

# Wind forced variability of the Antarctic Circumpolar Current south of Africa between 1993-2010

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AOML

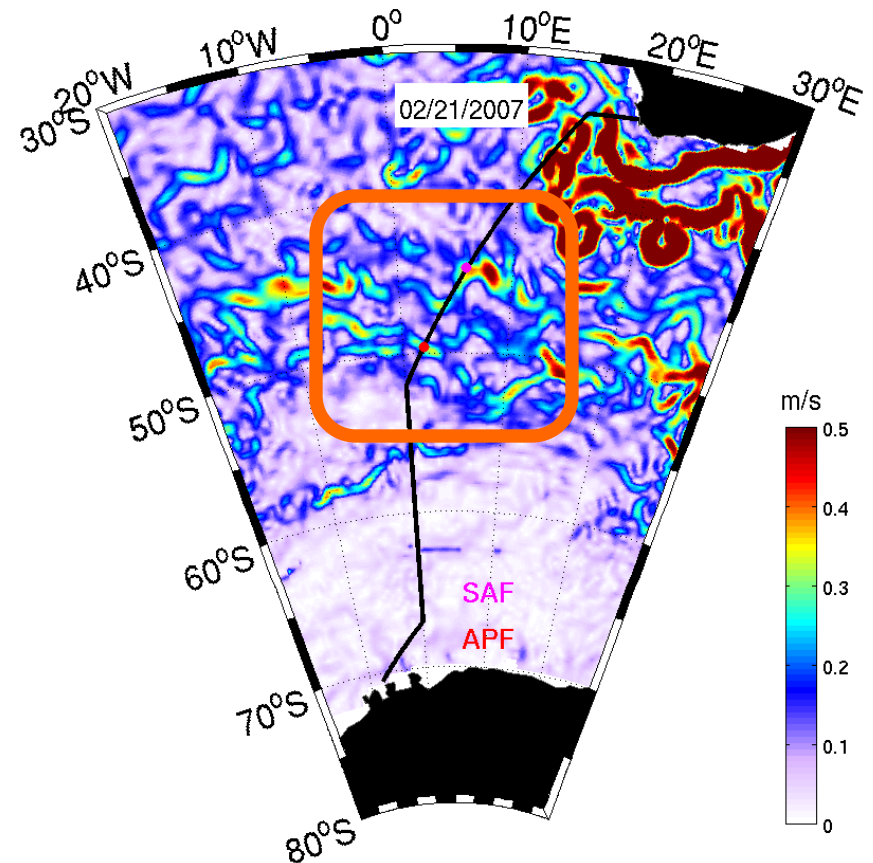
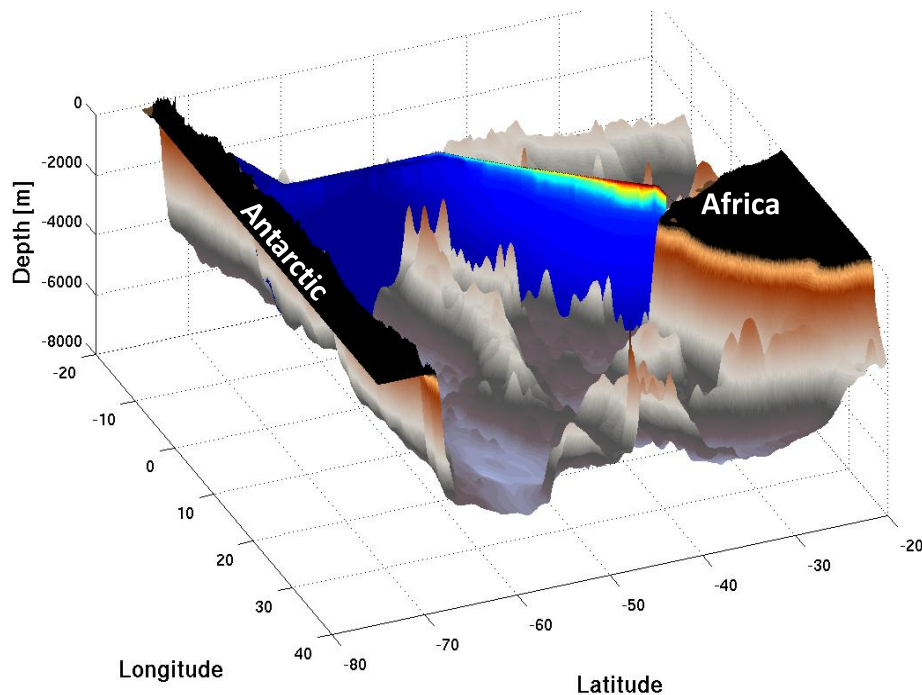


# Wind driven ACC variability

*The region of study*

**SAF – Subantarctic Front**

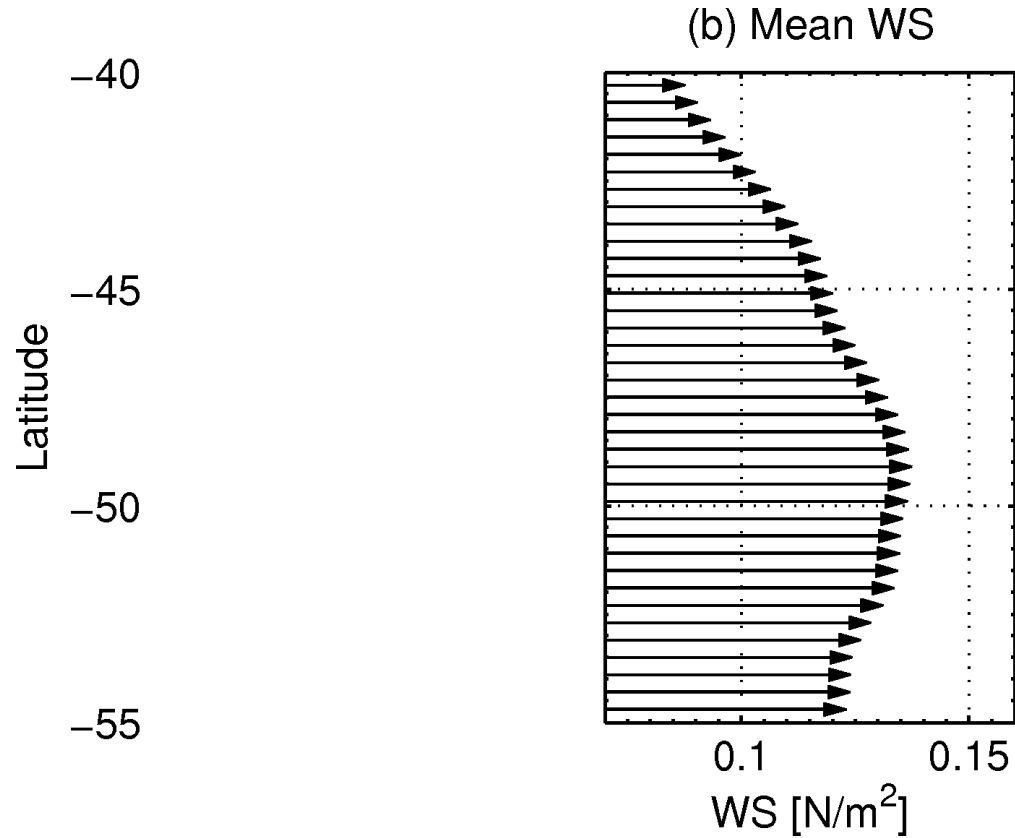
**APF – Antarctic Polar Front**





# Wind driven ACC variability

## *The westerlies*



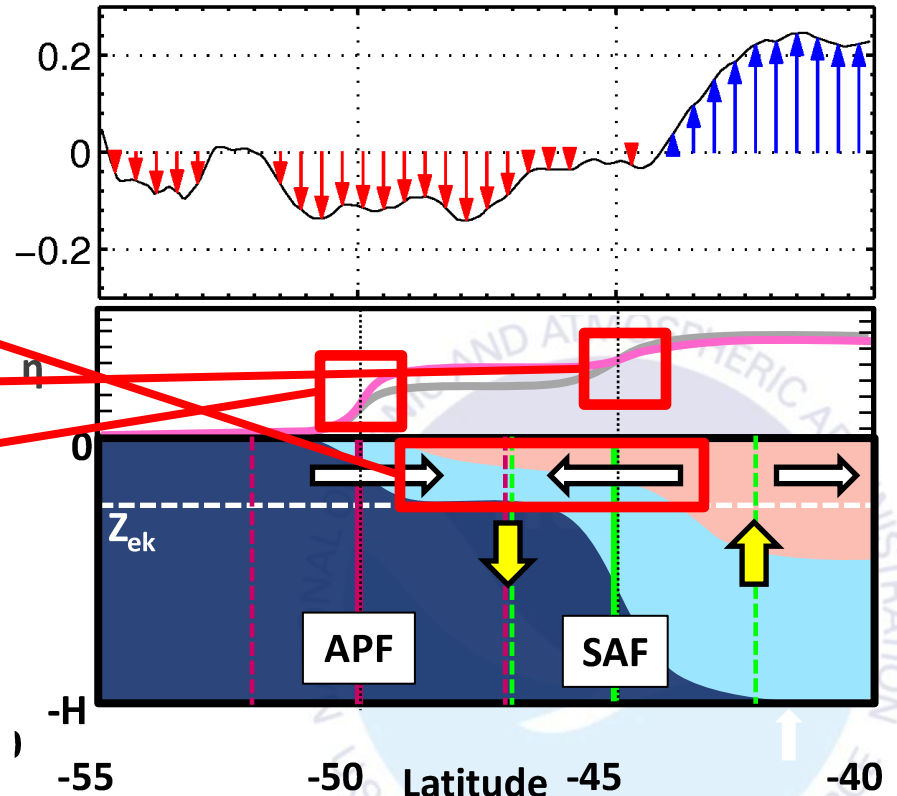
# Wind driven ACC variability

## The forcing mechanism

### Positive SAM

- Positive SST anomalies in the ACC
- Lower SAF transport
- Higher APF transport

(b) SAM > 1.5



$\eta$  = dynamic height    $\Rightarrow$  Ekman transport    $\Downarrow$  Ekman pumping