

Flight Director: Carpenter / Henning
Phone #: 863-500-3901

ACAT-4 Version = 7.3

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20190928N1	FLT #:	19-121	AC:	Twining	Scientists:	Pressure		Dropsondes		
From:	TBPB	ETD:	12:00Z	CP(s):	Waddington	Dunion, Jason	A/C Takeoff	TBPB 12:00Z 1006.8 mb	Good	Bad	Sent
To:	TBPB	ETA:	20:00Z		Norman		ASOS Takeoff		33	1	33
Block Time		Flight Time		Nav(s):					BTs		
In:	19:45	Land:	19:39	FE(s):			A/C Land		Good	Bad	Sent
Out:	11:44	T/O:	11:55	FD(s):	Carpenter	Visitors:	ASOS Land	TBPB 20:00Z 1004.8 mb	0	0	0
Total:	8.02	Total:	7.73	SEB:	Warnecke			Storm Number ID:		AL132019	
Sponsoring Org:	HRD			Delgado			(ie: AL072012)				
Program:	PHX			SSA:	Miller		TCPOD/WSPOD Mission		NOAA9 WC13A LORENZO		
Purpose:	Lorenzo research mission.			AVAPS:	Patel		(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X						
SCIENCE MISSION WITHIN BDRY 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:	20190928N1
Flight Director(s):	Carpenter / Henning
UWZ.d mean:	0.23

Pressure Comparison		
	T/O	Land
Aircraft	1007.0	1005.1
Tower	1006.5	1004.5

	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"/> 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"/> 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 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"/> 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 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"/> X

NOTES:
<p>PQBETA.1 unrepresentative for entire flight</p> <p>TTM.2 trending low</p> <p>Wind data remains suspect</p> <p>QC performed by Quinn Kalen</p>

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 190928N1

ASPEN Operator/Flight Director(s): J. Dunbar / Rich Henning

PG 1 of 1

Mission ID: WC13A LORENZO

Storm Name/Track: Hurricane Lorenzo

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	X	130117	40172	1	17.52	52.97	"	1014.0	backed up - no winds until ~26kft		Y
2	1	130218	40669	2	17.60	52.86	clear/SAL	1014.2	SAL ~40% RH 650-850mb/TINV 850mb		N
3	2	130239	30260	3	18.36	51.77	"	1013.9	Same		N
4	3	132354	40460	4	19.17	50.57	"	1012.8	Flagged last pt (Ø sats) 5-35% RH 400-700mb		N
5	4	133524	40348	4	20.00	49.36	"	1011.9	Flagged last pt (Ø sats) Same RH profile		N
6	5	134546	41430	2	20.94	48.41	"	1009.5	Flagged last pt (Ø sats)		N
7	6	135713	40317	3	21.96	47.38	"	1005.5	Flagged last - Ø sats		N
8	7	140622	20022	4	22.81	46.65	"	1003.2	Flagged last 2 pts - Ø sats		N
9	8	141404	40314	1	23.54	47.29	"	1006.6	Hkt NE jet ~850-950mb		N
10	9	142222	40543	2	24.28	48.10	Strato cirr/strato embelow	1010.7	Flagged last 2 pts Ø sats		N
11	10	143007	20789	3	24.96	48.85	"	1012.1	30k+ NE jet ~850mb (shallow)		N
12	11	143632	50454	4	25.54	49.38	"	1013.2	Flagged last pt (Ø sats) ~59% RH 600mb		N
13	12	144301	40331	1	25.42	48.57	scrr cu	1011.6	10-40% RH 500-700mb		N
14	13	145054	50625	2	25.19	47.55	undercast	1011.0	Flagged last 2 pts (Ø sats)		N
15	14	145854	40768	3	24.94	46.51	"	1008.4	"		N
16	15	150616	40736	4	24.83	45.55	"	1006.9	Flagged lowest 2 pts + 2 near-sft pts		N
17	16	151444	30197	1	25.83	45.15	"	1009.0	50k+ E jet 900mb		N
18	17	152345	40495	2	26.94	44.79	"	NA	Did not hit sfc (~991mb) Flagged sev. Ø sat times		Y
19	18	153122	40337	3	27.78	44.39	"	1015.2	~dry adiab 900-SFC		N
20	19	153908	20786	4	26.93	44.06	"	1013.8	flag last wind Ø sats SFC WIND 075/21 XF		N
21	20	154809	40641	1	25.90	43.71	"	1011.2	flag last wind Ø sats 090/31 XF		N
22	21	155742	40343	2	24.84	43.34	"	1008.4	flag last 2 winds Ø sats 100/26 XF		N
23	22	160613	20338	3	24.12	42.58	CDO	1008.3	115/28 XF		N
24	23	161504	40649	4	23.14	42.33	CDO	1007.5	flag last 2 winds Ø sats 130/39 XF		N
25	24	162340	40201	1	22.19	42.65	CDO	NA	died @ 979 mb LAST 160/56 XF		Y
26	25	163306	20922	2	21.41	43.46	CDO	1002.2	170/40 XF		N
27	X	164655	40667	3	19.99	44.20	LATE LAUNCH	1005.6	DETECT (~165 mb) backed up 225/33 F NOT TRANSMIT		
28	26	164703	40342	4	19.97	44.20	UCAST	1006.2	BACKUP several Flagged BKN 210/33 XF		N
29	27	165608	20788	1	19.02	44.54	UCAST	1008.3	flag last wind Ø sats 230/29 XF		N
30	28	170301	40671	2	19.74	44.90	UCAST	1006.4	flag last wind Ø sats 235/26 XF		N
31	29	171136	10379	3	20.68	45.27	UCAST	1000.9	245/32 XF		N
32	30	171926	40338	4	21.44	45.69	UCAST	998.2	EYE on radar 85 NM NE 265/37 XF		N
33	31	172648	40163	1	20.94	46.34	UCAST	1002.9	280/33 XF		N
34	32	173500	40635	2	20.27	47.22	UCAST	1006.9	flag last 2 winds 8/0 sats 295/30 XF		N
35	33	174313	10111	3	19.59	48.01	BKN	1008.8	flag last wind Ø sats 285/26 XF		N
36											
37											
38											

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

Obs Xmitted

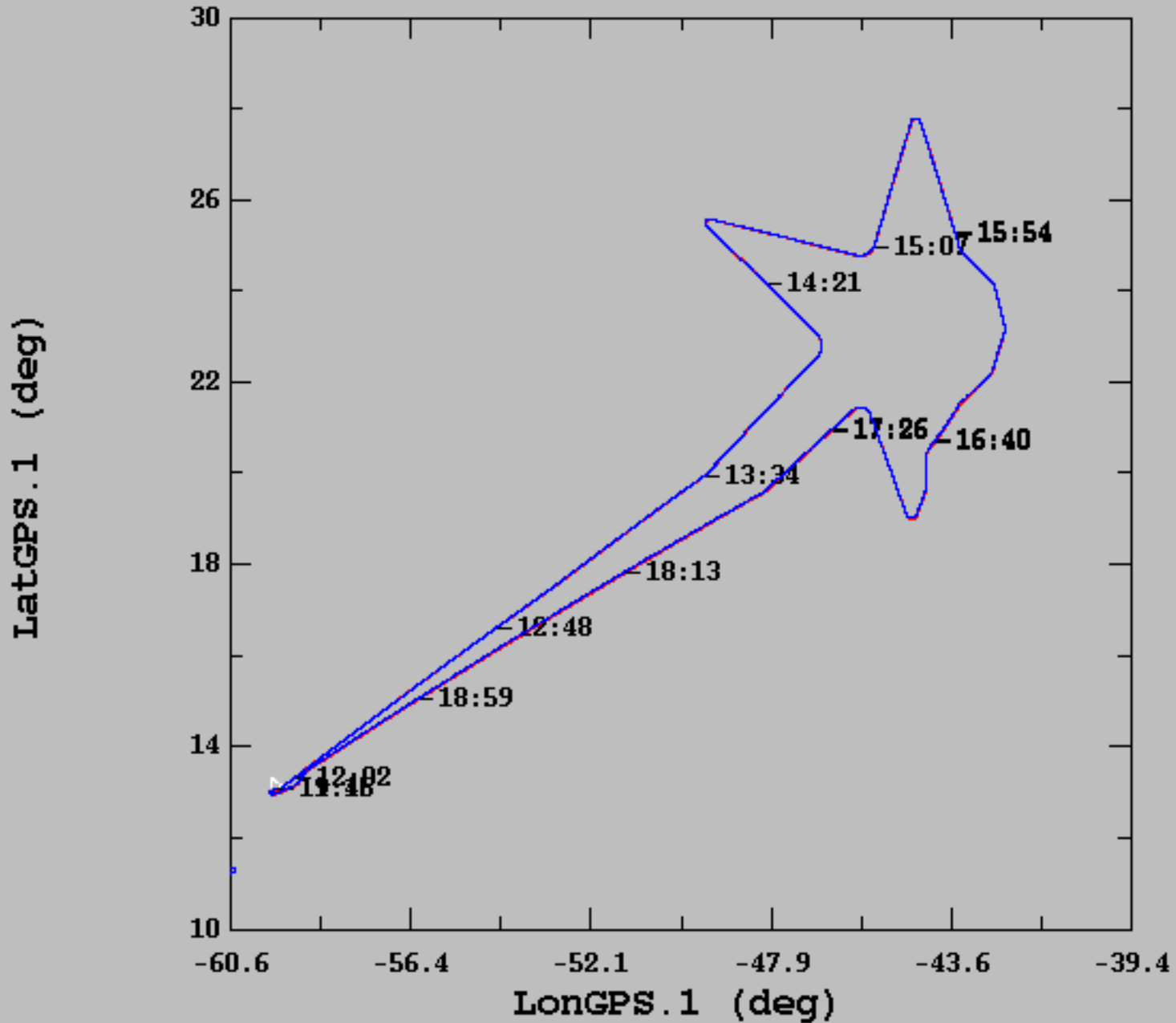
Obs Missed

of sondes launched

of bad sondes

COMMENTS:

2019-09-28, 11:15:39-19:46:02



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	19.35	4.39	12.94	27.79
— LonGPS.1 (deg), 1 s/sec	-50.60	5.61	-59.68	-42.33
— LatI.1 (deg), 1 s/sec	19.34	4.39	12.92	27.77
— LonI.1 (deg), 1 s/sec	-50.60	5.61	-59.68	-42.33