

N49RF ERROR SUMMARY LOCAL NRD-41 MINISONDE AND TDR TEST

Flight ID: 20230706N1

Sensor or System	Number or Name
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Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZI.1
Altimeter	AltGPS.3
INE Selection	1
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/2023/MET/20230706N1

Local Met Data	Takeoff (1814Z)	Landing (2100Z)
Dynamic Corrections		Yes
AttackAngleIntercept		4.97461
AttackAngleSlope		5.40351
SlipAngleIntercept	0.71	
SlipAngleSlope		6.56381
AttackAngleIntercept2		4.97461
AttackAngleSlope2	5.40351	
SlipAngleIntercept2		0.71
SlipAngleSlope2		6.22545

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.

Radar Altitude appeared in real time but was not written to netCDF file at end of mission (however, it is not used for any higher MET parameters). Both dew point sensors unreliable. Consider all FL humidity data suspect

Expendable Type	# deployed	# good	# transmitted
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Dropsondes	0	0	0
Test sondes	4	4	4
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Henning
Phone #: (850) 499-0151

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20230706N1	FLT #:		AC:	Nardi	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	1800	CP(s):	Varwig		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	2100						4	0	4
Block Time		Flight Time		NAV:			ASOS Takeoff		BTs		
In:	2107	Land:	2100	FE(s):			A/C Land		Good	Bad	Sent
Out:	1806	T/O:	1814	FD(s):	Henning	de Solo (FD)	ASOS Land				
					Timmers						
Total:	3.0	Total:	2.8	SSA:	Defeo	Visitors:					
				AVAPS:	Dykeman		Storm Number ID:				
Sponsoring Org:	AOC				Paul		(ie: AL072012)				
Program:	PSM			SEB:	Keller		TCPOD/WSPOD Mission		NOAA9 WXWXA TRAIN		
Purpose:	NRD41 Minisonde Test - TDR Test						(ie: NOAA2 2418A SANDY)				
				MX:			OBSERVATIONS				
AS REQUIRED BY ORM			Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH				x			1				
SCIENCE MISSION WITHIN BDRY LAYER											
LACK OF PRECIPITATION							2				
RELATIVE HUMIDITY ≥ 80%											
LARGE AIR-SEA TEMP GRADIENT							3				
HIGH SURFACE WINDS											
LONG FETCH / DURATION OF SFC WND							4				
SEA SALT ACCRETION FORECAST											
SEA SALT ACCRETION OBSERVED							Pennies:				

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Flight ID:	20230706N1
Flight Director(s)	Henning / Timmers / deSolo
UWZ.d mean:	0.16

Pressure Comparison		
	T/O	Land
Aircraft	1010.5	1008.9
Tower	1010.8	1009.1

	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	x 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	✓ GsGPS.3	✓ GSZref		
	✓ GsXGPS.1	✓ GsYGPS.1	✓ GsZGPS.1				
	✓ GsXGPS.2	✓ GsYGPS.2	✓ GsZGPS.2				
	✓ GsXGPS.3	✓ GsYGPS.3	✓ 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	✓ RolI.1	RollRateI.1	✓ PITCHref		
	✓ PitchI.2	✓ PitchRateI.2	✓ RolI.2	✓ RollRateI.2	✓ ROLLref		
	✓ PitchI.3	✓ PitchRateI.3	✓ RolI.3	✓ RollRateI.3			
x Temp / Dewpt	✓ TTM.1	✓ TTM.4	x TDM.1		x TD.c	✓ TTMref	
	✓ TTM.2		x TDM.2		x TDMref	✓ TA.d	
	✓ TTM.3						
x Misc. (Must check)					UWZ.d	✓ WS.d	
					DPJ_WSZ	✓ WD.d	
					x HUM		

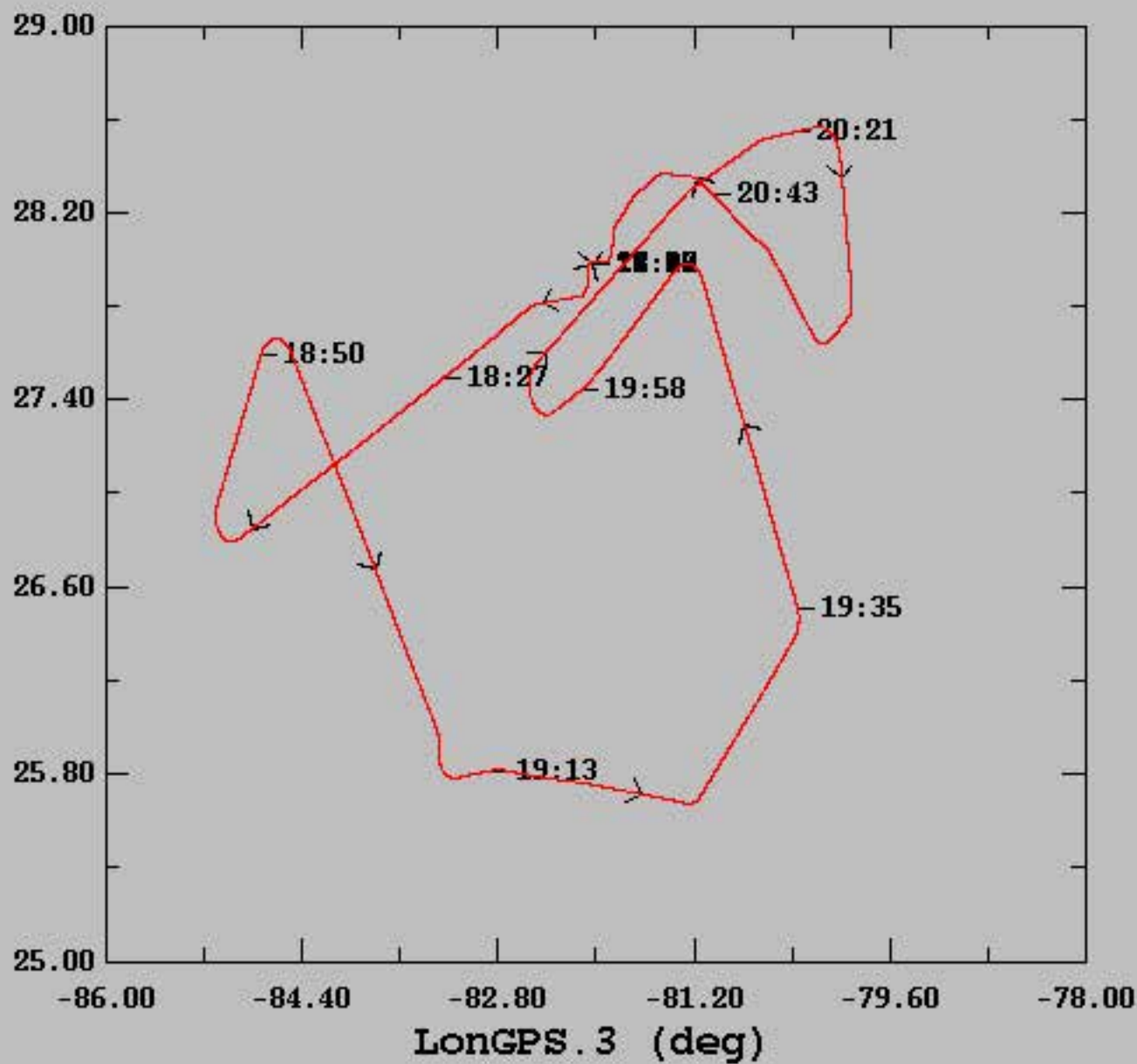
FLID_Mission_Documents.pdf:	
✓	Error Summary
✓	Crew Manifest
✓	QC Checklist
☐	Dropwindsonde Log(s) - AVAPS and FD if completed
✓	Flight Track
☐	Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	✓
Errors (note)	x

NOTES:
Radar Altitude appears real time but not written to netCDF file at end of mission (not used for any higher MET parameters) Both dew point sensors unreliable. Consider all FL humidity data suspect UWZ mean +0.16 for mission

07/06/2023, 16:57:12-21:06:33

LatGPS.3 (deg)



AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20230706N1

ASPEN Operator/Flight Director(s):

QUIMMERS / JENNINGMission ID: WNNXA GRASIN

Storm Name/Track:

SCIENCE CALIBRATIONPG 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	1845 51	51554	1	27.1	-85.0	FEW	1016.0	020/04	1909	.
2	2	1904 25	50140	2	26.4	-83.6	SCT	1015.7	040/03	1740	
3	3	1905 08	40051	3	26.3	-83.5	SCT	1016.4	1111	1945	
4	4	1906 12	51543	4	26.2	-83.5	SCT	1014.9	345/02	1950	
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ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

4

Obs
Xmitted/ Obs
Missed

4

of sondes
launched/ # of bad
sondes

AVAPS Drop Log

Project: Hurricane 2023

Mission: Mini Sonde Test

Flight ID: 2023070611

Take Off: _____

Landing: _____

Flt Dir: Rich Hemming

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	230351554	1	-1.0	18:45	RK	AOC		✓
2	230650140	2	-1.0	19:04	RK	AOC		
3	230740051	3	-1.3	19:05	RK	AOC		
4	230351543	4	-0.7	19:06	RK	AOC	sensor up	
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