

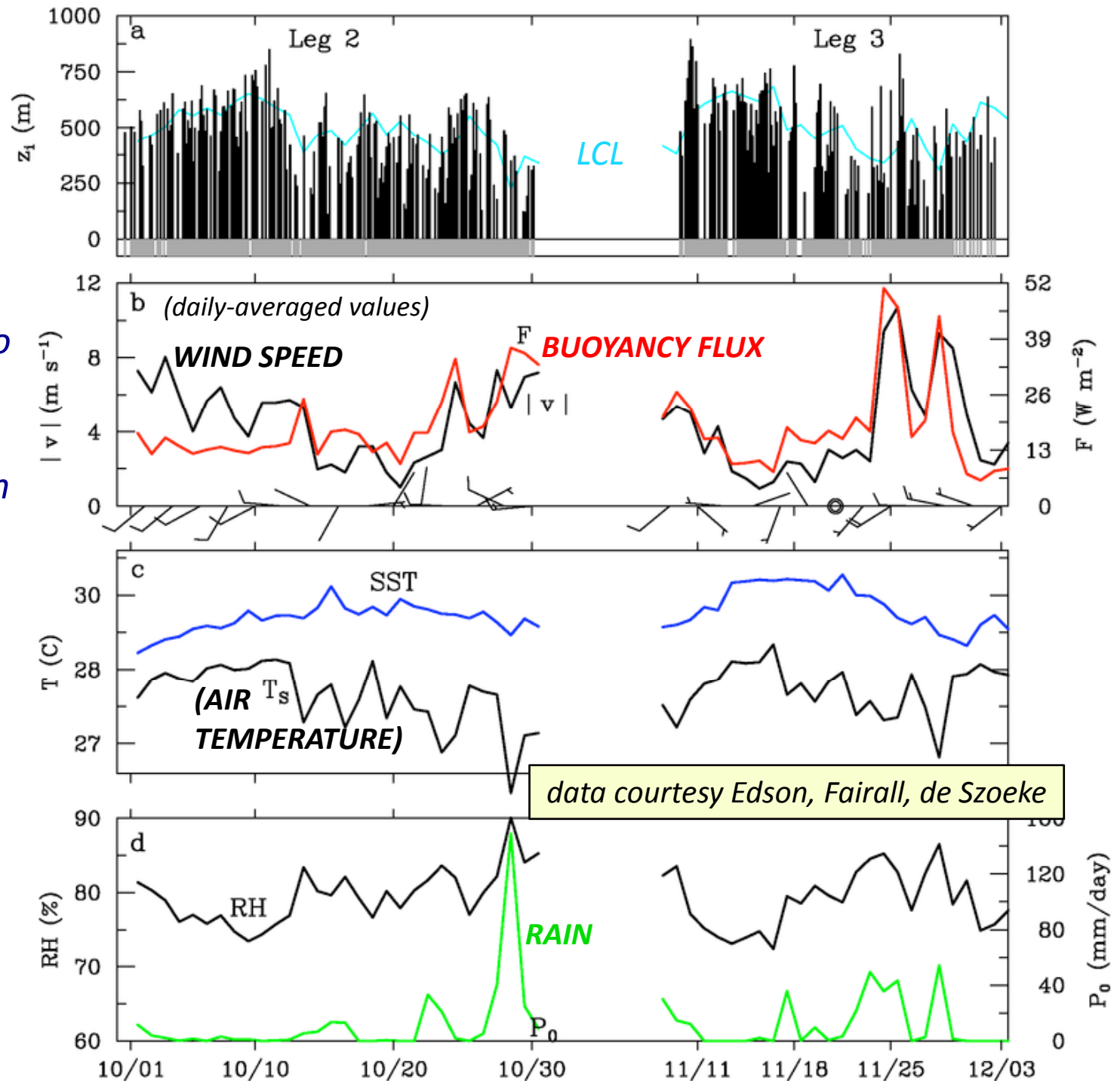
# Convection-Environment Interaction: Atmospheric Mixed Layers

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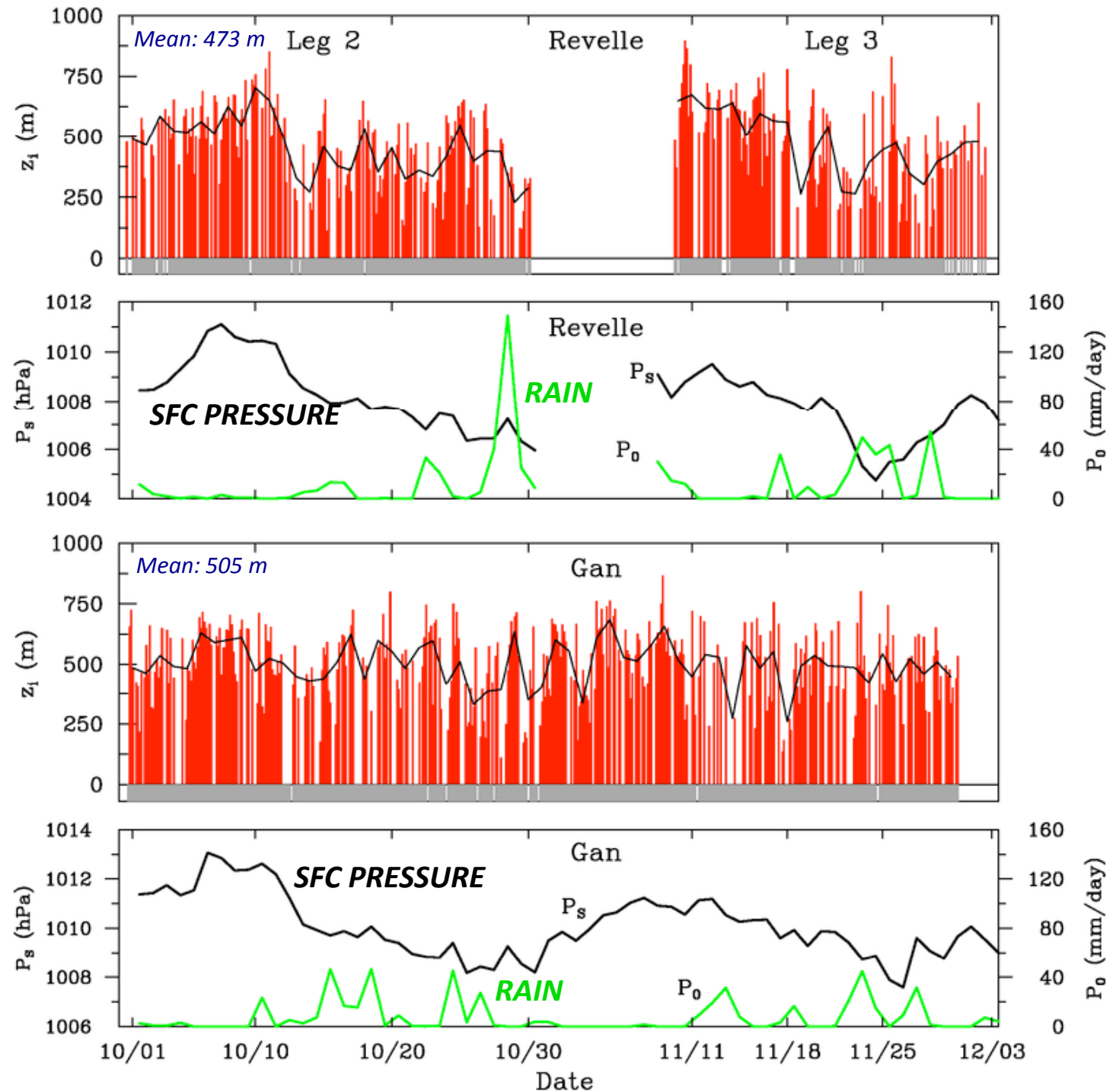
# Atmospheric mixed layer at R/V Revelle

- ML's modulated on multiple time scales, from MJO to diurnal
- Mean depth 473 m; ML's observed in 71% of soundings
- Deepest ML's during MJO build-up phases, promotes cloud development
- Reduction in ML depth during rainy periods; reflects recovering downdraft wakes



## Mixed layers at Revelle and Gan Island

- Modulation of ML by MJO at Gan less distinct than at Revelle
- Prominent diurnal cycle at Gan (due to atoll heating) may explain difference



*Diurnal cycle of  
mixed layer at  
Gan Island  
- 8 October -*

