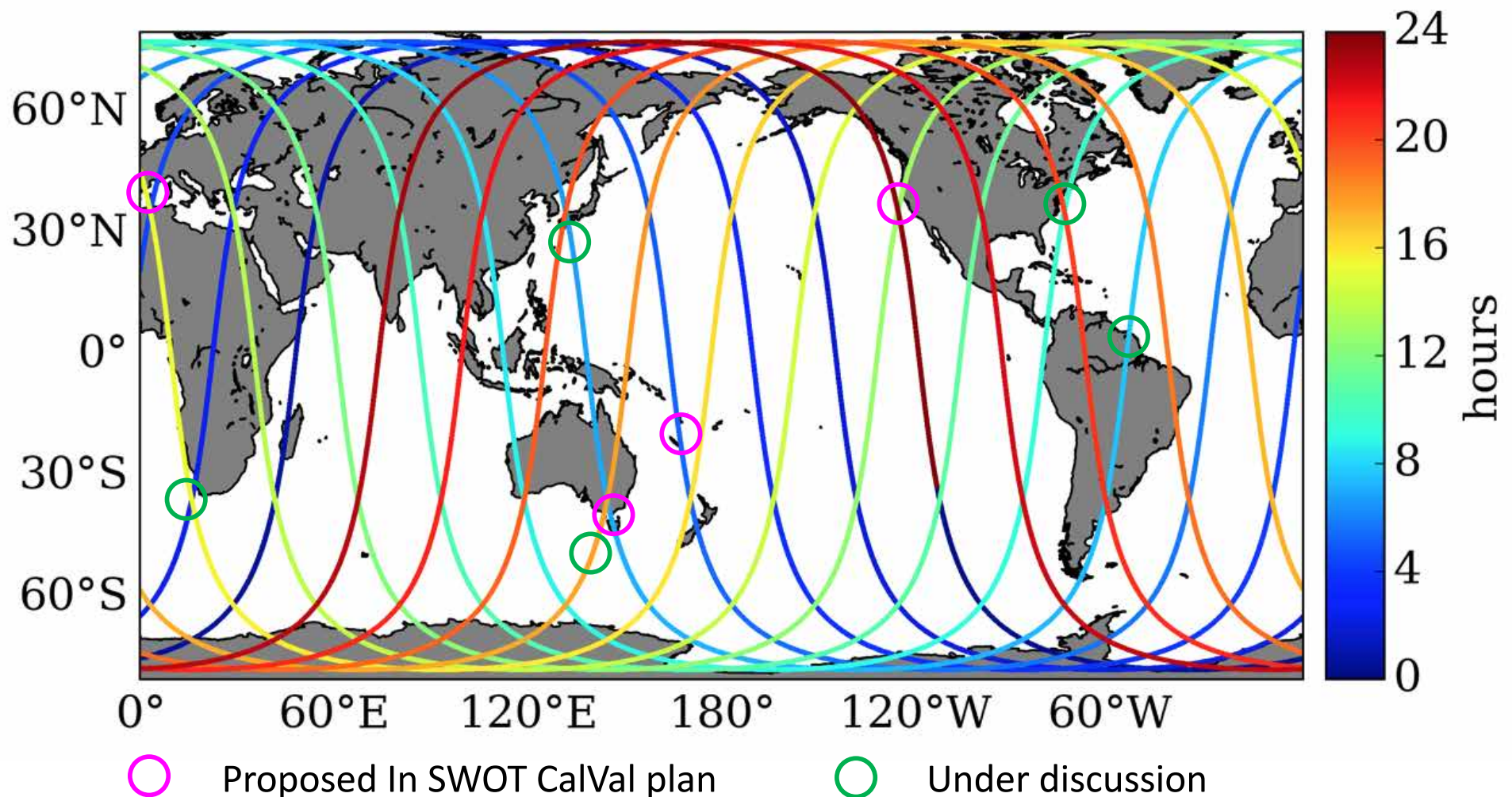


Overview of other possible sites

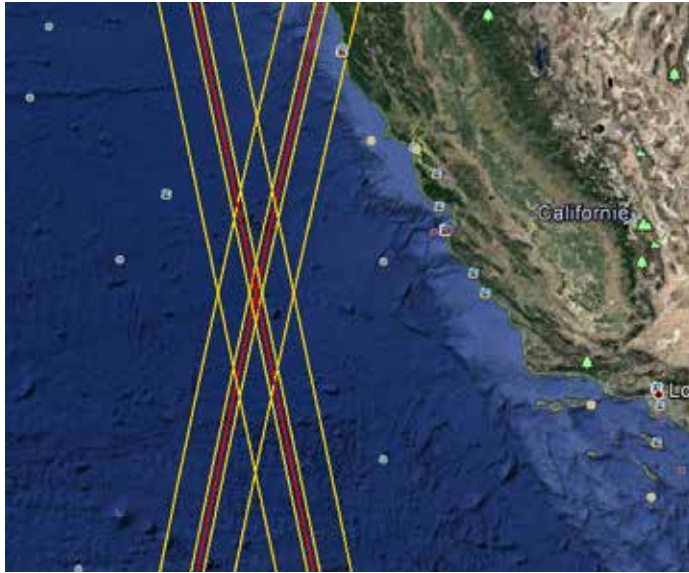
SWOT Launch Sept 2021

Fast sampling phase (1 day orbit) : Jan-Fev-Mar 2022

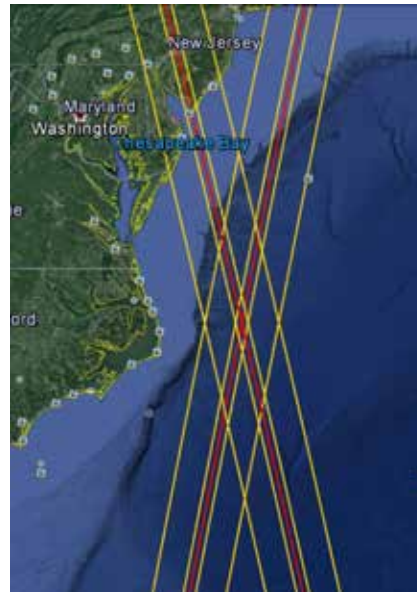
Science phase (global coverage, 21-day orbit) : 3 yr > Mar 2022



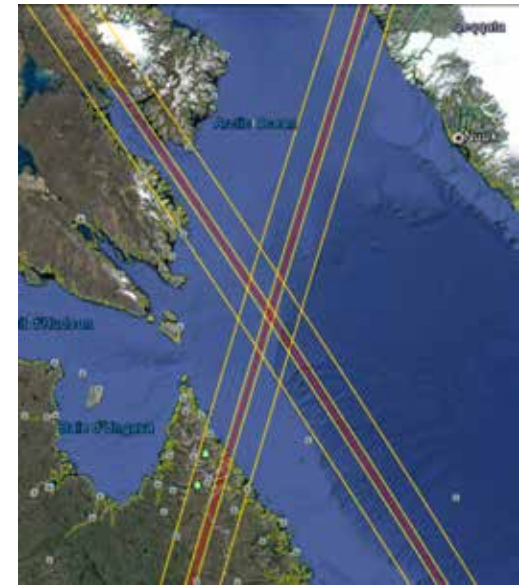
Overview of other opportunities



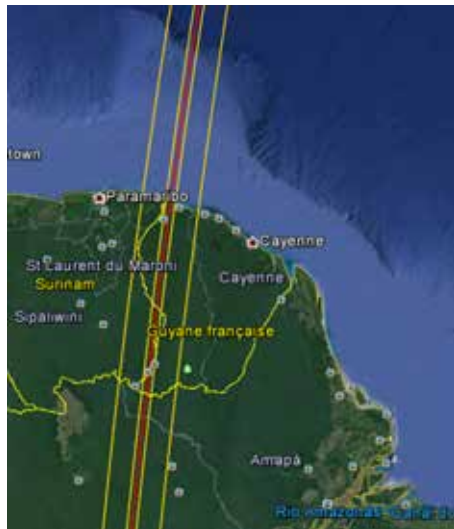
Californian Xover



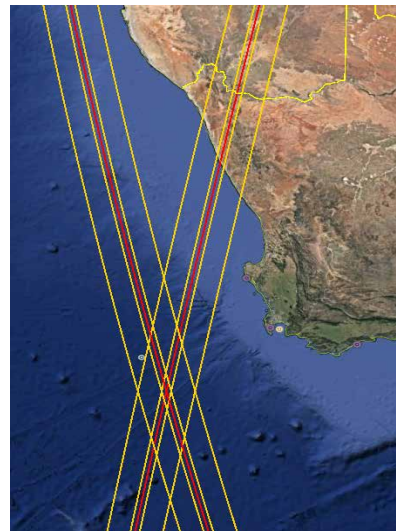
Gulf Stream / Mid-Atlantic Bight ?



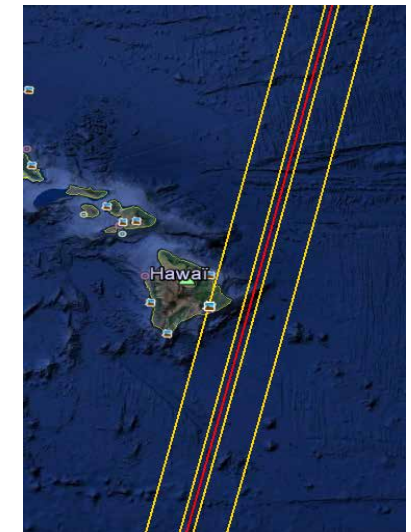
Labrador Sea ?



French Guyana /
Brazil Current ?



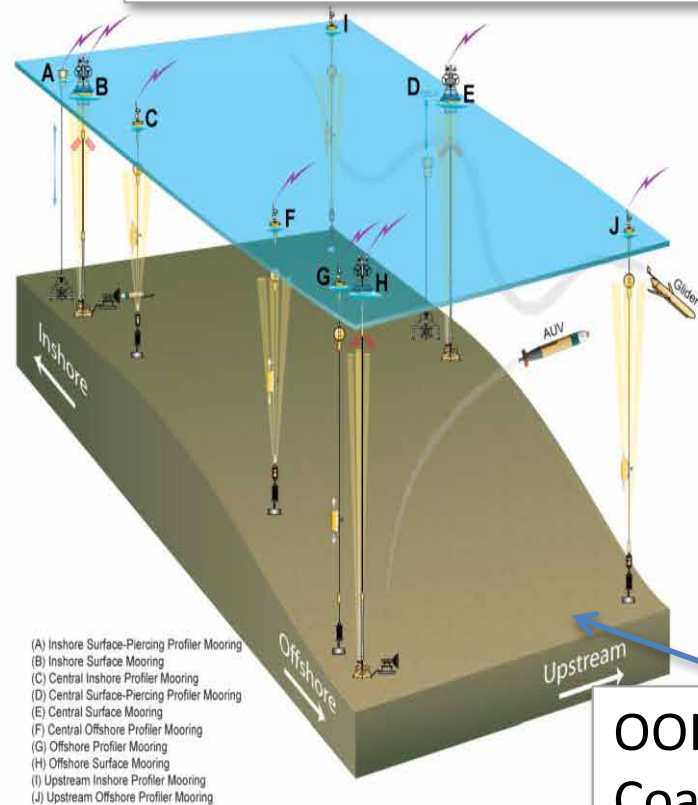
Agulhas xover,
Benguela upwelling?



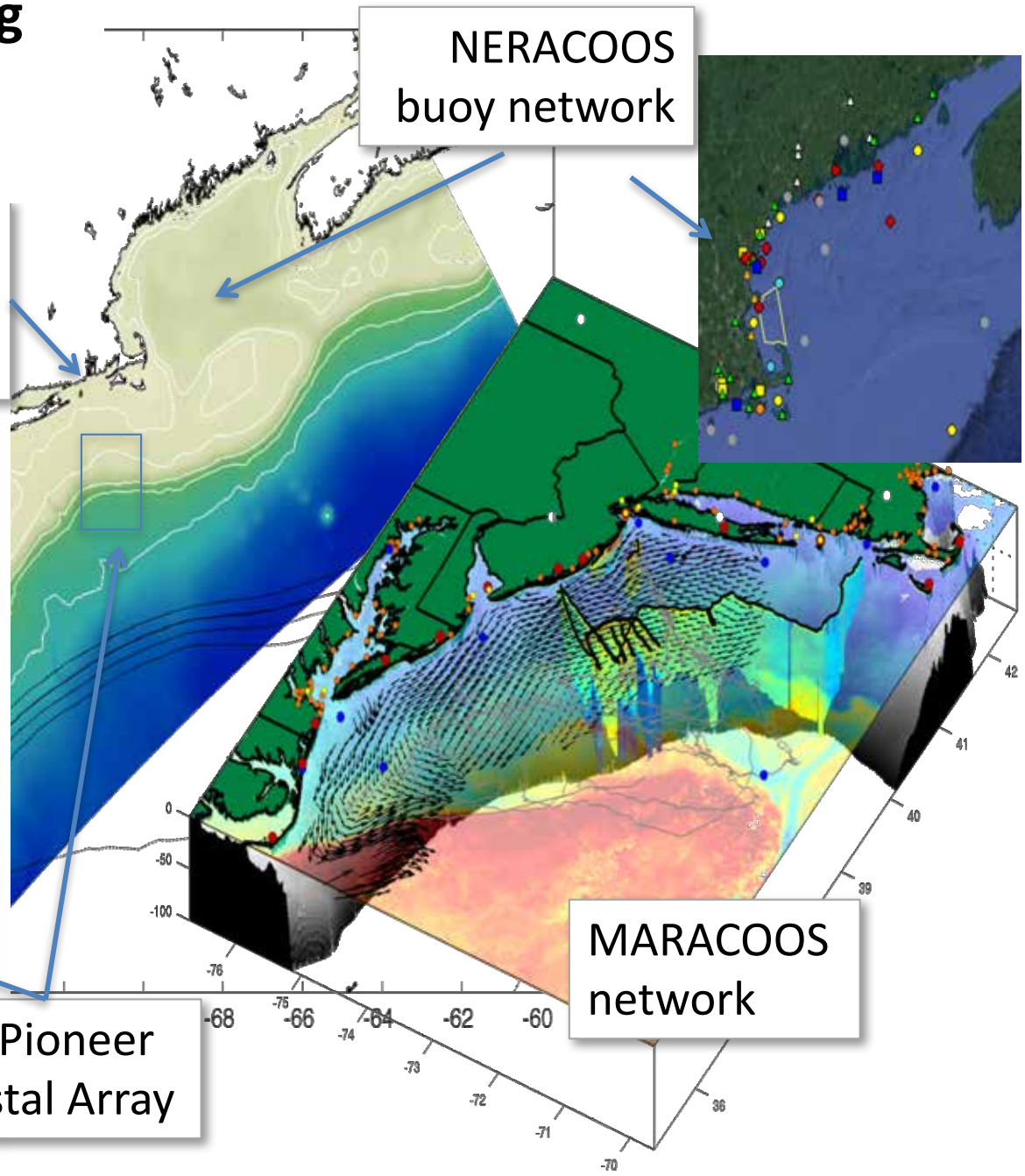
Internal tides near
Hawaii?

Sustained in situ Observing Systems on the Northeast U.S. Shelf

ROMS model domain for MARACOOS ocean forecast system



OOI Pioneer Coastal Array



Labrador Sea

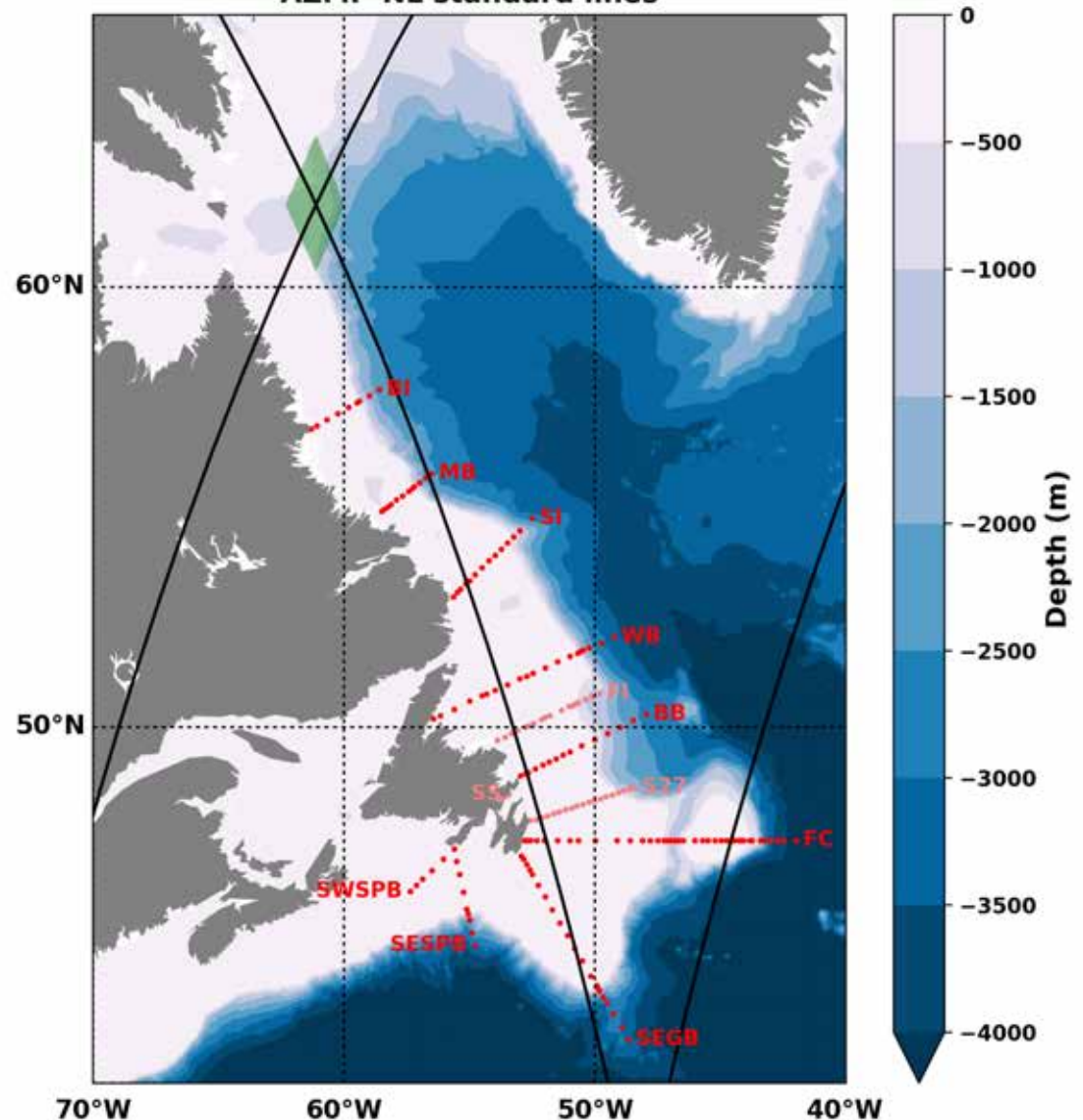
Fred Cyr (NAFC, St. John's)

Fast sampling orbit crossover in close proximity to the region monitored by DFO as part of the Atlantic Zone Monitoring Program (AZMP).

AZMP-NL standard lines

Proposal /under discussion :

- Repetitive underway CTD (with Chl-a)
- acoustic measurements (echo-sounder & ship ADCP)
- drifter releases, glider deployments,
- microstructure,
- plankton net sampling, validation trawls (for acoustics) and/or surface continuous measurements of biogeochemical properties.
- validation of operational numerical models



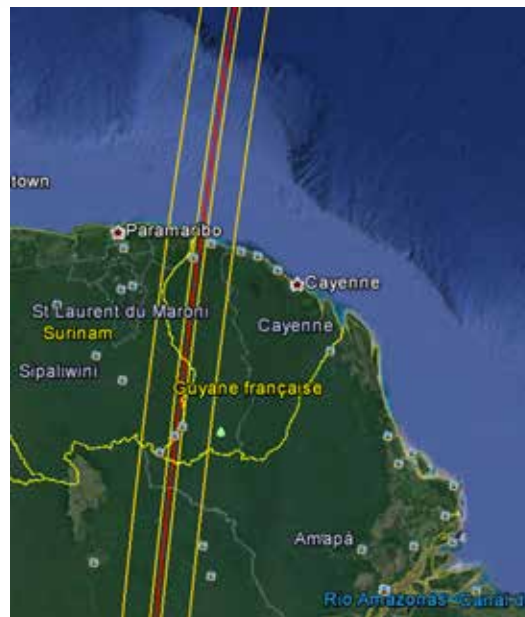
AMAZOMIX

France : A. Koch-Larrouy (LEGOS), A. Bertrand (MARBEC), V. Vantrepotte (LEEISA/LOG), I. Dadou (LEGOS), J.F. TERNON (MARBEC), F. Blanchard (LEEISA), F. Lyard (LEGOS), L. Carrere (CLS), S. Herbette (LOPS), J. Jouanno (LEGOS)

Brazil : M. Araujo (UFPE), A. Costa Da Silva (UFPE), M. Silva (UFPE), R. Swchamborn (UFPE), S. Neumann Leitão (UFPE), M. Kampel (INPG), J. Lee (UFPA), V. Isaac (UFPA), M. Rollnic (UFPA), S. Monteiro (UFPA), J. E. Martilleni Filho (UFPA)

Portugal : J. Magalhaes (FC. UP.), J. C. P. B. T. Da Silva (FC. UP.)

USA: A. Subramaniam (Lamont), J.P. Montoya (GATECH)



Charaterization of dissipation and propagation of Internal waves on the Amazon Shelf

- Internal waves generation on the shelf and shelf break
- Some propagate others no
- The will induce strong vertical mixing



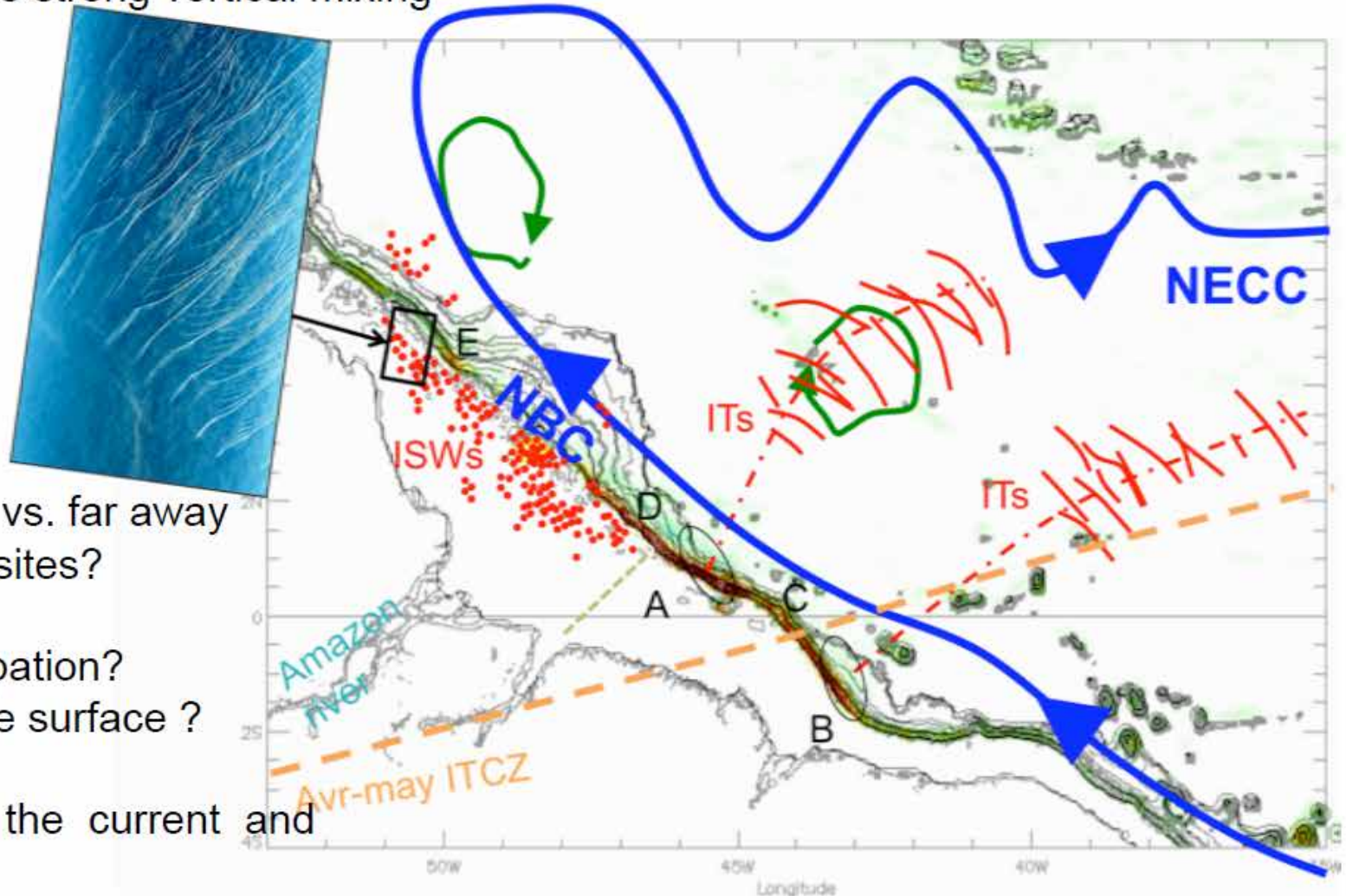
Questions :

Dissipation local vs. far away from generation sites?

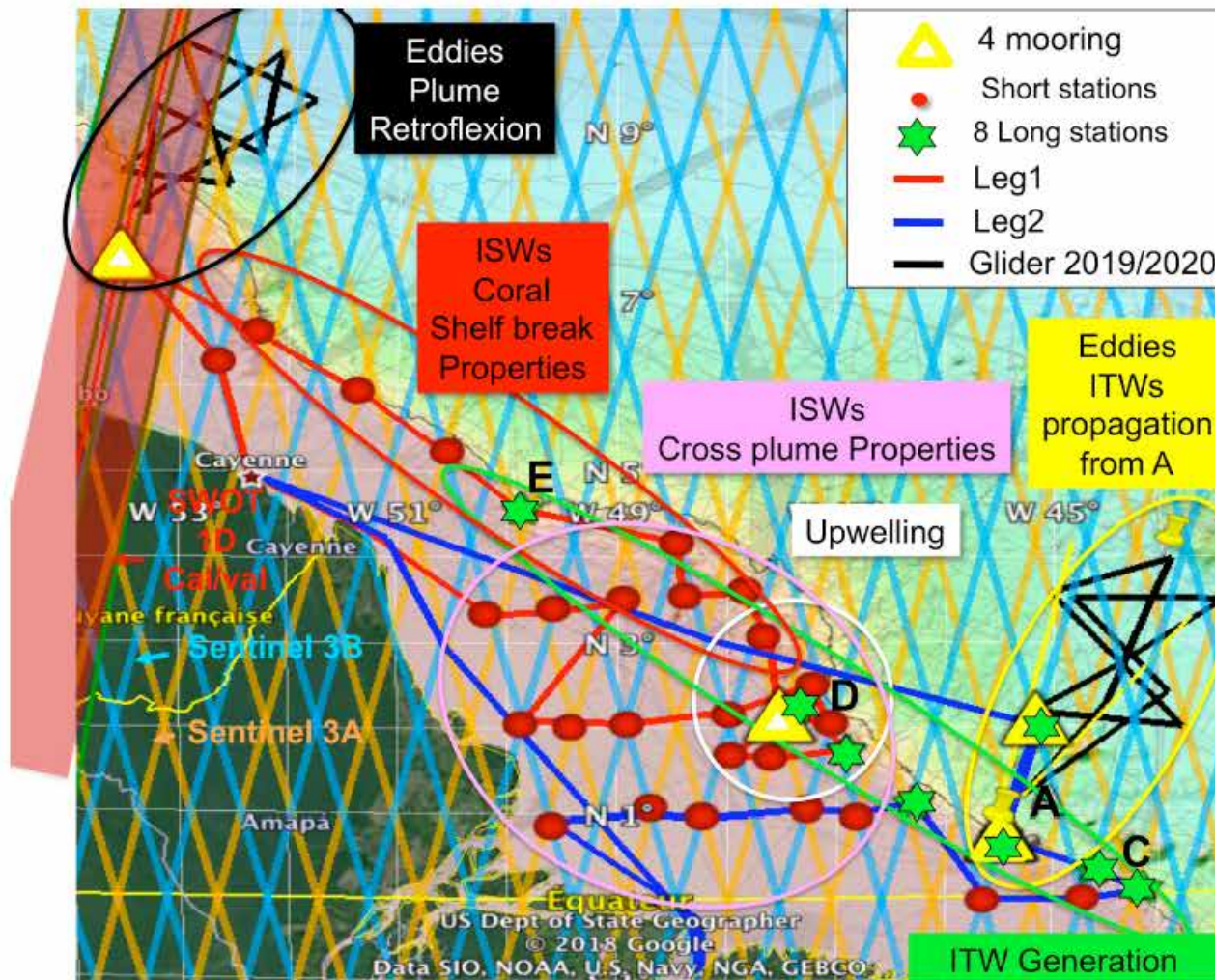
Intensity of dissipation?
Could it reach the surface ?

Interaction with the current and eddies ?

Impact of mixing on biogeochemistry and ecosystems ?



AMAZOMIX (prévue sept 2019)



VMP et CTD/LADCP alternés

Prélèvements pour

O₂, N, P, Si ...

- Turbidity, MES, Chla
- C and N isotopes
- POM, DOM, POC, DOC
- Phyto, Zoo
- Necton, Neuston
- DIC, TALK, pH
- u-pCO₂

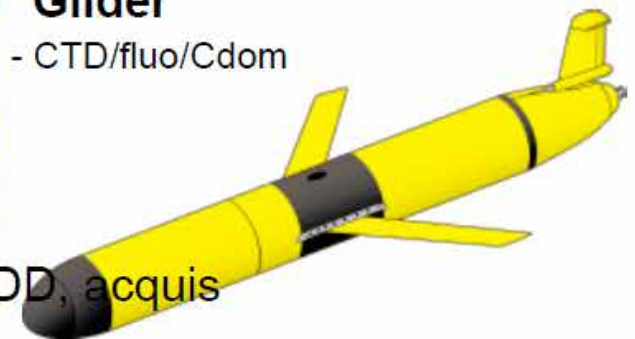
Acoustique + chalut

pelagique et benthique

Mouillages (1 an)

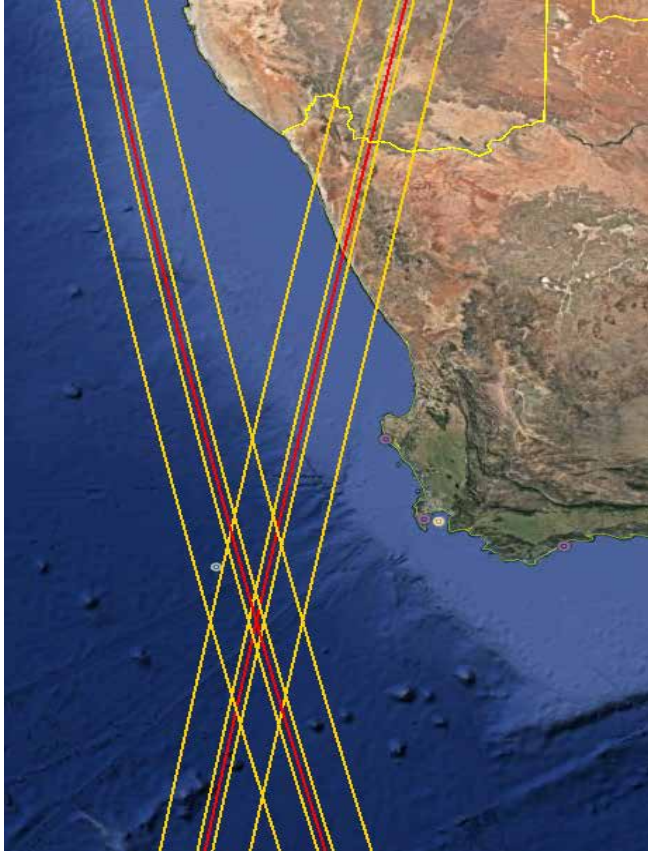
Glider

- CTD/fluor/Cdom

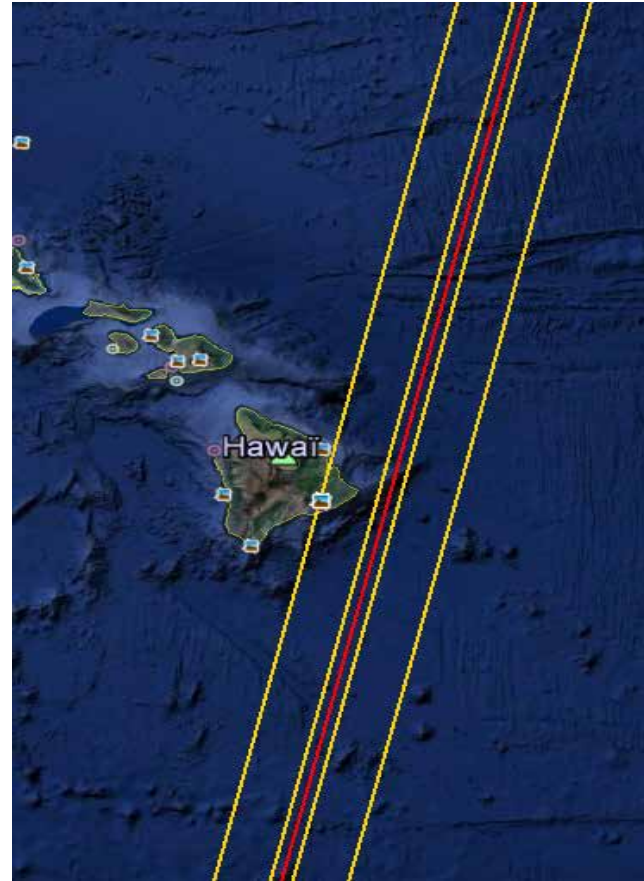


Financement Guyamazon, LMI TAPIOCA, thèse, CDD, acquis
En cours TOSCA, LEFE, FLOTTE

Other regions ?



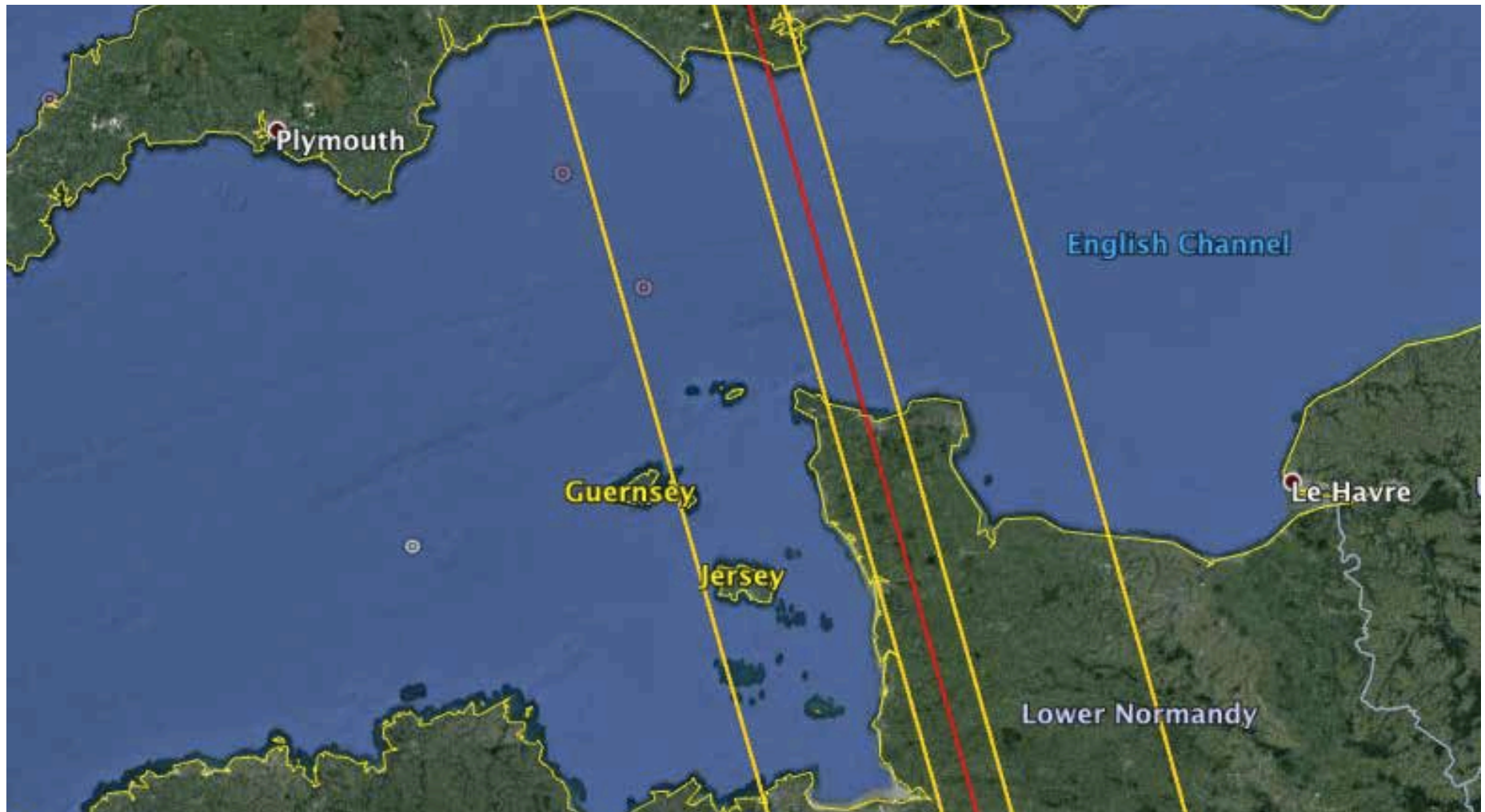
Agulhas xover,
Benguela upwelling?



Internal tides near
Hawaii?

Synergy with other proposed submesoscale
campaigns or opportunities ?

Potential site for wind wave sigma-0 in-situ instrumentation (Ifremer)



Californian Fast sampling Xover Site

Solicitation: ROSES 2017, NNH17ZDA001N-EVS3 Research program: Earth Venture Suborbital-3

Ocean Submesoscale Currents and Vertical Transport

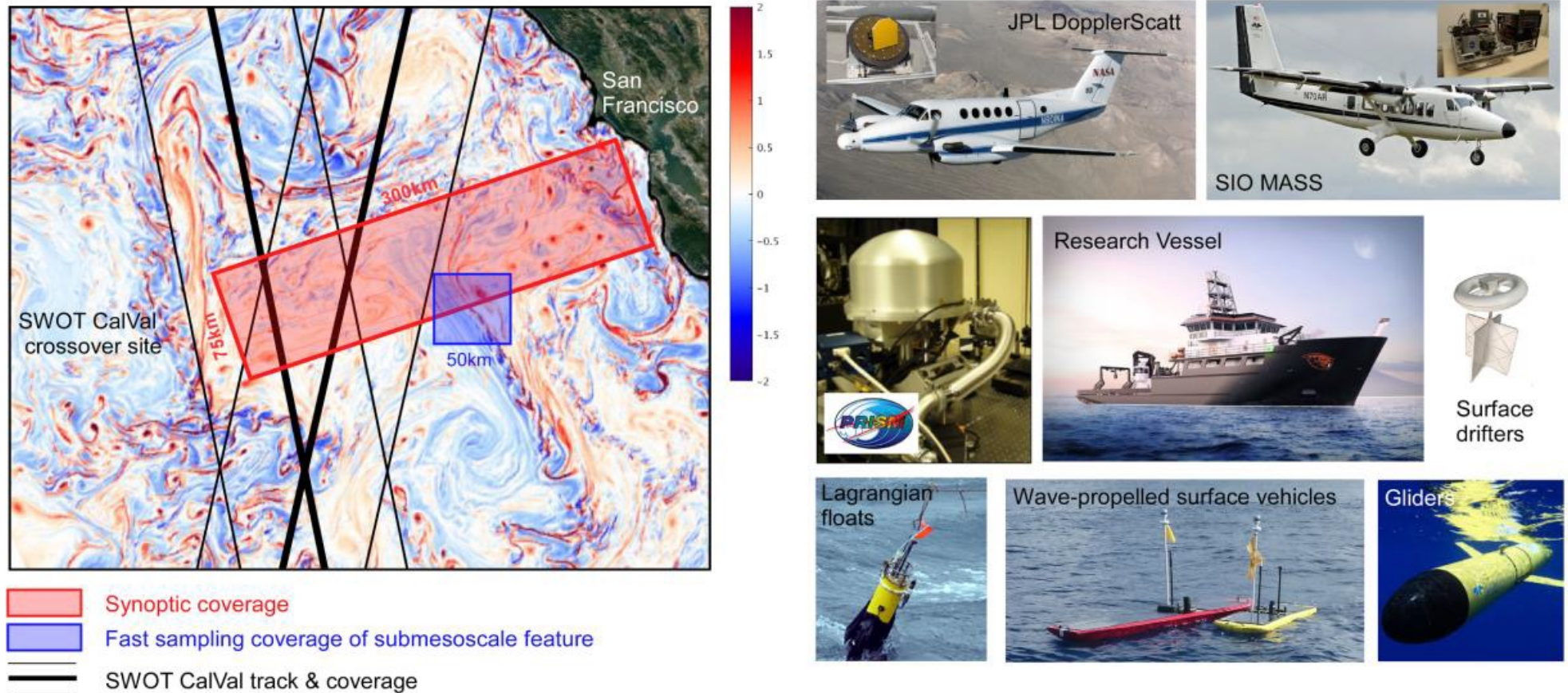
J. Thomas Farrar (PI; Woods Hole Oceanographic Institution, WHOI),
Ernesto Rodriguez (Deputy PI; JPL),
Paul Matthias (Science Investigation Manager; WHOI),

Amala Mahadevan (WHOI),
Melissa Omand (University of Rhode Island),
Andrey Shcherbina & Eric D'Asaro (University of Washington UW-APL);
Dudley Chelton, Roger Samelson, Larry O'Neill (Oregon State University, OSU),
Ken Melville, Luc Lenain (Scripps Institution of Oceanography, SIO),
Dimitris Menemenlis, Michelle Gierach, David Thompson (JPL),
James C. McWilliams, Jeroen Molemaker (UCLA),
Andrew Thompson (Cal Tech).

Californian Site - SWOT xover

Building on the Ocean Submesoscale Currents and Vertical Transport Project

J. T. Farrar (PI; WHOI), E. Rodriguez (Deputy PI; JPL), P. Matthias (WHOI) et al.



Nominal experimental site offshore of California, with a simulation of ocean vorticity plotted in the background. The experimental plan involves a two-week pilot campaign and two, month-long intensive operating periods during winter and spring, with 10-15 flights in each period. The nominal site is 300km from San Francisco and includes the SWOT crossover diamond that will be the location of SWOT cal/val activities.