

UT Dynamics

a.k.a: Convective Transport and STE by Thunderstorms

1. Convective Injection of Water Vapor into the Lower Stratosphere
2. Tropospheric Ozone Enhancement by Thunderstorms

Contributed by:

NCAR: Laura Pan, Cameron Homeyer, Shawn Honomichl, Andy Weinheimer, Morris Weisman, Mary Barth and Brian Ridley

NASA Langley- DIAL: Johnathan Hair and group; in situ tracers: Glenn Diskin and group

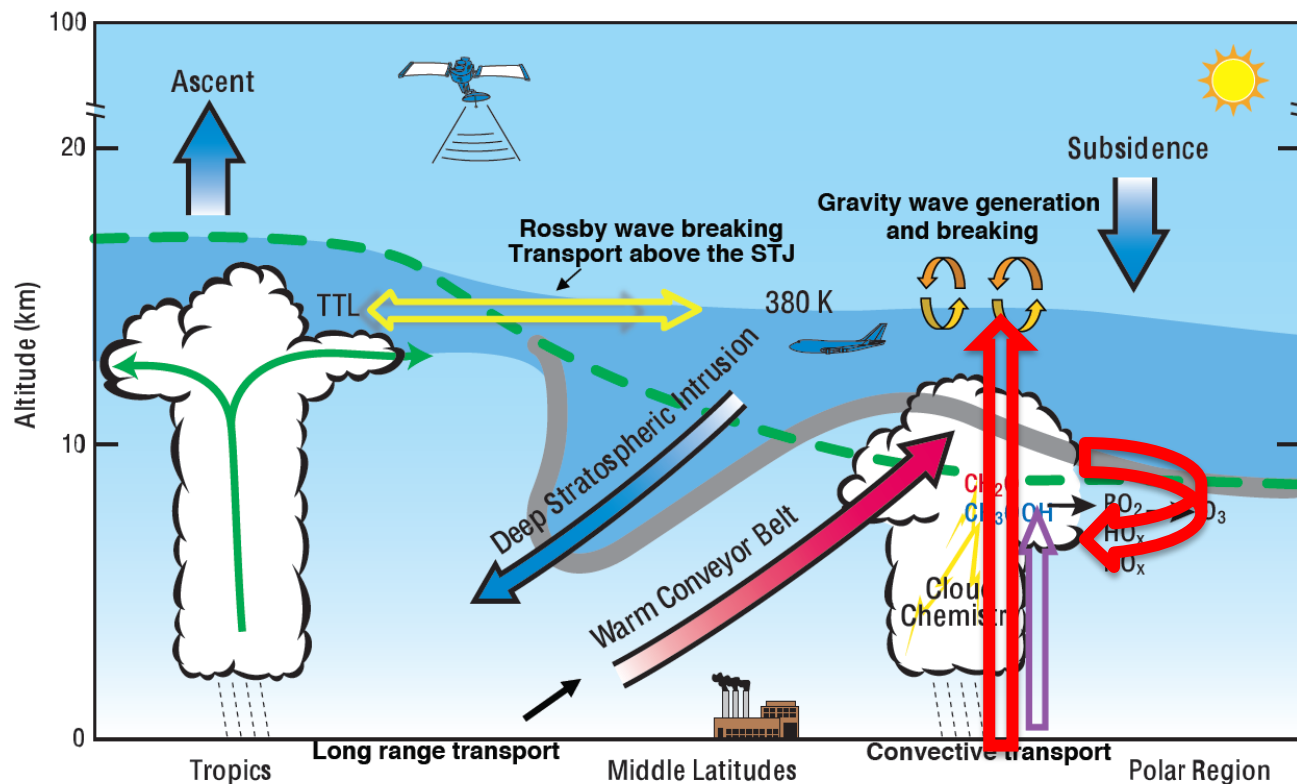
NOAA- in situ tracers: Tom Ryerson and group

Princeton U: Mark Zondlo, Anthony O'Brien

CU Total water: Sam Dorsi (Linnea Avallone group)

What are the issues and why we care

- Does convection play a role in transporting water vapor, aerosol and short-lived species into the Stratosphere?
- How much is the stratospheric influence to the tropospheric ozone in the summer North American monsoon season? (*Do thunderstorms bring down ozone-rich stratospheric air?*)
- How do we separate the stratospheric influence from photochemistry in DC3 flight data?



- Contact Laura Pan (liwen at ucar.edu) for further interest in this work