



Intraseasonal variability of the ocean – atmosphere coupling in the eastern atlantique equatorial upwelling

Gaelle de Coëtlogon (1), Alban Lazar (2), and Serge Janicot (2)

(2) LOCEAN-IPSL, UPMC, IPSL, LOCEAN, Paris, France (alban.lazar@locean-ipsl.upmc.fr), (1) LATMOS-IPSL, UPMC, IPSL, LOCEAN, Paris, France (Gaelle.DeCoetlogon@latmos.ipsl.fr)

Statistical analyses of the satellite TMI sea-surface temperature (SST) and QuikSCAT surface winds allows to investigate the intraseasonal variability of air – sea interactions in the equatorial Atlantic upwelling. There, a 15 days SST signal in boreal spring-summer is detected with 5-day lag wind forcing and 3-day lag strong negative SST feedback. It is connected to large-scale [U+FB02] uctuations of the St Helena anticyclone.

Within about 5 [U+25E6] S and 5 [U+25E6] N, two retroactions between SST and surface wind appear to dominate near-surface atmosphere conditions. When the wind leads the SST, stronger monsoonal

winds north of 2 [U+25E6] N are partly sustained by the developing SST anomaly. When the SST leads the wind, a reversal of anomalous winds is observed mainly south of 2 [U+25E6] N, closing a negative feedback loop with a biweekly periodicity. Further investigation with an ocean model emphasizes the role of the meridional Ekman current in shaping these intraseasonal SST signals.