

# **Testing the SSH observability of HF dynamics in the Bay of Biscay Perspective of a quasi-synoptic AirSWOT experiment**

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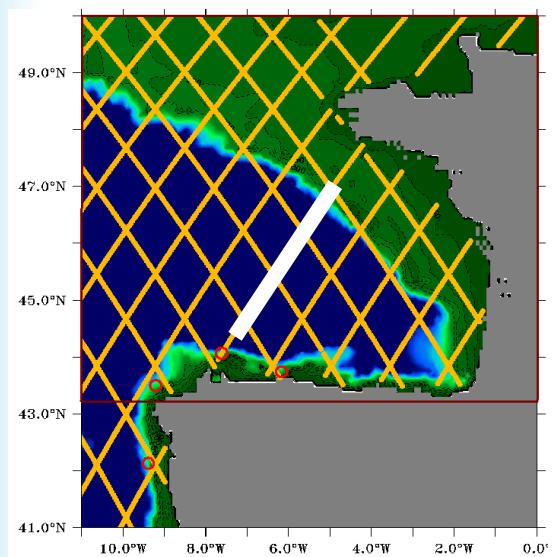
# The AirBOB experiment

- An ocean science experiment in the Bay of Biscay in the fall of 2017 (target: October)
- Spanning a domain including shelf + break + plain
- Aimed at studying HF and small-scale coastal processes observable via SSH – mainly:
  - Internal tides generated at shelf break (both directions) + wind-induced IW
  - Slope current variability and instabilities (retroflection area)
  - + possibly other processes (IG waves?)
- Including AirSWOT measurements
- Using the opportunity of an existing active national scientific community in the Bay of Biscay (EPIGRAM project)
  - Experiment will include quasi-synoptic in situ measurements (moorings, turbulence, drifters, still tbd – meeting in May) and nadir ALT overflights
  - Concomitant numerical/stochastic modelling experiment centered on predictability of target processes.
- International collaboration sought (mono-site/multi-site integrated approach, Cal/Val aspects, several forms possible).

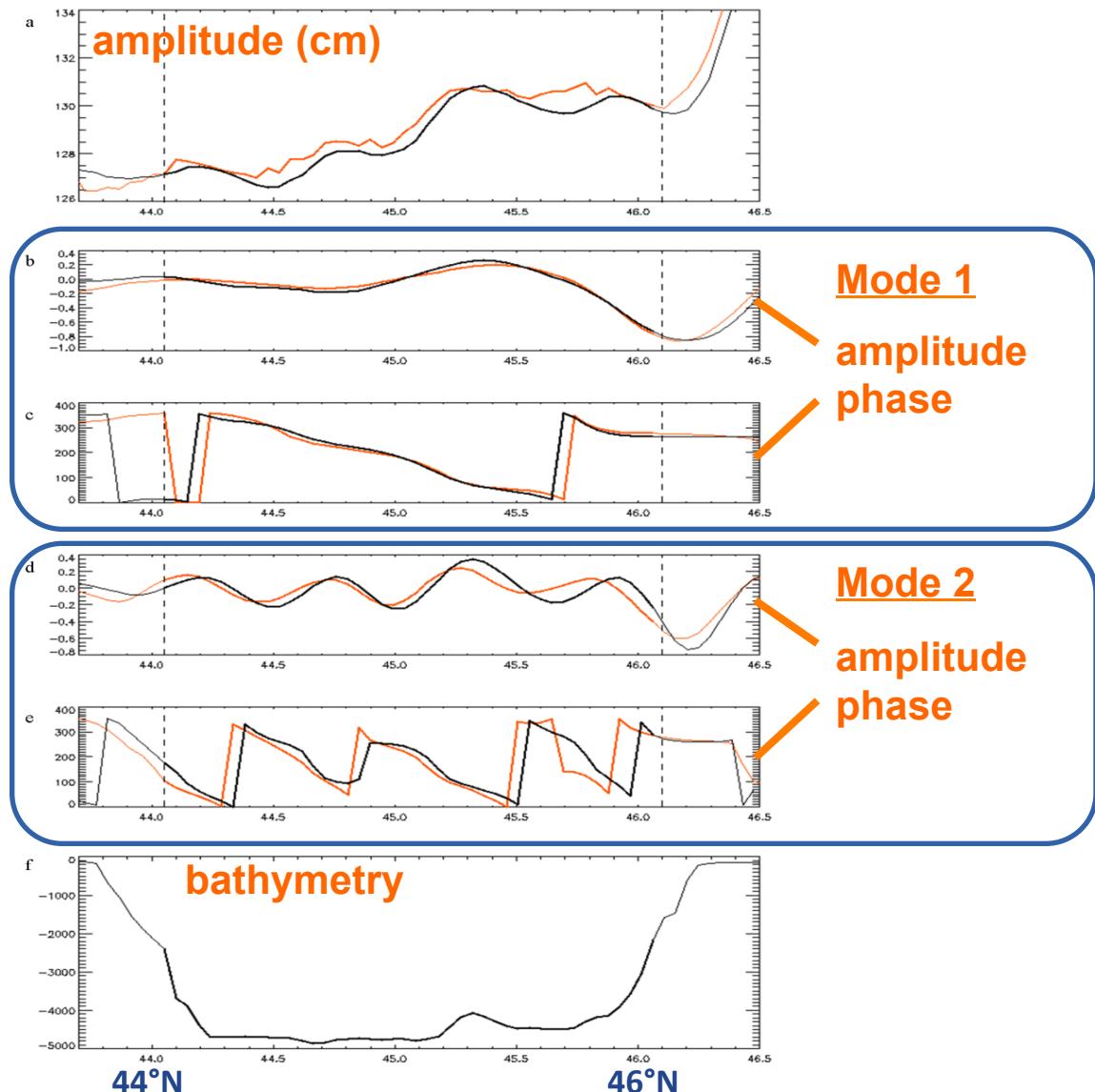


# Internal waves in the Bay of Biscay

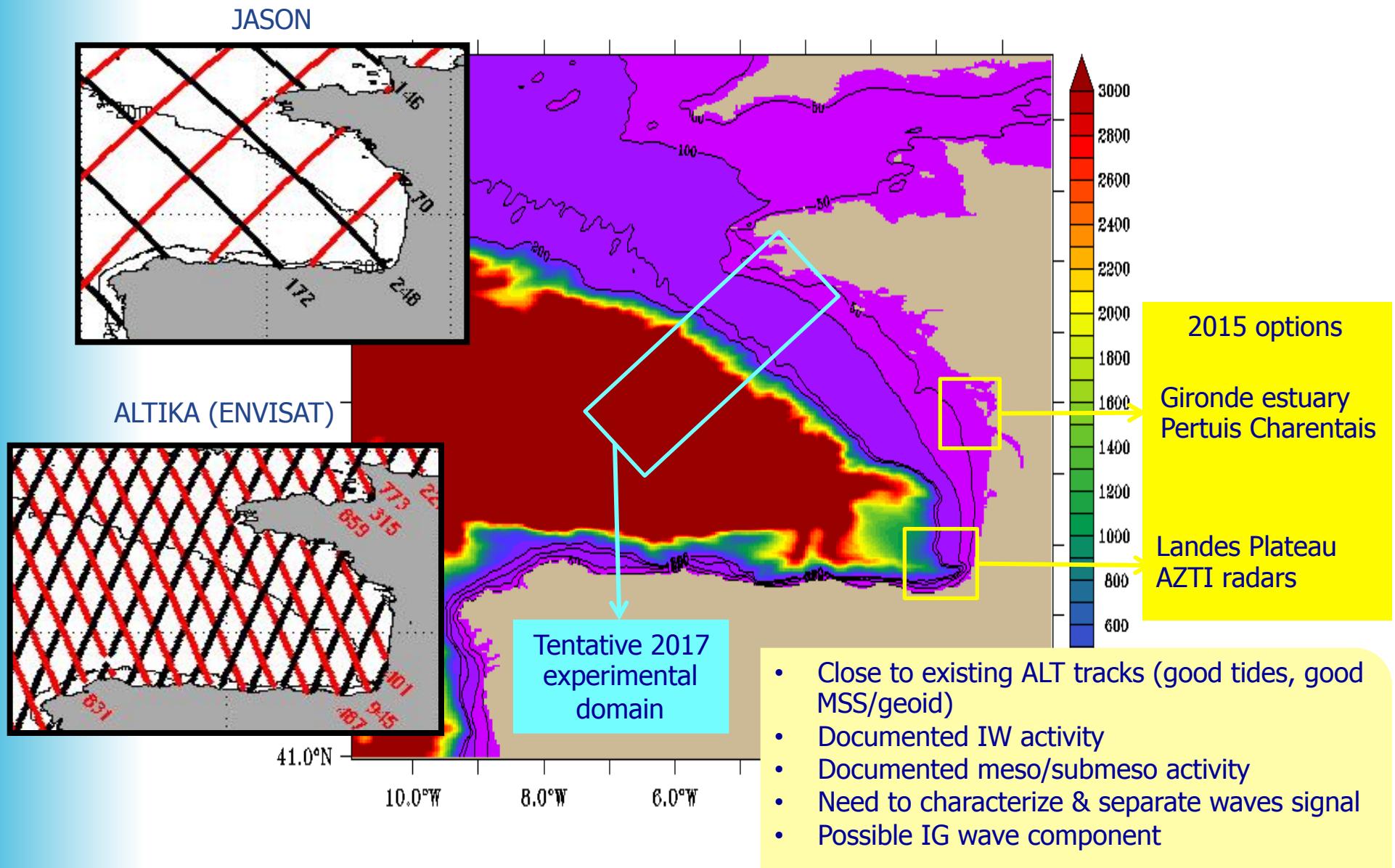
## Harmonic analysis of surface elevation for M2 IW generated at shelf break



(Maraldi et al., LEGOS, 2013)



# Experimental domain outline



# AirBOB consortium



- Institutes having expressed interest:
  - LEGOS, Toulouse, France (PI): N. Ayoub, P. De Mey, F. Lyard (+ possibly others)
  - LA, Toulouse, France : P. Marsaleix
  - LPO, Brest, France : L. Marié, B. Le Cann
  - IFREMER, Brest, France : G. Charria, P. Lazure
  - SHOM, Brest, France : C. Lathuilière, S. Louazel
  - ACTIMAR, Brest, France : S. Raynaud
  - LOCEAN, Paris, France : P. Bouruet-Aubertot (+ possibly others)
  - AZTI, Euskadi, Spain: J. Mader
  - LIENS, La Rochelle, France: X. Bertin
- Very open to international collaboration (possible framework: SDT II)
- Calendar
  - Science and planning meeting in May, 2014
  - Closely following updates on AirSWOT availability calendar and feedback from first in situ capacity tests and checkout flights
  - Flights and field experiments in the fall of 2017.