



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

Flight Director: KALEN  
Phone #: 863-500-3962

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	<b>20241106H1</b>	FLT #:		AC:	<b>COPARE</b>	Other Crew:	sUAS		Dropsondes		
From:	<b>KLAL</b>	ETD:	<b>0330L / 0830Z</b>	CP(s):	<b>WOOD</b>	<b>MARKS (HRD)</b>	Type	Released	Good	Bad	Sent
To:	<b>KLAL</b>	ETA:	<b>1130L / 1630Z</b>		<b>REEVES</b>	<b>SCHOUMAKER (AOC)</b>			<b>21</b>	<b>0</b>	<b>21</b>
Block Time		Flight Time		NAV(s):	<b>DUNFORD/SAUNDERS</b>	<b>VIGGIANO (AOC)</b>					
Out:	<b>08:17</b>	T/O:	<b>08:27</b>	FE(s):	<b>STOKES</b>	<b>MCKENNA (STAFFER)</b>	Other Expendables		Dropsonde Charge Codes		
					<b>PERICHT</b>		Type	Released	<b>NWS</b>		
In:	<b>14:22</b>	Land:	<b>14:15</b>	FD(s):	<b>KALEN</b>				AXBTs		
									Good	Bad	Sent
Total:	<b>6.1</b>	Total:	<b>5.8</b>	SSA:	<b>RICHARDS</b>				<b>0</b>	<b>0</b>	<b>0</b>
					<b>HUNSINGER</b>						
Sponsoring Org:		<b>NWS</b>		IFT(s):	<b>BRANNIGAN</b>		Pennies		<b>3 CAT2</b>		
Program:		<b>PRX</b>					Storm ID: (i.e., AL072012)		<b>AL182024</b>		
Purpose:		<b>TDR RAFAEL</b>		MX:			Mission ID: (i.e., NOAA2 2418A SANDY)		<b>NOAA2 1218A RAFAEL</b>		
AS REQUIRED BY ORM			Y	N	REMARKS		OBSERVATIONS				
VOLCANIC ASH				X			Fix Number	Obs Number	Fix Time	SLP	
SCIENCE MISSION WITHIN BDRY LAYER				X			<b>1</b>	<b>4</b>	<b>1009Z</b>	<b>967 mb</b>	
LACK OF PRECIPITATION				X			<b>2</b>	<b>13</b>	<b>1127Z</b>	<b>966 mb</b>	
RELATIVE HUMIDITY ≥ 80%			X				<b>3</b>	<b>19</b>	<b>1244Z</b>	<b>965 mb</b>	
LARGE AIR-SEA TEMP GRADIENT				X			<b>4</b>				
HIGH SURFACE WINDS				X							
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST				X							
SEA SALT ACCRETION OBSERVED											

\*Highlighted items must be completed before departure.

## P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20241106H1
Flight Director(s):	Kalen
Mission:	Tasked/Operational
UWZ.d mean:	0.22

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1010.5	1014.9
Airfield	1009.5	1011.6

This form uses:	
_A.nc	

SFMR Serial Unit	#	3
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Parameters	Raw				Derived, Corrected & Reference	
<input checked="" type="checkbox"/> Acceleration	<input checked="" type="checkbox"/> AccAXI.1 <input checked="" type="checkbox"/> AccAXI.2 <input checked="" type="checkbox"/> AccAXI-GPS.1 <input checked="" type="checkbox"/> AccAXI-GPS.2	<input checked="" type="checkbox"/> AccAYI.1 <input checked="" type="checkbox"/> AccAYI.2 <input checked="" type="checkbox"/> AccAYI-GPS.1 <input checked="" type="checkbox"/> AccAYI-GPS.2	<input checked="" type="checkbox"/> AccAZI.1 <input checked="" type="checkbox"/> AccAZI.2 <input checked="" type="checkbox"/> AccAZI-GPS.1 <input checked="" type="checkbox"/> AccAZI-GPS.2	<input checked="" type="checkbox"/> AccZfilter-GPS.1 <input checked="" type="checkbox"/> AccZfilter-GPS.2	<input checked="" type="checkbox"/> AccZref	
<input checked="" type="checkbox"/> Altitude	<input checked="" type="checkbox"/> AltGPS.1 <input checked="" type="checkbox"/> AltGPS.2 <input checked="" type="checkbox"/> AltGPS.3 <input checked="" type="checkbox"/> AltGPS.4	<input checked="" type="checkbox"/> AltI-GPS.1 <input checked="" type="checkbox"/> AltI-GPS.2	<input checked="" type="checkbox"/> AltPaADDU.1 <input checked="" type="checkbox"/> AltBCADDU.1	<input checked="" type="checkbox"/> AltRA.1 <input checked="" type="checkbox"/> AltRA.2	<input checked="" type="checkbox"/> ALTref <input checked="" type="checkbox"/> ALTPA.d <input checked="" type="checkbox"/> ALTGA.d	<input checked="" type="checkbox"/> AltRA1.c <input checked="" type="checkbox"/> AltRA2.c
<input checked="" type="checkbox"/> Ground Speed	<input checked="" type="checkbox"/> GsXI-GPS.1 <input checked="" type="checkbox"/> GsXI-GPS.2	<input checked="" type="checkbox"/> GsYI-GPS.1 <input checked="" type="checkbox"/> GsYI-GPS.2	<input checked="" type="checkbox"/> GsZI-GPS.1 <input checked="" type="checkbox"/> GsZI-GPS.2	<input checked="" type="checkbox"/> GSXref <input checked="" type="checkbox"/> GSYref <input checked="" type="checkbox"/> GSZref		
<input checked="" type="checkbox"/> Location	<input checked="" type="checkbox"/> LatGPS.1 <input checked="" type="checkbox"/> LatGPS.2 <input checked="" type="checkbox"/> LatGPS.3 <input checked="" type="checkbox"/> LatGPS.4	<input checked="" type="checkbox"/> LatI-GPS.1 <input checked="" type="checkbox"/> LatI-GPS.2	<input checked="" type="checkbox"/> LonGPS.1 <input checked="" type="checkbox"/> LonGPS.2 <input checked="" type="checkbox"/> LonGPS.3 <input checked="" type="checkbox"/> LonGPS.4	<input checked="" type="checkbox"/> LonI-GPS.1 <input checked="" type="checkbox"/> LonI-GPS.2	<input checked="" type="checkbox"/> LATref <input checked="" type="checkbox"/> LONref	
<input checked="" type="checkbox"/> Pressure Sensors	<input checked="" type="checkbox"/> PDALPHA.1 <input checked="" type="checkbox"/> PDALPHA.2 <input checked="" type="checkbox"/> PDBETA.1 <input checked="" type="checkbox"/> PDBETA.2	<input checked="" type="checkbox"/> PQALPHA.1 <input checked="" type="checkbox"/> PQBETA.1	<input checked="" type="checkbox"/> PQM.1 <input checked="" type="checkbox"/> PQM.2 <input checked="" type="checkbox"/> PQM.3 <input checked="" type="checkbox"/> PQM.4	<input checked="" type="checkbox"/> PSM.1 <input checked="" type="checkbox"/> PSM.2 <input checked="" type="checkbox"/> PTM.1	<input checked="" type="checkbox"/> PQMref <input checked="" type="checkbox"/> PQ.c <input checked="" type="checkbox"/> PSMref <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"/> IasADDU.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"/> PitchI.2 <input checked="" type="checkbox"/> PitchI.3	<input checked="" type="checkbox"/> PitchRateI.1 <input checked="" type="checkbox"/> PitchRateI.2 <input checked="" type="checkbox"/> PitchRateI.3	<input checked="" type="checkbox"/> RollI.1 <input checked="" type="checkbox"/> RollI.2 <input checked="" type="checkbox"/> RollI.3	<input checked="" type="checkbox"/> RollRateI.1 <input checked="" type="checkbox"/> RollRateI.2 <input checked="" type="checkbox"/> RollRateI.3	<input checked="" type="checkbox"/> PITCHref <input checked="" type="checkbox"/> ROLLref	
<input checked="" type="checkbox"/> Temperature, Dewpoint, Radiometers	<input checked="" type="checkbox"/> TTM.1 <input checked="" type="checkbox"/> TTM.2 <input checked="" type="checkbox"/> TTM.3	<input checked="" type="checkbox"/> TDM.1 <input checked="" type="checkbox"/> TDM.2 <input checked="" type="checkbox"/> TDM.3	<input checked="" type="checkbox"/> TRadD.1 <input checked="" type="checkbox"/> TRadS.1 <input checked="" type="checkbox"/> TRadU.1	<input checked="" type="checkbox"/> TD.c <input checked="" type="checkbox"/> TDMref <input checked="" type="checkbox"/> HUM	<input checked="" type="checkbox"/> TTMref <input checked="" type="checkbox"/> TA.d	
<input checked="" type="checkbox"/> Wind and Pressure <input checked="" type="checkbox"/> SFMR	SFMR	<input checked="" type="checkbox"/> CH 1 TB <input checked="" type="checkbox"/> CH 2 TB <input checked="" type="checkbox"/> CH 3 TB	<input checked="" type="checkbox"/> CH 4 TB <input checked="" type="checkbox"/> CH 5 TB <input checked="" type="checkbox"/> CH 6 TB	<input checked="" type="checkbox"/> UWZ.d <input checked="" type="checkbox"/> PSURF <input checked="" type="checkbox"/> WS SFMR	<input checked="" type="checkbox"/> WS.d <input checked="" type="checkbox"/> WD.d <input checked="" type="checkbox"/> RAIN RATE SFMR	

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

QC Key:	
Valid	<input checked="" type="checkbox"/>
Errors (see NOTES)	<input checked="" type="checkbox"/>
Sensor Inoperative	<input checked="" type="checkbox"/>

### NOTES:

I.3 for Pitch and Roll, TTM.3, and TDM.3 not operational.  
 TRadU.1 has erroneous data throughout the flight and should not be used.  
 PDALPHAref, PDBETAref, PQALPHAref, PQBETAref, and DPJ\_WSZ are not provided since \_AC file is not produced; all other "C" file parameters checked are from the \_A file.  
 SFMR TB, WS SFMR, and RAIN RATE SFMR data should be used with caution as additional assessment occurs  
 TDM.1 oscillates throughout flight

## Dropwindsonde Scientist Log

<b>Storm:</b>	RAFAEL	<b>Flight ID:</b>	20241106H1	<b>Mission ID:</b>	1218A	<b>Takeoff:</b>		<b>Landing:</b>	
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<b>Dropsonde Scientist(s):</b>	Kaplan	<b>AVAPS Operator:</b>	
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### Pre-flight

- ✓ Discuss the pattern with the Lead Project Scientist (LPS) and ensure that enough dropsondes are onboard.
- ✓ Complete the appropriate pre-flight set-up of your workstation and ASPEN (see [Dropsonde Processing Guide](#)).

### In-flight

- ✓ Ensure the Flight Director is aware of upcoming drops and whether a backup is requested in case of failure.
- ✓ Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal.
- ✓ Prioritize processing of center drops and report MSLP and surface wind speed and direction to the Flight Director.
- ✓ Fill in the Dropwindsonde Scientist log as drops are released and processed.
- ✓ Copy completed ASPEN files (e.g., FRD, netCDF, Skew-t, WMO txt, BUFR) into the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.

### Once “science is complete”...

- ✓ Make synoptic map plots in ASPEN and copy them to the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.
- ✓ Ensure ASPEN files have been sent to the ground by locating and verifying all files in the “FLIGHTID” folder within the “FRD” folder on the workstation desktop.
- ✓ Archive ASPEN\_DATA and RAW\_DATA into a folder named with the FLIGHTID within the “Season Dropsonde Archive” folder on the workstation desktop and upload the same directories into StormName/FLIGHTID/Dropsonde/ folder on Drive.
- ✓ Download this Dropwindsonde Scientist Log as “PDF” and upload completed PDF and Google Doc to the StormName/FLIGHTID/Dropsonde/ folder within the “Mission Reports” directory in the HFP Google Drive.

Storm: &lt;&lt;RAFAEL&gt;&gt;

Flight ID: &lt;&lt;241106H1&gt;&gt;

Mission ID: &lt;&lt;1218 A

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
1	233350178	0943	22.17	82.28	1006.4	41/17	10			1
2	233825123	0956	21.44	81.83	1001.6	51/36	10			2
3	233631989	1008	20.80	81.47	969.9	49/22kt	10			3
Was supposed to be an RMW drop but was dropped just inside the eyewall so was not sent as an RMW sonde.										
4	233640831	1009	20.72	81.41	966.9	227/19	10		Center	5
182 end of drop.										
5	233640103	1011	20.64	81.36	975	185/79	10		RMW SE	6
6	234220085	1020	20.13	81.05	1000.1	204/41	10			7
180.5 end of drop.										
7	232320184	1036	19.33	80.44	1005.7	200/24	10			8
Set end of drop at 195.75.										
8	232320197	1104	20.95	79.79	1006.5	130/36	10			9
9	233950570	1115	20.92	80.64	1002.8	138/44	10			10
10	233950660	1124	20.92	81.34	982.3	129/75kt	10		RMW East	12

Storm: <<RAFAEL>>

Flight ID: <<241106H1>>

Mission ID: <<1218 A

11	232240087	1128	20.93	81.55	966.1	218/22	10		center	11
End of drop 222.5										
12	233640830	1129	20.94	81.71	976	324/69	10		RMW NW	14
13	232210235	1143	20.95	82.74	1003.8	335/33	10			15
14	233460715	1152	20.95	83.36	1006.0	336/15	10			16
End of drop 253.5										
15	234220964	1221	19.51	81.86	1006.1	236/19	10			17
16	233541329	1232	20.27	81.79	1002.1	240/36	10			18
17	233630628	1242	20.99	81.72	972	196/69	10		RMW SW	20
18	233531097	1244	21.13	81.70	964.7	138/16kt	10		Center	21
19	233710342	1245	21.23	81.69	976.1	55/85kt	10		RMW NE	22
20	235144623	1254	21.90	81.63	1003.1	77/48kt	10			23

Storm: <<RAFAEL>>

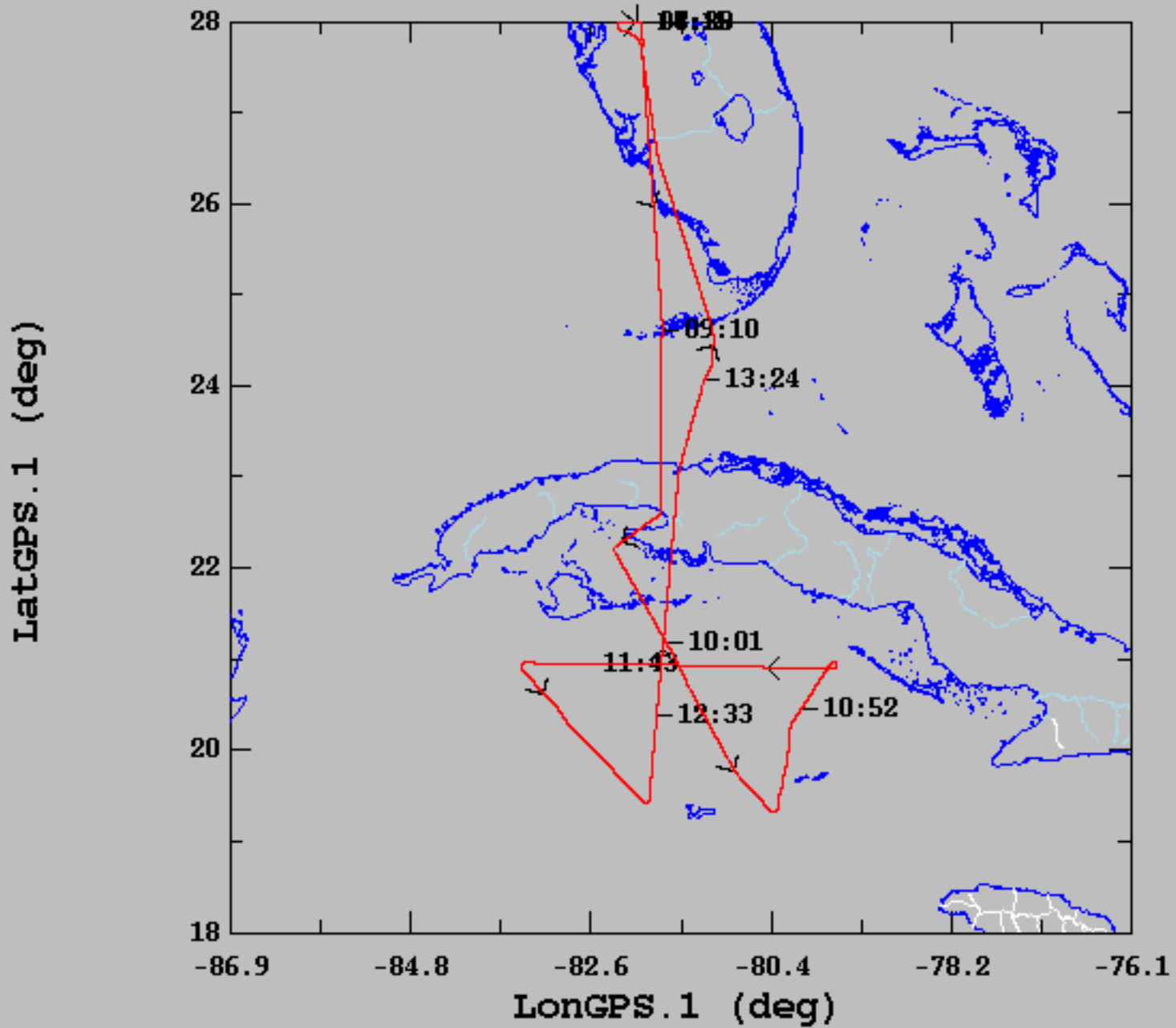
Flight ID: <<241106H1>>

Mission ID: <<1218 A

21	233814544	1316	23.46	81.39	1009.5	91/27	10	LAST REPORT	24
End of drop at 249.75									



11/06/2024, 06:38:26-14:15:31



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	23.88	3.22	19.32	28.00
— LongGPS.1 (deg), 1 s/sec	-81.69	0.67	-83.41	-79.61