NOAA Aircraft Operations Center - NOAA 42 Flight Manifest

FLIGHT INFORMATION

FLT ID:	20180321H14i1Z	**FLT #:**	18-
From:	KHSV	**ETD:**	1300Z
To:	KMLU	**ETA:**	1430z

Block Time		Flight Time	
In:	19:46 14:15	In:	19:43 14:10
Out:	17:50 12:45	Out:	17:56 12:50
Total:	1:56 (1.9) 1:30 (1.5)	Total:	1:47 (1.8) 1:20 (1.3)

Sponsoring Org:	NSSL
Program:	PBX
Purpose:	VORTEX PA to Monroe, LA

CREW MANIFEST

		Scientists:
AC:	PRICE	
CP(s):	ROSSI	
	ABITBOL	
Nav(s):	FREEMAN	Zhien Wang
		Kim Elmore
FE(s)	SANCHEZ	Conrad Ziegler
	HEYSTEK	Rachel Miller
FD(s):	HENNING	
	PARRISH	**Visitors:**
SEB:	McALISTER	
	PEEK	
SSA:	MASCARO	
AVAPS:		

MISSION INFORMATION

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

Dropsondes		
Good	Bad	Sent

BTs		
Good	Bad	Sent

Storm Number ID: (ie: AL072012)	
TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)	NOAA2 WXWXA TRAIN

OBSERVATIONS

Fix Number	Obs Number	Fix Time	SLP

AS REQUIRED BY ORM	Y	N	REMARKS
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			

Additional Remarks:

*Highlighted items must be completed before departure.

Cockpit Gmax: Gmin:

181525Z-182325Z 10K leg
182715Z-183515Z 7K leg
185237Z-185631Z Spiral
183730Z-184530Z 5K leg

N42RF ERROR SUMMARY
20180321H2 VORTEX-PA positioning

Flight ID: 20180321H2

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.1
Vertical Accelerometer	AccZfilterI-GPS.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1

Flight Directory acdata/2018/MET/20180321H2

Local Met Data Takeoff KMLU (1741Z) Landing KHSV (0000Z)

Dynamic Corrections	Yes
AttackAngleIntercept	2.35256
AttackAngleSlope	6.11627
SlipAngleIntercept	0.23
SlipAngleSlope	6.9614

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.

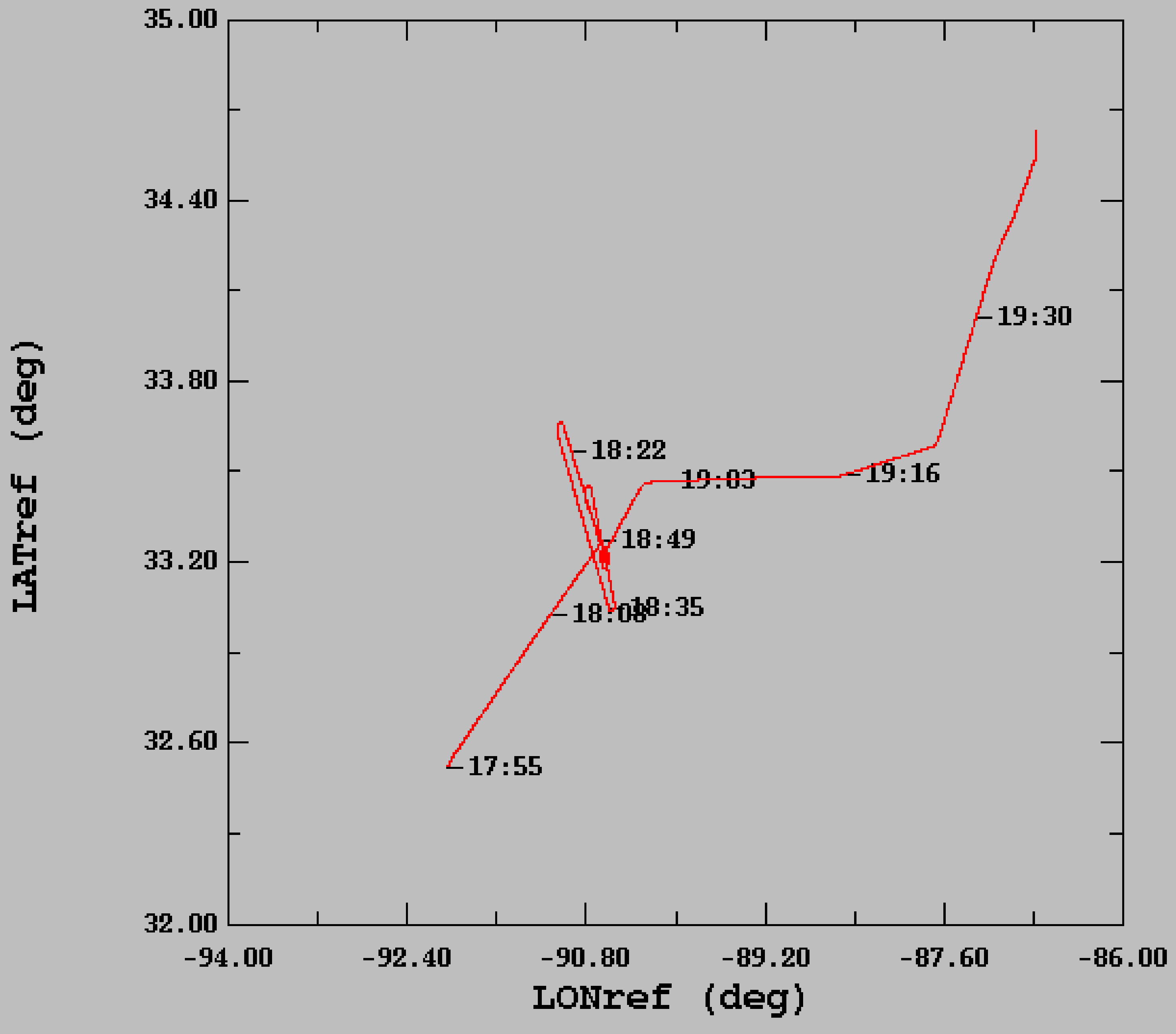
Positioning leg from VORTEX-SE PA event - Monroe LA to Huntsville AL.
PQM1 drifted negative upon descent. Used PQM2.
PDAlpha2, PDBeta2 compare insensitive to PDAlpha1, PDBeta1. Used #1 sources.
TDM2 too filtered at cooler temperatures. Used TDM1.

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: Jack Parrish
Phone #: 813-368-9722

ACAT-4 Version = 7.1

2018-03-21, 17:41:49-19:43:39



	mean	sigma	min	max
LATref (deg), 1 s/sec	33.44	0.44	32.52	34.63
LONref (deg), 1 s/sec	-89.83	1.55	-92.03	-86.77

174149 175601
194339 194300

APPENDIX 1 – P3 QC Checklist

Flight ID:	20180321H2
Flight Director(s):	Parrish / Henning

Pressure Comparison		
	T/O	**Land**
Aircraft	1019.8	Invalid
Tower	1020.3 A30.21 1022.91	995.8 A3005 SLP 17.7

UWZ.d mean: 0.151

KMLU 24m KHSV 192m

	Raw 1Hz Mean File Parameters				**C File Parameters**	
✓ Accelerometer	✓ AccAXI.1	✓ AccAYI.1	✓ AccAZI.1	✓ AccZfilter-GPS.1	✓ AccZref	
	✓ AccAXI.2	✓ AccAYI.2	✓ AccAZI.2	✓ Acc-Zfilter-GPS.2		
	✓ AccAXI-GPS.1	✓ AccAYI-GPS.1	✓ AccAZI-GPS.1			
	✓ AccAXI-GPS.2	✓ AccAYI-GPS.2	✓ AccAZI-GPS.2			
✓ Altitude	✓ AltGPS.1	✓ AltI-GPS.1	✓ AltPaADDU.1	✓ AltRA.1	✓ ALTref	✓ AltRA1.c
	✓ AltGPS.2	✓ AltI-GPS.2	✓ AltBCADDU.1	✓ AltRA.2	✓ ALTPA.d	✓ AltRA2.c
	✓ AltGPS.3				✓ ALTGA.d	
	✓ AltGPS.4					
✓ Ground Speed	✓ GsXI-GPS.1	✓ GsYI-GPS.1	✓ GsZI-GPS.1		✓ GSXref	
	✓ GsXI-GPS.2	✓ GsYI-GPS.2	✓ GsZI-GPS.2		✓ GSYref	
					✓ GSZref	
✓ Lat/Lon	✓ LatGPS.1	✓ Lati-GPS.1	✓ LonGPS.1	✓ Loni-GPS.1	✓ LATref	
	✓ LatGPS.2	✓ Lati-GPS.2	✓ LonGPS.2	✓ Loni-GPS.2	✓ LONref	
INE1	✓ LatGPS.3		✓ LonGPS.3			
	✓ LatGPS.4		✓ LatGPS.4			
✓ Pressure	✓ PDALPHA.1	✓ PQALPHA.1	✗ PQM.1	✓ PSM.1	✓ PDALPHAref	✓ PQMref
	✗ PDALPHA.2	✓ PQBETA.1	✓ PQM.2	✓ PSM.2	✓ PDBETAref	✓ PQ.c
	✓ PDBETA.1		✓ PQM.3	✗ PTM.1	✓ PQALPHAref	✓ PSMref
	✗ PDBETA.2		✓ PQM.4		✓ PQBETAref	✓ PS.c
✓ Air Speed	CasADDU.1	✓ TasADDU.1	✓ IasADDU.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	✓ TDM.1	TRadD.1		✓ TD.c	✓ TTMref
	✓ TTM.2	✗ TDM.2	TRadS.1		✓ TDMref	✓ TA.d
	TTM.3	TDM.3	TRadU.1			
✓ Miscellaneous (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
✓	Miscellaneous FD notes

NOTES: PQM1 drifted negative upon descent into KHSV.
PDAlpha 2, PDBeta 2 look insensitive compared with PDAlpha 1, PDBeta 1.
TDM 2 too filtered at cool TDs.
Landing PS from aircraft invalid – data ended before A/C landed.