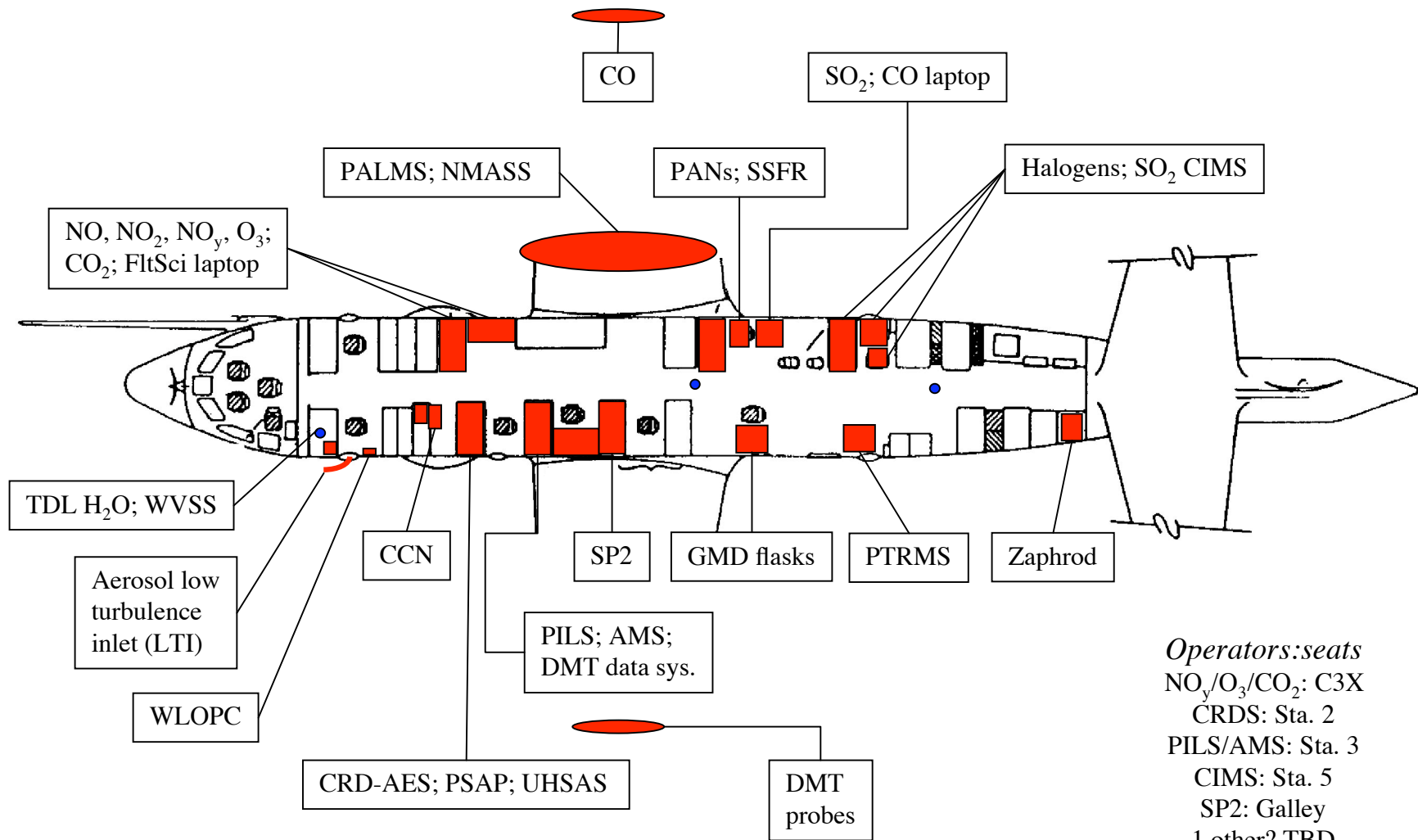


# N43RF layout - ARCPAC 2008

NOAA-CSD

version 7

12-28-2007



*Operators: seats*  
 NO<sub>y</sub>/O<sub>3</sub>/CO<sub>2</sub>: C3X  
 CRDS: Sta. 2  
 PILS/AMS: Sta. 3  
 CIMS: Sta. 5  
 SP2: Galley  
 1 other? TBD

Location	Abbreviation	Full name	Description	Personnel
Sta. FD	TDL H <sub>2</sub> O	tunable diode laser water vapor	open-path fast-response tunable diode laser absorption spectrometer	AOC
Sta. FD	WVSS	water vapor sensing system	fast-response tunable diode laser absorption spectrometer	AOC
Sta. FD	LTI	low turbulence inlet	Decelerating inlet to provide sample air to aerosol instruments in fuselage	C. Brock (NOAA)
Sta. FD & B cab.	WLOPC	white-light optical particle counter	counts and sizes larger aerosol particles (mostly soil and sea-salt); samples from LTI	C. Brock, A. Wollny (NOAA)
Sta. 2 forward	CCN	cloud condensation nucleus counter	counts number of particles that serve as a core for new cloud water droplets; samples from LTI	T. Nenes, R. Moore (Ga. Tech)
Sta. 2	CRD-AES	cavity ringdown-aerosol extinction spectrometer	measures haziness due to light scattered or absorbed by aerosol particles; samples from LTI	D. Lack (NOAA)
Sta. 2	PSAP	particle soot absorption photometer	measures the amount of light absorption by soot particles; samples from LTI	D. Lack (NOAA)
Sta. 2	UHSAS	ultrahigh sensitivity aerosol size spectrometer	counts and sizes medium aerosol particles; samples from LTI	C. Brock, J. Cozic (NOAA)
Sta. 3	PILS	particle-into-liquid sampler	dissolves small aerosol particles into liquids for postflight chemical composition analysis; samples from LTI	P. Veres, J. de Gouw (NOAA)
Sta. 3	AMS	aerosol mass spectrometer	counts, sizes, and measures the chemical composition of small aerosol particles; samples from LTI	A. Middlebrook, R. Bahreini (NOAA)
Sta. 3 & LWS 485	DMT probes	Droplet Measurement Technologies cloud probes	optical measurements to determine cloud droplet physical properties	AOC, C. Brock, S. Lance (NOAA)
Sta. 4	SP2	single-particle soot photometer	counts, sizes, and measures the mass of small soot particles; samples from LTI	R.-S. Gao, S. Schwarz, R. Spackman, L. Watts, D. Fahey (NOAA)
Dual passenger	GMD flasks	Global Monitoring Division whole-air sampling flasks	collects air samples for postflight analysis of hydrocarbon and halocarbon gases	S. Montzka, L. Miller, C. Warneke (NOAA)
Sta. 8	PTRMS	proton transfer reaction mass spectrometer	chemical ionization mass spectrometer using H <sub>3</sub> O <sup>+</sup> as reagent ion	J. de Gouw, C. Warneke (NOAA)
J cab.	ZAPHROD	spectral actinic flux radiometer	measures solar radiation using spectroradiometers	H. Stark (NOAA)
Sta. C3X	NO/NO <sub>2</sub> /NO <sub>y</sub> /O <sub>3</sub>	nitrogen oxides and ozone	measures using chemical reactions that produce near-infrared light	T. Ryerson, J. Peischl (NOAA)
Sta. C3X	CO <sub>2</sub>	carbon dioxide	measures by absorption of infrared light	T. Ryerson, J. Peischl (NOAA)

<b>Location</b>	<b>Abbreviation</b>	<b>Full name</b>	<b>Description</b>	<b>Investigators</b>
Sta. C3X	FltSci laptop	flight scientist laptop	gathers and transfers science and flight-level data to the ground	K. Aikin (NOAA)
AMPS pod	NMASS	nucleation mode aerosol size spectrometer	counts and sizes ultrasmall aerosol particles	C. Brock (NOAA)
AMPS pod	PALMS	particle analysis by laser mass spectrometry	measures the chemical composition of individual small and ultrasmall aerosol particles by laser desorption mass spectrometry	D. Murphy, K. Froyd, T. Thornberry, D. Thomson (NOAA)
CO pod	CO	carbon monoxide	measures by vacuum UV resonance fluorescence	J. Holloway (NOAA)
Sta. 5	PANs	peroxyacyl nitrates	chemical ionization mass spectrometry using I <sup>-</sup> as reagent ion	J. Roberts (NOAA)
Sta. 5	SSFR/CG4	solar spectral flux radiometer and pyrgometer	measures up- and down-welling irradiance of visible (SSFR) and infrared (CG4) light	P. Pilewskie (U. of CO), W. Gore, T. Trias (NASA)
Sta. 6	SO <sub>2</sub> /CO laptop	sulfur dioxide and CO control laptop	pulsed UV fluorescence	J. Holloway (NOAA)
Sta. 7	Halogens	bromine, chlorine, bromine chloride, bromine monoxide	chemical ionization mass spectrometry using I <sup>-</sup> as reagent ion	A. Neuman (NOAA)
Sta. 7	SO <sub>2</sub> CIMS	sulfur dioxide	chemical ionization mass spectrometry using SF <sub>6</sub> <sup>-</sup> as reagent ion	J. Nowak (NOAA)