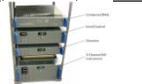


Brazil 2014 G-1 Payload Draft.			Last changed 6/8/2011	Mission Dates 40 days during Feb15 - March 31st and Sep 1st Oct 15th			
Instrument	Measurement	SIC	location on aircraft	PI	Picture file		
Platform Pos/Vel/Attitude							
Trimble DSM	position/velocity @ ~10Hz	PNNL	data rack	PNNL-Hubbe			
Trimble TANS 10Hz	pitch/roll/azimuth	PNNL	fuselage	PNNL-Hubbe			
Atmospheric State							
Rosemont 102 probe	temperature	PNNL	RHS nose	PNNL-Hubbe			
Rosemont 1201F1	static pressure	PNNL	power rack	PNNL-Hubbe			
Rosemont 1221F2 (3)	differential pressure (dynamic, alpha, beta)	PNNL	nose cone	PNNL-Hubbe			
GE-1011B chilled-mirror hygrometer	dew-point temperature	PNNL	LHS window #1	PNNL-Hubbe			
AIMMS-20	5-port air motion sensing: true air speed, altitude, angle-of-attack, side-slip, T, RH	AAF	nose pylon	PNNL-Kluzek/Berg			
Aerosol							
UCPC TSI 3025	total particle concentration (> 3 nm)	PNNL	rack-mounted	PNNL-Tomlinson			
CPC TSI 3010	total particle concentration (> 10 nm)	PNNL	rack-mounted	PNNL-Tomlinson			
FIMS	aerosol size distribution (30-100 nm)	BNL	rack-mounted	BNL-Wang			
PCASP	aerosol size distribution (100-3000 nm)	PNNL	wing pylon	PNNL-Tomlinson			
Radiance Particle/Soot Absorption Photometer (PSAP)	aerosol absorption, 3-wavelengths	PNNL	rack-mounted	PNNL-Chand			
Nephelometer (TSI 3563)	aerosol scattering, 3 wavelengths	PNNL	rack-mounted	PNNL - Chand			

HR-ToF-AMS	Size-resolved aerosol composition	PNNL	rack-mounted	PNNL-Shilling				
DMT Cloud Condensation Nuclei (CCN) counter (dual SS)	CCN concentration at 2 super-saturations	AAF	rack-mounted	PNNL-Tomlinson				
Aerosol Sample Collection								
isokinetic inlet (heated)	sample stream of dry aerosol, sizes < 2.5µm	AAF	RHS window #1	PNNL-Hubbe				
pump for aerosol flow	Maintains flow through aerosol inlet and internal plumbing	PNNL	rack-mounted	PNNL-Hubbe				
Gases								
Quadrupole Ionicon PTR-MS	real-time VOC	PNNL	rack-mounted	PNNL-Shilling				
CO analyzer+vacuum pump+Argon purge cylinder	Carbon Monoxide	AAF	rack-mounted	BNL - Springston				
Oxides of Nitrogen Instrument+ vacuum pump	NO, NO2 and total NOy	AAF	rack-mounted	BNL - Springston				
Thermo Environmental Model 49i	O3	AAF	rack-mounted	BNL - Springston				
PICARRO Cavity Ringdown Spectrometer	CO2, CH4, H2O	AAF	rack-mounted	LANL-Dubey				
Liquid and Total Water Content								
SEA WCM-2000	liquid water content, total water content	AAF	nose pylon	PNNL-Comstock				
Cloud Microphysics								
HVPS-3	cloud droplets size distribution (400-50,000 µm)	AAF	wing-pylon	PNNL-Comstock				
2DS	cloud droplets size distribution (10 – 3,000 µm)	AAF	wing-pylon	PNNL-Comstock				
Fast-CDP	cloud droplet size distribution (2-50 µm)	AAF	(mounted on 2DS)	PNNL-Comstock				
CPI	images of cloud particles (-2- -1000 µm)	AAF	wing-pylon	PNNL-Comstock				
Radiation								
SPN-1 unshaded	downwelling shortwave radiation global, broadband	AAF	fuselage top	PNNL-Long				
SPN-1 unshaded	upwelling shortwave radiation global, broadband	AAF	fuselage bottom	PNNL-Long				
Other								
SEA M300	central data acquisition/display system	PNNL	rack-mounted	PNNL-Hubbe				
Weather radar	cockpit display of precipitation returns	PNNL	nose cone	PNNL-Svancara				
TCAS	Traffic Collision and Avoidance System	PNNL	cockpit	PNNL-Svancara				
TAWS	Terrain Awareness and Warning System	PNNL	radio rack	PNNL-Svancara				