

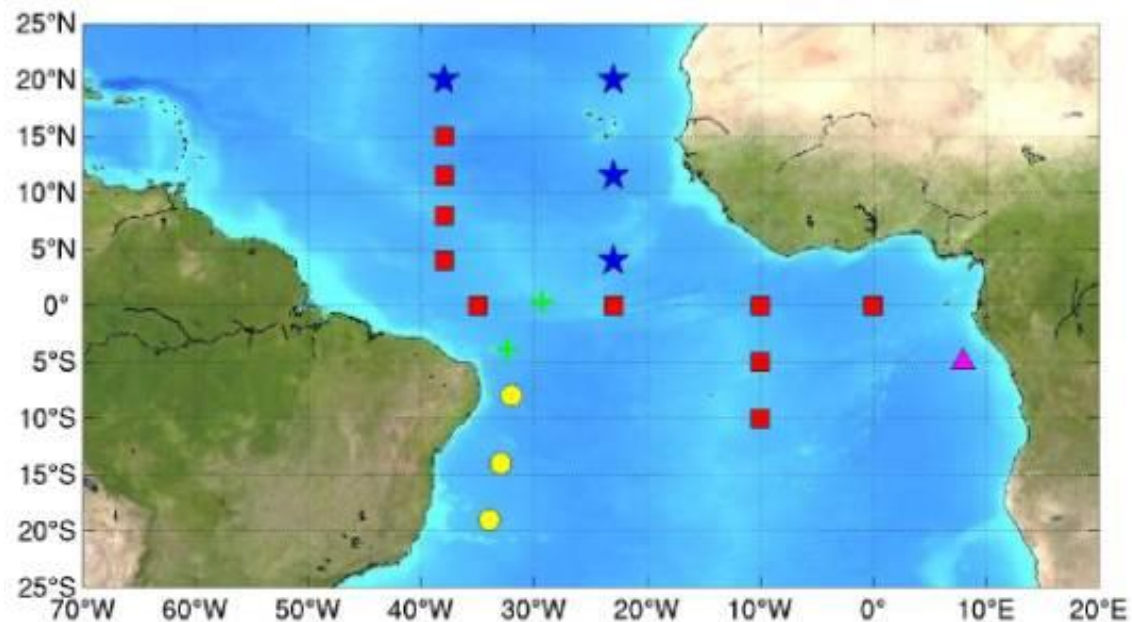
The Extension of PIRATA in the Tropical South East Atlantic

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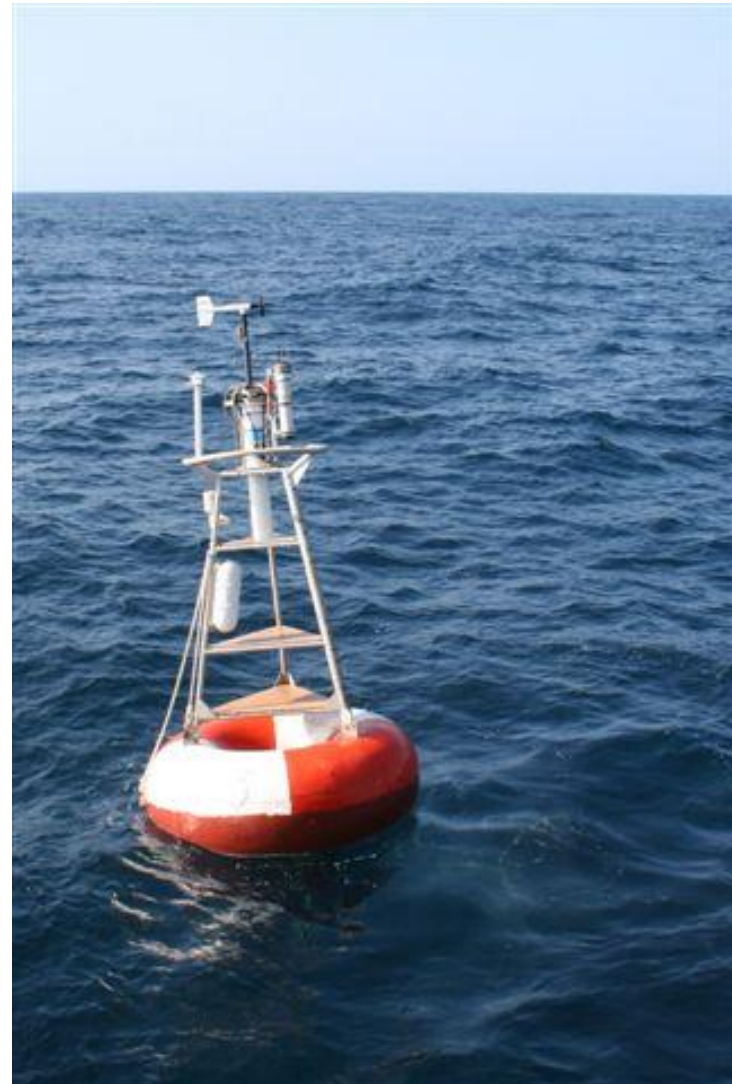


The PIRATA backbone of ATLAS buoys (red squares), North-East Extension (blue stars), South-West Extension (yellow circles), South-East Extension (purple triangle).

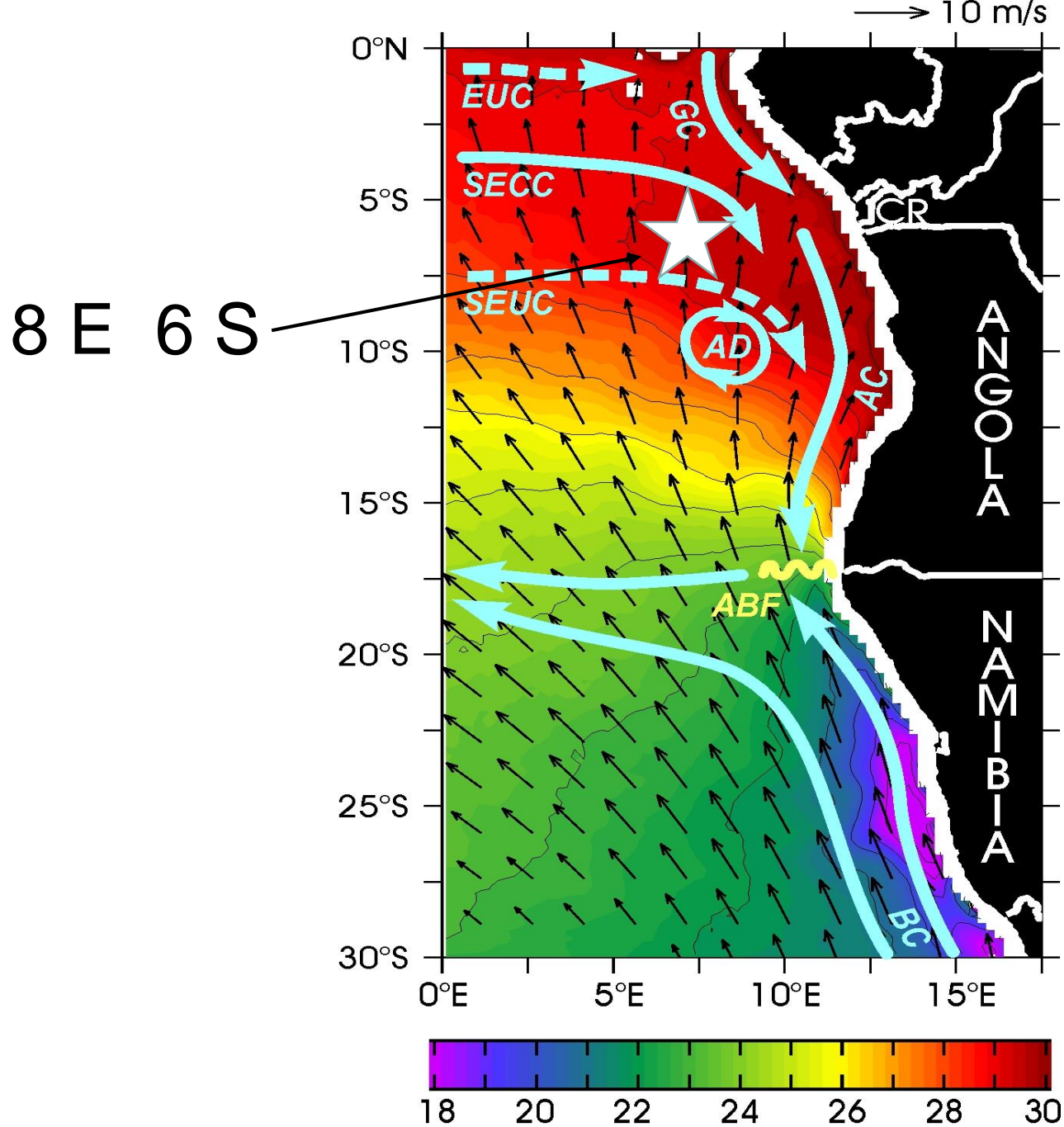
African Journal of Marine Science



- **1998 My first PIRATA meeting in Abidjan**
- **2005: Acquisition of an Atlas mooring by Benguela Current Large Marine Ecosystem project.**
- **2006/2007: Demonstration project. Mooring deployed and recovered during PIRATA cruise by France (Bourlès)**
- **2013: Establishment of a permanent location thanks to commitment by PREFACE FP7 to buy a mooring and deployed in 2013 & commitment by France for the needed additional Research Vessel time**



1st deployment of the KIZOMBA mooring on the R/V Atalante on the 27th June 2006 during EGEE-3 cruise (6 S - 8 E). Mooring was recovered a year later in good condition. Redeployed in June 2013 and still going.



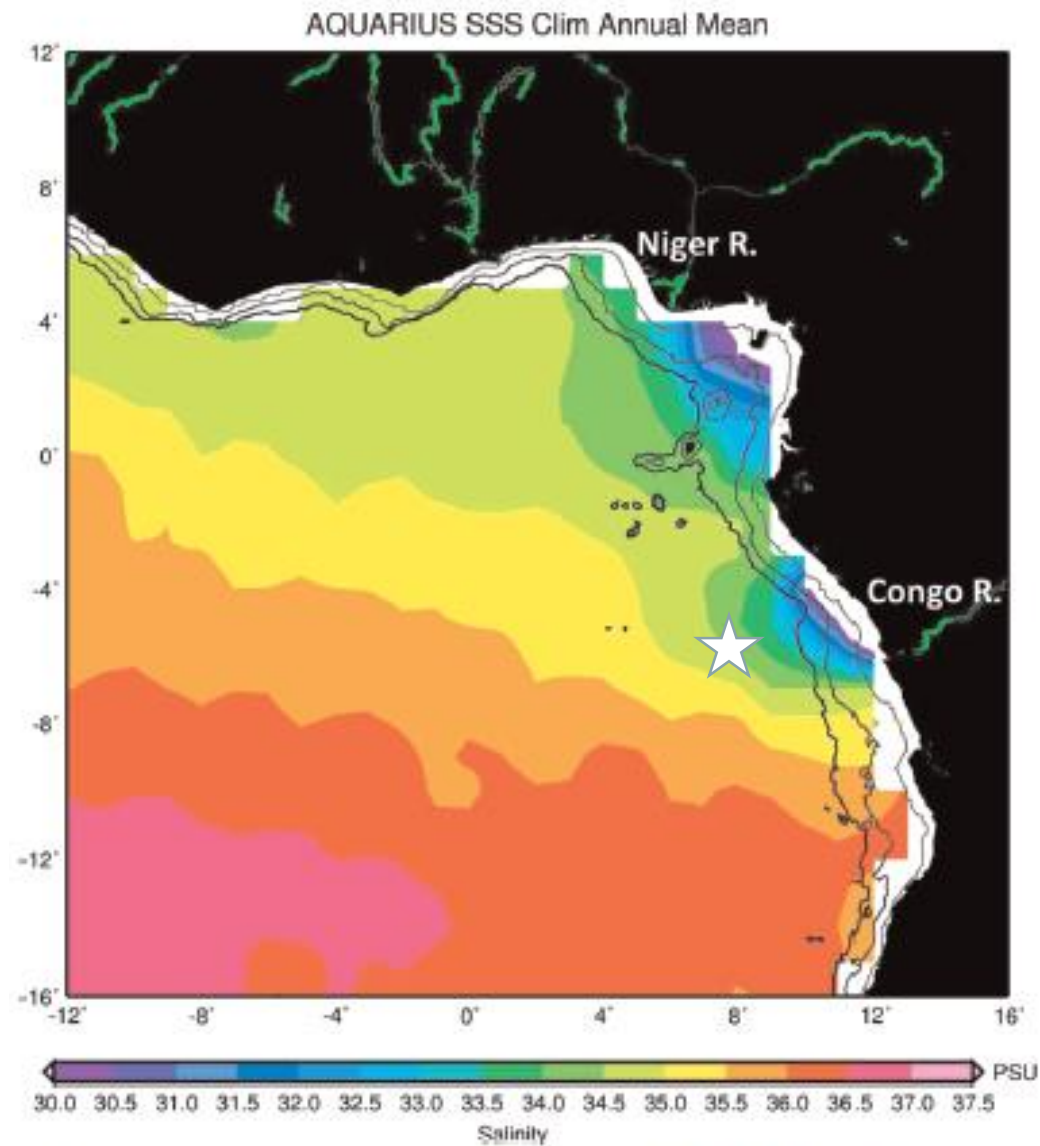
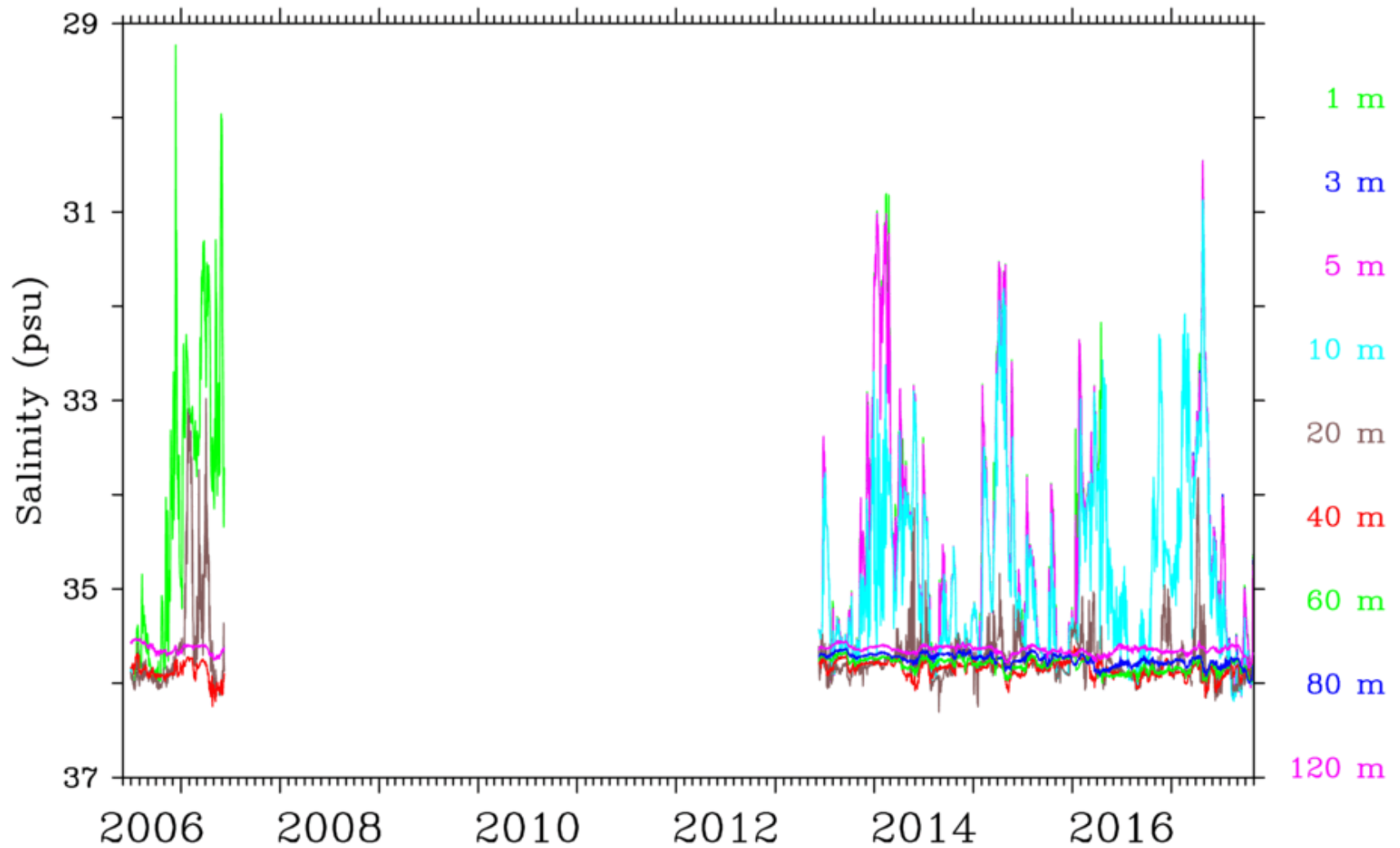


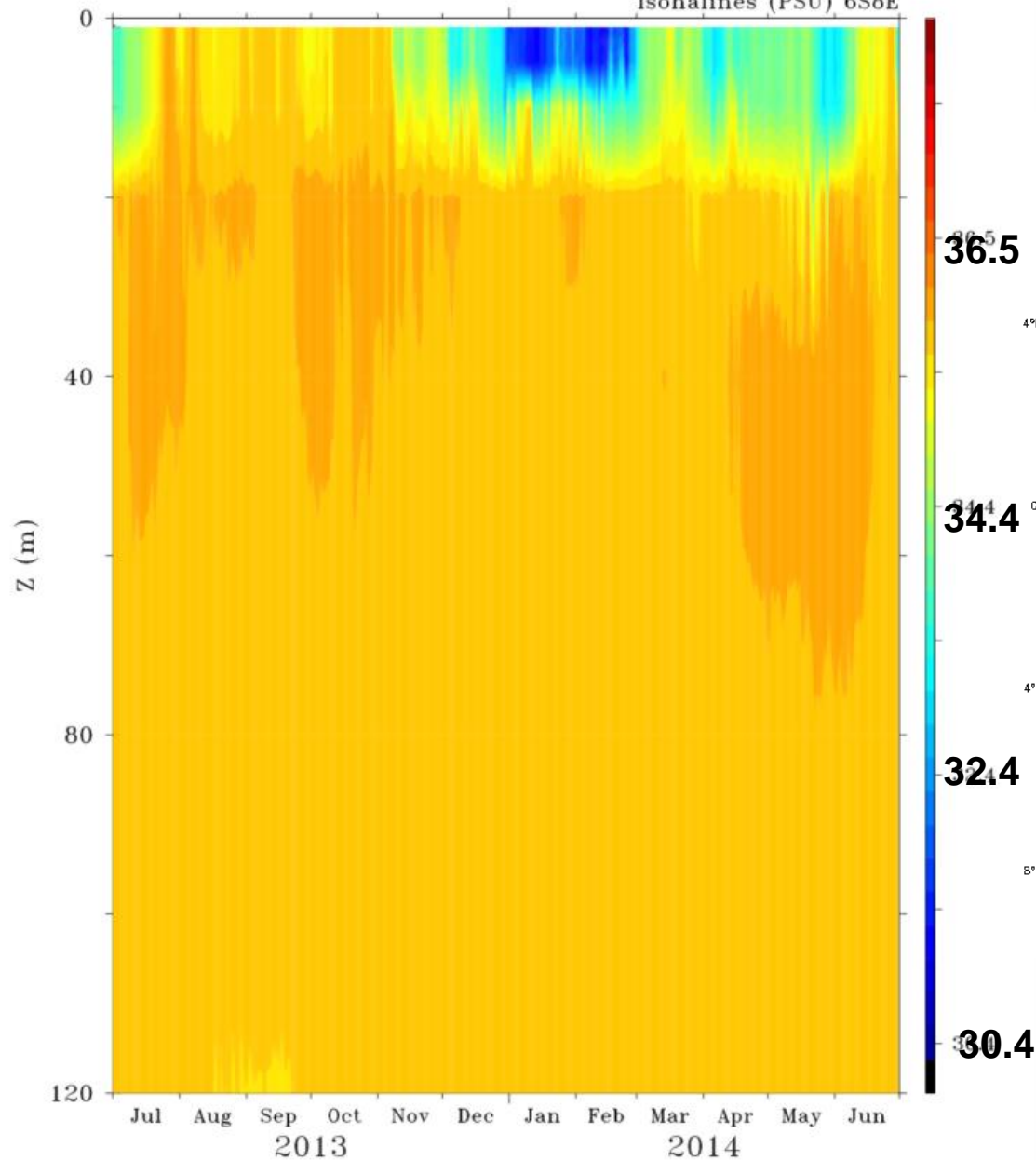
Fig. 2. Map of mean sea surface salinity (psu) derived from Aquarius observations for the period September 2011–August 2013. Also shown are three contours of the bathymetry: 250 m (thin black line), 2000 m (thicker black line) and 3000 m (thickest black line).

Salinity (psu) for 6s8e

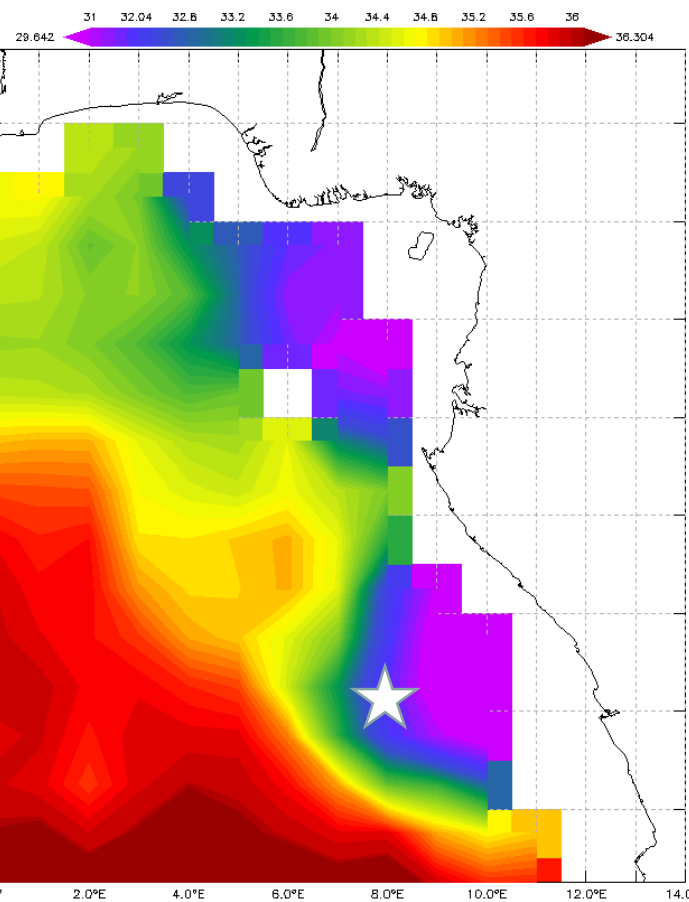


Daily Data

Isohalines (PSU) 6S8E

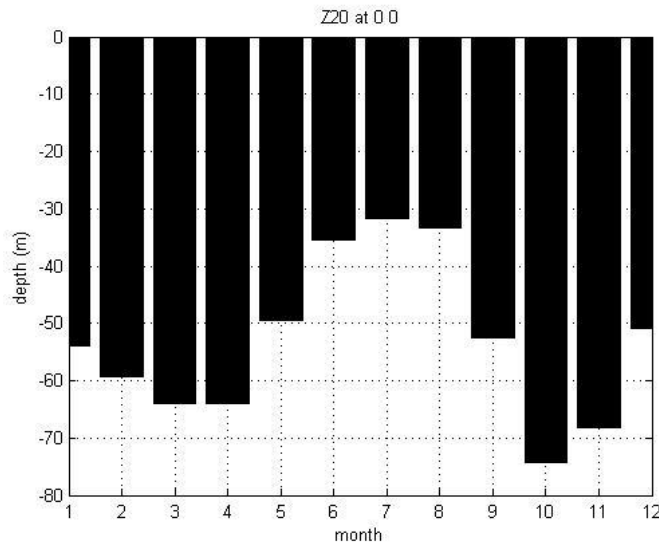


31 32 33 34 35



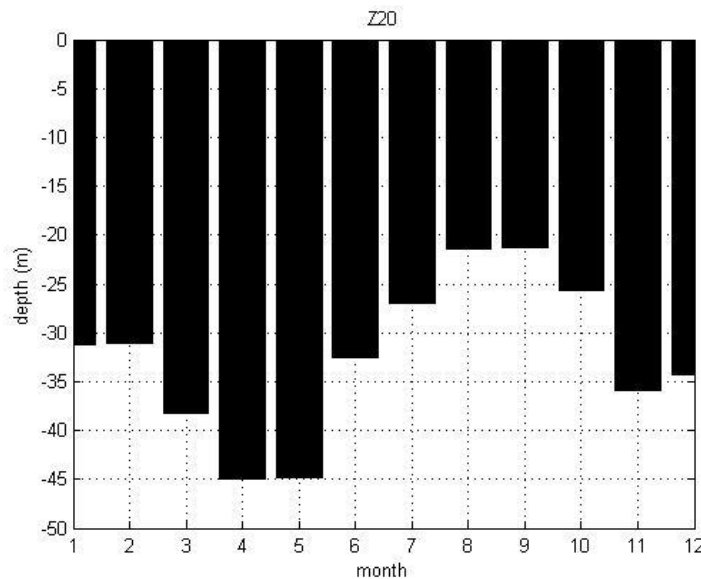
January 15 2014

**Annual cycle
of z20 at 0 0**



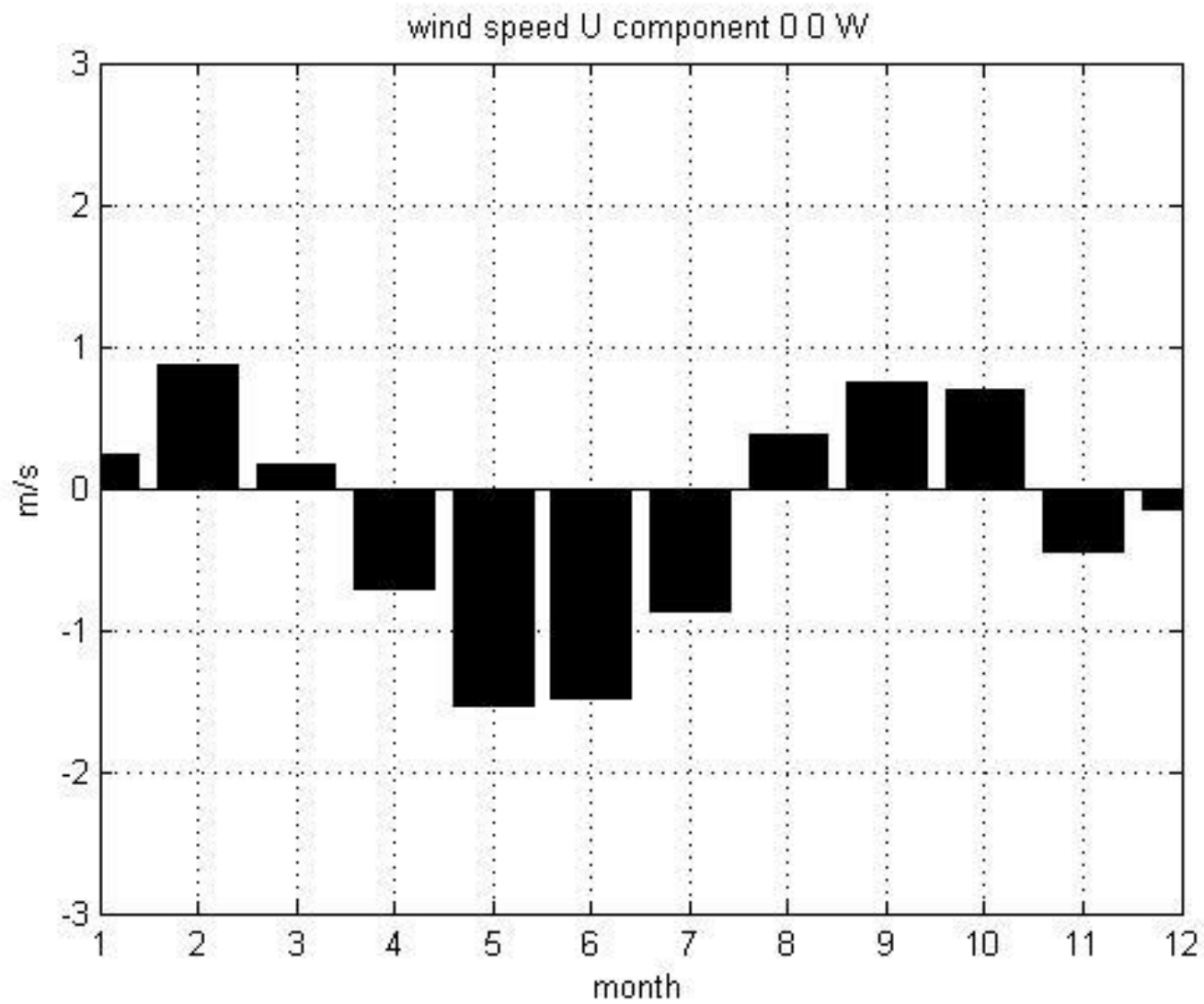
**Two maxima in
March/April (60 m) and
October (70 m)
Two minima in July (30
m) and December (50
m)**

**Annual cycle of z20
at 6 S 8 E**



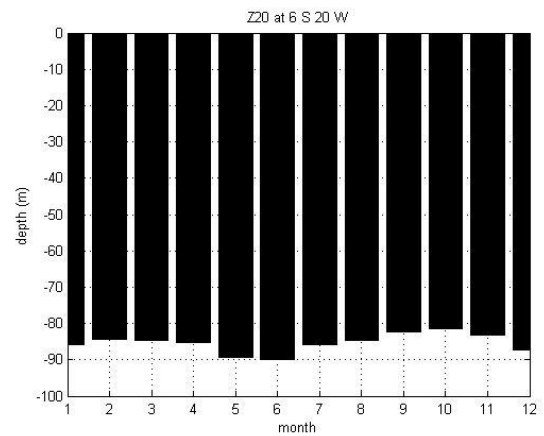
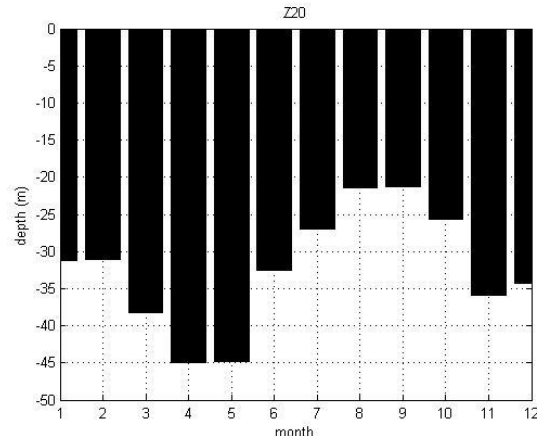
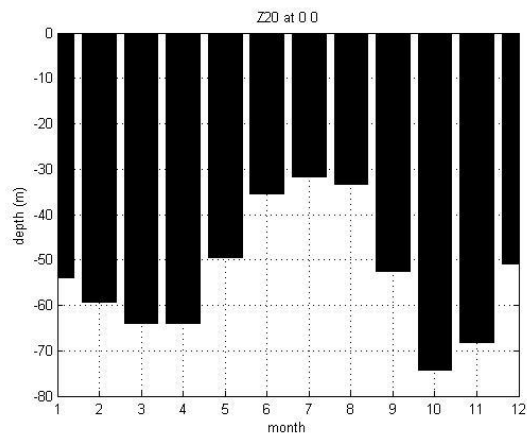
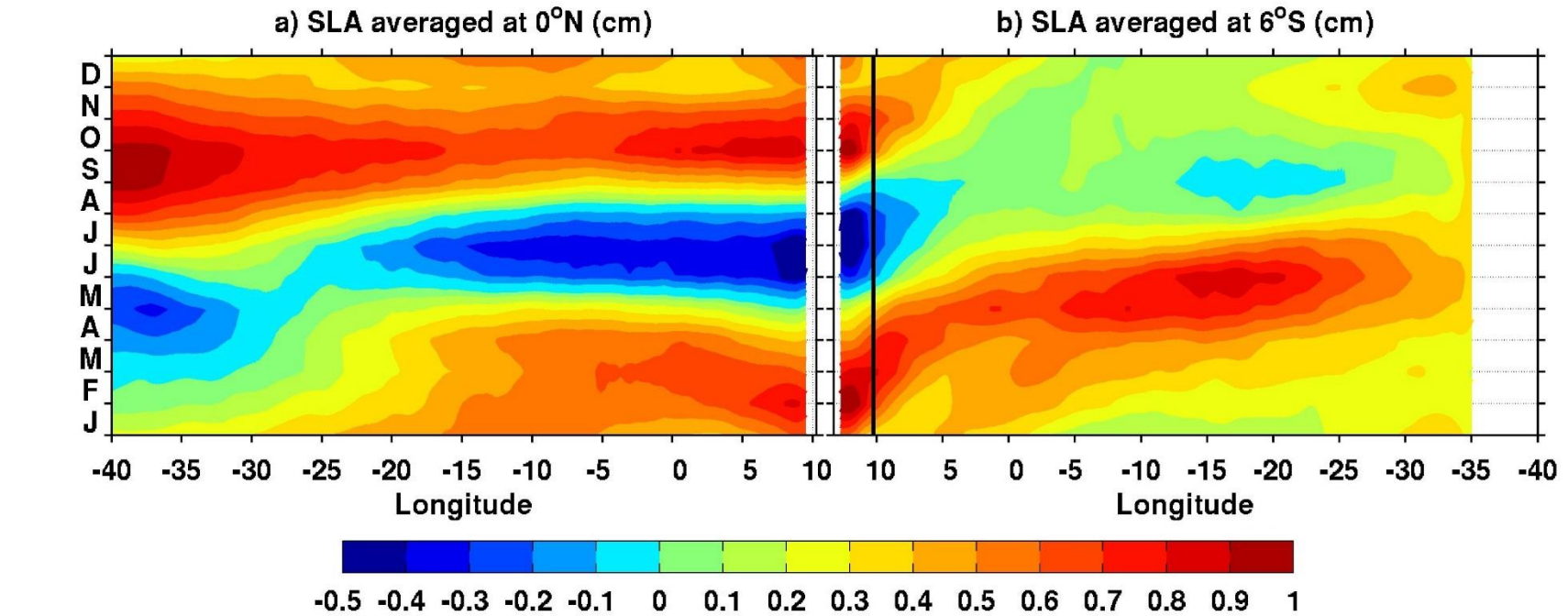
**Two maxima in
April/May (45 m) and
November (35 m)
Two minima in August
(20 m) and January (30
m)**

Annual cycle of Z20. Top at 0 0 bottom at 6 S 8 E

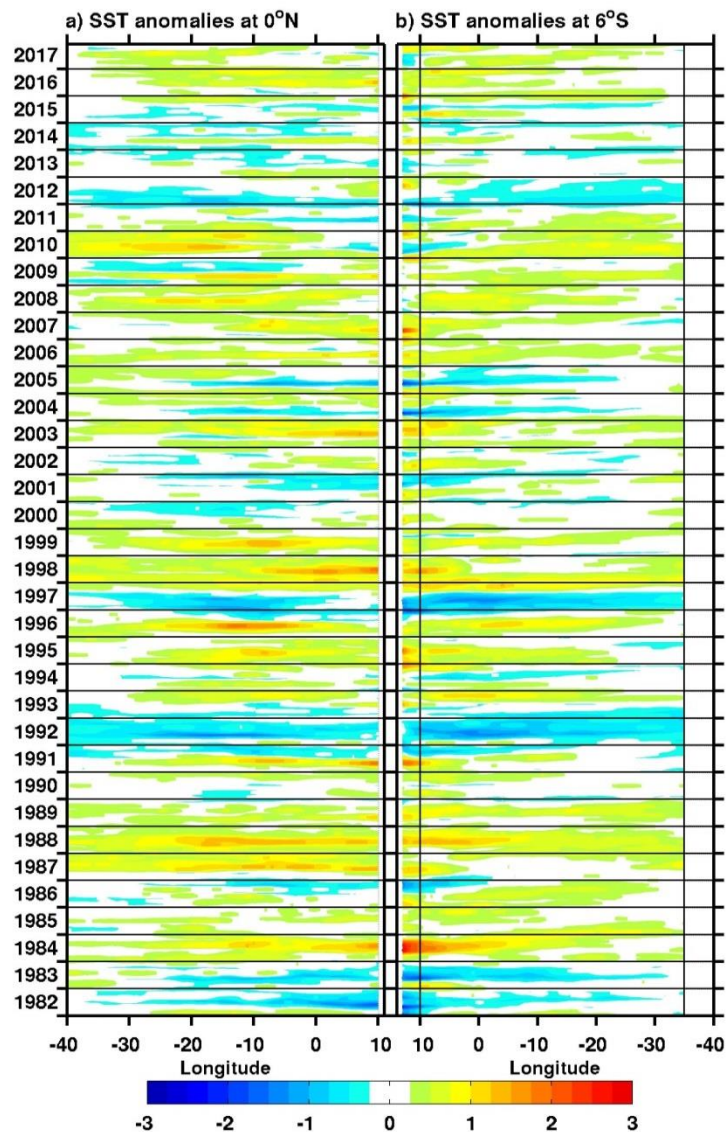


Annual cycle of meridional wind speed (U) at 0 S 0 E

Hovmoller of annual cycle of Sea Level Anomaly from 40 W to 10 E (left) and 12 E to 35 W corresponding to African Coast to Brazil (right) (courtesy Rodrigue Anicet Imbol Koungue

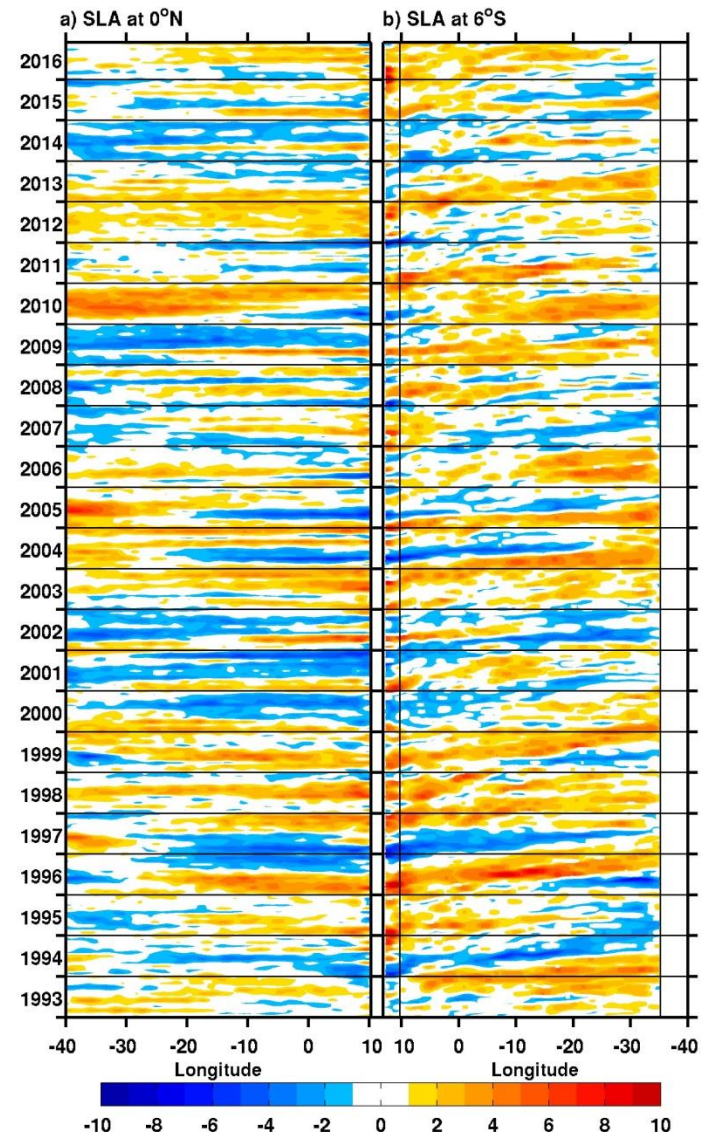


Annual cycle of Z20 at 0 0 (left) , 6 S 8 E (middle) and 6S 20 W (right)



Left: SST anomalies along the equator at from 40 W to Africa coast

Right: SST anomalies along 6 S from African coast to Brazilian Coast 1982 to 2017



Left: SLA along the equator at from 40 W to Africa coast

Right: SLA anomalies along 6 S from African coast to Brazilian Coast 1993 to 2016

Courtesy Rodrigue Anicet Imbol Koungue

conclusion

- Intrusion of Congo River Plume picked up by Kizomba about 20 meter deep
- Mooring seems to pick up Rossby waves created by the reflection of Kelvin wave at the coast of Africa
- Bi-modal behaviour α in wind and z_{20} along the Equator in the East and along 6 South.