



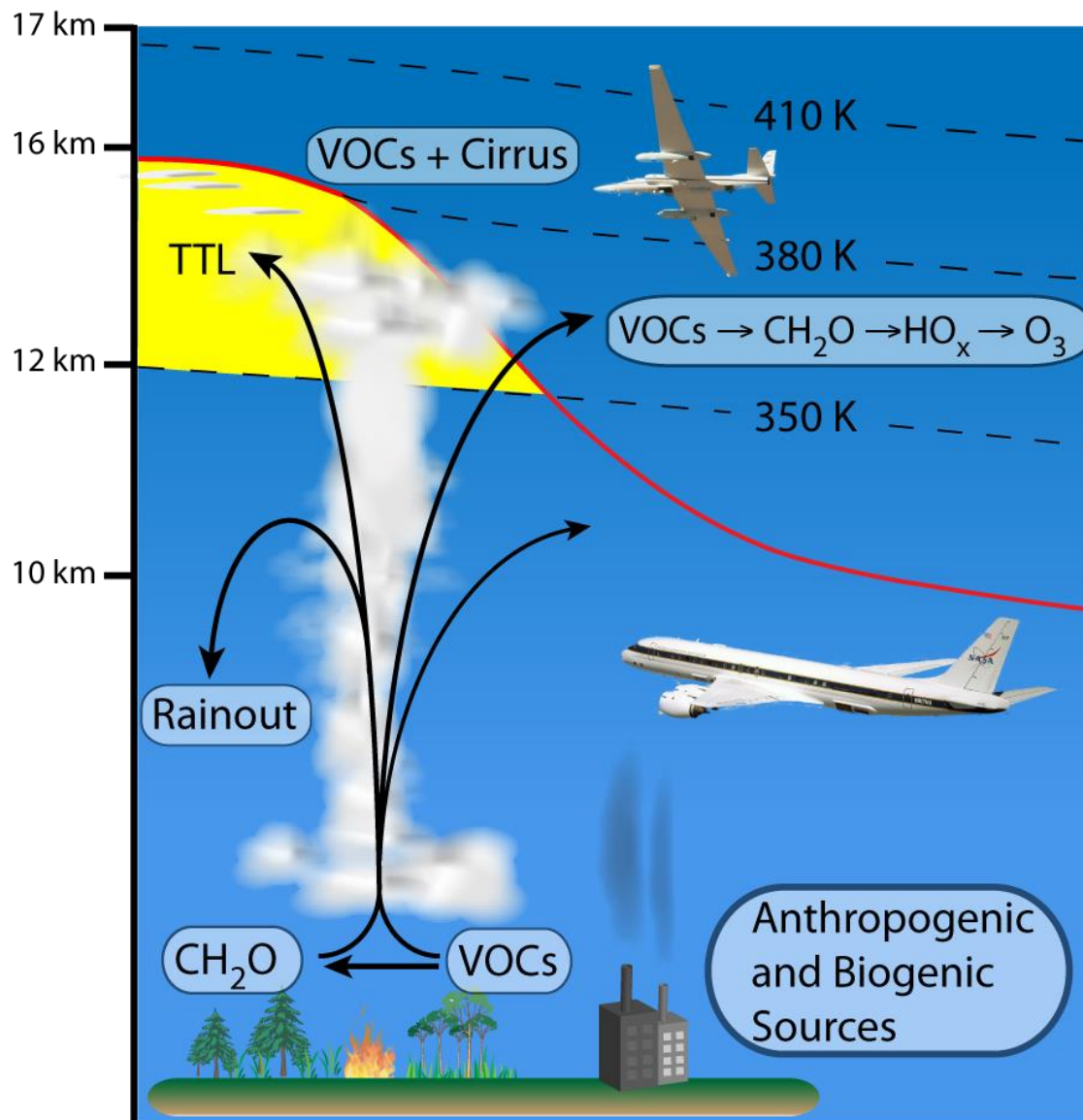
A tale of trepidation and redemption



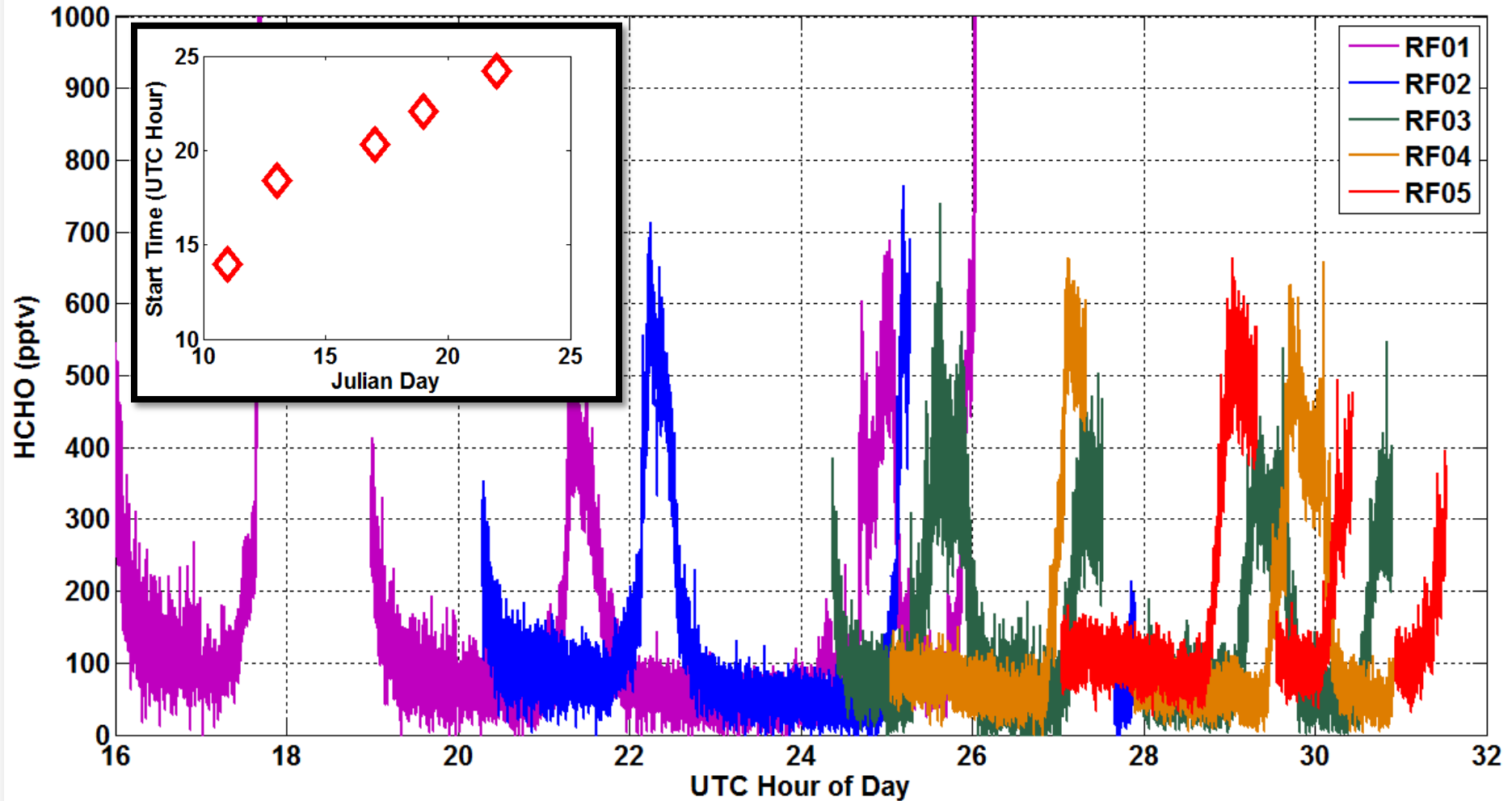
Glenn Wolfe
Dan Anderson
Tom Hanisco



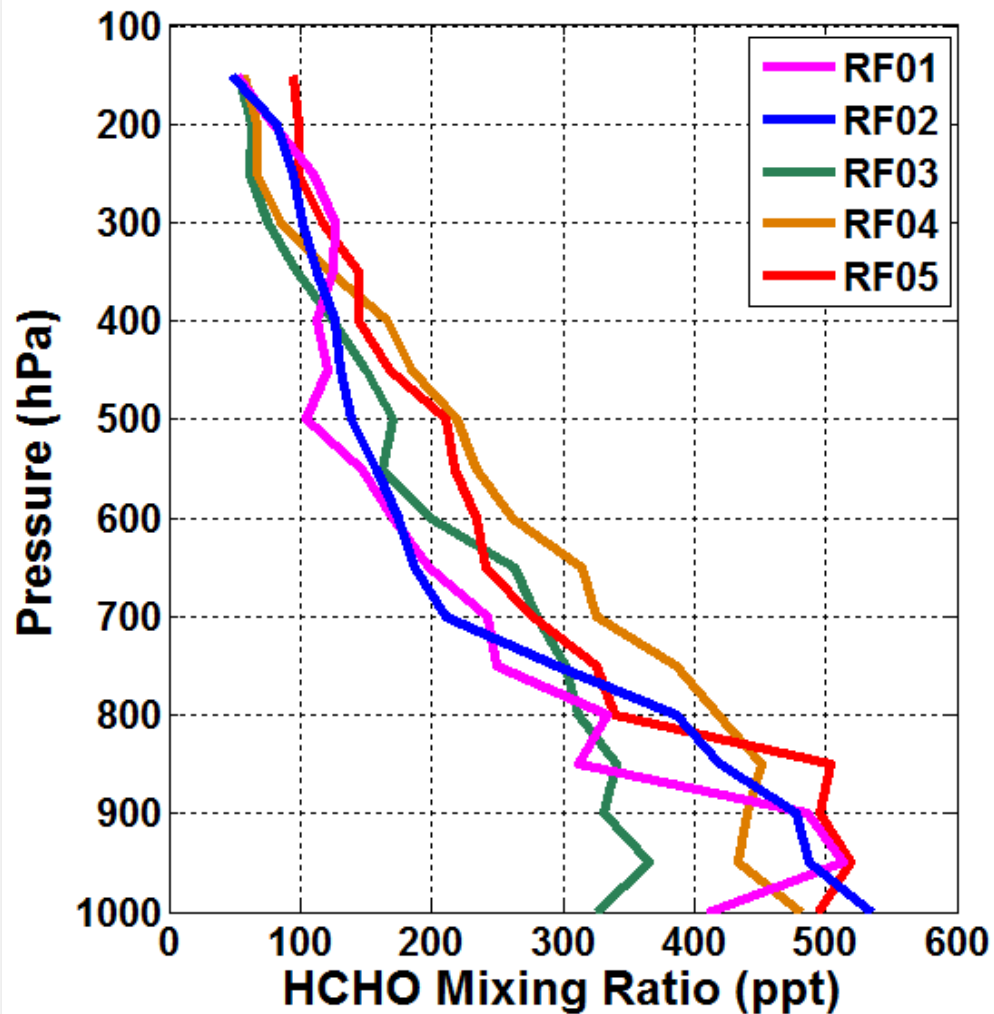
Why HCHO?



Flight Summary



Vertical Profiles



- RF04: Notably elevated HCHO throughout trop
- RF03: Notably low HCHO in MBL

MBL Steady-State Estimate

Reaction	Rate (10^5 molec $\text{cm}^{-3} \text{s}^{-1}$)
<i>Production</i>	
$\text{CH}_4 + \text{OH}$	6.5
$\text{CH}_3\text{OH} + \text{OH}$	0.2
$\text{CH}_3\text{CHO} + \text{OH}$	2.4
<i>Loss</i>	
$\text{HCHO} + \text{OH}$	2.5
$\text{HCHO} + h\nu$	5.2

$$P_{\text{total}} = 9.1$$

$$L_{\text{total}} = 7.7$$

Very rough! Guessed OH, no Br, assumed branching, etc.

Comparison with Ozone

