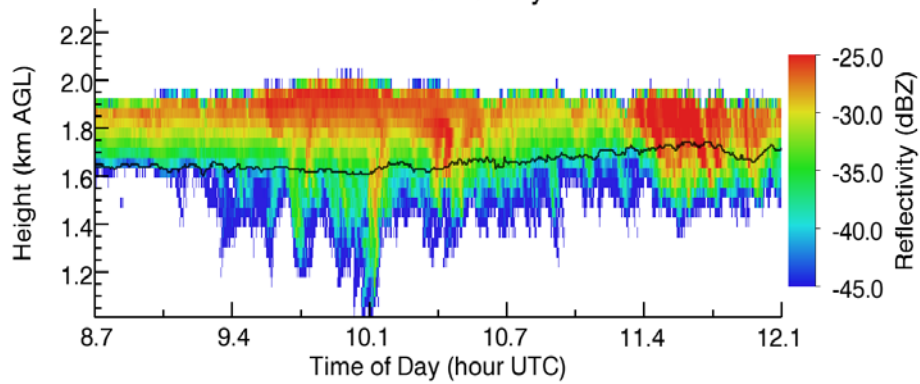


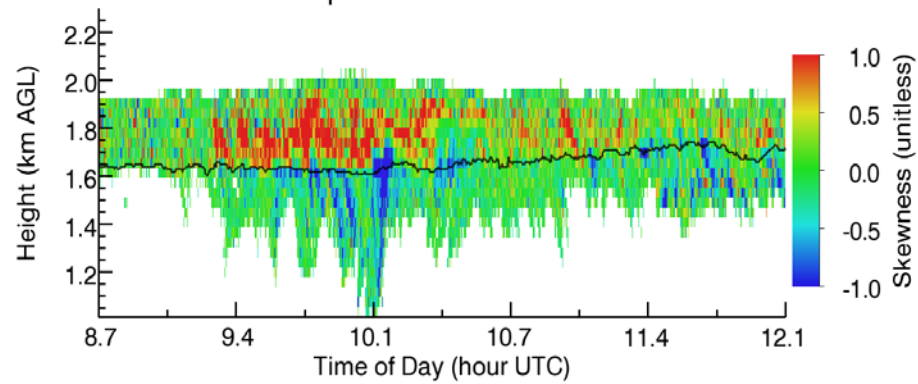
# Recent progress in observing drizzle initiation and early growth in marine stratocumulus using W band Doppler radar spectra

Edward Luke, Brookhaven National Lab  
Pavlos Kollias, McGill University

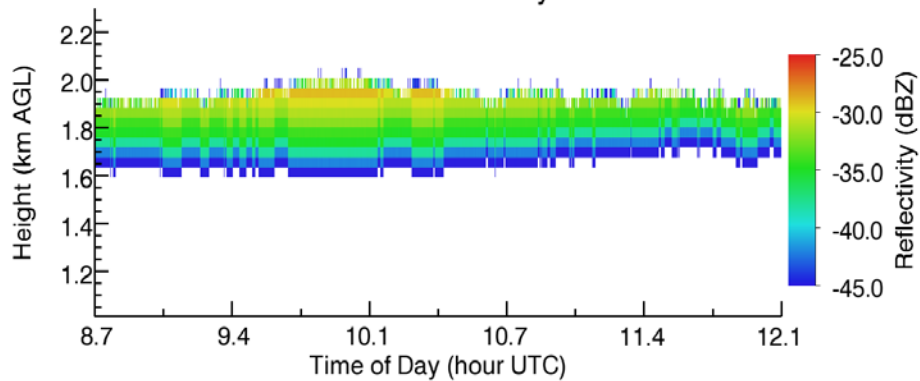
### Total Reflectivity



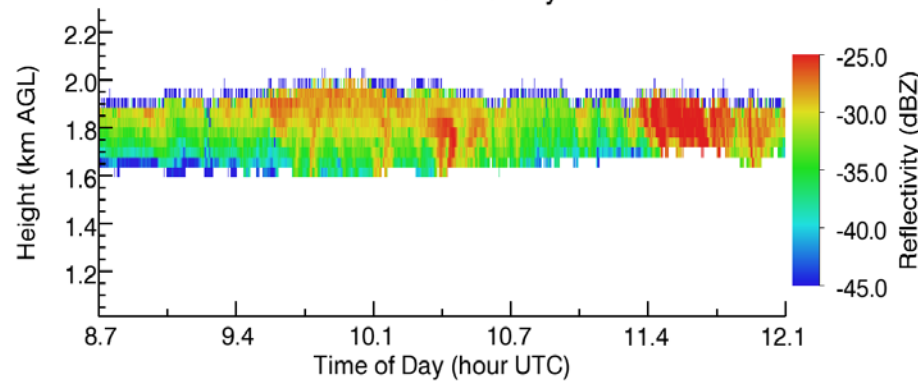
### Spectrum Skewness



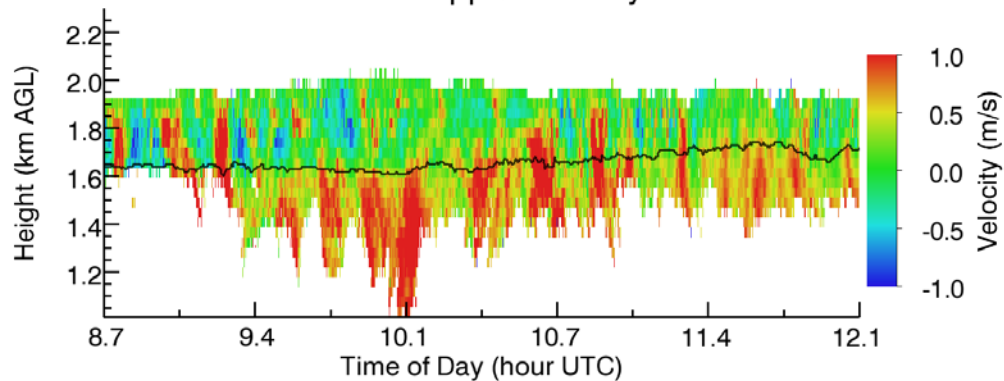
### Cloud Reflectivity



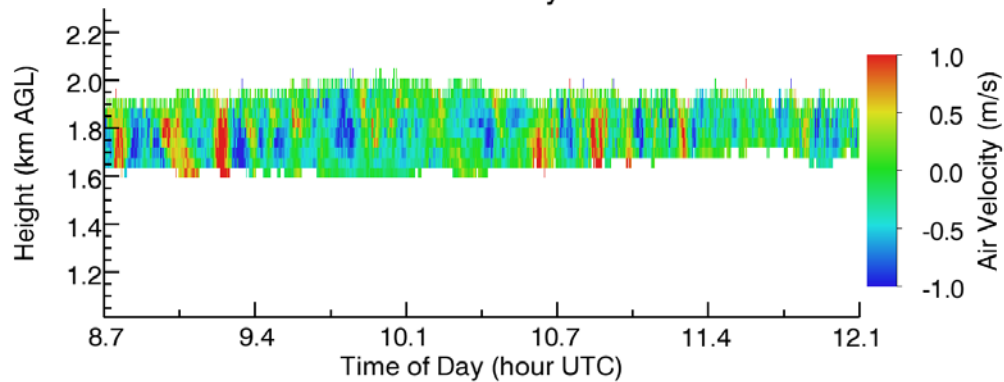
### Drizzle Reflectivity



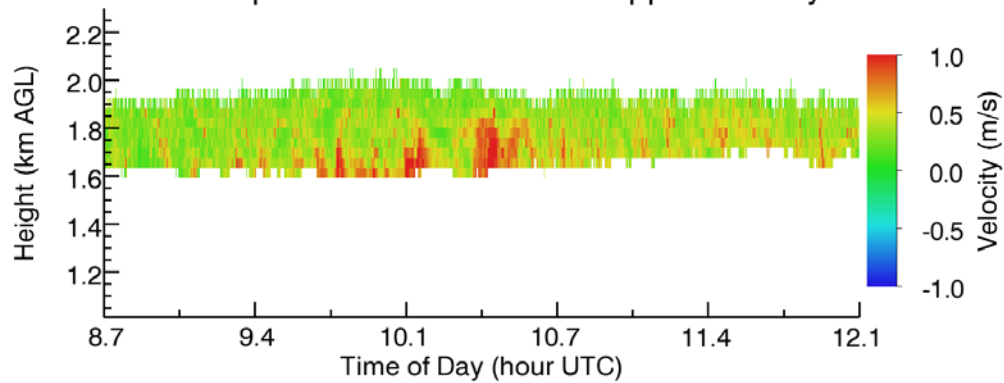
### Mean Doppler Velocity



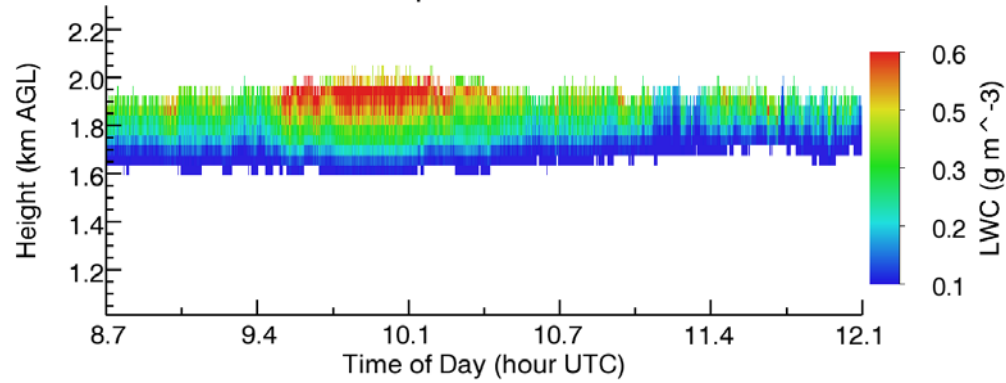
### Air Velocity



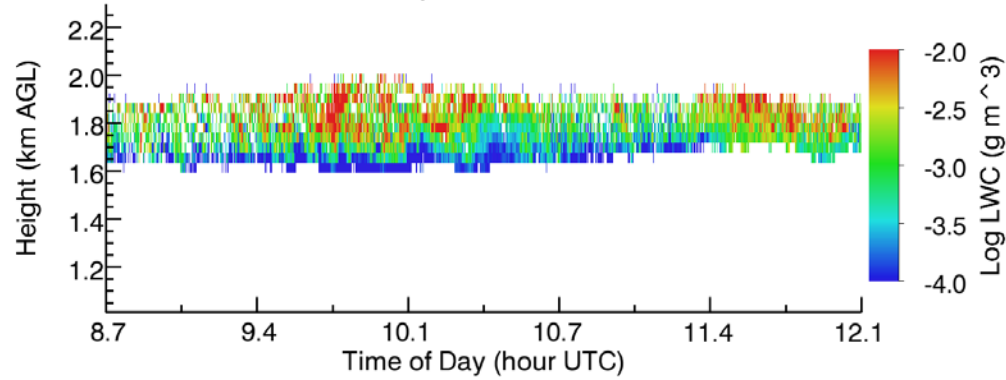
### Air-compensated Drizzle Mean Doppler Velocity



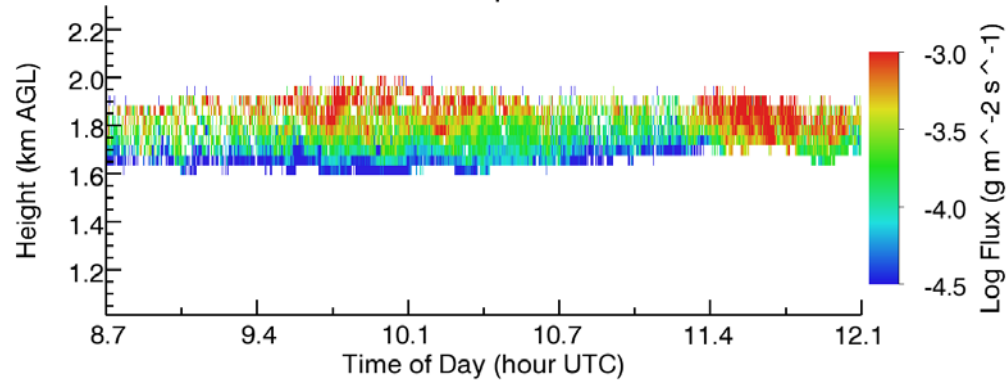
### Cloud Liquid Water Content



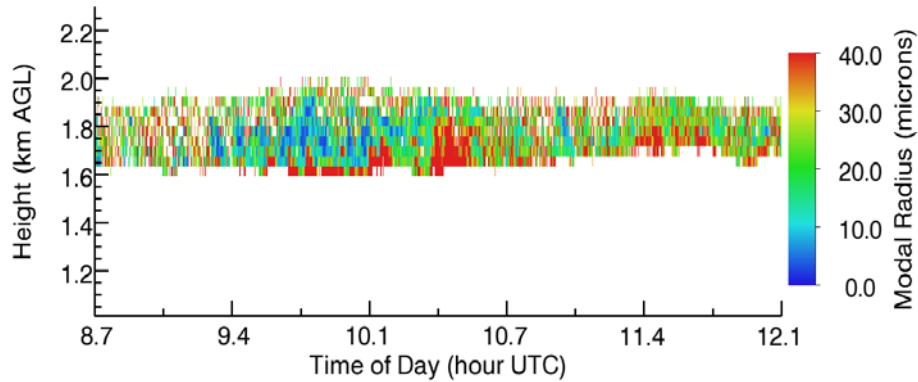
### Drizzle Liquid Water Content



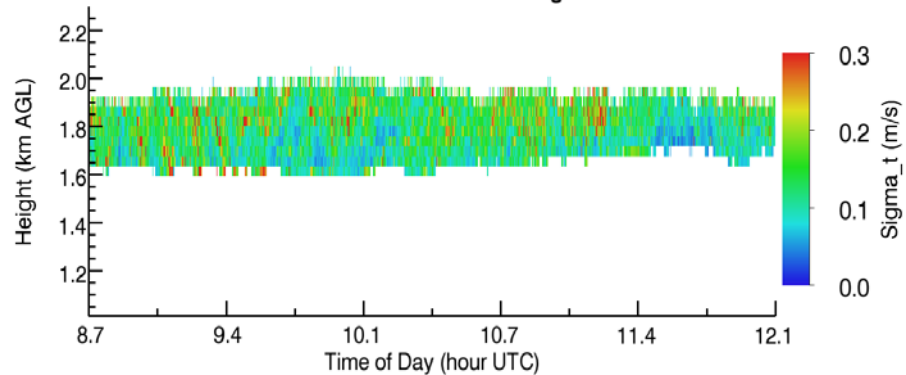
### Drizzle Liquid Flux



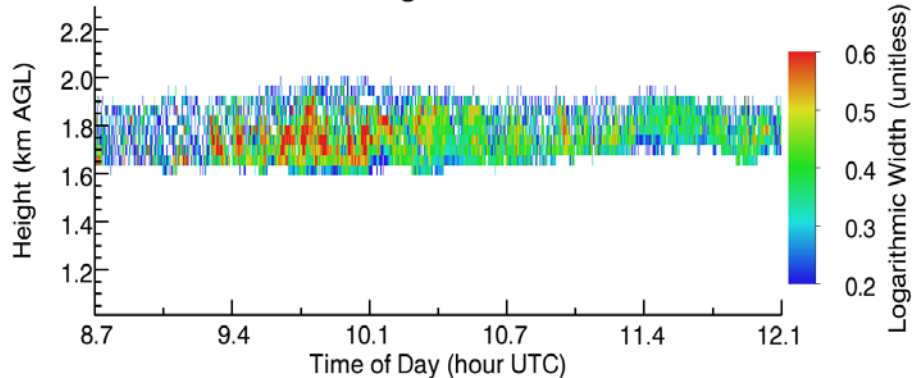
Drizzle Modal Radius



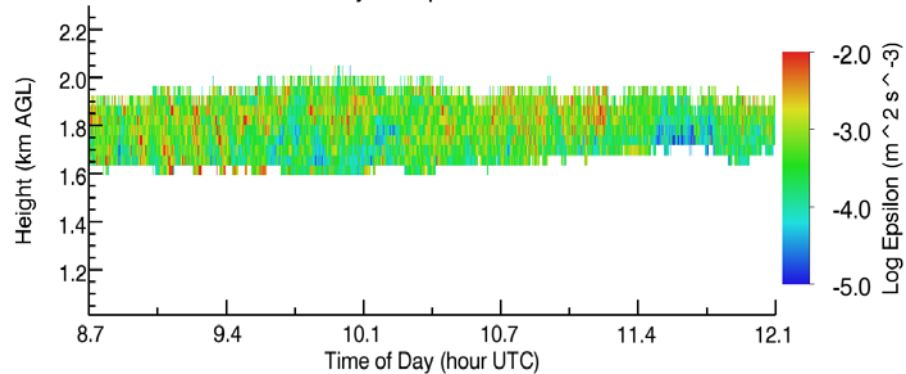
Turbulence Broadening



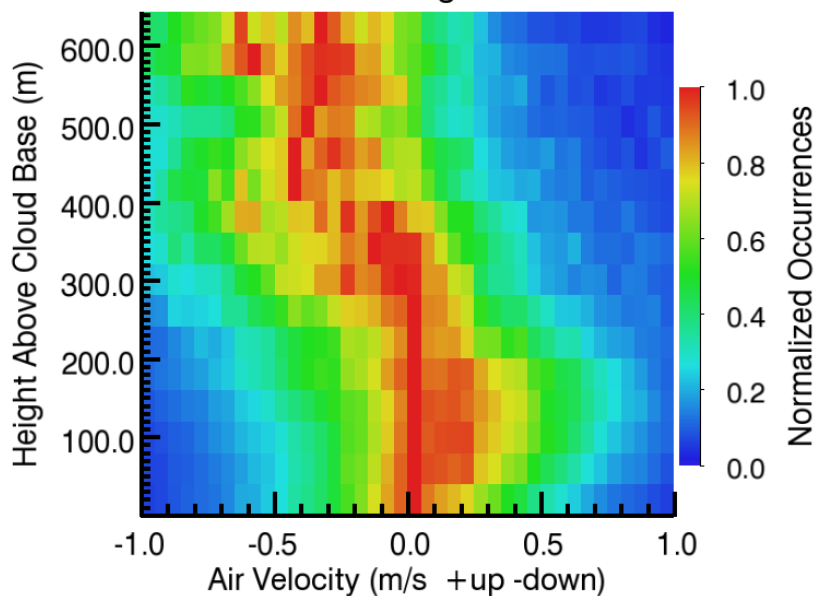
Drizzle Logarithmic Width



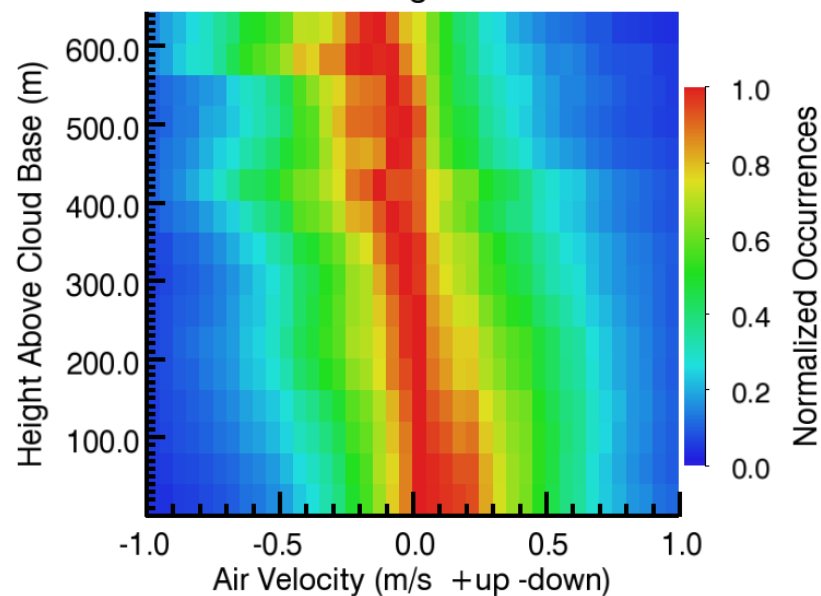
Eddy Dissipation Rate



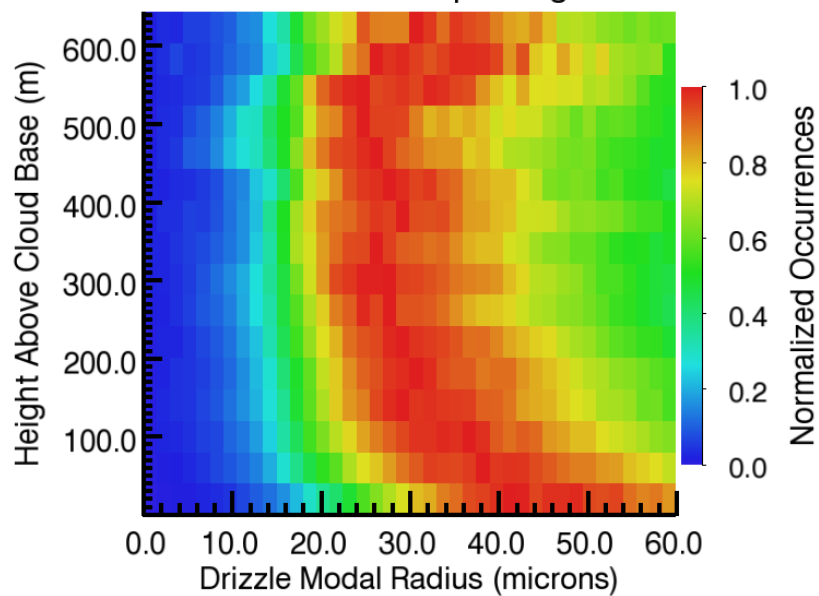
Non-drizzling Cloud



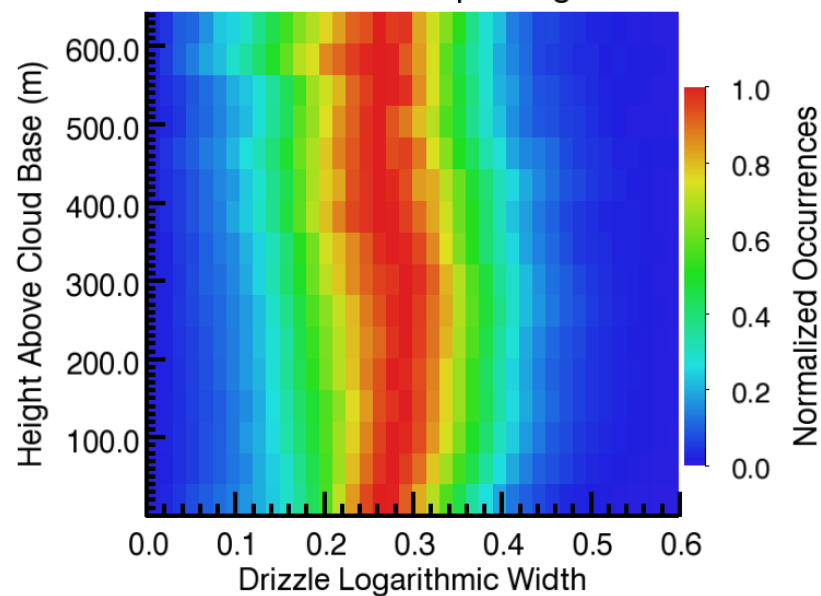
Drizzling Cloud



Cloud with Deeper Virga



Cloud with Deeper Virga



Kollias, P., J. Rémillard, E. P. Luke, W. Szyrmer, 2011: Cloud Radar Doppler Spectra in Drizzling Stratiform Clouds. Part I: Forward Modeling and Remote Sensing Applications, Journal of Geophysical Research, accepted

Kollias, P., W. Szyrmer, J. Rémillard, E. P. Luke, 2011: Cloud Radar Doppler Spectra in Drizzling Stratiform Clouds. Part II: Observations and Microphysical Modeling of Drizzle Evolution, Journal of Geophysical Research, accepted

Luke, E. P., P. Kollias, 2011: Turbulence and Microphysical Retrievals in Drizzling Stratiform Clouds Using Radar Doppler Spectra, Journal of Geophysical Research, in preparation