

N49RF ERROR SUMMARY  
20190831N1

Flight ID: 20190831N1

Sensor or System -----	Number or Name -----
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZI.2
Altimeter	AltGPS.2
INE Selection	2
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2

Flight Directory acdata/2019/MET/20190831N1

Local Met Data	Takeoff KLAL (1731Z)	Landing KLAL (0113Z)
Dynamic Corrections		Yes
AttackAngleIntercept		3.97801
AttackAngleSlope		3.86172
SlipAngleIntercept		1.258
SlipAngleSlope		6.69941
AttackAngleIntercept2		5.04641
AttackAngleSlope2	5.41847	
SlipAngleIntercept2		0.905
SlipAngleSlope2		6.78464

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Notes:

There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

PQBETA.1 trending 5 mb low  
TDM.2 unrepresentative  
Moisture quantities remain suspect  
Wind data remains suspect  
QC performed by Quinn Kalen

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	0	0	0
Test sondes	0	0	0
AXBts	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Henning / Flaherty  
Phone #: 863-500-3982

ACAT-4 Version = 7.3

U.S. Dep't. of Commerce / OMAO / NOAA / Aircraft Operations Center

FLT ID: 20190831N1	From: KLAL	To: KLAL
FLT #:	Blk In: 0119 Z	Lnd Time: 0113 Z
ETD: 1730 Z	Blk Out: 1722 Z	T/O Time: 1732 Z
ETE: 7+30	Total Blk: 8.0	Total Flt: 7.7
Sponsoring Org: NHC	Program: PHS	Purpose: DORIAN

AOC Flight Crew

Aircraft Commander: TWINING	SSA: DEFE O
Co-Pilot: WASHINGTON NORMAN	AVAPS: CLYNCH, UNDERWOOD
Navigator: /	Scientists:
Flight Eng: /	Scientists
Flt Director: HENNING FLAHERTY	Scientists
SEB: / /	Scientists: Media Rick ELMHORST
Crew Chief:	Visitors: / /

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure				

AS REQUIRED BY ORM	YES / NO	REMARKS
VOLCANIC ASH		
SCIENCE MISSION WITHIN BOUNDARY LAYER		
LACK OF PRECIPITATION		
RELATIVE HUMIDITY AT OR ABOVE 80%		
LARGE AIR-SEA TEMPERATURE GRADIENT		
HIGH SURFACE WINDS		
LONG FETCH AND/OR DURATION OF SFC WIND		
SEA SALT ACCRETION FORECAST		
SEA SALT ACCRETION OBSERVED		

Dropsondes	36	Good: 33	Bad: 3	Sent: 33
AXBT		Good:	Bad:	Sent:

List other data sources in Remarks section

Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM Ob Num	Fix Time / SLP
Storm Number Identifier (VDM): (ie: AL072012)			
TCPOD/WSPOD Mission ID: 2405A DORIAN (ie: NOAA2 2418A SANDY)			

Remarks: 212 664-3377 3:28P Kendis Gibson

## G-IV QC Checklist

<b>Flight ID:</b>	<b>20190831N1</b>
<b>Flight Director(s)</b>	<b>Henning / Flaherty</b>

<b>UWZ.d mean:</b>	<b>0.14</b>
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Pressure Comparison		
	T/O	Land
<b>Aircraft</b>	<b>1010.8</b>	<b>1009.5</b>
<b>Tower</b>	<b>1010.4</b>	<b>1009.6</b>

	Raw 1Hz Mean File Parameters					C File Parameters	
<input checked="" 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"/> AccZref	
	<input checked="" type="checkbox"/> AccAXI.2	<input checked="" type="checkbox"/> AccAYI.2	<input checked="" type="checkbox"/> AccAZI.2				
	<input checked="" type="checkbox"/> AccAXI.3	<input checked="" type="checkbox"/> AccAYI.3	<input checked="" type="checkbox"/> AccAZI.3				
<input checked="" 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"/> AltBCADDU.2	<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"/> 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 checked="" 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"/> GsGPS.2	<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 type="checkbox"/> GsGPS.3	<input checked="" type="checkbox"/> GSYref	
	<input checked="" type="checkbox"/> GsXI.3	<input checked="" type="checkbox"/> GsYI.3	<input checked="" type="checkbox"/> GsZI.3	<input type="checkbox"/> GsGPS.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"/> GsXGPS.3	<input type="checkbox"/> GsYGPS.3	<input type="checkbox"/> GsZGPS.3				
<input checked="" 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"/> LonGPS.3				
<input checked="" 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"/> PDLAPHaref	<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 checked="" type="checkbox"/> Air Speed	<input checked="" type="checkbox"/> CasADDU.1	<input checked="" type="checkbox"/> TasADDU.1				<input checked="" type="checkbox"/> IAS.d	<input checked="" type="checkbox"/> TAS.d
<input checked="" 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 checked="" 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						
<input checked="" 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>PQBETA.1 trending 5 mb low                      TDM.2 unrepresentative                      Moisture quantities remain suspect                      Wind data remains suspect                      QC performed by Quinn Kalen</p>

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20190831N1

ASPEN Operator/Flight Director(s): FLANEY / HENNING

Mission ID: 2405A DORIAN

Storm Name/Track: HURRICANE DORIAN SURV.

PG     of    

Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	1800	50406	1	30.0	-80.0	FEWBLW	1071		1844	N
2	2	1816	30206	2	30.1	-77.9	"	1018.2		1847	N
3	3	1829	10773	3	30.8	-76.1	"	1016.7		1850	N
4	4	1847	10772	4	28.8	-76.1	SCTBLW	1014.0		1925	N
5	5	1855	50320	1	29.7	-75.1	SCTBLW	1014.9		1940	N
6	6	1904	2109	2	29.3	-73.9	"	1013.4	QUESTIONABLE LOWER HEIGHTS / SEE PRESS	1942	N
7	7	1918	50341	3	30.9	-73.9	"	1017.1		2002	N
8	8	1932 <sup>02</sup>		4			"		FAST FALL		Y
9	8	1932 <sup>50</sup>	10770	1	30.6	-72.1	"	1016.4	BACK UP	2011	N
10	9	1949	50314	2	28.6	-72.5	"	1014.2		2013	N
11	10	1959	30614	3	27.7	-71.7	"	1013.9		2022	N
12	11	2009	21090	4	28.3	-70.5	"	1015.4		2028	N
13	12			1					FAST FALL		Y
14	12	2028	2169	2	28.9	-68.9	FEWBLW	1015.8	BACK UP	2043	N
15	13	2036	21096	3	28.0	-67.2	"	1014.6	LOW HEIGHTS / PRESS ?	2058	N
16	14	2054	2168	4	27.2	-69.5	OCBLW	1014.2		2122	N
17	15	2111	30328	1	26.2	-71.4	"	1013.3		2140	N
18	16	2122	40015	2	24.9	-71.8	"	1012.4	DRY AIR 500-700mb	2144	N
19	17	2133	50709	3	23.9	-72.5	"	1011.9		2214	N
20	18	2145	10122	4	22.7	-71.7	SCTBLW	1012.6		2216	N
21	19	2204	31065	1	21.7	-73.9	FEWBLW	1011.3		2249	N
22	20	2218	50592	2	23.3	-73.9	FEWBLW	1011.2		2250	N
23	21	2227	50443	3	23.3	-75.1	SCTBLW	1010.8		2255	N
24	22	2237	31009	4	24.0	-76.3	SCTBLW	1009.7		2307	N
25	23	2256	50595	1	26.3	-76.0	OCBLW	1007.0		2335	N
26	24	2306	50418	2	27.3	-75.5	"	1008.9		2337	N
27	25	2314	10123	3	27.7	-74.4	"	1010.1		2339	N
28	26	2323	50573	4	27.3	-73.4	"	110.8		2352	N
29	27	2333	50413	1	26.2	-73.0	DARK	1011.1		0040	N
30	28	2342	50599	2	25.2	-73.4		1010.4		0045	N
31	29	2351	21161	3	24.8	-74.5			SONDE TEAM EARLY	0045	Y
32	30	0000	21092	4	25.2	-75.5		1006.6	NO DEWPOINT SENSOR	0051	Y
33	31	0017	21079	1	26.4	-77.4		1011.8		0055	N
34	32	0027	31038	2	27.5	-77.3		102.4		0057	N
35	33	0038		3					BAD SONDE		Y
36	33	0039	3029	4	27.7	-78.9		102.6	BACK UP	0058	N
37											
38											

2021

ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

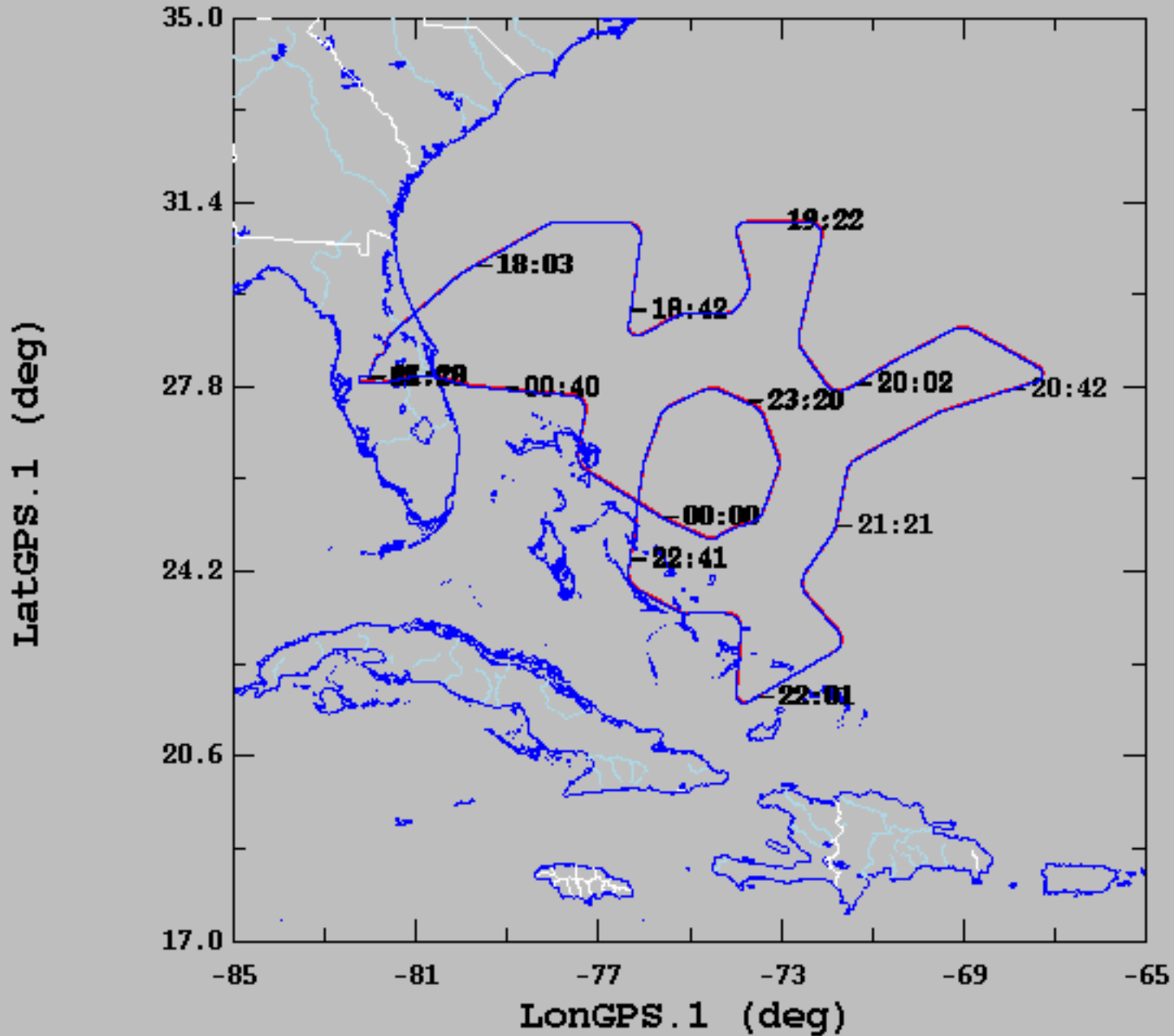
Obs Xmitted

Obs Missed

# of sondes launched

# of bad sondes

2019-08-31, 16:43:36-25:20:12



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	27.29	2.34	21.64	31.00
— LongGPS.1 (deg), 1 s/sec	-75.49	4.10	-82.23	-67.24
— LatI.1 (deg), 1 s/sec	27.31	2.34	21.66	31.03
— LonI.1 (deg), 1 s/sec	-75.47	4.10	-82.21	-67.23