

N49RF ERROR SUMMARY

LOCAL WIND CALIBRATION MISSION

Flight ID: 20230508N1

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/20230508N1

Local Met Data	Takeoff (1309Z)	Landing (1730Z)
Dynamic Corrections		Yes
AttackAngleIntercept		4.99605
AttackAngleSlope		5.43749
SlipAngleIntercept	1.05	
SlipAngleSlope		6.15145
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	20	18	7
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:	20230508N1	FLT #:		AC:	Nardi	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	1300	CP(s):	deTriquet		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	1700					20	2	7	
Block Time		Flight Time		NAV:			ASOS Takeoff		BTs		
In:	1735	Land:	1730	FE(s):			A/C Land		Good	Bad	Sent
Out:	1259	T/O:	1309	FD(s):	Henning						
					deSolo		ASOS Land				
Total:	4.6	Total:	4.4	SSA:	Defeo	Visitors:					
				AVAPS:	Dykeman	Jonathan Clay (Dev)	Storm Number ID:				
Sponsoring Org:	AOC				Keller		(ie: AL072012)				
Program:	PSM			SEB:	Paul		TCPD/WSPD Mission		NOAA9 WXWXA TRAIN		
Purpose:	Wind Cal + minisonde tube 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:	20230508N1
Flight Director(s)	Henning / deSolo
UWZ.d mean:	-0.02

Pressure Comparison		
	T/O	Land
Aircraft	1015.2	1014.0
Tower	1015.5	1014.1

	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	

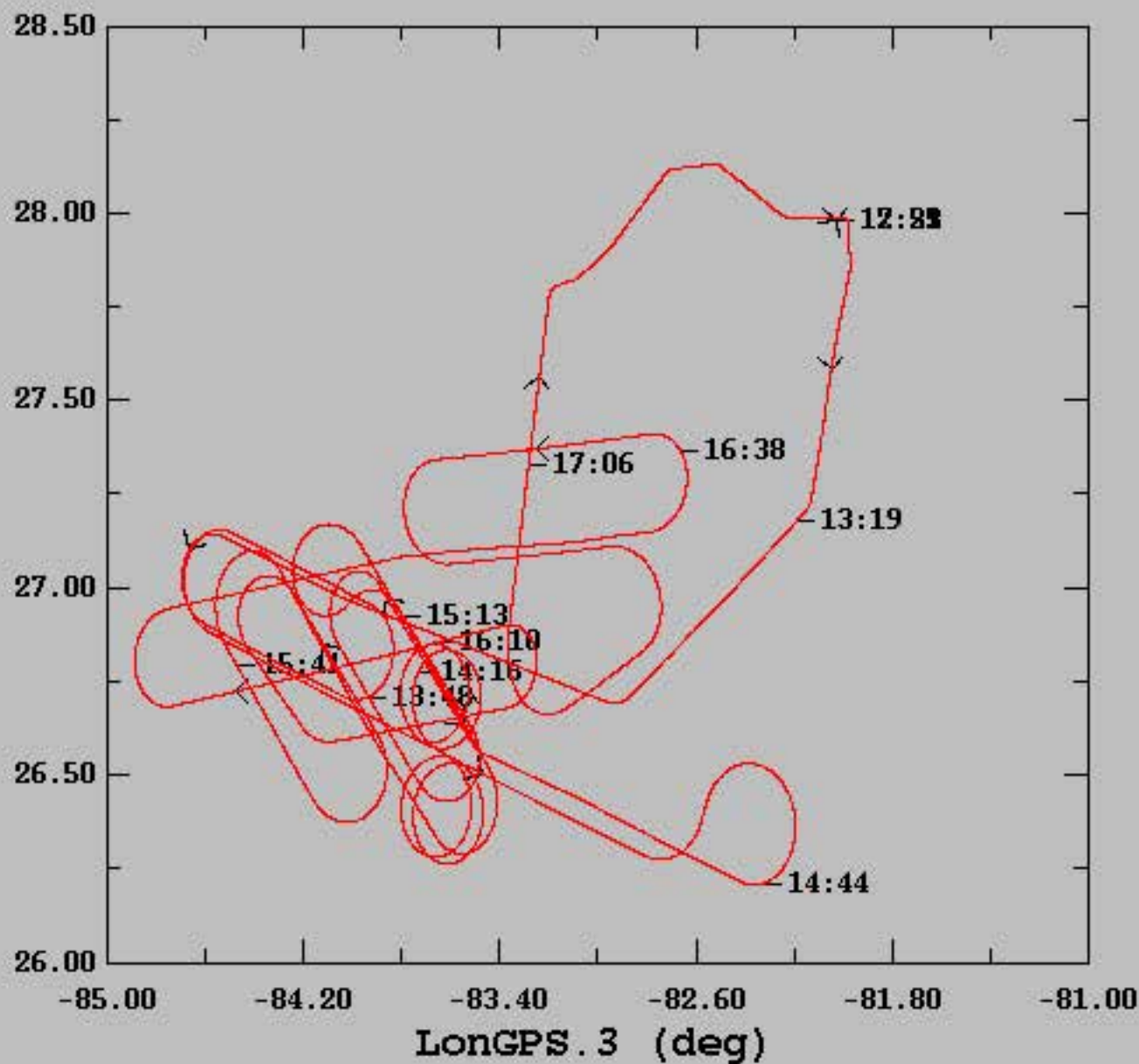
FLID_Mission_Documents.pdf:	
✓	Error Summary
✓	Crew Manifest
✓	QC Checklist
✓	Dropwindsonde Log(s) - AVAPS and FD if completed
✓	Flight Track
☐	Miscellaneous FD Notes

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 -0.02 for mission

05/08/2023, 12:23:13-17:35:08

LatGPS.3 (deg)



AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20230508N1ASPEN Operator/Flight Director(s): Henning / de SoloMission ID: WXWXA TRAINStorm Name/Track: N49 wind cal and shakedown

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	140232	45159	1	26.7	-84.0	CLR	1017.3	125° @ 11 kts	1421	✓✓
2	2	140249	45145	2	26.7	-84.0	CLR	1019.0	125° @ 10 kts	1522	✓✓
3		1403		3					Fast Fall		no send
4		1403		4					Fast Fall		no send
5		1457		1							no send
6	3	145748	45057	2	26.9	-83.4	CLR	1018.9	150° @ 09 kts	1536	✓✓
7		1458		3							no send
8	(4)	145748	45140	4	26.9	83.8	CLR	1020.4	145° @ 9 kts SEND by TAG		no send
9	5	154320	161635129	1	26.6	84.3	CLR	1020.0	110° @ 8 kts	1606	✓✓
10		1543		2							
11		1543		3							
12	(6)	154348	161545178	4	26.5	84.3	CLR	1019.1	100° @ 9 kts SEND by TAG	1623	✓✓
13	7	162605	161545183	1	27.0	84.2	CLR	1019.4	125° @ 7 kts	1645	✓✓
14		1626		2							
15		1626		3							
16		1626		4							
17		1626		5							
18		1626		6							
19		1626		7							
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ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs
Xmitted 7Obs
Missed /# of sondes
launched 20# of bad
sondes 18

AVAPS Drop Log

Project: N49 Wind Cal Mission: Wind Calibration Flight ID: 20230508N1
 Take Off: 13:09 Landing: _____ Flt Dir: Henning Launcher S/N: 2

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$ To	Comments	Good ?
1	161545159	1	0	14:02	RK	MS		✓
2	161545145	2	-1.5	14:02	RK	MS		✓
3	161635013	3	0	14:03	RK	MS	Fast Fall @ 350 mbar	X
4	161545028	4	0	14:03	RK	MS	Fast Fall @ 400 mbar	X
5	161545118	1	-1.2	14:57	RK	MS		✓
6	160745057	2	-1.9	14:57	RK	MS		✓
7	161545057	3	-1.3	14:58	RK	MS		✓
8	161545140	4	-1.5	14:58	RK	MS		✓
9	161635129	1	-1.2	1543	BRD	MS		✓
10	161545181	2	-1.1	1543	BRD	MS		✓
11	160745055	3	-1.3	1543	BRD	MS		✓
12	161545178	4	-1.2	1543	BRD	MS		✓
13	161545183	1	-1.1	1626	RK	MS		✓
14	161545042	2	-1.8	1626	RK	MS		✓
15	161545098	3	-1.5	1626	RK	MS		✓
16	161545091	4	-1.3	1626	RK	MS		✓
17	151255026	5	-1.3	1626	RK	MS		✓
18	161545043	6	-1.2	1626	RK	MS		✓
19	161635003	7	-1.2	1626	RK	MS		✓
20	151325171	8	-1.5	1626	RK	MS		✓
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