

Flight Director: Morgan/de Solo
Phone #: 8635003982

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:	20220925N2	FLT #:		AC:	Mansour	Scientists:		Pressure		Dropsondes		
From:	KLAL	ETD:	131730Z	CP(s):	Waddington			A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:		NAV:				ASOS Takeoff		35	4	35
In:	0138 1731Z	Land:	01312	FE(s):				BTs				
Out:	1719Z	T/O:	1731Z	FD(s):	Morgan DeSolo			A/C Land	1012.8	Good	Bad	Sent
Total:	8.3	Total:	8.0	SSA:	DeFeo	Visitors:		ASOS Land				
Sponsoring Org:	NWS			AVAPS:	Patel/Lambert Flaherty			Storm Number ID: (ie: AL072012)		AL092022		
Program:	PHS			SEB:				TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)		NOAA9 (009A IAN)		
Purpose:	Surveillance			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					X							
LACK OF PRECIPITATION					X			2				
RELATIVE HUMIDITY ≥ 80%					X							
LARGE AIR-SEA TEMP GRADIENT					X			3				
HIGH SURFACE WINDS					X							
LONG FETCH / DURATION OF SFC WND					X			4				
SEA SALT ACCRETION FORECAST					X							
SEA SALT ACCRETION OBSERVED					X			Pennies:				

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Flight ID:	20220925N2
Flight Director(s)	Morgan/de Solo
UWZ.d mean:	0.13

Pressure Comparison		
	T/O	Land
Aircraft	1008.2	1006.9
Tower	1007.9	1007.9

	Raw 1Hz Mean File Parameters					C File Parameters	
<input checked="" 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 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"/> LongGPS.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"/> LongGPS.2	<input checked="" type="checkbox"/> LonI.2		<input checked="" type="checkbox"/> LONref	
	<input checked="" type="checkbox"/> LatGPS.3		<input checked="" type="checkbox"/> LongGPS.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"/>

NOTES:
<p>TDM.1 and TDM.2 are unrepresentative. Consider all flight level humidity to be suspect. Frequent, short lived gaps in many of the data fields.</p>

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20220925N2

ASPEN Operator/Flight Director(s): Morgan/de Solo

Mission ID: NOAA9 1009A Ian

Storm Name/Track: Tropical Storm Ian

PG 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	181314	20230	1	23.5	-81.4	SCT	1010.2	SURFACE WINDS 035° @ 08 kts	1837	✓✓
2	2	183017	40421	2	21.4	-81.5	SCT	1010.2	080° @ 12 kts	1851	✓✓
3	3	183841	30473	3	20.4	-81.5	OVC	1010.2	110° @ 11 kts	1859	✓✓
4	4	185028	21038	4	19.1	-81.4	OVC	1008.1	050° @ 09 kts	1910	✓✓
5	5	190117	20749	1	19.2	-80.1	OVC	1007.5	070° @ 16 kts	1921	✓✓
6	6	191327	40120	2	18.4	-78.9	OVC	1008.0	120° @ 24 kts	1935	✓✓
7	7	192440	40352	3	17.3	-78.1	OVC	1006.2	105° @ 20 kts	1947	✓✓
8	8	193602	20802	4	16.0	-77.8	OVC	1005.4	175° @ 18 kts	1959	✓✓
9	9	194628	20453	1	14.7	-78.1	OVC	1005.4	190° @ 17 kts	2008	✓✓
10	10	195649	20413	2	13.7	-79.0	OVC	1005.7	315° @ 03 kts	2016	✓✓
11		2006		3					no PTU, no observation		
12	11	201739	20415	4	13.1	-81.5	OVC	1005.3	260° @ 08 kts	2039	✓✓
13	12	202752	30244	1	13.7	-82.6	OVC	1004.2	015° @ 07 kts	2047	✓✓
14	13	203707	11020	2	14.7	-83.0	OVC	1005.2	340° @ 25 kts	2058	✓✓
15		2052		3					fast fall		
16	14	205327	30327	4	16.6	-82.6	OVC	1004.1	010° @ 16 kts	2115	✓✓
17	15	210112	40100	1	17.5	-82.1	OVC	1004.9	050° @ 21 kts	2123	✓✓
18	16	211132	10037	2	18.0	-81.1	OVC	1005.8	115° @ 07 kts	2139	✓✓
19	17	212229	30058	3	17.4	-80.0	OVC	1003.3	085° @ 35 kts	2147	✓✓
20	18	213047	30054	4	16.5	-79.6	OVC	1002.7	no ste wind	2154	✓✓
21		2139		1					no PTU		
22	19	214105	20439	2	15.4	-80.1	OVC	1003.1	195° @ 15 kts	2202	✓✓
23	20	214901	10497	3	15.0	-81.1	OVC	1004.3	285° @ 15 kts	2213	✓✓
24	21	215749	70207	4	15.4	-82.2	SCT	1004.6	360° @ 19 kts	2221	✓✓
25	22	221112	20455	1	16.0	-83.8	SCT	1005.6	330° @ 13 kts	2232	✓✓
26	23	222502	10493	2	16.5	-85.5	OVC	1007.2	360° @ 11 kts	2252	✓✓
27		2236		3					bad sonde, no observation		
28	24	224316	40622	4	17.4	-86.9	OVC	1007.1	020° @ 12 kts	2308	✓✓
29	25	225446	30401	1	17.5	-85.5	OVC	1007.4	355° @ 12 kts	2314	✓✓
30	26	230528	40830	2	17.5	-84.2	OVC	1007.0	050° @ 15 kts	2327	✓✓
31	27	231502	21035	3	17.6	-83.1	OVC	1007.0	030° @ 25 kts	2338	✓✓
32	28	232444	50706	4	18.7	-83.2	SCT	1007.4	060° @ 13 kts	2346	✓✓
33	29	233312	50761	1	18.7	-84.2	SCT	—	early termination, no heights	0001	✓✓
34	30	234256	30338	2	18.7	-85.5	DARK	1007.1	040° @ 14 kts	0024	✓✓
35	31	235357	30790	3	18.8	-86.9	DARK	1007.1	020° @ 10 kts	0027	✓✓
36	32	000235	30023	4	19.8	-86.7	DARK	1008.9	060° @ 14 kts	0031	✓✓
37	33	001159	30400	1	20.1	-85.6	DARK	1008.9	050° @ 14 kts	0037	✓✓
38	34	002331	30329	2	21.5	-85.5	DARK	1008.6	070° @ 17 kts	0046	✓✓
39	35	003545	10541	3	23.0	-85.5	DARK	1010.2	060° @ 16 kts	0059	✓✓

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

Obs Missed 35 Obs Missed 2 # of sondes launched 39 # of bad sondes 4

AVAPS Drop Log

Project: Storm Mission: Jan Flight ID: 20220925N2
 Take Off: _____ Landing: _____ Flt Dir: Nick M Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	210520230	1	-1.2	1813	JL	NWS		✓
2	210540421	2	-0.7	1830	JL	NWS		✓
3	212730473	3	-0.5	1838	JL	NWS		✓
4	211921038	4	Ø	1850	JL	NWS		✓
5	210420949	1	-0.6	1901	JL	NWS		✓
6	210440120	2	-1.0	1913	JL	NWS		✓
7	210540352	3	-1.5	1924	JL	NWS		✓
8	210420802	4	-0.8	1936	JL	NWS		✓
9	212720453	1	Ø	1946	JL	NWS		✓
10	212720413	2	Ø	1956	JL	NWS		✓
11	212730383	3	Ø	2007	JL	NWS	No PTH	X
12	212720415	4	Ø	2017	JL	NWS		✓
13	211330244	1	Ø	2027	JL	NWS		✓
14	211011020	2	-0.5	2037	JL	NWS		✓
15	211230782	3	-0.5	2052	JL	NWS	Fast Fall	X
16	212730327	4	Ø	2053	JL	NWS		✓
17	204640100	1	-0.5	2102	JL	NWS		✓
18	203310037	2	-0.7	2111	JL	NWS		✓
19	211330058	3	Ø	2122	JL	NWS		✓
20	211330054	4	-0.5	2130	ATP	NWS		✓
21	211330190	1	-0.8	2140		NWS	NO PTH	X
22	212720439	2	0	2141		NWS		✓
23	212710497	3	0	2149		NWS		✓
24	213570207	4	0	2157		NWS		✓
25	212720455	1	0	2211		NWS		✓
26	212710493	2	0	2225		NWS		✓
27	212720451	3	-0.5	2236		NWS	Bad data	✓
28	210640622	4	-1.1	2243		NWS		✓
29	212730401	1	-0.4	2254		NWS		✓
30	212640830	2	0	2305		NWS		✓
31	211921035	3	0	2315		NWS		✓

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32	211050706	4	0	2324				✓
33	211050761	1	-0.8	2333				✓
34	212730338	2	0	2342				✓
35	211230790	3	-1.0	2353				✓
36	211230023	4	-0.5	0002				✓
37	212730400	1	0	0011				✓
38	212730329	2	0	0023				✓
39	212710541	3	0	0035				✓
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

Drop Station Operator Notes

Charge \$\$ To Options (DO NOT USE FUNDING CODES):

AOC, NWS, HRD, NESDIS, IR/SST, AR, STAN (Stanford), SAT (JPSS/NESDIS/HRD)

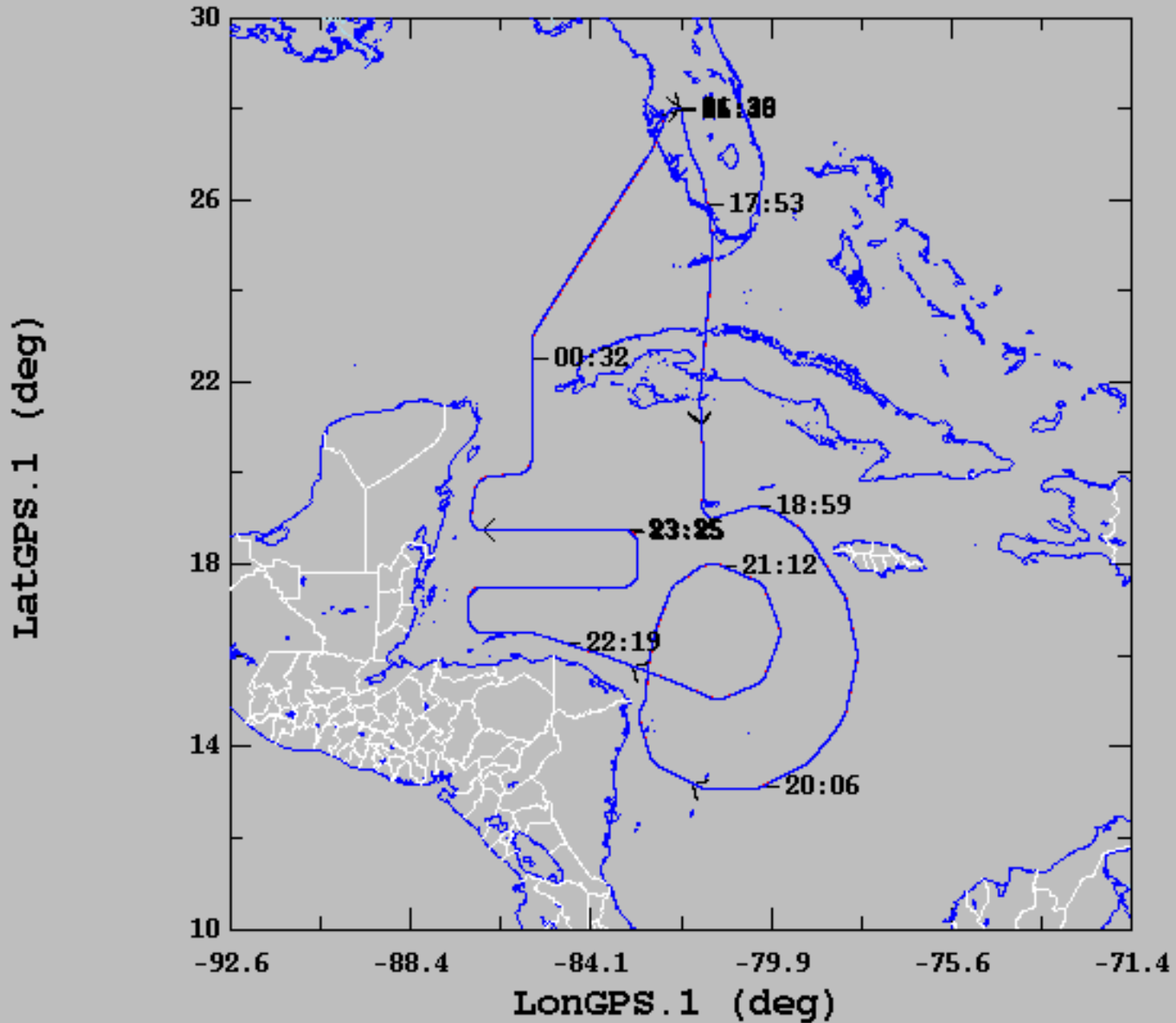
AVAPS Pre-Flight Check:

- If time-permits, verify cabin pressure sensor w/ lab standard
- Start AVAPS., then start Soundings and set the Project Name and Full Flight ID (example: 20120823N2).
- Verify the Frequency band allocation as required:
Band A: 53rd WRS - Band B: N42RF - Band C: N43RF - Band D: N49RF - Band E: Unallocated
- Select the **GPS Reference** tab from the **Soundings Displays** page and verify good GPS data
- Perform a prelaunch check on each channel, look for reasonable data and no CRC error status lights.
- Verify data is available on Remote AVAPS, then terminate the sonde.
- Verify the AVAPS Data mission folder has been created
- **Verify AVAPS PC Time is correct – if time is off by >4sec, no data will display**
- **Early launch detects are caused usually by remanufactured sondes with the chute riser line not properly coiled below the PCB ear. This may also cause fast falls. If this is suspected, repack the riser line as time permits**
- **Perform RH Regeneration on all sondes – Multiple RD41 sondes may be processed at once**

AVAPS Launch:

- Select a sonde frequency in the Green band and away from other sondes
- Enter sonde pressure error offset if 0.4mB or greater using cabin pressure sensor – warning, this can not be used during a climb
- **If the Cal lab pressure standard and the cabin pressure standard match, apply pressure offset +/- 0.1 mB**
- **Wait until GPS available (green) on the pre-launch screen before continuing.**
- Select "begin data collection" and verify good data with winds prior to putting sonde in launch tube
- On N42 & N43, remove about ½ of the ribbon. Do not shorten the ribbon on N49. Loosen ribbon and extend end of ribbon to near, but not over, the sensor end of the sonde. Place excess orange tape on end of ribbon to form a pocket.
- Place the sonde in the launch tube, sensor arm up, with the power pin socket facing right
- Verify the sonde is actively tracking GPS data prior to launch and **no early launch detect**

09/25/2022, 16:46:48-25:38:31



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	20.01	4.67	13.08	27.99
— LongGPS.1 (deg), 1 s/sec	-82.46	2.32	-87.00	-77.81
— LatI.1 (deg), 1 s/sec	20.00	4.66	13.08	27.99
— LonI.1 (deg), 1 s/sec	-82.45	2.32	-87.01	-77.81