

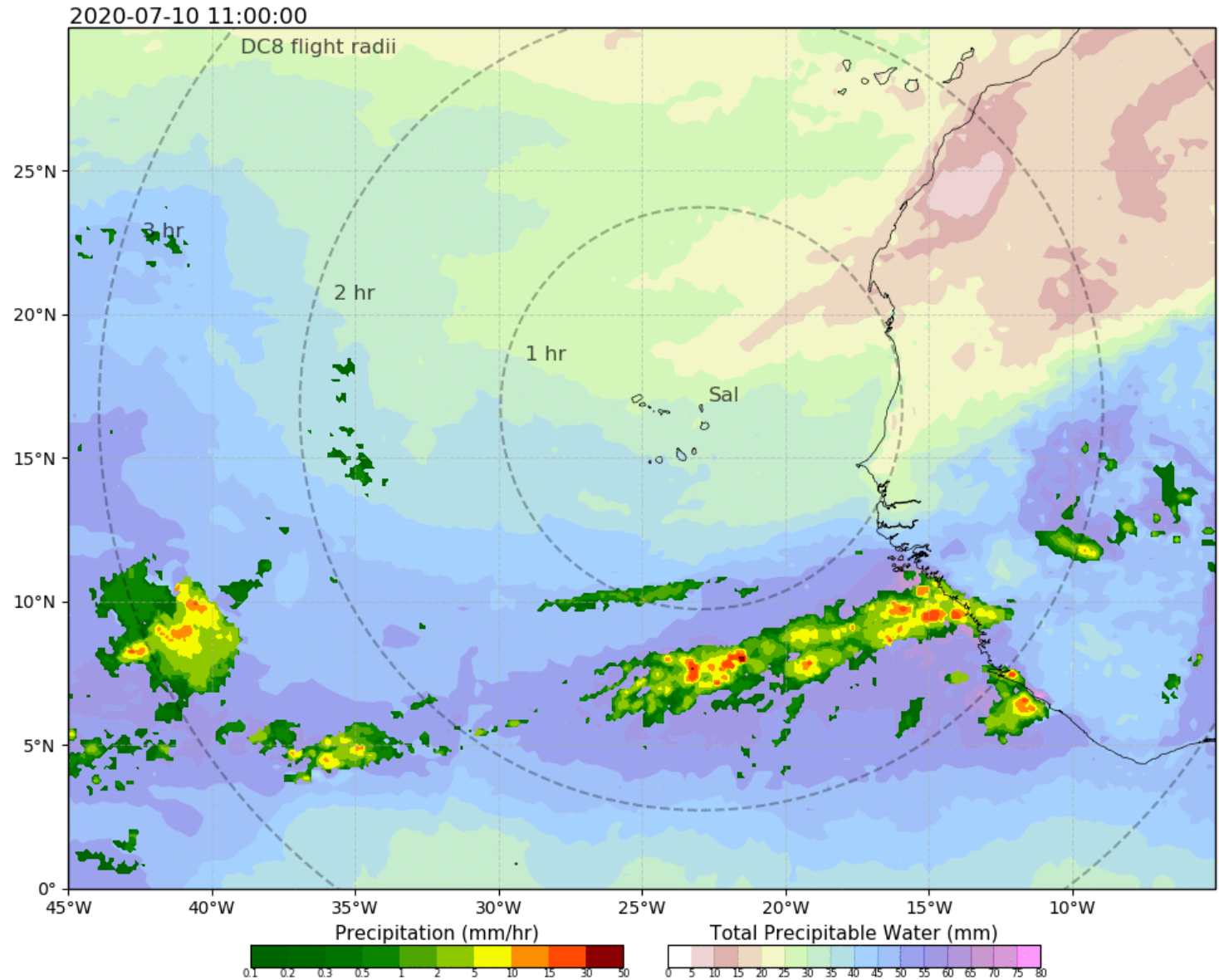
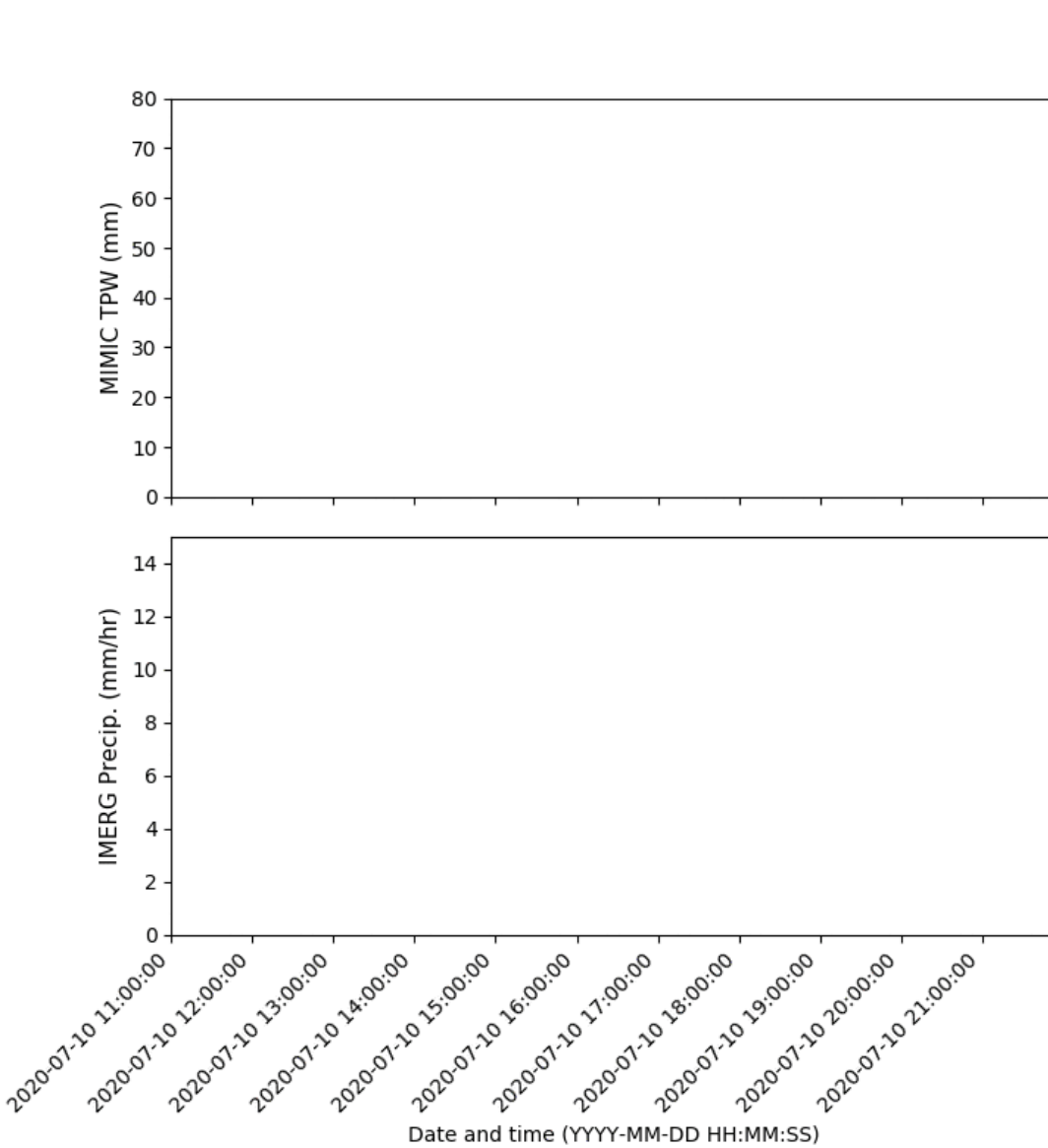
CPEX-AW Dry Run Analysis

Zipser Group

James Russell and Mani Rajagopal

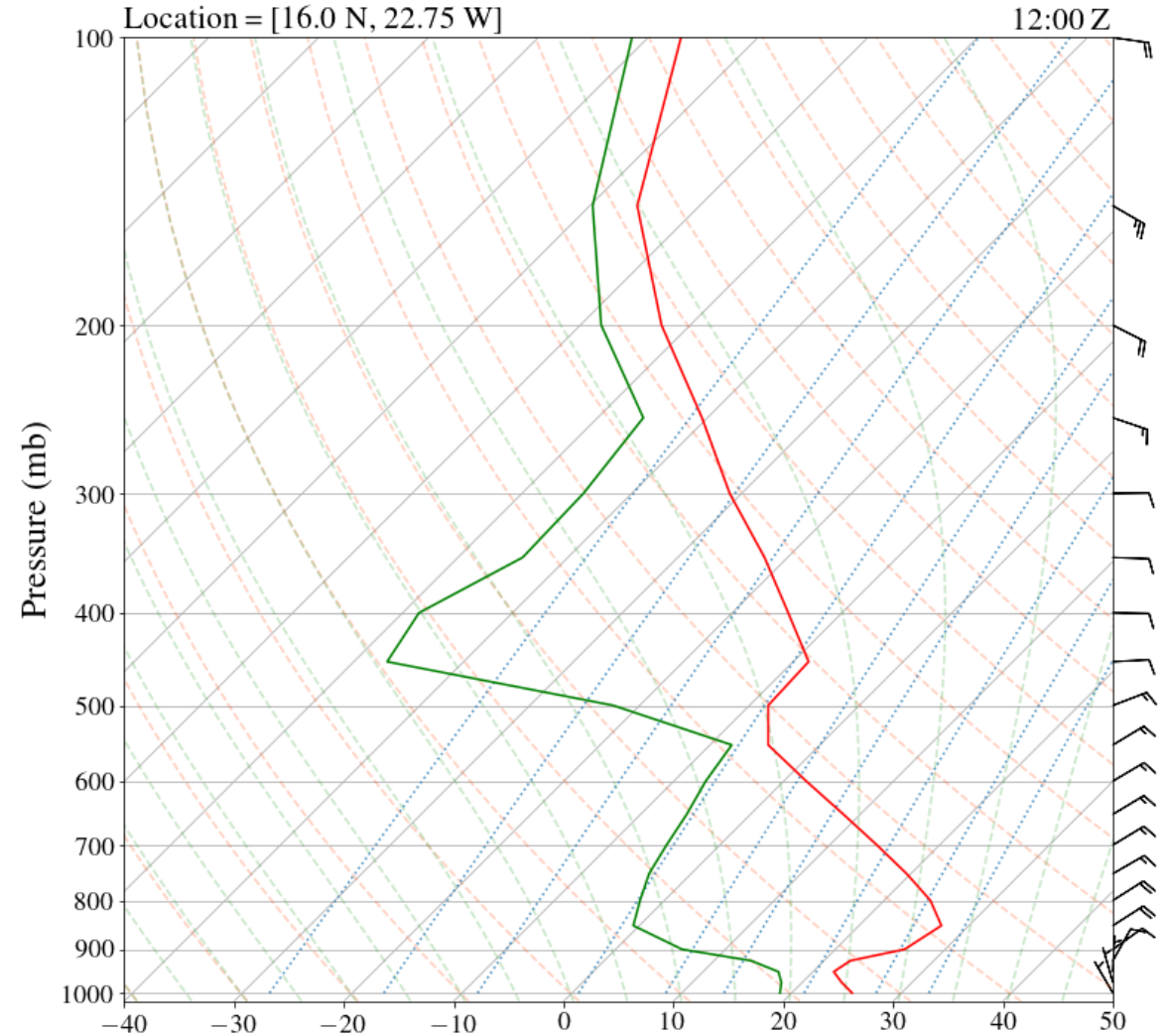
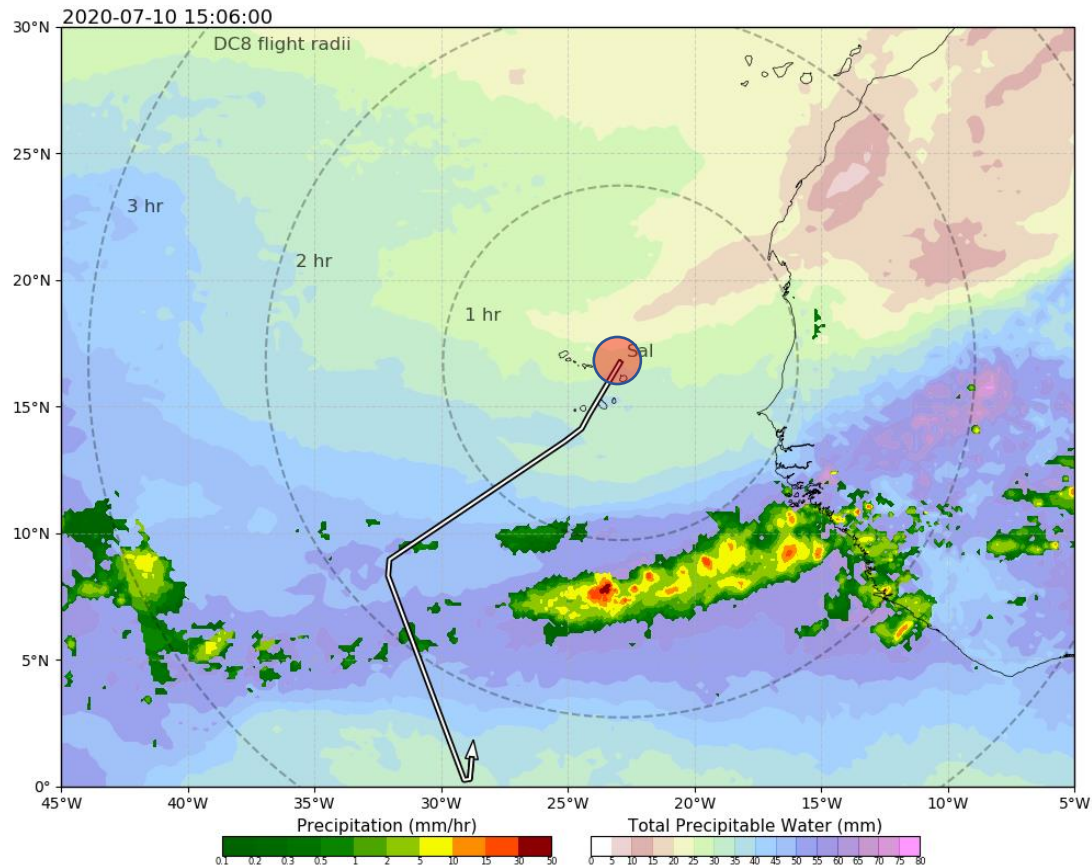
CPEX-AW Flight July 10th 2020

- http://home.chpc.utah.edu/~u0816744/CPEXAW/IMGTPW_CPEXAW_20200708.html



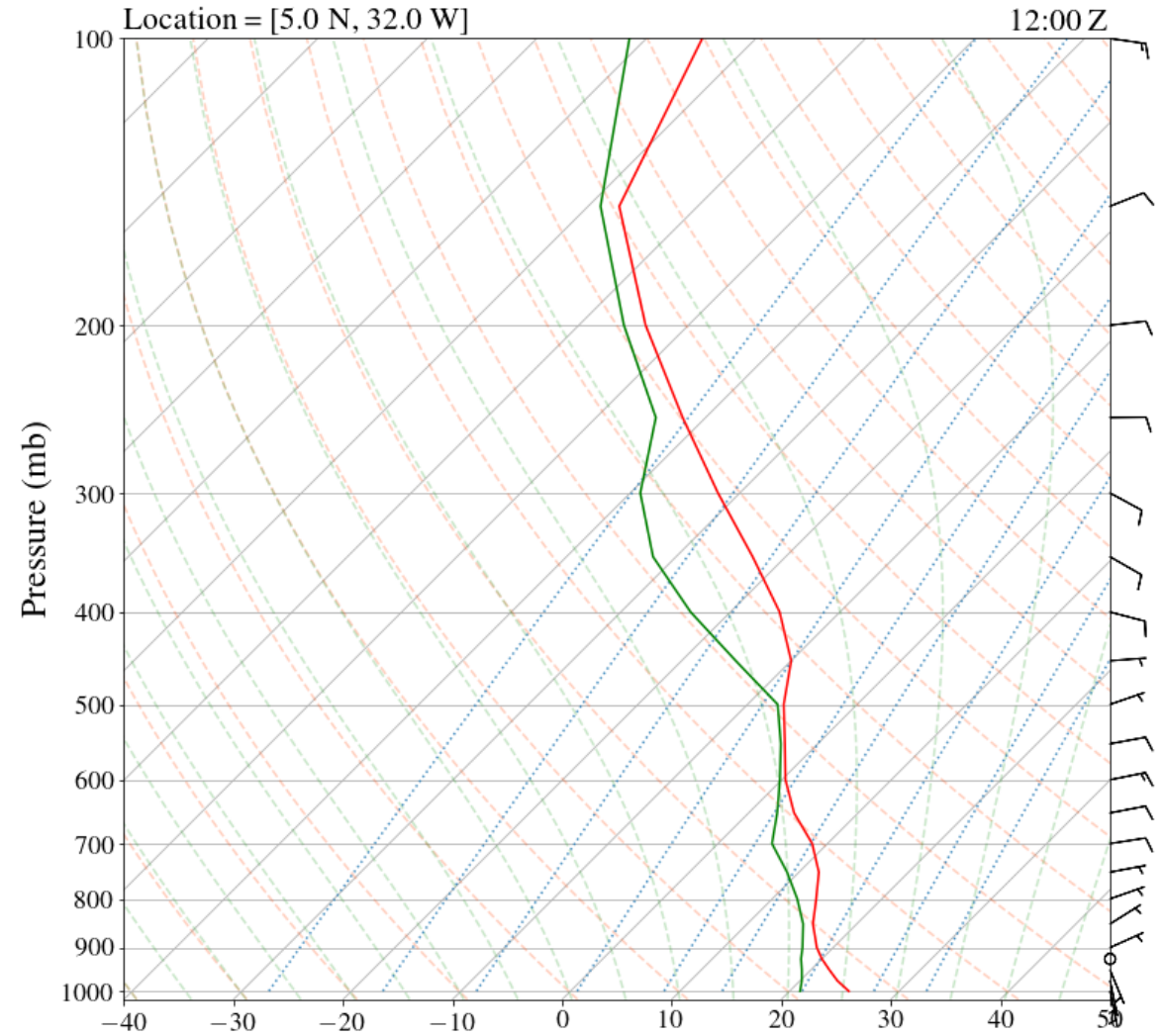
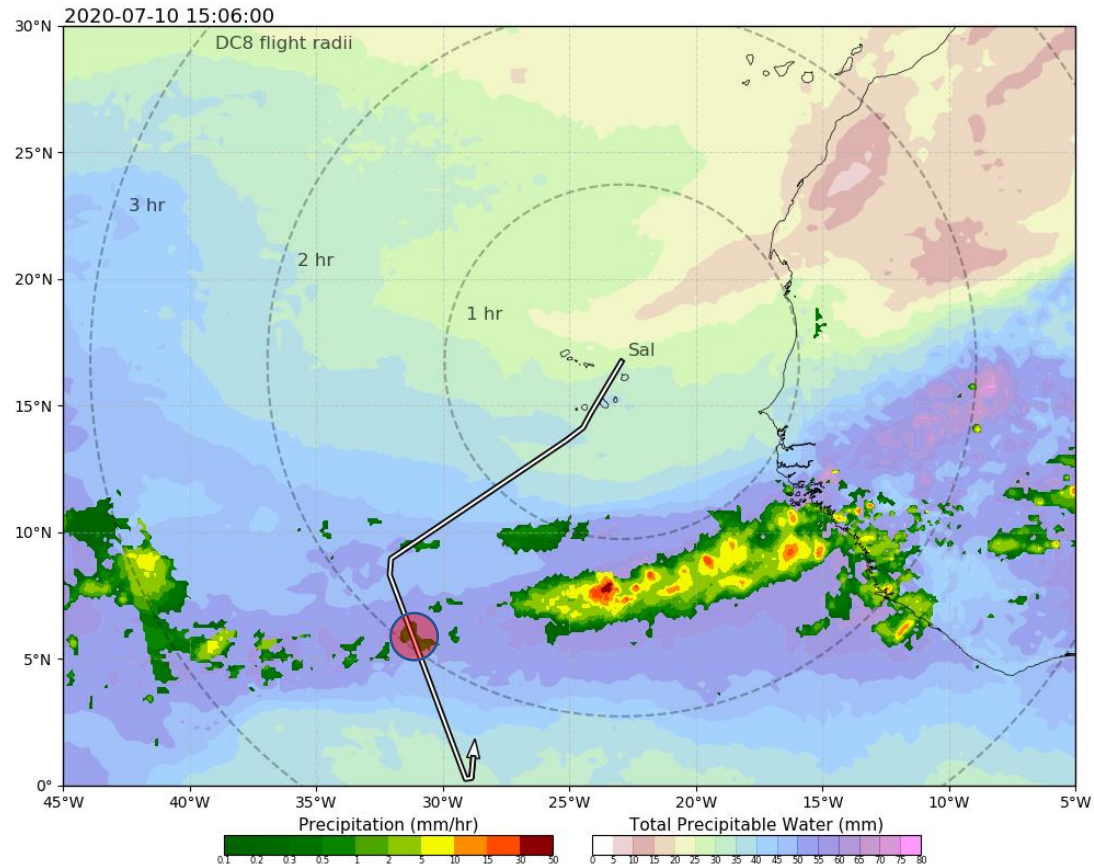
CPEX-AW Flight July 10th 2020

- Red-Circle denotes the sounding location. The vertical profile constructed from GFS analysis to simulate dropsonde observation. SAL creates a strong inversion close to surface and a second inversion near 500 hpa; SAL outbreak over Cape Verde on this day.



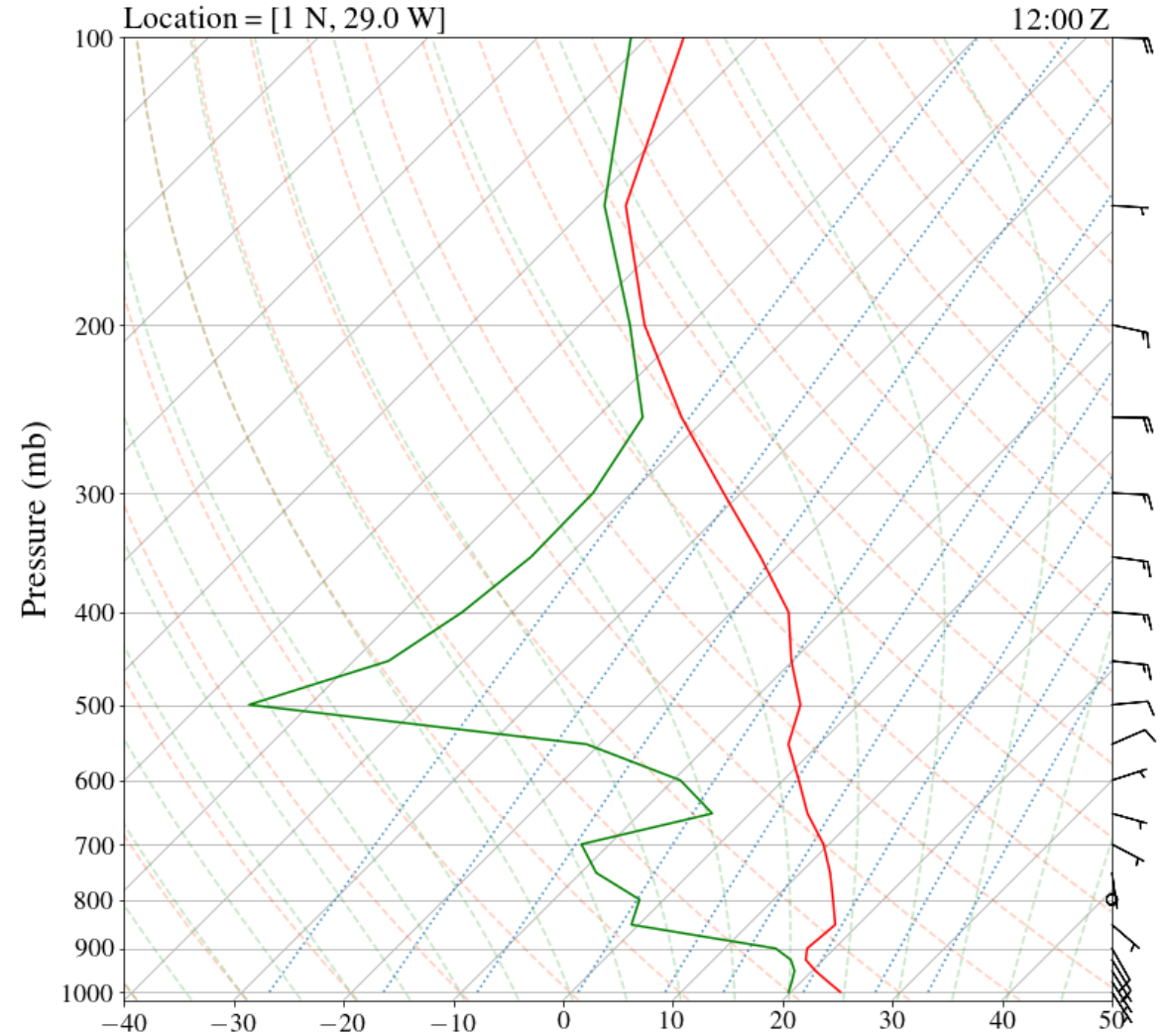
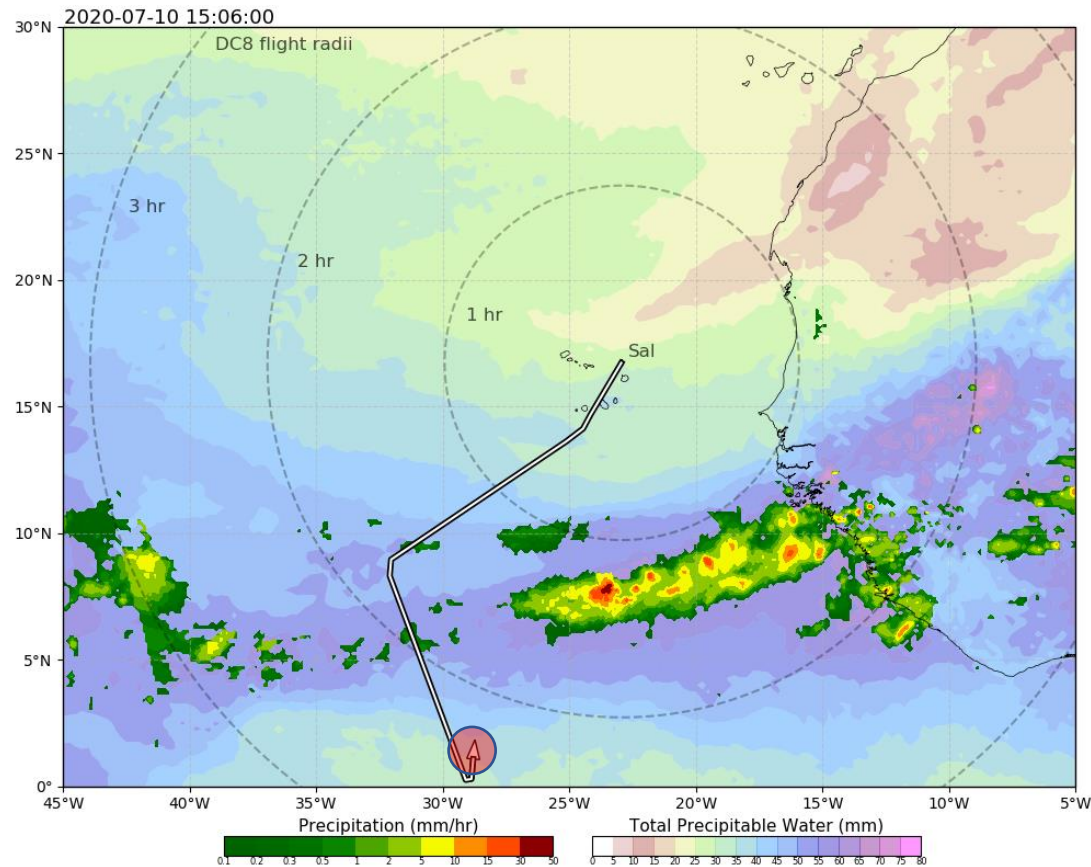
CPEX-AW Flight July 10th 2020

- High TPW band with a very moist profile; Mid-level clouds around 500 hpa



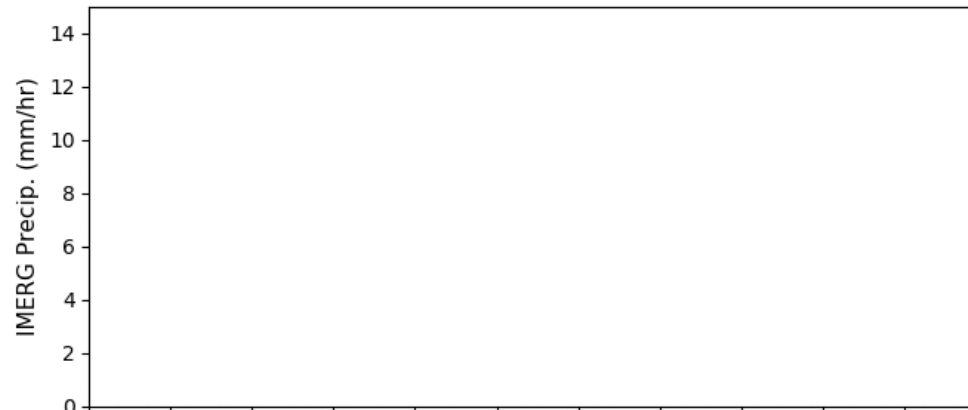
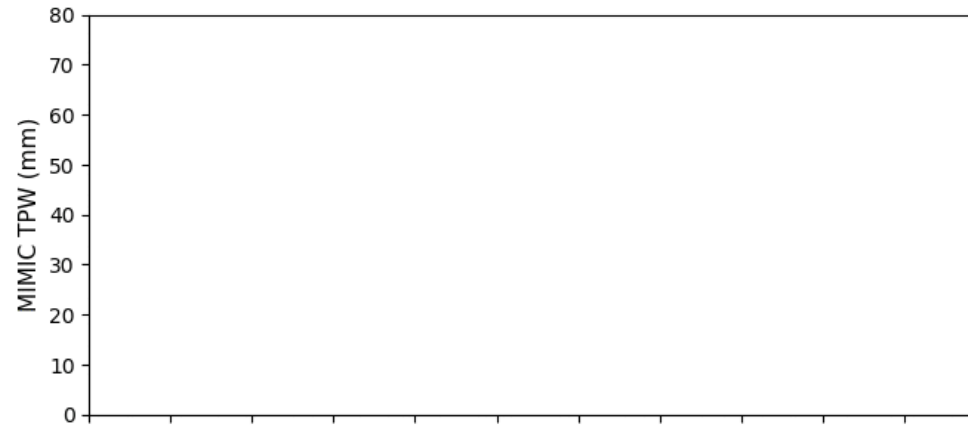
CPEX-AW Flight July 10th 2020

- Dry lower and mid-Troposphere – Moisture similar to sounding over Cape Verde; However only a weak temperature inversion.

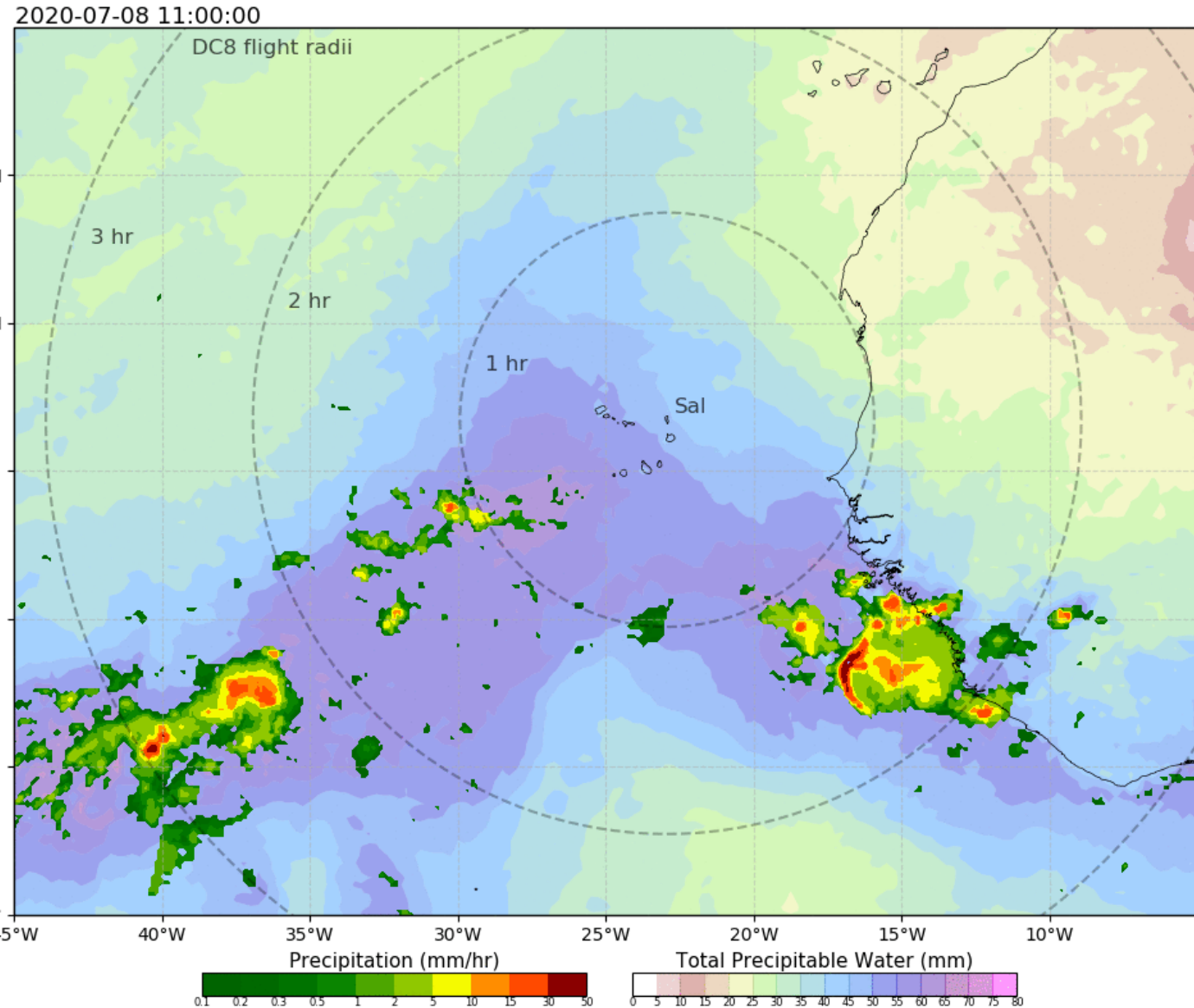


CPEX-AW Flight July 8th 2020

- http://home.chpc.utah.edu/~u0816744/CPEXAW/IMGTPW_CPEXAW_20200708.html
- MIMIC TPW and IMERG Precip

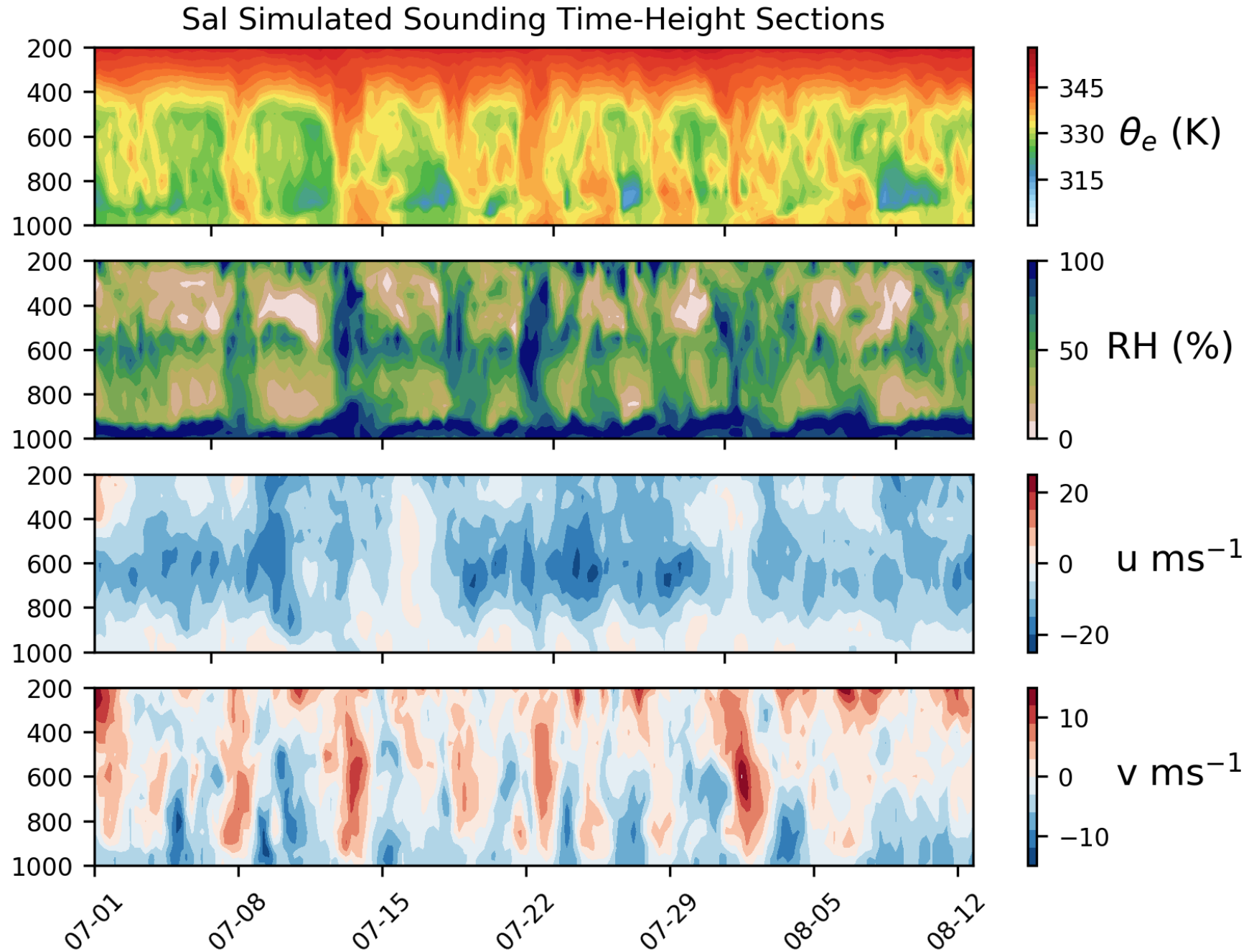


Date and time (YYYY-MM-DD HH:MM:SS)



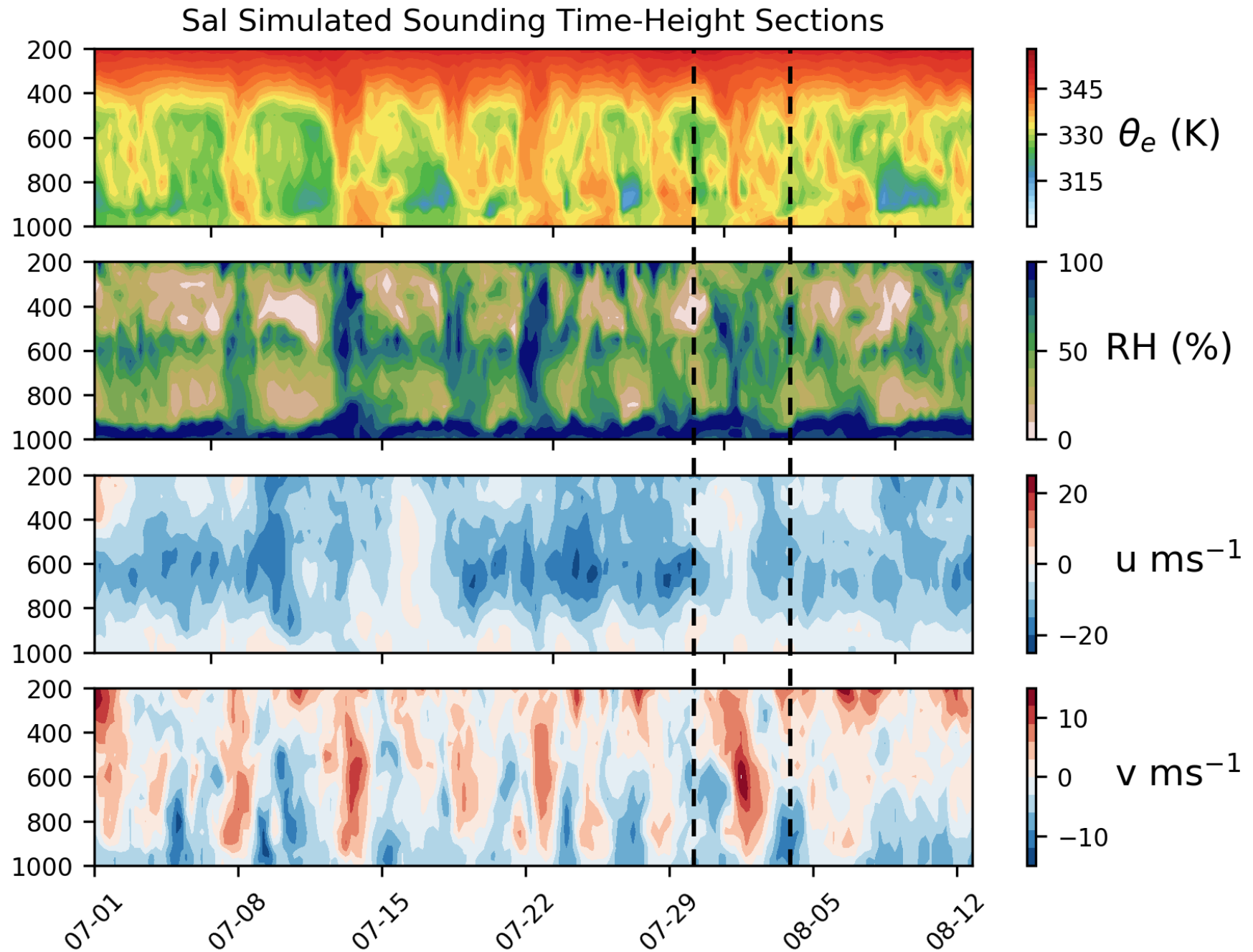
Sal Soundings: Full Campaign Time-Series

- Funding for 4 time-launches per day (need grad students to assist launches)
- Provide synoptic-scale temporal variability for length of campaign
- Characterize Easterly Waves and Jet



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Sal Soundings: Tropical Depression 10

- If we get a rare event of interest in Sal, we also intend to investigate these
- 12Z sounding and images from GDAS when TD moved north of Sal
- Shear from Easterly Jet (but mostly cold SSTs) likely played a role in weakening TD

