

OH/H₂SO₄ & HO₂/RO₂ during NOMADSS

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4-channel CIMS

- For NOMADSS:
 - 2 channels operating
 - OH/H₂SO₄
 - Each quantity measured every 30 seconds; DL ~ 2E5 cm⁻³
 - In flight calibration
 - Long heritage on C-130 – back to ACE-1, TOPSE, MIRAGE, PASE
 - HO₂/HO₂+RO₂
 - Each quantity measured once per minute; DL ~ 2 pptv
 - Deployed multiple times on C-130
 - Power requirements
 - 60 Hz – 16.8 A
 - 400 Hz – 8.2 A
 - 28 VDC – 10.0 A
- Weight ~1400 lbs
- Radioactive sources: 2 - ²⁴¹Am (< 1 mCi)

4-Channel CIMS (2)

- Cylinders – aircraft (7)
 - A size: 1 N₂, 1 O₂, 1 SO₂/N₂ mix (4%)
 - C size: 1 ³⁴SO₂/N₂ mix (0.5%), 1 NO/N₂ mix (1.5%)
 - D size: 2 propane
- Cylinders – maintenance & calibration on ground
 - A size – could be steel: air, N₂
 - LN₂ dewar, high pressure gas delivery
- Other
 - DI water
 - 110VAC power on ground (could come from A/C)

OH

HO₂, RO₂



