MEDUSA: Instrument Summary

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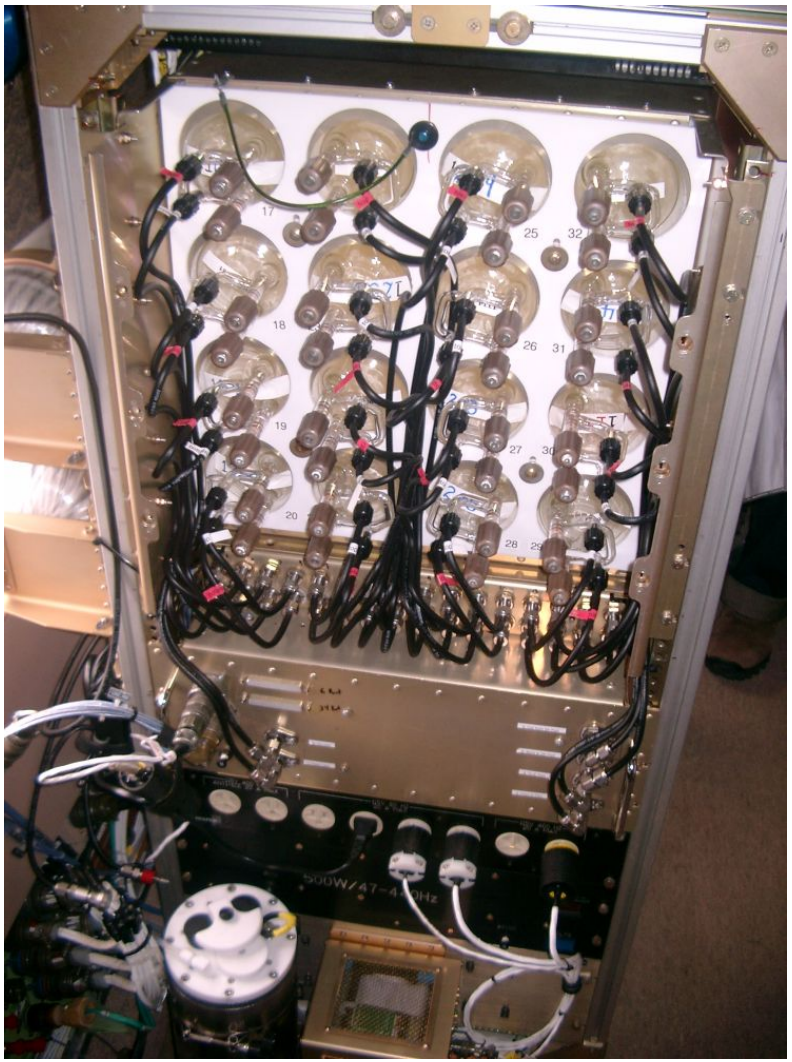

- Samples up to 32 flasks per research flight (up to 350 per campaign)
- Fills flasks to atmospheric pressure
- Gases: $\delta\,(O_2/N_2)$, CO_2, $\delta\,(Ar/N_2)$
- Isotopes: ^{13}C and ^{18}O, ^{14}C of carbon dioxide.
- Analyzed at SIO

MEDUSA: Samples to date

- **Freeze-back isotope system now online**
- HIPPO1: Flasks run; final data on CDIAC; **60 isotope samples w/o ^{14}C**
- HIPPO2: Flasks run; data on catalog; **30 isotopes run, frozen back for ^{14}C;**
- HIPPO3: **Flasks run**; RF03 not reported yet; **30 isotopes run, frozen back for 14C;**

MEDUSA: Calibration status

- All flasks reported to SIO S2 scale (not NOAA)
- Adding “S3” to incorporate NOAA scale. Will report S2 and S3 values in final data for H3-5
- Concerns about timing disagreement:
  - HIPPO2: RF02
  - HIPPO3: RF09-10
  - Kernel calculation

MEDUSA: Upcoming

- HIPPO1-3 Isotopes: 770 still to run at 30/week
- Probable change => shipping more/storing fewer in GV
- HIPPO4 Sampling:
  - Standard (32): RF02-6
  - Half-capacity (16): RF07- 11
  - Skip: RF01, RF12
  - Double-shift analysis between H4/5
- HIPPO5 Sampling:
  - Standard (32): RF04-12
  - Skip: RF01-3, 13

MEDUSA: Instrument changes

- In Boulder May 1=> June 12 to work on maintenance w/ Andy Watt and Britt Stephens
- No major instrumentation updates planned