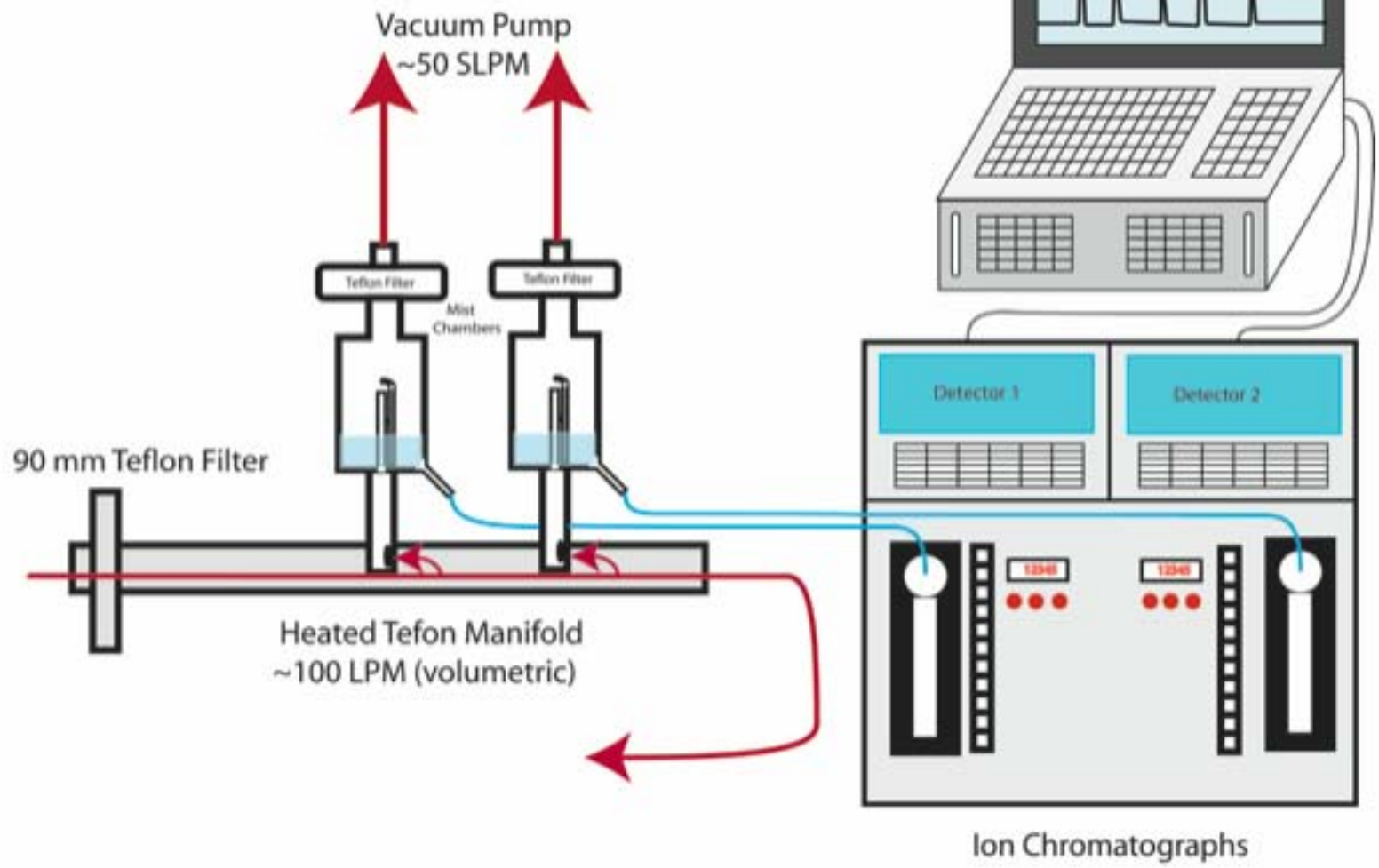
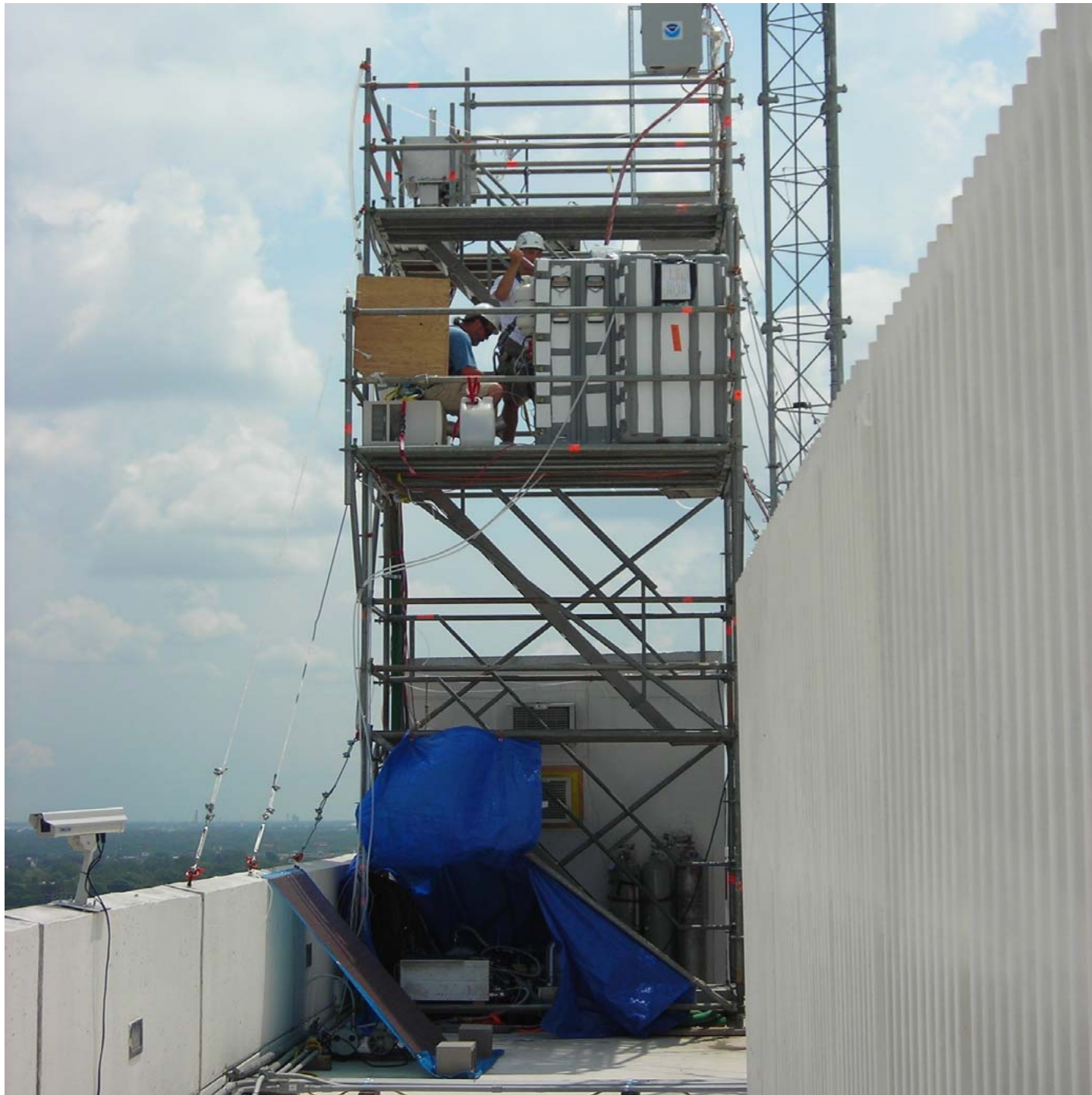


Twin Mist Chamber / Ion Chromatograph





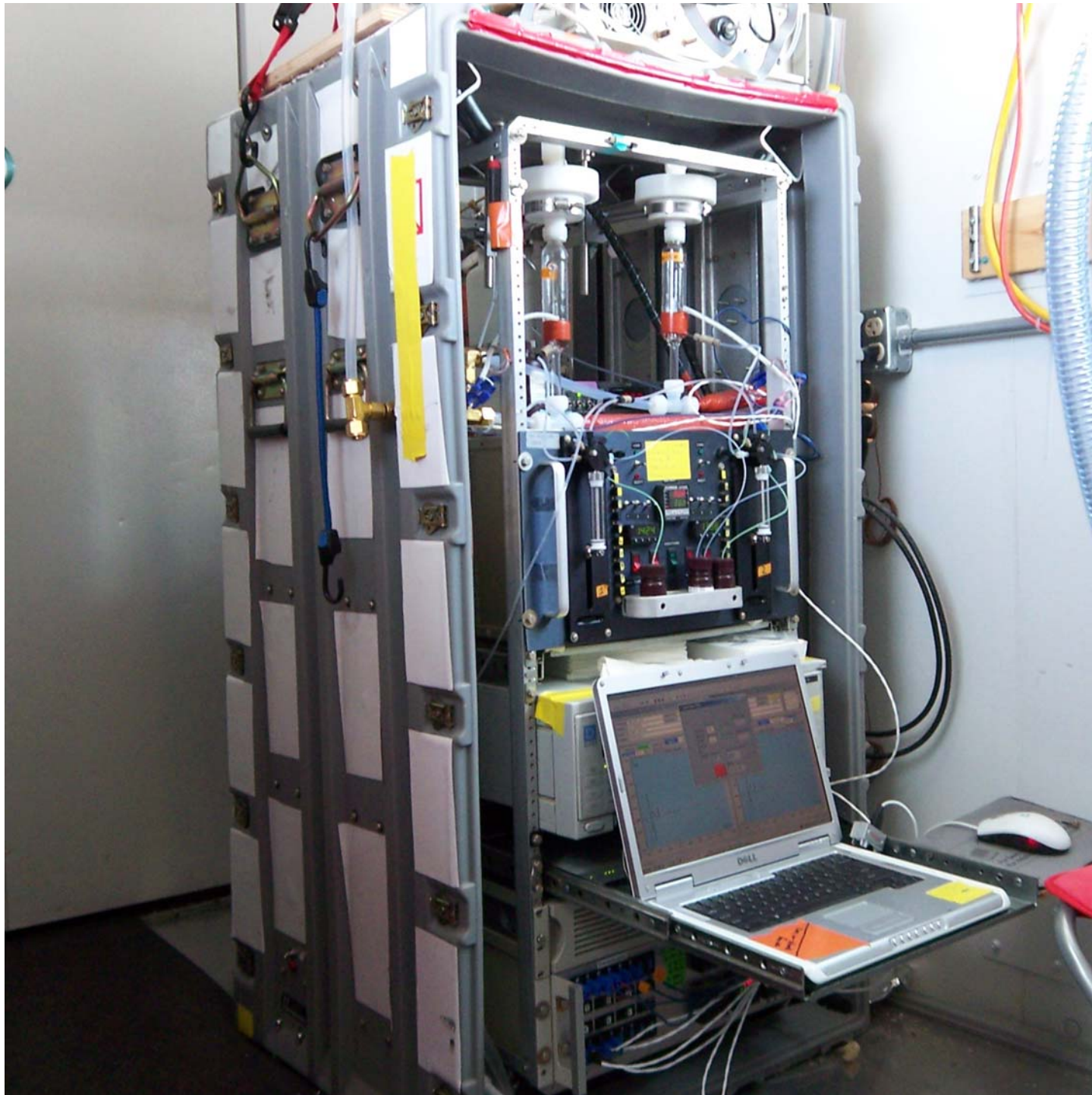
Mist
Chamber
Sampler



System in Houston
for TRAMP, part of
TexAQS 2006

Calibration/Maintenance

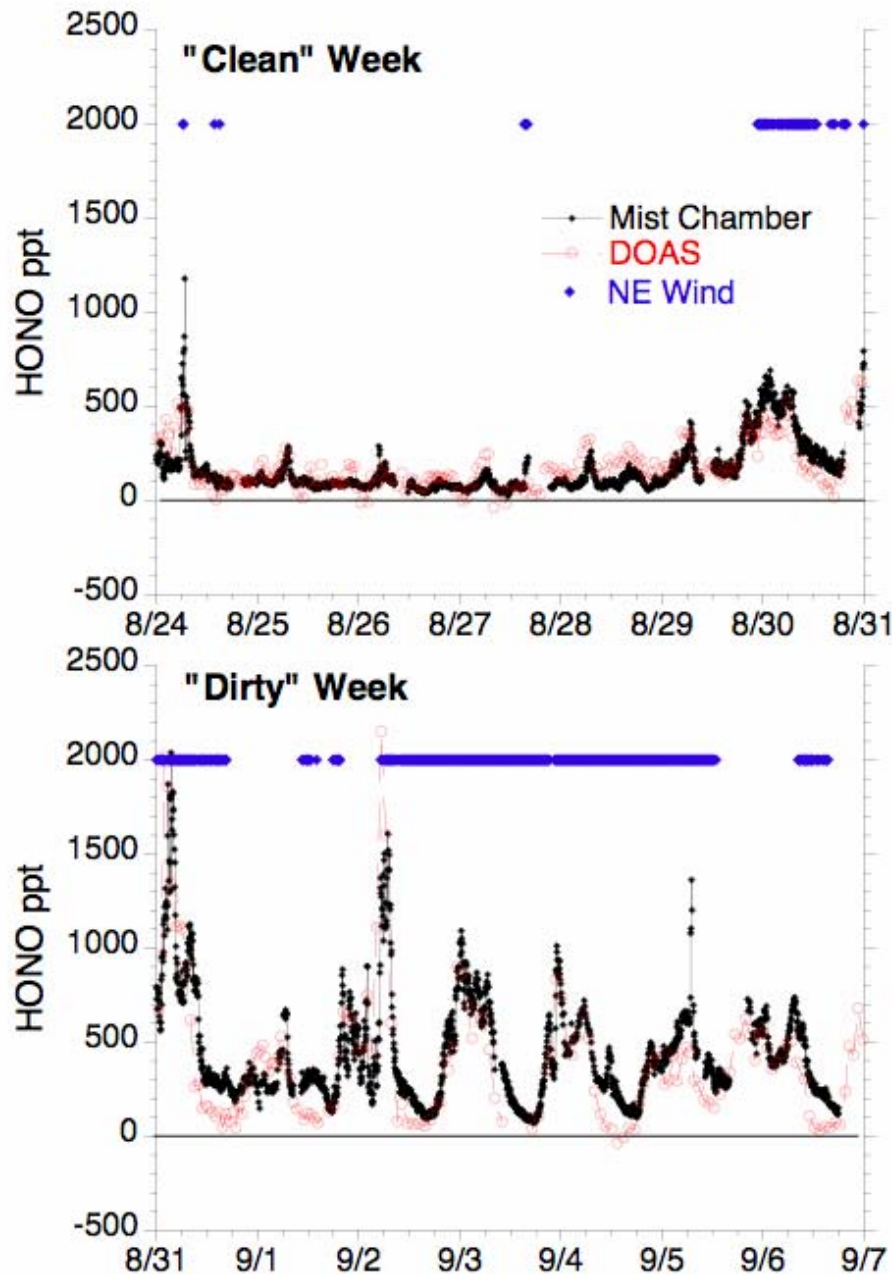




System at Summit,
Greenland 2007



Close up of the “grey box”



Previous Intercomparisons

Summit and South Pole, too high for models. Up to 7 x LIF in short overlap test.

Houston, surprisingly good agreement with LP DOAS, except mid-day on 8 days of 7 week long campaign. Days with large discrepancies were the most polluted of the campaign.

Technical Issues:

Inlet inside chamber, gray box outside. Near as possible to keep inlet short.

Can monitor remotely if internet available.

System can run nearly 48 hours, but then needs service (~3 hours).

Can produce rough numbers ~5 minutes after each sample collected, but routine is to batch process each run as soon as next run starts.

Two high vol pumps needed, may be able to switch ours from US power (110 V, 60 Hz).

Components in grey box all expect US power.

Need He (only 1 cylinder unless catastrophic leaks) and ultrapure water (20 l per 2-day run). Can we get in Valencia?

Need ~ 3 m² bench space in lab nearby to prep standards, polish water, reduce data.