

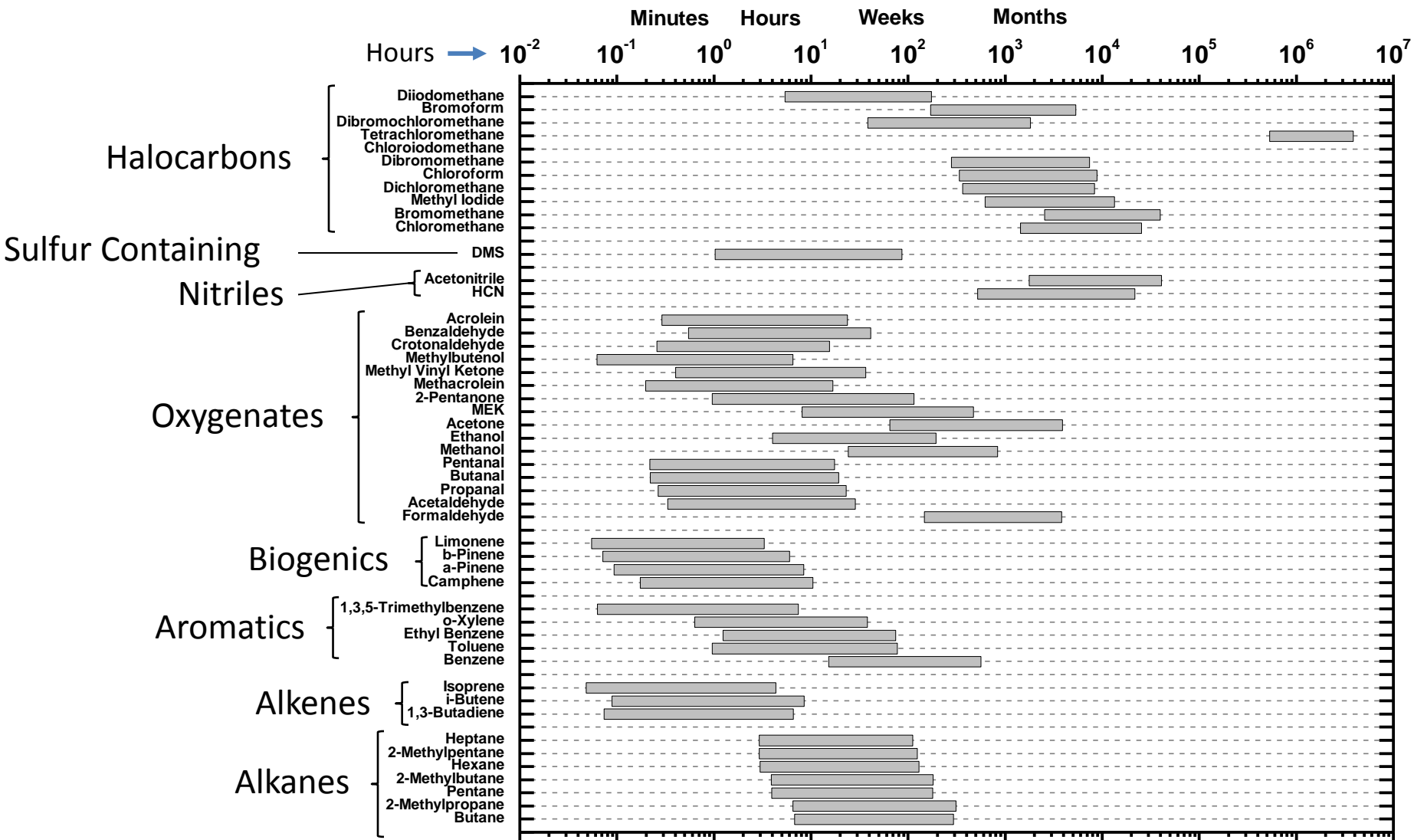
Trace Organic Gas Analyzer (TOGA)

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Riemer, Alan Hills, Nicola Blake,
Stacie Hughs

During movement to the upper troposphere several factors affect the efficacy of transport – one is reactivity

Reactivity with OH

10^5 OH (low), 10^7 OH (high), 210K, 310K

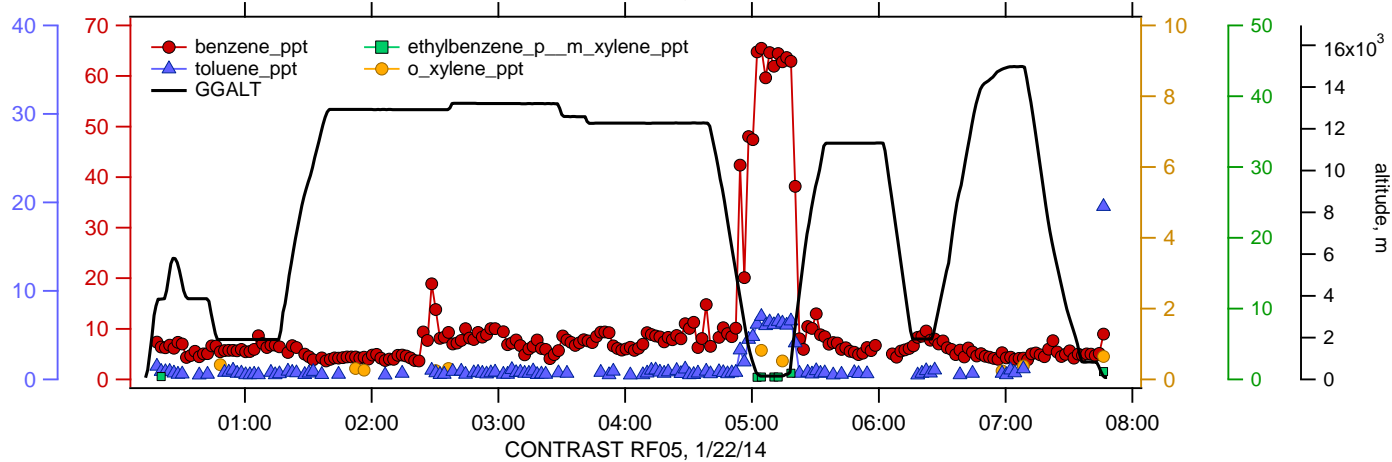
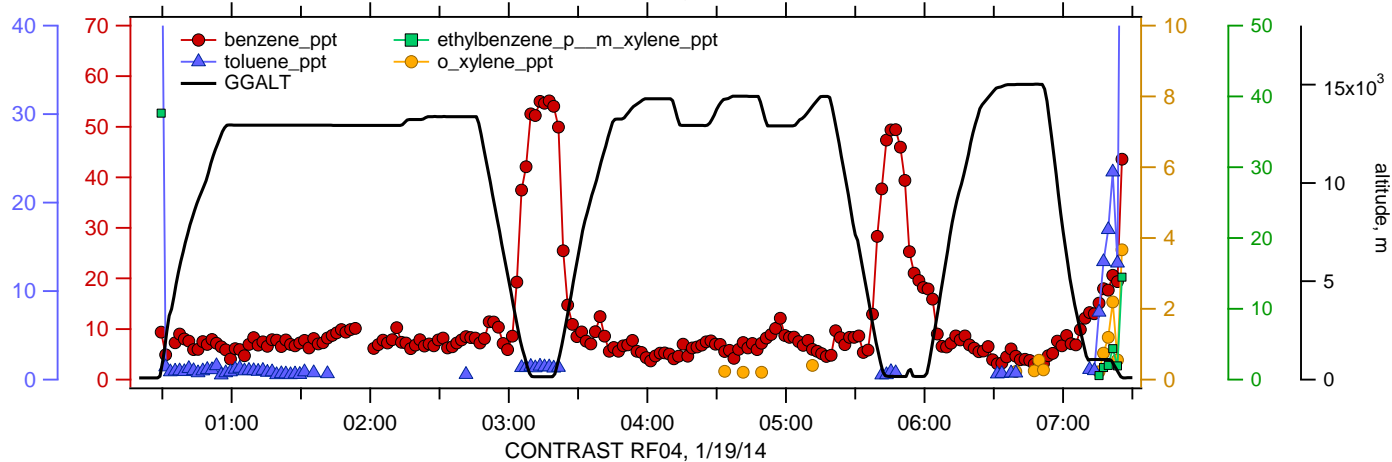
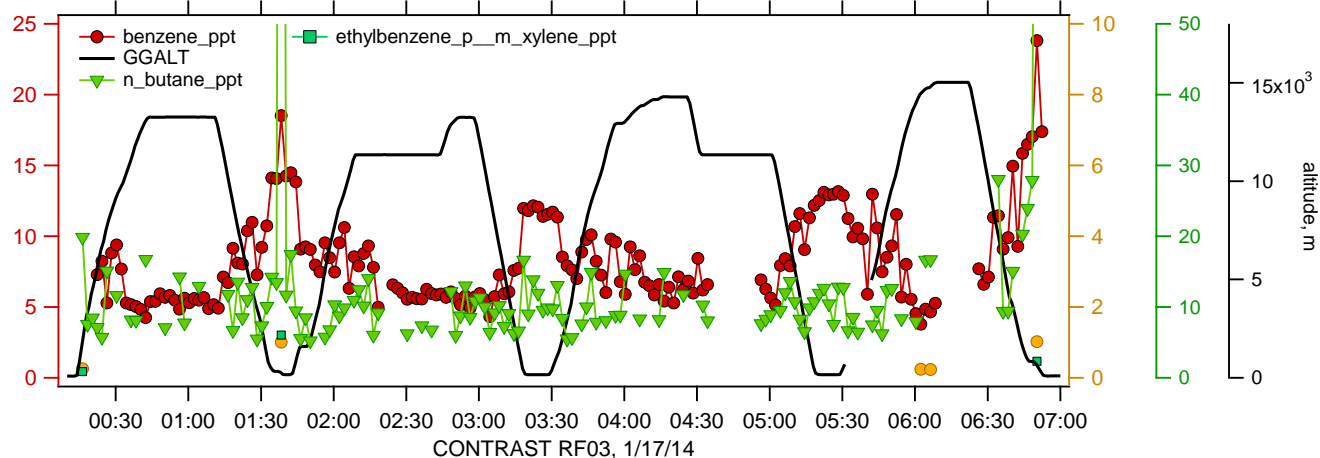


Anthropogenic Tracers

$t_{\text{benzene}} = 9 \text{ days}$

$t_{\text{toluene}} = 2 \text{ days}$

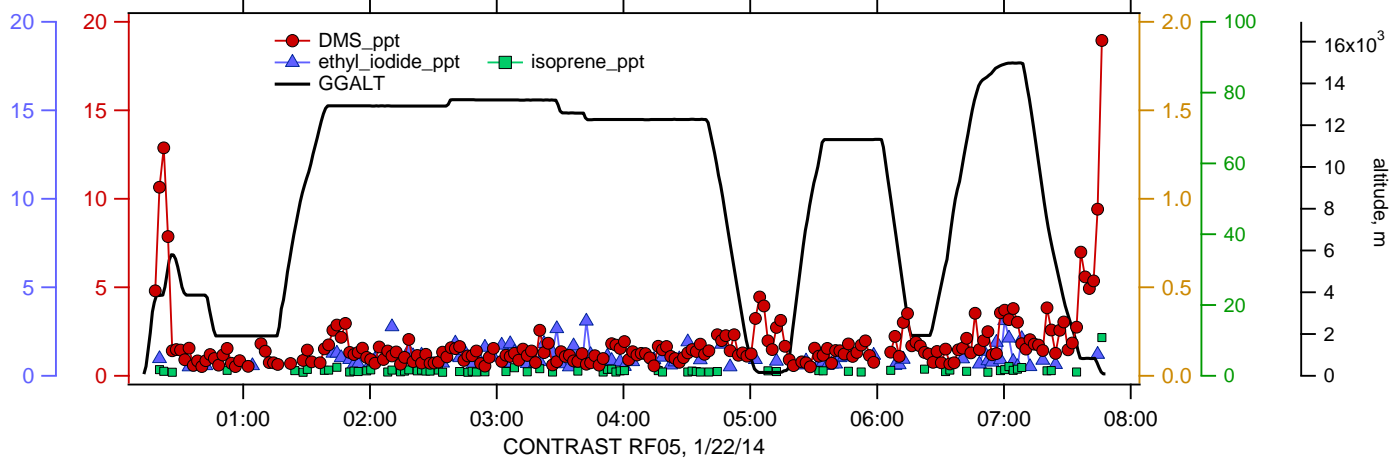
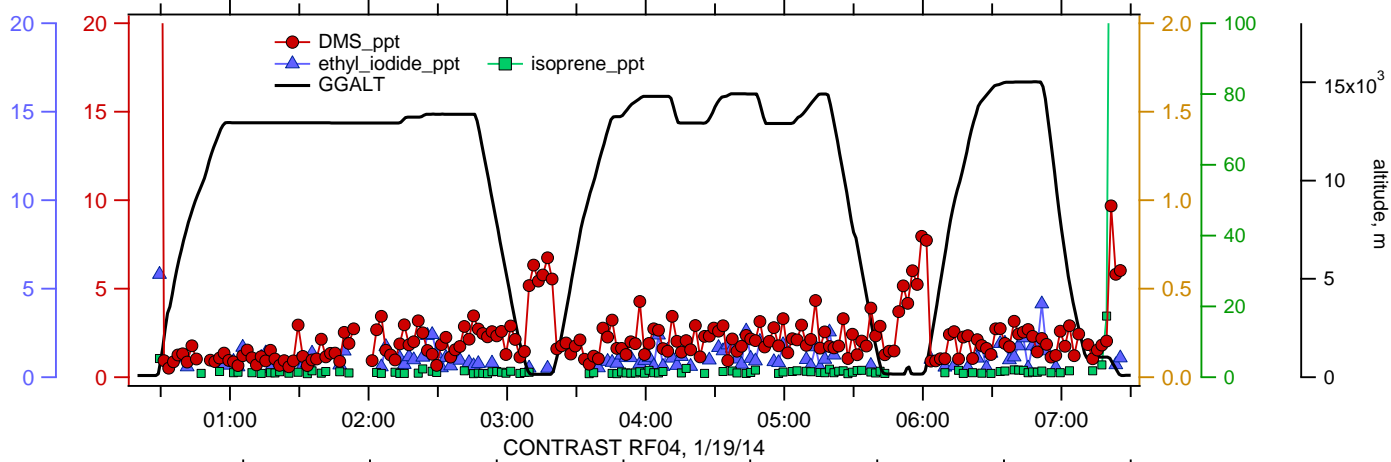
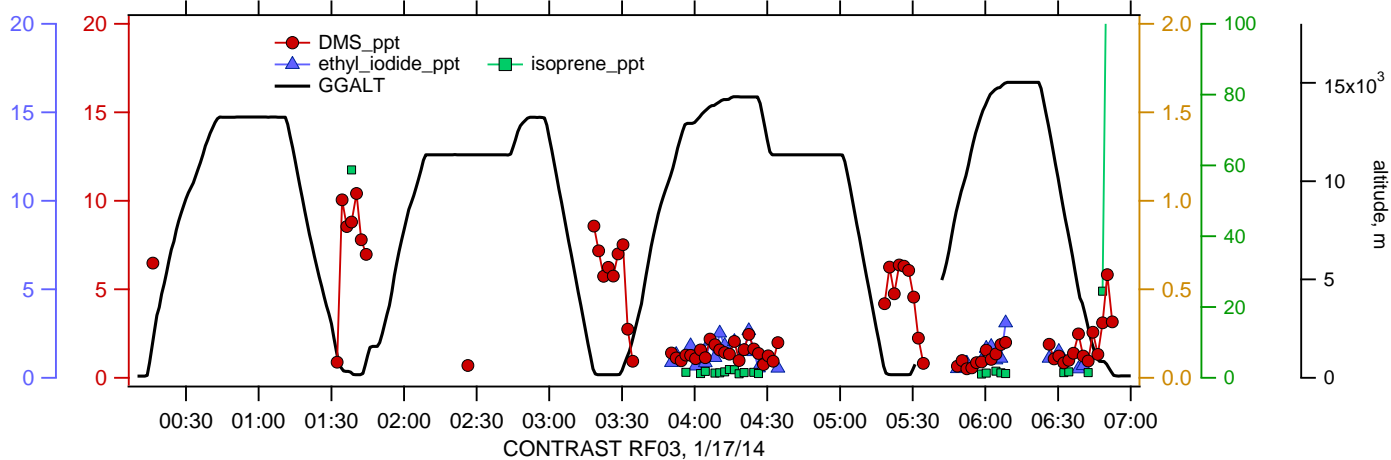
$t_{\text{ethyl benzene}} = 1.5 \text{ days}$



Biogenic tracers

$t_{\text{DMS}} = 2$ days

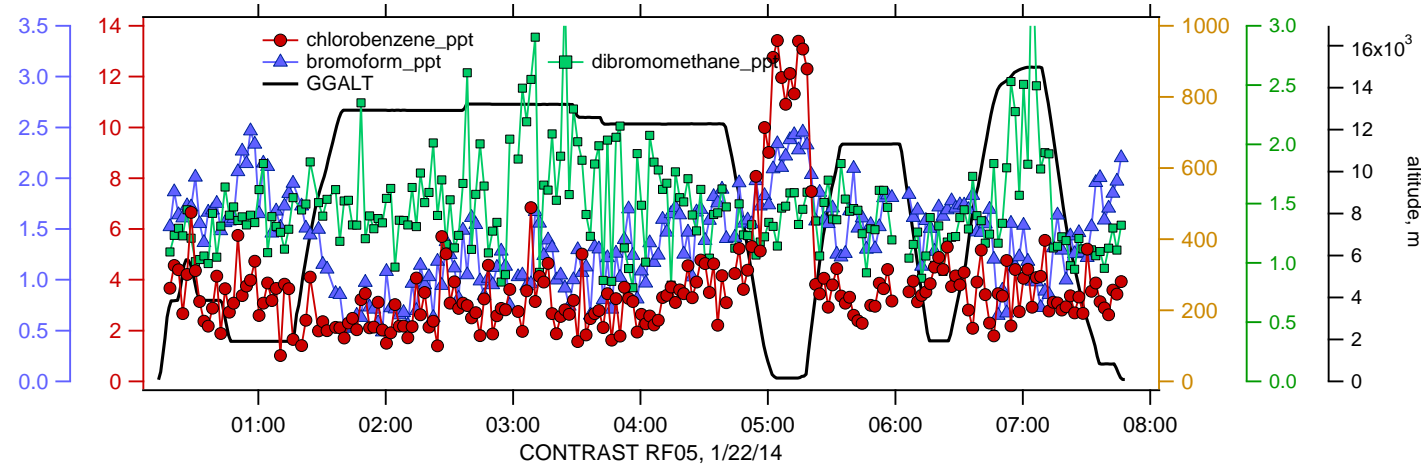
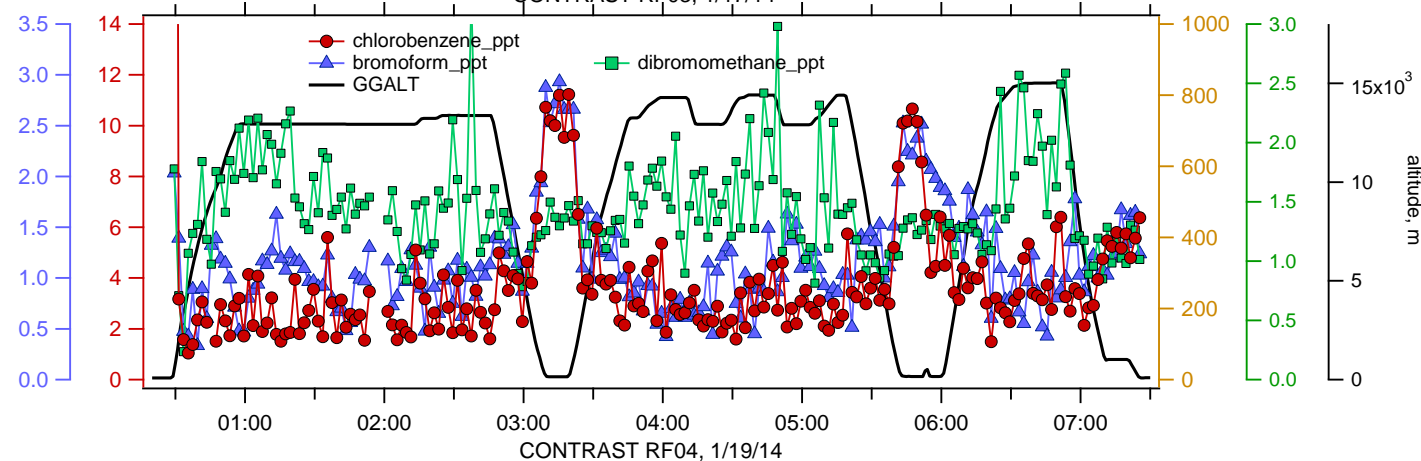
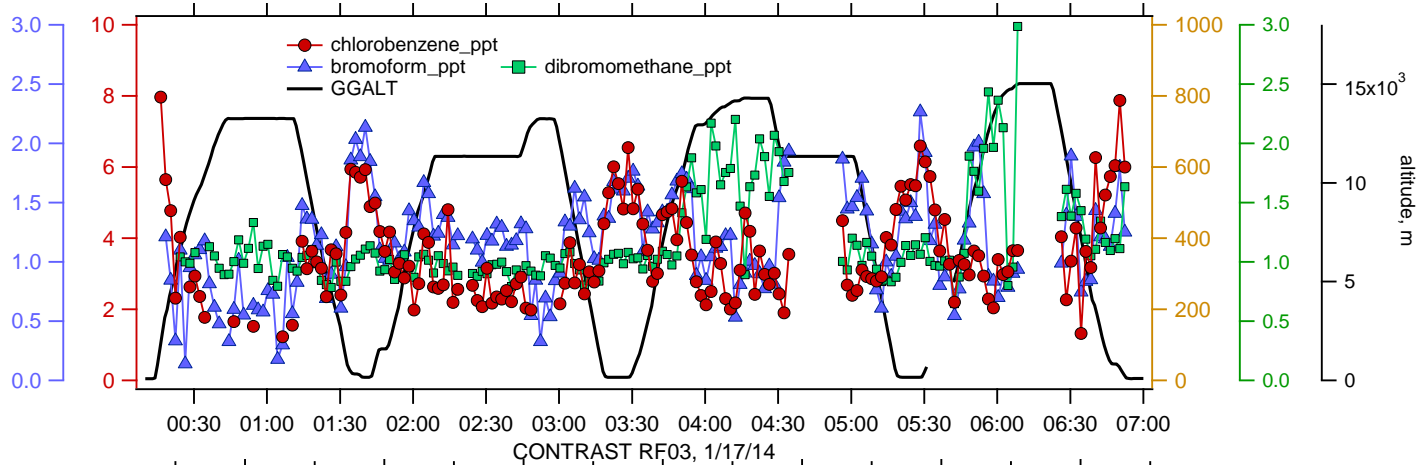
$t_{\text{isoprene}} = 3$ hours



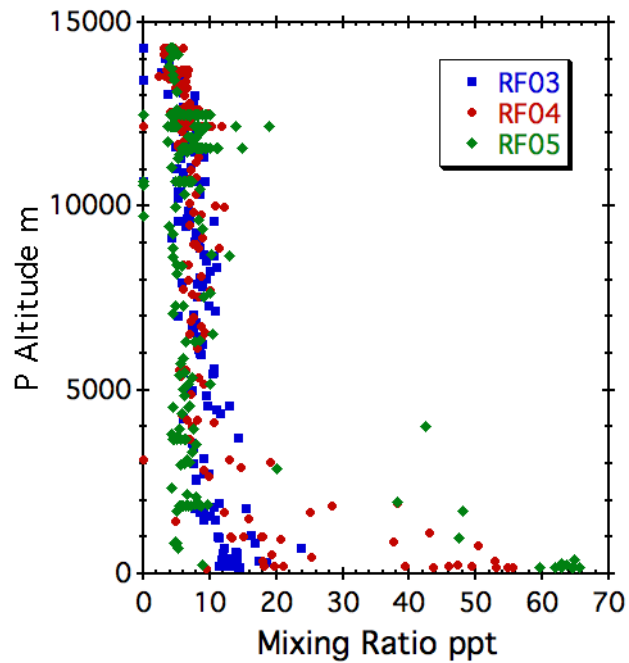
Organohalogenes

$t_{\text{CH}_2\text{Br}_2} = 90$ days

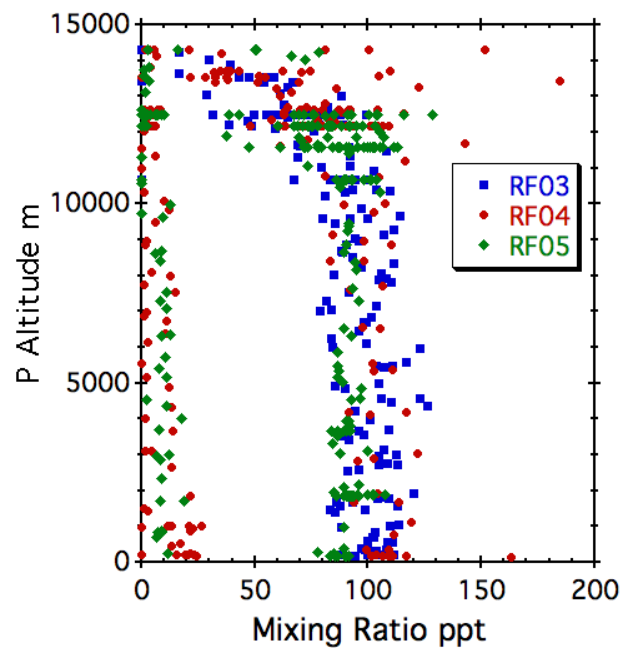
$t_{\text{CHBr}_3} = 70$ days



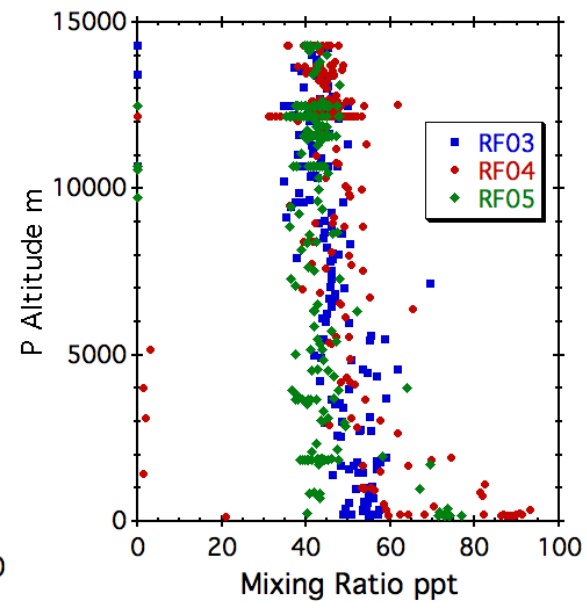
Benzene



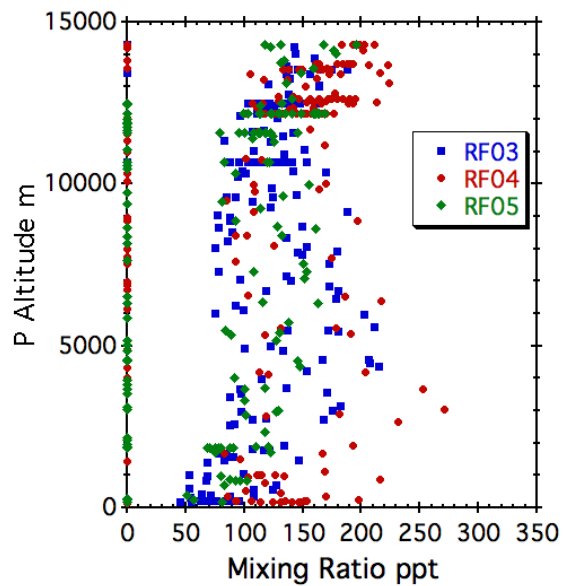
TOGA Acetonitrile



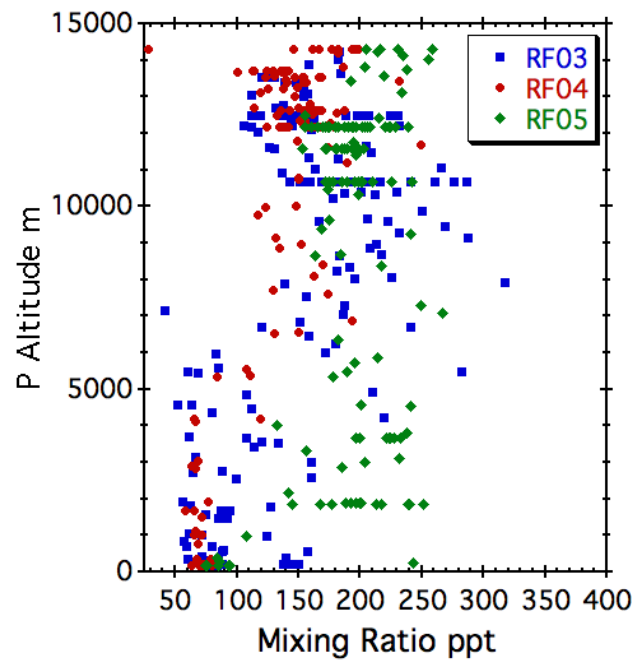
TOGA Dichloromethane



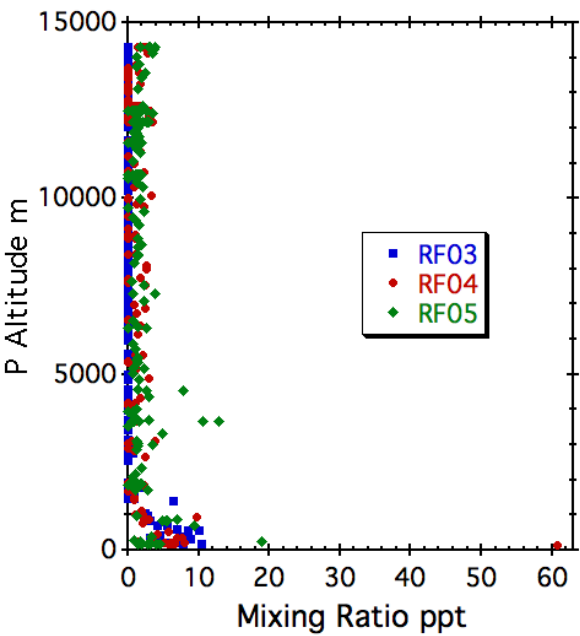
TOGA HCN



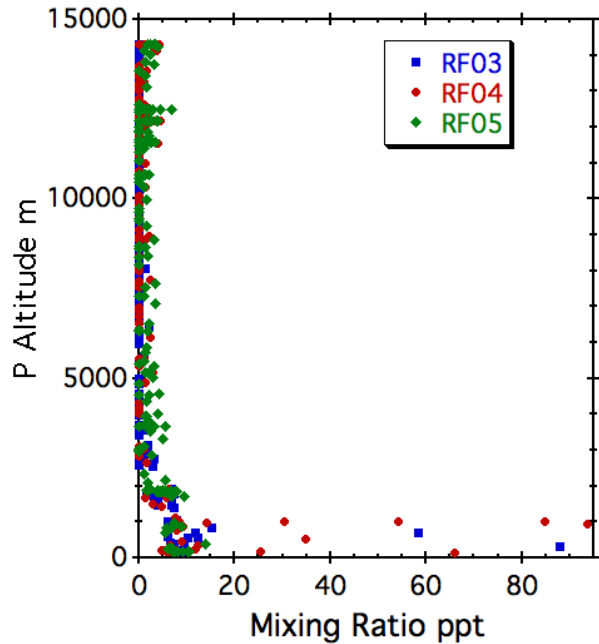
TOGA PAN



TOGA DMS



TOGA MVK



TOGA Isoprene

