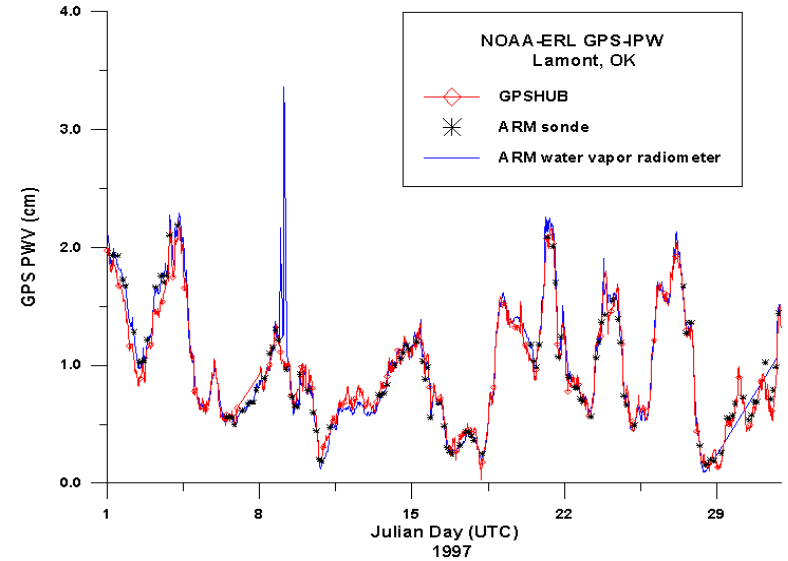
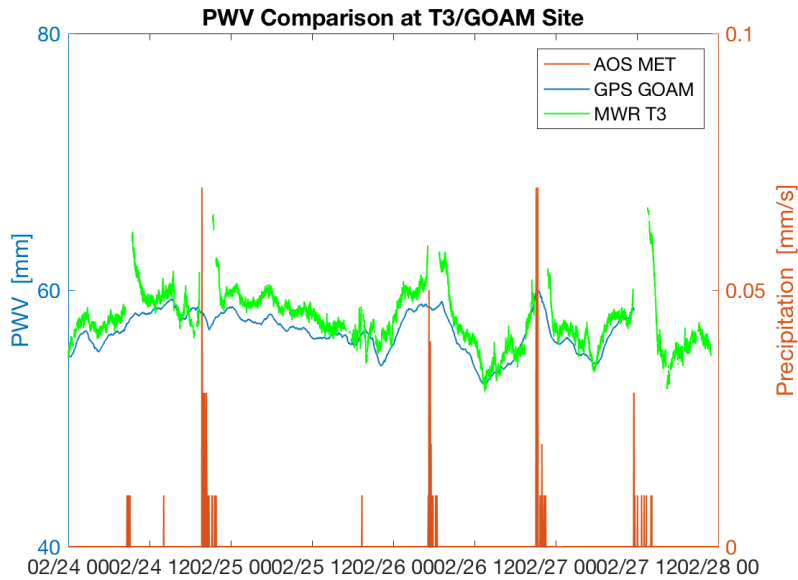


# GPS Network During GoAmazon



10 miles

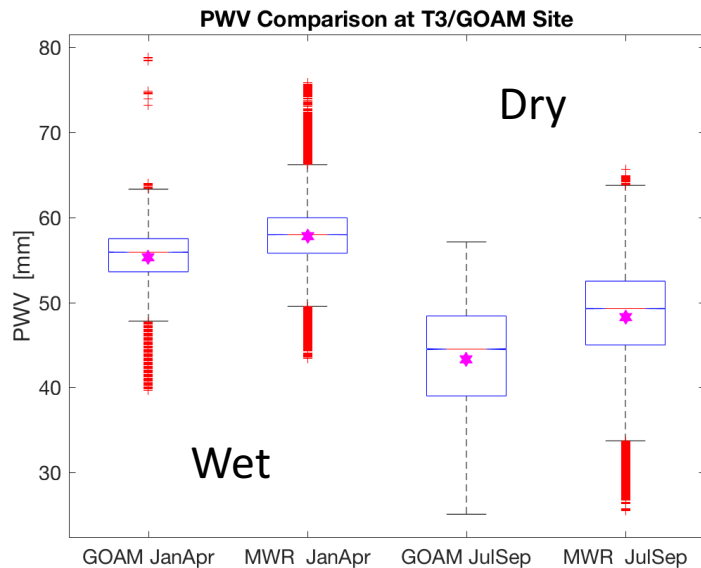
# GPS Accuracy



”The blue spike represents when the radiometer data was contaminated by rain.”

Gutman, 1997 from

[http://www.csr.utexas.edu/texas\\_pwv/midterm/gabor/gabor.html](http://www.csr.utexas.edu/texas_pwv/midterm/gabor/gabor.html)

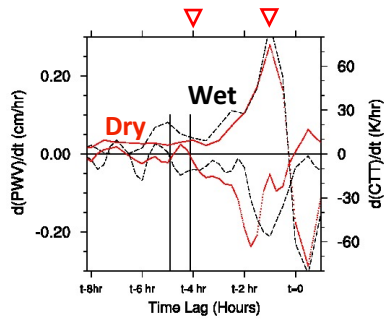


Rainfall errors may explain differences between MWR and GPS PWV at T3/GOAM. This needs to be verified more systematically.

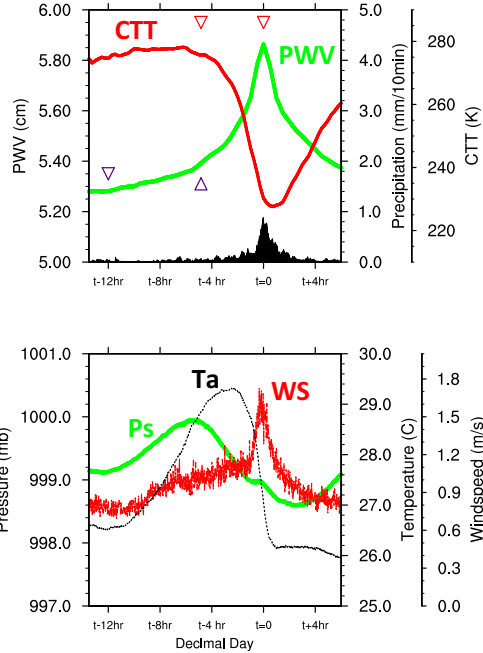
# GPS PWV Applications

## Water Vapor Convergence

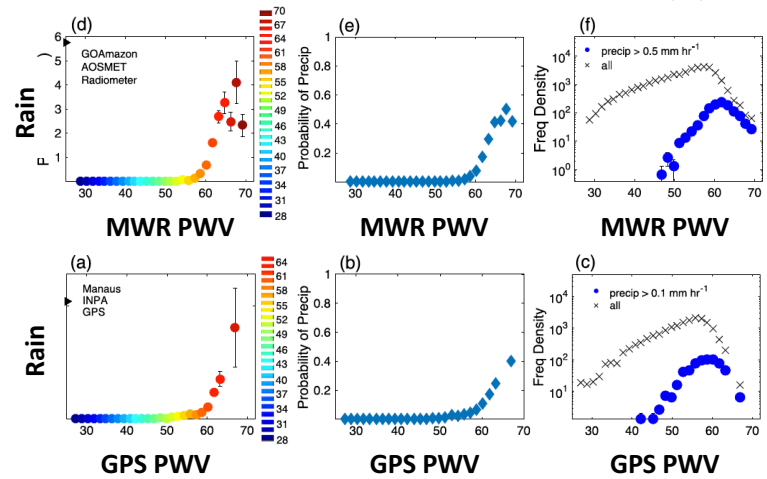
$$\left| \frac{\partial}{\partial t} (PWV) \right| \sim \left| \nabla \cdot \frac{1}{\rho_w} \int q \vec{V} dp \right|$$



Adams et al. (2013)

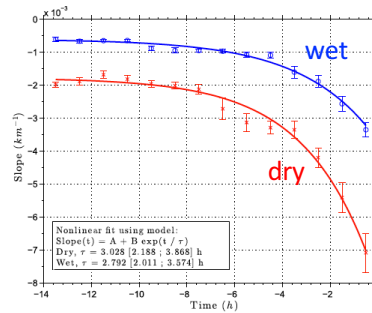
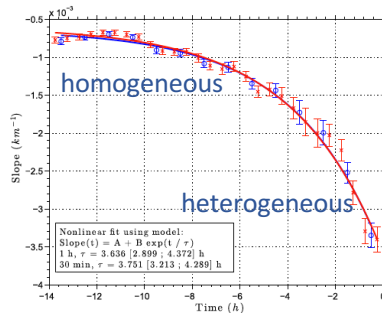
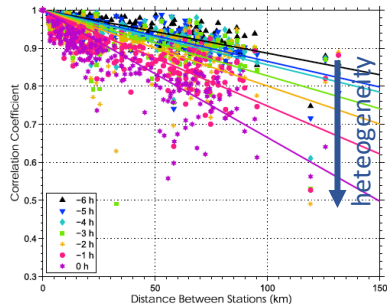


## PWV and Rainfall



Schiro et al. (2016)

## Spatial Statistics



Adams et al. (2017)

Distance

Time

Time

# Data Access

## CHUVA Project PI: Luiz Machado

<http://chuvaproject.cptec.inpe.br/portal/pedido.inicio.logic>

- Experiment: goamazon
- Type of instrument: gps
- Instrument: IWV
- Type of data: Experimental
- Level: 2
- Site: <select site of interest>
- Search

Retrieves 30-min PWV data as daily files. Daily files still being processed and much data still not available on this site.

E-mail Henrique Barbosa ([hmjbarbosa@gmail.com](mailto:hmjbarbosa@gmail.com)) for information on how to get a more complete set of data at 5-min resolution.