

# Overview of Formaldehyde (HCHO) during CONTRAST

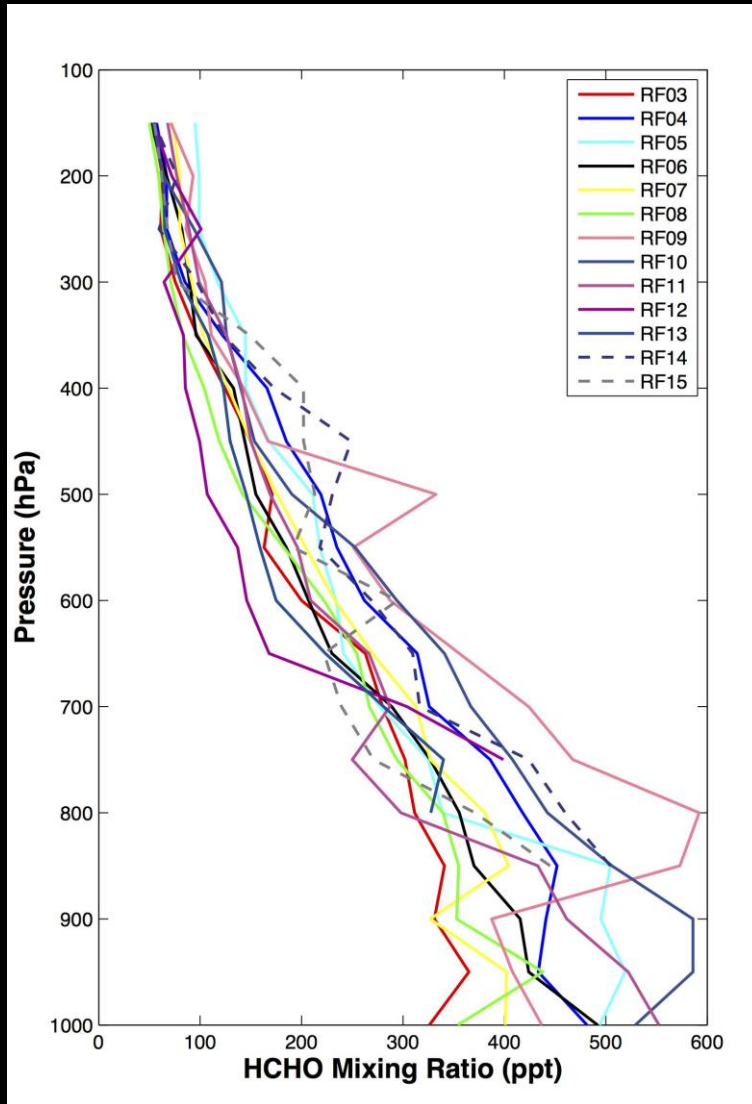
27 Feb. 2014

CONTRAST Science Team Meeting

Dan Anderson

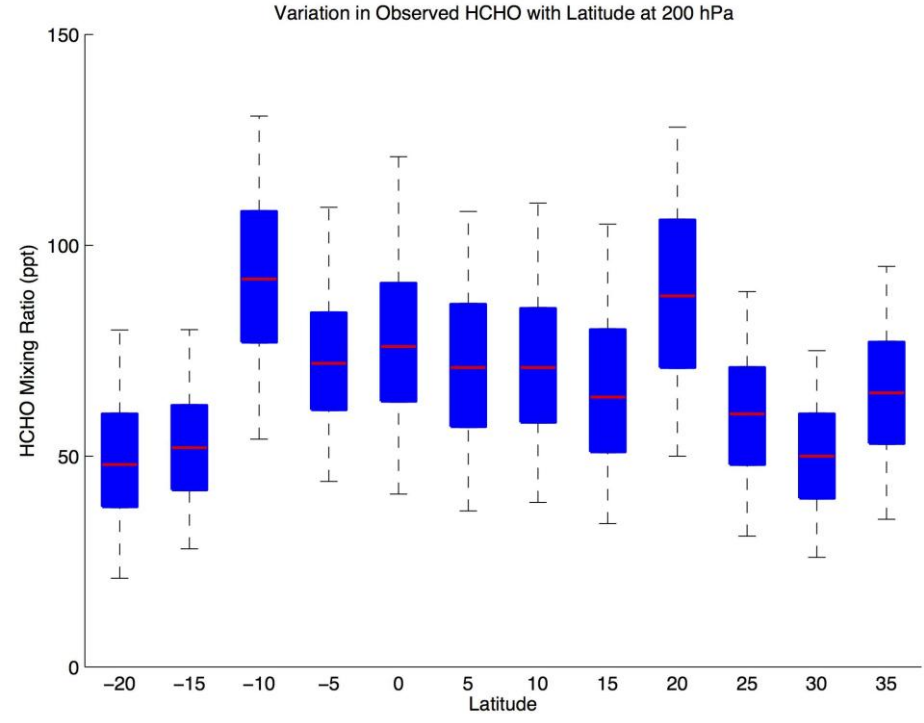
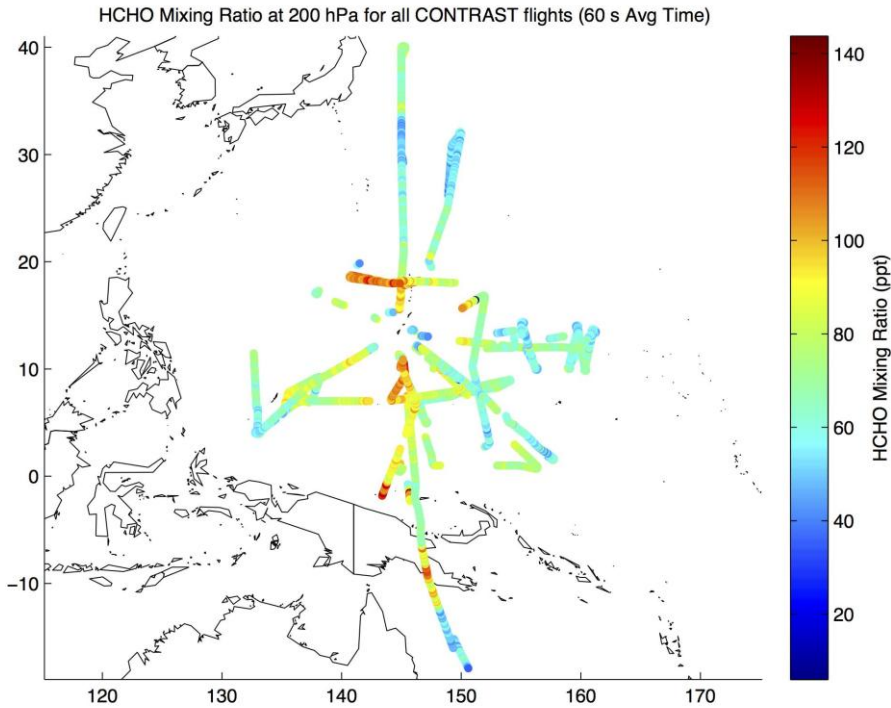
# HCHO Vertical Profiles

## Median HCHO Values for CONTRAST Research Flights



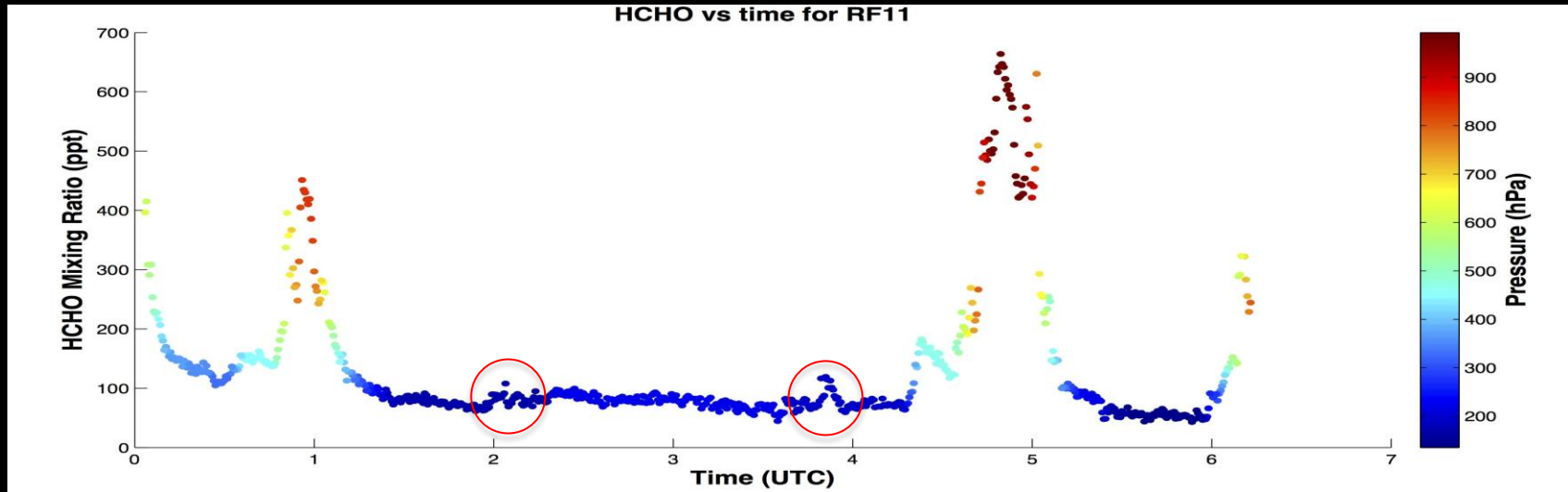
- Evidence of elevated HCHO aloft:
  - RF05 at 150 hPa
  - RF14 & 15 between 300 and 500 hPa
  - RF09

# Latitudinal HCHO Distribution

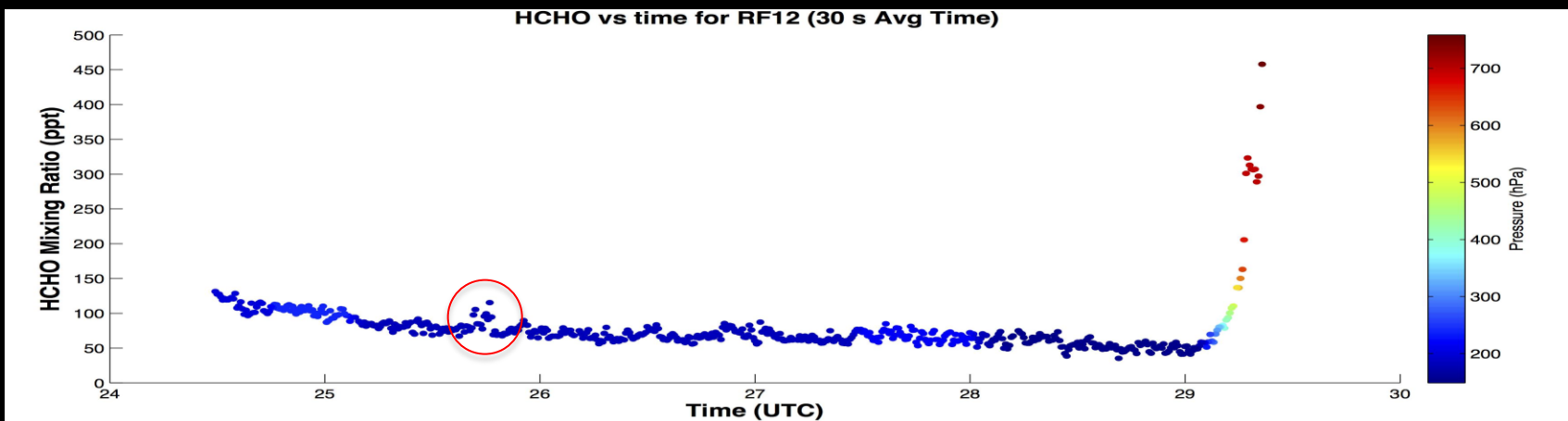


- Influence of emissions from PNG evident
- Southern Hemisphere has slightly lower median HCHO mixing ratios

# Possible Evidence of Recent Convection

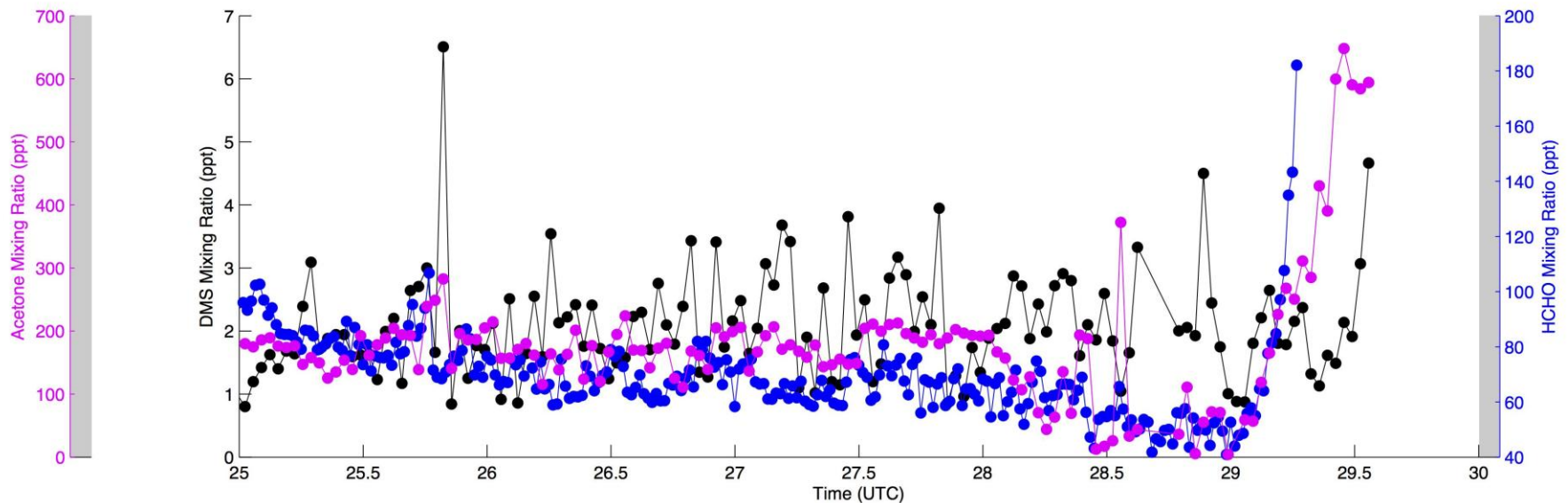


- Elevated HCHO in RF11 coincides w/ TOGA data



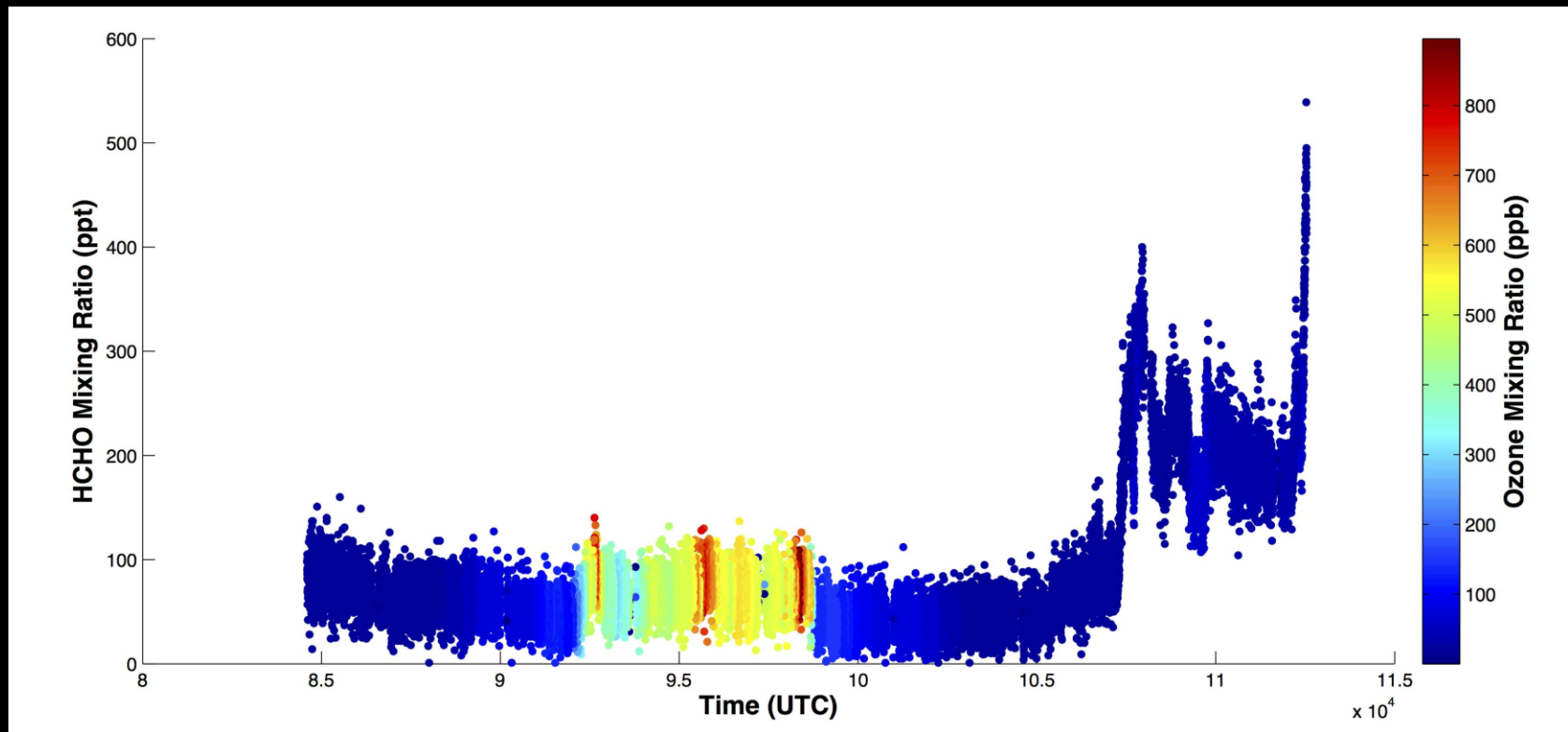
# Possible Evidence of Recent Convection

RF12 Time Series from ISAF and TOGA Quick Look Data



- Slight offset between peak ISAF HCHO and TOGA measured tracers.

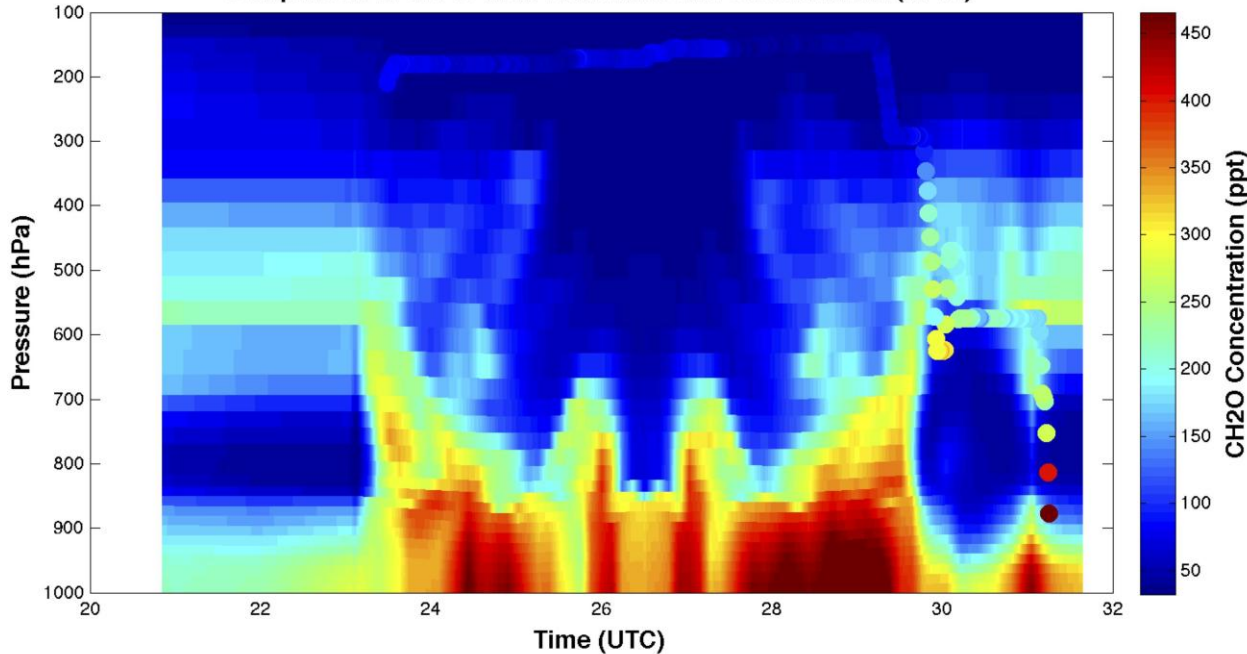
# Enhanced Stratospheric HCHO?



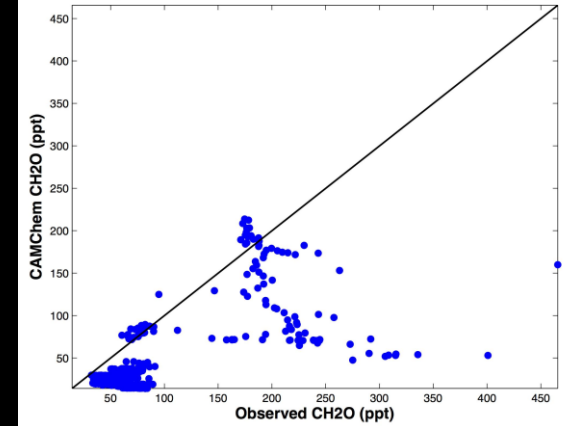
- Mixing ratios in stratosphere  $\sim 30$  ppt higher than in upper free trop.
- Possible enhanced production?

# Enhanced Stratospheric HCHO?

Comparison of CH<sub>2</sub>O from CAMChem and Observations (RF15)



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