

Flight Director: Hathaway / Henning
Phone #: 863-500-3911

ACAT-4 Version = 7.3

G-IV QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20201027N1	Pressure Comparison	
Flight Director(s):	Hathaway / Henning		
Mission:	Non-tasked Science Collection/Research	T/O	Land
UWZ.d mean:	0.14	Aircraft	1013.7
		Tower	1012.9
			1013.6
			1014.3

	Raw 1Hz Mean File Parameters				C File Parameters		
<input type="checkbox"/> Accelerometer	<input checked="" type="checkbox"/> AccAXI.1	<input checked="" type="checkbox"/> AccAYI.1	<input checked="" type="checkbox"/> AccAZI.1	<input checked="" type="checkbox"/> AccZI.1	<input checked="" type="checkbox"/> AccZref		
	<input checked="" type="checkbox"/> AccAXI.2	<input checked="" type="checkbox"/> AccAYI.2	<input checked="" type="checkbox"/> AccAZI.2	<input checked="" type="checkbox"/> AccZI.2			
	<input checked="" type="checkbox"/> AccAXI.3	<input checked="" type="checkbox"/> AccAYI.3	<input checked="" type="checkbox"/> AccAZI.3	<input checked="" type="checkbox"/> AccZI.3			
<input type="checkbox"/> Altitude	<input checked="" type="checkbox"/> AltGPS.1	<input checked="" type="checkbox"/> AltI.1	<input checked="" type="checkbox"/> AltPaADDU.1	<input checked="" type="checkbox"/> AltBCADDU.1	<input checked="" type="checkbox"/> ALTref		
	<input checked="" type="checkbox"/> AltGPS.2	<input checked="" type="checkbox"/> AltI.2	<input checked="" type="checkbox"/> AltPaADDU.2	<input checked="" type="checkbox"/> AltBCADDU.2	<input checked="" type="checkbox"/> ALTPA.d		
	<input checked="" type="checkbox"/> AltGPS.3	<input checked="" type="checkbox"/> AltI.3	<input checked="" type="checkbox"/> AltRA.1		<input checked="" type="checkbox"/> ALTGA.d		
<input type="checkbox"/> Ground Speed	<input checked="" type="checkbox"/> GsXI.1	<input checked="" type="checkbox"/> GsYI.1	<input checked="" type="checkbox"/> GsZI.1	<input checked="" type="checkbox"/> GsGPS.1	<input checked="" type="checkbox"/> GSXref		
	<input checked="" type="checkbox"/> GsXI.2	<input checked="" type="checkbox"/> GsYI.2	<input checked="" type="checkbox"/> GsZI.2	<input checked="" type="checkbox"/> GsGPS.2	<input checked="" type="checkbox"/> GSYref		
	<input checked="" type="checkbox"/> GsXI.3	<input checked="" type="checkbox"/> GsYI.3	<input checked="" type="checkbox"/> GsZI.3		<input checked="" type="checkbox"/> GSZref		
	<input checked="" type="checkbox"/> GsXGPS.1	<input checked="" type="checkbox"/> GsYGPS.1	<input checked="" type="checkbox"/> GsZGPS.1				
	<input checked="" type="checkbox"/> GsXGPS.2	<input checked="" type="checkbox"/> GsYGPS.2	<input checked="" type="checkbox"/> GsZGPS.2				
<input type="checkbox"/> Lat / Lon	<input checked="" type="checkbox"/> LatGPS.1	<input checked="" type="checkbox"/> LatI.1	<input checked="" type="checkbox"/> LonGPS.1	<input checked="" type="checkbox"/> LonI.1	<input checked="" type="checkbox"/> LATref		
	<input checked="" type="checkbox"/> LatGPS.2	<input checked="" type="checkbox"/> LatI.2	<input checked="" type="checkbox"/> LonGPS.2	<input checked="" type="checkbox"/> LonI.2	<input checked="" type="checkbox"/> LONref		
	<input checked="" type="checkbox"/> LatGPS.3	<input checked="" type="checkbox"/> LatI.3	<input checked="" type="checkbox"/> LonGPS.3	<input checked="" type="checkbox"/> LonI.3			
<input type="checkbox"/> Pressure	<input checked="" type="checkbox"/> PDALPHA.1	<input checked="" type="checkbox"/> PQALPHA.1	<input checked="" type="checkbox"/> PQM.1	<input checked="" type="checkbox"/> PSM.1	<input checked="" type="checkbox"/> PDALPHaref	<input checked="" type="checkbox"/> PQMref	
	<input checked="" type="checkbox"/> PDALPHA.2	<input checked="" type="checkbox"/> PQALPHA.2	<input checked="" type="checkbox"/> PQM.2	<input checked="" type="checkbox"/> PSM.2	<input checked="" type="checkbox"/> PDBETAref	<input checked="" type="checkbox"/> PQ.c	
	<input checked="" type="checkbox"/> PDBETA.1	<input checked="" type="checkbox"/> PQBETA.1			<input checked="" type="checkbox"/> PQALPHaref	<input checked="" type="checkbox"/> PSMref	
	<input checked="" type="checkbox"/> PDBETA.2	<input checked="" type="checkbox"/> PQBETA.2			<input checked="" type="checkbox"/> PQBETAref	<input checked="" type="checkbox"/> PS.c	
<input type="checkbox"/> Air Speed	<input checked="" type="checkbox"/> CasADDU.1	<input checked="" type="checkbox"/> CasADDU.2	<input checked="" type="checkbox"/> TasADDU.1	<input checked="" type="checkbox"/> TasADDU.2	<input checked="" type="checkbox"/> IAS.d	<input checked="" type="checkbox"/> TAS.d	
<input type="checkbox"/> Pitch / Roll	<input checked="" type="checkbox"/> PitchI.1	<input checked="" type="checkbox"/> PitchRateI.1	<input checked="" type="checkbox"/> RollI.1	<input checked="" type="checkbox"/> RollRateI.1	<input checked="" type="checkbox"/> PITCHref		
	<input checked="" type="checkbox"/> PitchI.2	<input checked="" type="checkbox"/> PitchRateI.2	<input checked="" type="checkbox"/> RollI.2	<input checked="" type="checkbox"/> RollRateI.2	<input checked="" type="checkbox"/> ROLLref		
	<input checked="" type="checkbox"/> PitchI.3	<input checked="" type="checkbox"/> PitchRateI.3	<input checked="" type="checkbox"/> RollI.3	<input checked="" type="checkbox"/> RollRateI.3			
<input type="checkbox"/> Temp / Dewpt	<input checked="" type="checkbox"/> TTM.1	<input checked="" type="checkbox"/> TTM.4	<input checked="" type="checkbox"/> TDM.1		<input checked="" type="checkbox"/> TD.c	<input checked="" type="checkbox"/> TTMref	
	<input type="checkbox"/> TTM.2		<input checked="" type="checkbox"/> TDM.2		<input checked="" type="checkbox"/> TDMref	<input checked="" type="checkbox"/> TA.d	
	<input checked="" type="checkbox"/> TTM.3	TDM are separated by 20					
<input type="checkbox"/> Misc. (Must check)					<input checked="" type="checkbox"/> UWZ.d	<input checked="" type="checkbox"/> WS.d	
					<input checked="" type="checkbox"/> DPJ_WSZ	<input checked="" type="checkbox"/> WD.d	
					<input checked="" type="checkbox"/> HUM		

FLID_Mission_Documents.pdf:
<input checked="" type="checkbox"/> Error Summary
<input checked="" type="checkbox"/> Crew Manifest
<input checked="" type="checkbox"/> QC Checklist
<input checked="" type="checkbox"/> Dropwindsonde Log(s) - AVAPS and FD if completed
<input checked="" type="checkbox"/> Flight Track
<input checked="" type="checkbox"/> Miscellaneous FD Notes

QC Key	
Not checked	<input type="checkbox"/>
Valid	<input checked="" type="checkbox"/>
Errors (note)	<input checked="" type="checkbox"/>

NOTES:
<p>AltRA.1 has multiple significant dropouts and should not be used as absolute altitude.</p> <p>Occasional spikes in multiple sensors in CDO due to turbulence.</p> <p>PQBeta.1 is unrepresentative with unusual drop outs and spikes.</p> <p>PQM.1 becomes unrepresentative around hour three in flight. PQM.2 has been used as reference.</p> <p>When examined at high resolution, data from the three inertials shows "stairstepping" for all parameters for brief intervals (generally less than 15 seconds).</p> <p>TDM.1 & TDM.2 were unrepresentative for the cruise portion of the mission above 41K and also for intervals at low altitudes. Consider all relative humidity values to be considered suspect.</p> <p>TTM.3 has a small amplitude (magnitude 0.2 - 0.3 deg C) unnatural oscillation with a period of roughly 30 seconds.</p> <p>TTM.1 was used for calculation of Ambient Temperature (TA) and other derived parameters.</p> <p>There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.</p> <p>Takeoff/Landing data: Data during landing and takeoff are potentially suspect...</p> <p>It is recommended that ground data not be used for scientific analysis.</p>

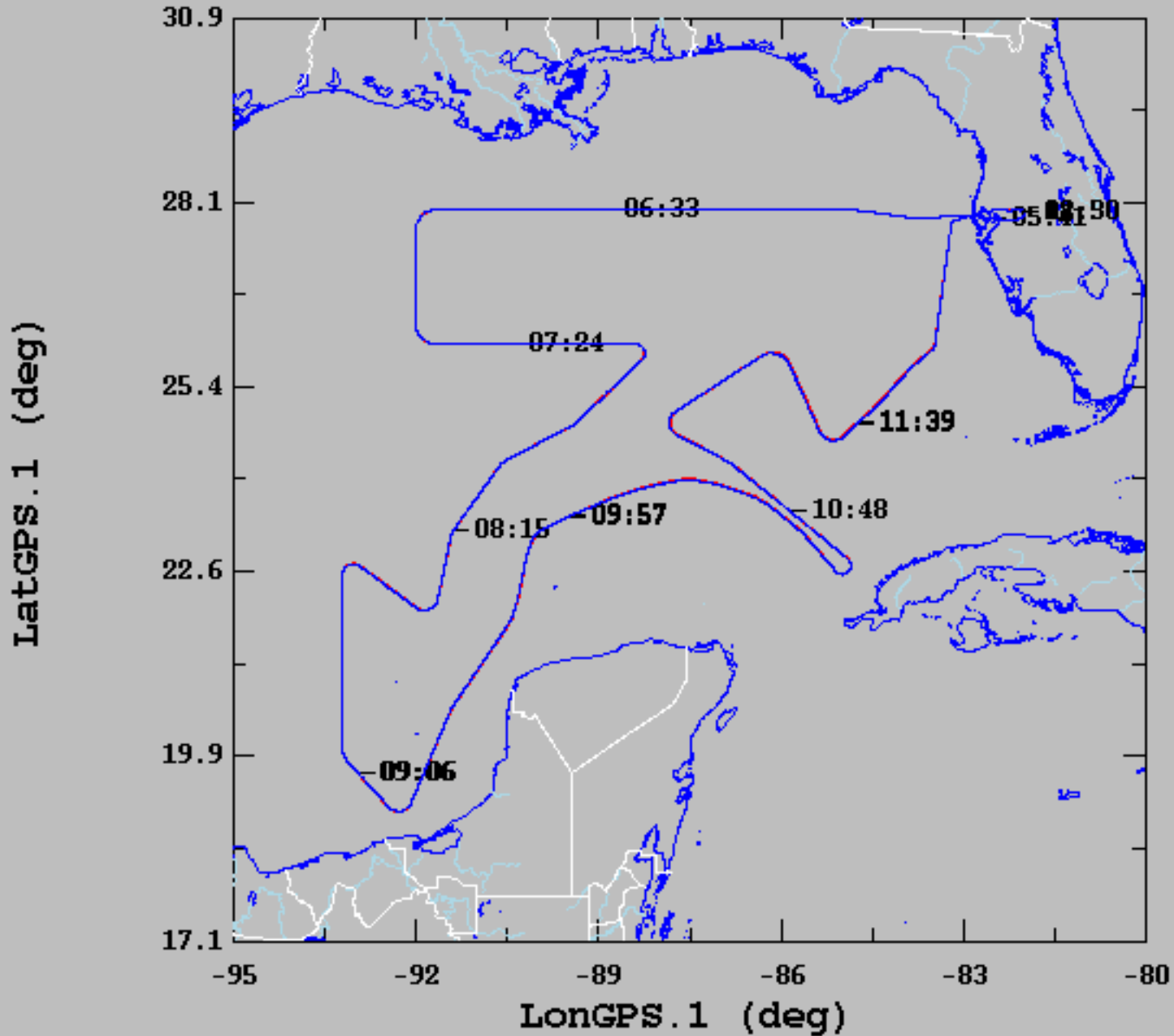
U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N49RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20201027N1	FLT #:		AC:	Waddington	Scientists:	Pressure		Dropsondes ~33		
From:	KLAL	ETD:	0530z	CP(s):	Varwig		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	1230z						28	0	28
Block Time		Flight Time		Nav(s):			ASOS Takeoff		BTs		
In:	1230z	Land:	1224z	FE(s):			A/C Land		Good	Bad	Sent
Out:	0525z	T/O:	0535z	FD(s):	Mathaway		ASOS Land		0	0	0
Total:	7.1	Total:	6.9		Henning	Visitors:					
Sponsoring Org:	NHC			SEB:			Storm Number ID:	AL 28 2020			
Program:	Hurricane 2020-PHS			SSA:	Miller		TCPOD/WSPOD Mission	NOAA9 1128A Zeta			
Purpose:	Surveillance Zeta			AVAPS:	Underwood		(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP
VOLCANIC ASH											
SCIENCE MISSION WITHIN BDRY LAYER											
LACK OF PRECIPITATION											
RELATIVE HUMIDITY ≥ 80%											
LARGE AIR-SEA TEMP GRADIENT											
HIGH SURFACE WINDS											
LONG FETCH / DURATION OF SFC WND											
SEA SALT ACCRETION FORECAST											
SEA SALT ACCRETION OBSERVED											

Gmax: Gmin: *Highlighted items must be completed before departure.

Remarks:

2020-10-27, 04:50:48-12:30:54



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	25.13	2.61	19.07	28.00
— LongGPS.1 (deg), 1 s/sec	-87.66	3.65	-93.20	-81.98
— LatI.1 (deg), 1 s/sec	25.13	2.61	19.07	28.01
— LonI.1 (deg), 1 s/sec	-87.66	3.65	-93.21	-81.98