

NRC Convair-580 C-FNRC during ESCAPE



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10-April-2022v



NRC Conqiar-580 sensors

Parameters	Sensors
Aircraft state	Inertial Navigation Systems (4), and GPS (2)
Atmospheric state	Rosemount Temperature Sensors (4), Licors (2) – Dew point, Chilled Mirror, Multiple pressure transducers including 3 5-hole /Air Data Probes
Aerosol (size and concentrations)	UHSAS, SP2, CCN Counter, CPC, CFDC, IS
Bulk microphysical measurements (IWC, LWC)	Nezovorov , SAE Icing Detector
Icing	Goodrich Icing Detector (2)
Cloud Particles (Size and concentrations)	FCDP, CDP

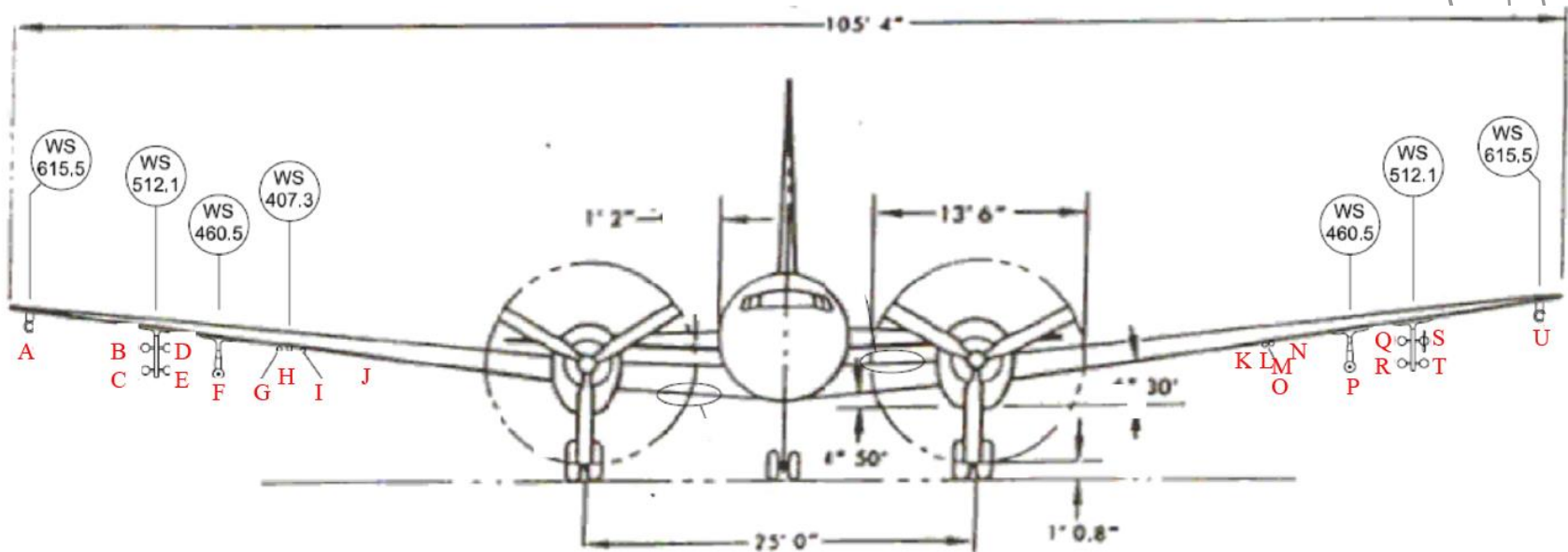
Parameters	Sensors
Cloud Imaging Probes	2D-S & CIP15
Precipitation Imaging Probes	PIP , HVPS-3, HVPS-4
Radars	NRC Airborne W and X (NAWX) radar
Lidar	355 nm - Zenith
Communication	PLANET – Ground – Aircraft data exchange and flight coordination

Extensive in-situ and remote sensing systems

Communication: Intercom system for crew and ground-aircraft data exchange tool (PLANET)

Backup ground-aircraft communication – Satellite phone

ESCAPE - 2022: NRC CONVAIR 580 WING STORE CONFIGURATIONS

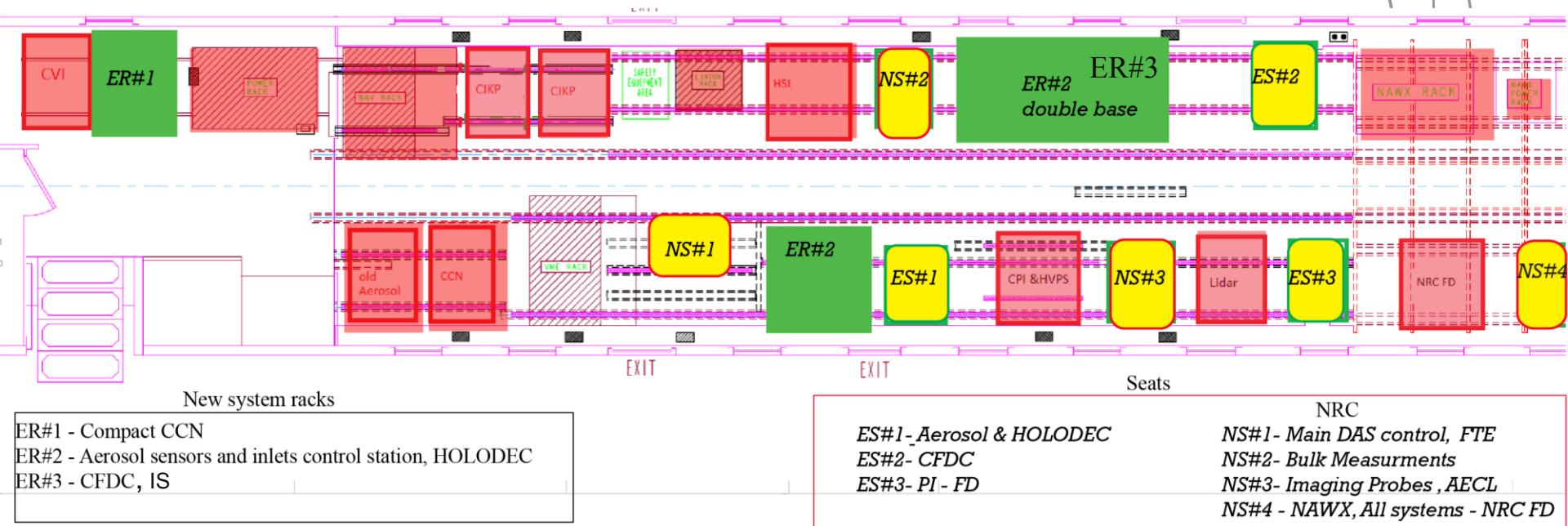


Starboard Wing Tip (SWT)	A Forward: AIMMS-20	K Rosemount TAT Probe	Port Under Wing (PUW)
Starboard 4 Probes pylon Outer Upper (S4OU)	B Rosemount 858 Air Data Probe	L Rosemount TAT Probe	Port Scalar Boom (PSB)
Starboard 4 Probes pylon Outer Lower (S4OL)	C CIP-15 / PICTUR	M Rosemount TAT Probe	Port Scalar Boom (PSB)
Starboard 4 Probes pylon Inner Upper (S4IU)	D CDP2	N Rosemount Icing Detector	Port Scalar Boom (PSB)
Starboard 4 Probes pylon Inner Lower (S4IL)	E 2DS and FCDP	O Aeroprobe	Port Scalar Boom (PSB)
Starboard Single Pylon (SSP)	F CPI	P Particle-1	Port Single Pylon (PSB)
Starboard Scalar Boom (SSB)	G Rosemount TAT	Q HOLODEC	Port 4 Probe Pylon Inner Upper (P4IU)
Starboard Scalar Boom (SSB)	H Rosemount Pitot	R HVPS-3	Port 4 Probe Pylon Inner Lower (P4IL)
Starboard Scalar Boom (SSB)	I Nevzerov (x2?)	S PIP	Port 4 Probe Pylon Outer Upper (P4OU)
Starboard Scalar Boom (SSB)	J Goodrich/Rosemount Ice Detector	T HVPS-4	Port 4 Probe Pylon Outer Lower (P4OL)
		U UHSAS	Port Wing Tip (PWT)

Sketch of Wing Probe Configurations – 9 April 2022v

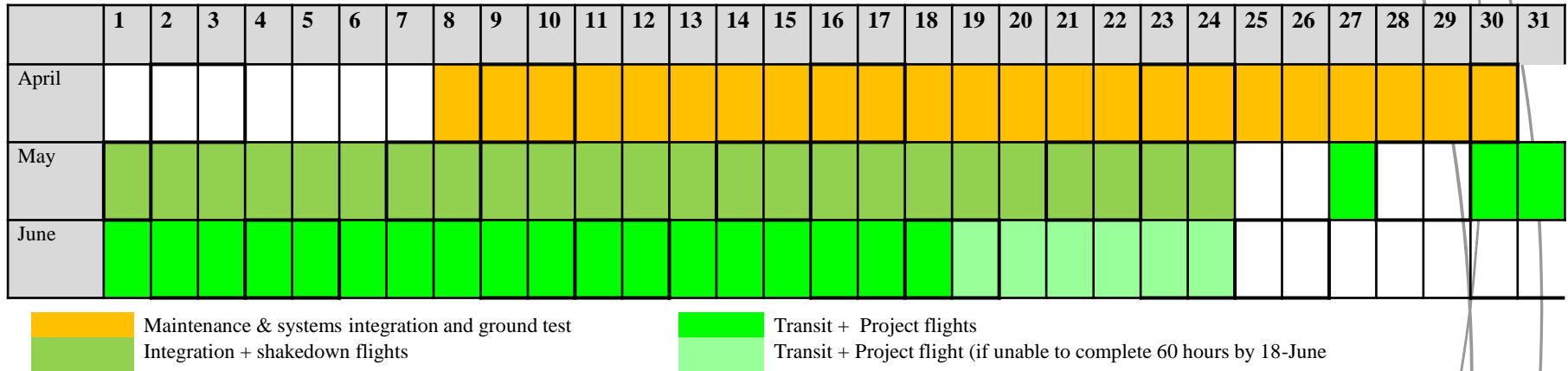
- Likely to have minor changes to this configurations

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- The rack locations for the NSF PI systems' (ER#1 – 3) are tentative
- 7 seats; 2 dedicated to NSF PIs (ES#2 and ES#3); ES2 operators can alternate b/n NRC and NSF PIs

NRC Schedule – Tentative



- The aircraft is on routine maintenance until end of April.
- Plan for May is likely change depending on progress on aircraft modification and systems integration
- Plan to have up to 6 flights (airworthiness, calibration and test) in Ottawa.
- Deployment days – 27-May to June 18 with possible one week extension