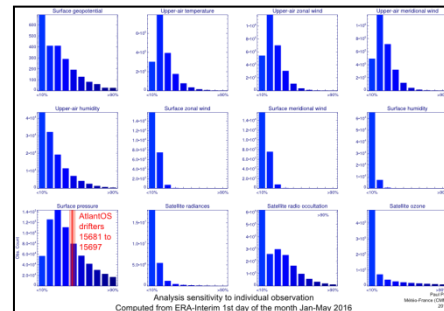
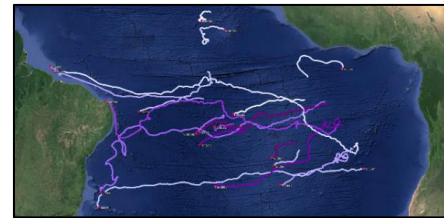


# WP3 Enhanced network of drifters

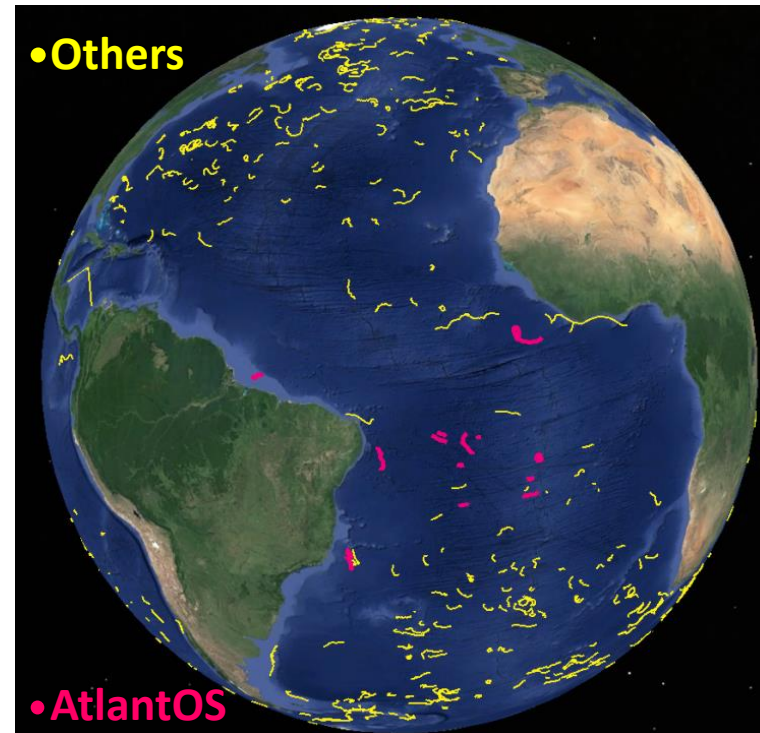
Pierre BLOUCH, Paul POLI  
(EUMETNET and Météo-France)



# Drifters network enhancement

## 3 axes of enhancement

- 1. Variables** → *Sea Surface Salinity* NKE develops an affordable sensor, for potentially equipping all drifters eventually
- 2. Vertical sampling** → *Sub-surface Temperature profiles in the top ~80 meters*  
Project included such deployments originally, but the key partner had to be excluded for external reasons (Crimea); What remains is an analysis of data collected by past drifters equipped with bathythermic chains
- 3. Horizontal coverage**  
→ *Tropical Atlantic*  
13 drifters measuring atmospheric surface pressure (SVP-B) to be deployed every year (19 deployed so far)



# Drifters data management

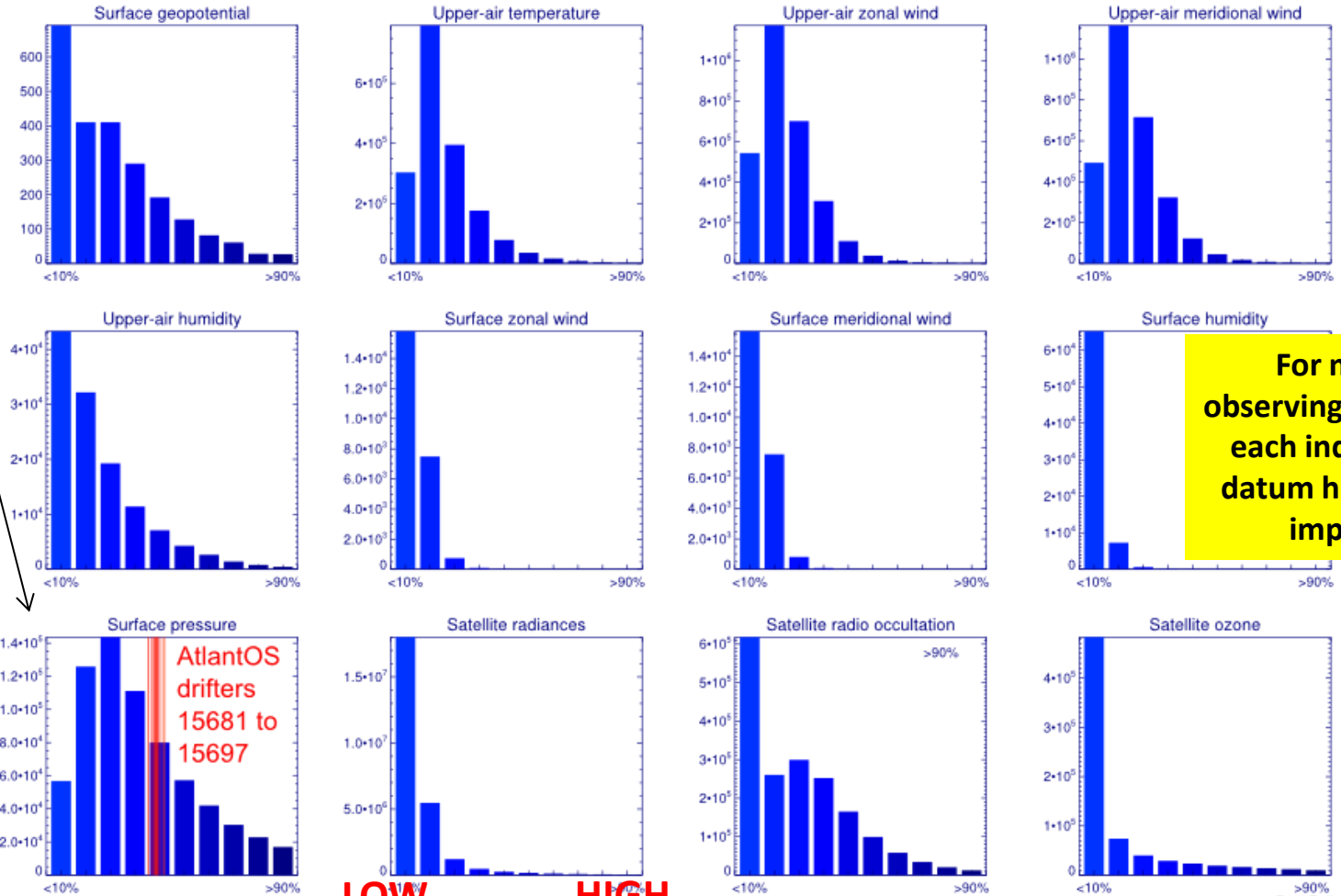
- Data fluxes (in relationship with WP7)
  - Data well-served in NRT, with presence in EMODnet Physics
  - Capacity gap for Delayed-Mode (no SeaDataNet entry)
- Calibration
  - 3 drifters (non-AtlantOS) recovered in the past year will be recalibrated for SST
- Standardisation
  - Aiming to align the data practices with other networks like Argo, with organization as DAC and GDAC
  - NRT data format already follows WMO BUFR standard
  - Metadata already exchanged with JCOMMOPS (coordinating body) and flow to WMO OSCAR
  - New standard to be defined in terms of NetCDF for GDAC
    - Picking up the legacy data formats and the metadata

# AtlantOS Drifters long-term sustainability

- **For drifters measuring SSS**
  - 1st prototypes are required before making any recommendation
  - Once this demonstration has been made, there may be opportunities for large-scale operations of satellite SSS cal/val in the coming years
  - Once SSS drifter data become routinely assimilated into models, then SSS drifters may become part of the operational observing system surface infrastructure, and could benefit from corresponding funding sources
- **For drifters measuring sub-surface Temperature**
  - Analysis of data collected by past experiments will be crucial to advise on future purchases of such drifters
- **For improved geographical coverage of SVP-B**
  - **EUMETNET funds 2/3 of SVP-B in the North Atlantic**
    - Justified by proven impact onto Numerical Weather Prediction
  - **Assuming continued trends (*budget stable and drifter lifetimes increased*) this framework could continue the AtlantOS legacy of SVP-B in the tropical Atlantic**
    - Impact review needed (see next slide)

# AtlantOS Drifters long-term sustainability

- To continue the improved coverage of SVP-B in the tropical Atlantic
  - Impact review needed: **Preliminary results here from ERA-Interim**



Surface pressure observations are the most impacting, per datum

Among these, the AtlantOS drifters are above the norm (because they observe regions with few other Sfc.P obs around)

For most observing systems, each individual datum has a low impact

LOW HIGH

Analysis sensitivity to individual observation  
Computed from ERA-Interim 1st day of the month Jan-May 2016

Paul Poli  
Météo-France (CMM)  
2016