

N49RF ERROR SUMMARY
20190729N1

Flight ID: 20190729N1

Sensor or System -----	Number or Name -----
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.2
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/20190729N1

Local Met Data	Takeoff KLAL (1348Z)	Landing KLAL (1526Z)
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

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.

PDBeta.2 diverges from PDBeta.1 early in flight, then tracked well for remainder of mission. TTM.2 unavailable. Artificial noise begins in TTM.3 after approximately 15:05Z. TTM.4 warm bias when aircraft is stationary, corrects with ventilation/motion. Post-processed wind data generally representative, but precision and accuracy are questionable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	2	2	1
Test sondes	0	0	0
AXBTS	0	0	0

AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Holmes / Carpenter

Phone #: 863-500-3901

ACAT-4 Version = 7.2.2

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20190729N1	FLT #:	19-85	AC:	Twining	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	14:00Z	CP(s):	Waddington		A/C Takeoff	1013.4	Good	Bad	Sent
To:	KLAL	ETA:	16:00Z		Nardi				2	0	1
Block Time		Flight Time		Nav(s):			ASOS Takeoff	KLAL 1350Z 1013.0	BTs		
In:	15:33	Land:	15:26	FE(s):	McGee, D. (MX)		A/C Land	1013.2	Good	Bad	Sent
Out:	13:42	T/O:	13:48								
Total:	1.85	Total:	1.63	FD(s):	Holmes	Visitors:	ASOS Land	KLAL 1550Z 1012.7	0	0	0
Sponsoring Org:		AOC			Carpenter						
Program:		PMM		SEB:	Miller		Storm Number ID:		N/A		
Purpose:		Instrumentation Checkflight			Lynch, C.		(ie: AL072012)				
				SSA:	Defeo		TCPD/WSPD Mission		N/A		
							(ie: NOAA2 2418A SANDY)				
				AVAPS:	Warnecke		OBSERVATIONS				
AS REQUIRED BY ORM			Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH				X							
SCIENCE MISSION WITHIN BDY LAYER				X							
LACK OF PRECIPITATION			X								
RELATIVE HUMIDITY ≥ 80%				X							
LARGE AIR-SEA TEMP GRADIENT				X							
HIGH SURFACE WINDS				X							
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST				X							
SEA SALT ACCRETION OBSERVED				X							
Gmax:				Gmin:	*Highlighted items must be completed before departure.						
Remarks:											

G-IV QC Checklist

Flight ID:	20190729N1
Flight Director(s):	Holmes, Carpenter

UWZ.d mean:	0.06 post-processing
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Pressure Comparison		
	T/O	Land
Aircraft	1013.4	1013.2
Tower	KLAL 1350Z 1013.0 mb	KLAL 1550Z 1012.7 mb

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

FLID_Mission_Documents.pdf:	
✓	Error Summary
✓	Crew Manifest
✓	QC Checklist
✓	Dropwindsonde Log(s) - AVAPS and FD if completed
✓	Flight Track
X	Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	☒
Errors (note)	☒

NOTES:

PDBeta.2 diverges from PDBeta.1 early in flight, then tracked well for remainder of mission.

TTM.2 unavailable.

Artificial noise begins in TTM.3 after approximately 15:05Z.

TTM.4 warm bias when aircraft is stationary, corrects with ventilation.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20190729N1

ASPEN Operator/Flight Director(s): Carpenter / Holmes

Mission ID: WXWXA TRAIN

Storm Name/Track: N / A

PG 1 of 1

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	141801	640490	5	26.45	-84.15		1017.5	Old parachute.	291439	N
2	2	141813	230740	6	26.48	-84.13		1017.0	New parachute. Not transmitted.	-	N
3											
4											
5											
6											
7											
8											
9											
10											
11											
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38											

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

COMMENTS:

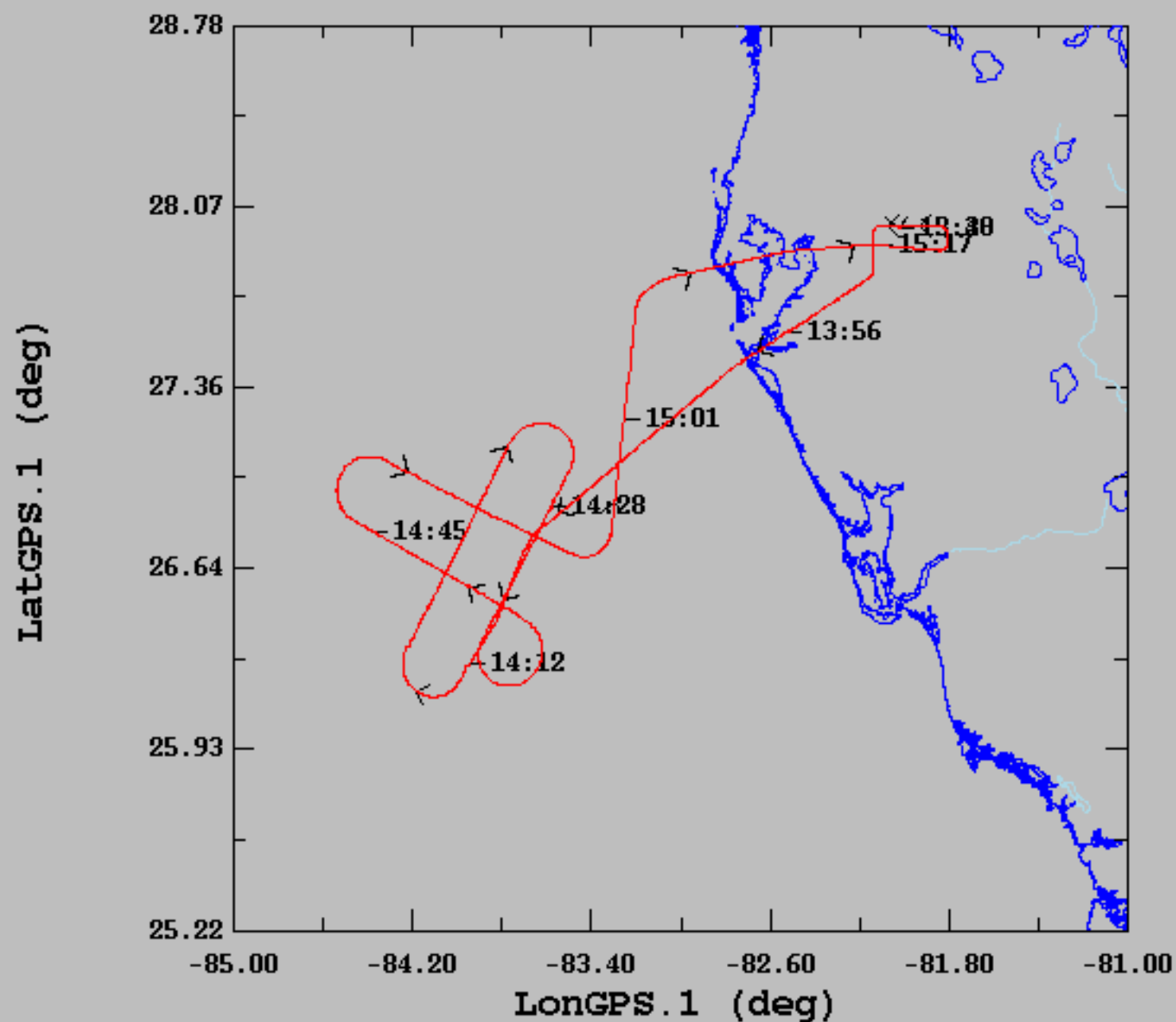
Obs
Xmitted

Obs
Missed

of sondes
launched

of bad
sondes

07/29/2019, 13:40:40-15:33:22



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	27.25	0.61	26.14	27.99
LongGPS.1 (deg), 1 s/sec	-83.11	0.83	-84.53	-81.80