

N49RF ERROR SUMMARY
20170919N1

Flight ID: 20170919N1

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	AccZI.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/2017/MET/20170919N1
Local Met Data	Takeoff KLAL (1643Z) Landing TBPB (0102Z)
Dynamic Corrections	Yes
AttackAngleIntercept	5.1083
AttackAngleSlope	5.91956
SlipAngleIntercept	1.05
SlipAngleSlope	6.80484
AttackAngleIntercept2	5.05312
AttackAngleSlope2	5.74156
SlipAngleIntercept2	0.8
SlipAngleSlope2	6.89644

Notes:

There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.

Takeoff/Landing data: Data during landing/takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

PSM.2 2mb higher than PSM.1, PDBETA.2 2mb higher than PDBETA.1, PQBETA.2 2.5mb higher than PQBETA.1, PQM.1 1.5mb higher than PQM.2. TTM.1/4 1.5C higher than TTM.3. TDM.1 8.5C higher than TDM.2 (both sensors read low compared to sfc obs)

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	29	27	27
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Belson/Henning
Phone #: 863-500-3981

U.S. Dep't. of Commerce / OMAO / NOAA / Aircraft Operations Center

FLT ID: 20170919N1	From: KLAL	To: TBPB
FLT #:	Blk In: 0149 Z	Lnd Time: 0145 Z
ETD: Z	Blk Out: 1717 Z	T/O Time: 1726 Z
ETE:	Total Blk: 8.5	Total Flt: 8.3
Sponsoring Org: NHC	Program: Hurr. Surveillance	Purpose: Maria

AOC Flight Crew

Aircraft Commander:	SSA:
Co-Pilot: /	AVAPS: /
Navigator: /	Scientists:
Flight Eng: /	Scientists
Flt Director: /	Scientists
SEB: / /	Scientists:
Crew Chief:	Visitors: / /

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

AS REQUIRED BY ORM	YES / NO	REMARKS
VOLCANIC ASH	X	
SCIENCE MISSION WITHIN BOUNDARY LAYER	X	
LACK OF PRECIPITATION	X	
RELATIVE HUMIDITY AT OR ABOVE 80%	X	
LARGE AIR-SEA TEMPERATURE GRADIENT	X	
HIGH SURFACE WINDS	X	
LONG FETCH AND/OR DURATION OF SFC WIND	X	
SEA SALT ACCRETION FORECAST	X	
SEA SALT ACCRETION OBSERVED	X	

Dropsondes	Good: 27	Bad: 29	Sent: 27
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AXBT	Good: 0	Bad: 0	Sent: 0
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<small>List other data sources in Remarks section</small>			VDM		
Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	Ob Num	Fix Time / SLP		
Storm Number Identifier (VDM): AL152017 (ie: AL072012)					
TCPOD/WSPOD Mission ID: 0615A (ie: NOAA2 2418A SANDY)					

Remarks:

APPENDIX 2 – GIV QC Checklist

Flight ID:	20170919N1
Flight Director(s):	Belson/Henning

Pressure Comparison		
	T/O	Land
Aircraft	1008.9	1006.8
Tower	1010.1	1006.9

UWZ.d mean: 0.10

	Raw 1Hz Mean File Parameters				C File Parameters	
x Accelerometer	x AccAXI.1	x AccAYI.1	x AccAZI.1		x AccZref	
	x AccAXI.2	x AccAYI.2	x AccAZI.2			
	x AccAXI.3	x AccAYI.3	x AccAZI.3			
x Altitude	x AltGPS.1	x AltI.1	x AltPaADDU.1	x AltBCADDU.1	x ALTref	
	x AltGPS.2	x AltI.2	x AltPaADDU.2	x AltBCADDU.2	x ALTPA.d	
	x AltGPS.3	x AltI.3	x AltRA.1		x ALTGA.d	
x Ground Speed	o GsXI-GPS.1	x GsXI.1	x GsGPS.1	x GsXGPS.1	x GSXref	
	o GsXI-GPS.2	x GsXI.2	x GsGPS.2	x GsXGPS.2	x GSYref	
	o GsYI-GPS.1	x GsYI.1		x GsYGPS.1	x GSZref	
	o GsYI-GPS.2	x GsYI.2	x GsZI.1	x GsYGPS.2		
	o GsZI-GPS.1	x GsYI.3	x GsZI.2	x GsZGPS.1		
	o GsZI-GPS.2		x GsZI.3	x GsZGPS.2		
x Lat/Lon	x LatGPS.1	x LatI.1	x LonGPS.1	x LonI.1	x LATref	
	x LatGPS.2	x LatI.2	x LonGPS.2	x LonI.2	x LONref	
	x LatGPS.3		x LonGPS.3			
x Pressure	x PDALPHA.1	x PQALPHA.1	x PQM.1	x PSM.1	x PDALPHAref	x PQMref
	x PDALPHA.2	x PQALPHA.2	x PQM.2	x PSM.2	x PDBETAref	x PQ.c
	x PDBETA.1	x PQBETA.1			x PQALPHAref	x PSMref
	x PDBETA.2	x PQBETA.2			x PQBETAref	x PS.c
x Air Speed	x CasADDU.1	x TasADDU.1	o IasADDU.1		x IAS.d	x TAS.d
x Pitch/Roll	x PitchI.1	x PitchRateI.1	x RollI.1	x RollRateI.1	x PITCHref	
	x PitchI.2	x PitchRateI.2	x RollI.2	x RollRateI.2	x ROLLref	
	x PitchI.3	x PitchRateI.3	x RollI.3	x RollRateI.3		
x Temp/Dewpt	x TTM.1	x TTM.4	x TDM.1		x TD.c	x TTMref
	o TTM.2		x TDM.2		x TDMref	x TA.d
	x TTM.3					
x Miscellaneous (must check)					x UWZ.d	x WS.d
					x DPJ_WSZ	x WD.d
					x HUM	

FLID_Mission_Documents.pdf:

X	Error Summary
X	Crew Manifest
X	QC checklist
X	Dropwindsonde Log(s) – AVAPS and FD if completed
X	Flight Track
X	Miscellaneous FD notes

NOTES:

Project : Hurricane 2017

Mission : Hurricane Maria Flight ID : 20170919N1

Take Off : 1724Z

Landing : _____

Flt Dir : BELSON/Heading Launcher S/N: 002

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	163335240	1	-1.1	1804	JW	NWS	Drop #1 (North)	✓
2	163335087	2	-2.3	1819				✓
3	163335075	3	-1.5	1836				✓
4	163335293	4	-1.2	1853				✓
5	163335173	1	-.8	1922				✓
6	162715171	2	-.7	1936				✓
7	163845100	3	-1.5	1951				✓
8	163455224	4	-1.0	2005				✓
9	162715026	1	-1.1	2027				✓
10	163335311	2	-1.0	2044			Initial Fast Fall - 3mm	✓
11	163845090	3	-1.1	2045			B/u to Drop 10	✓
12	163845024	4	-1.5	2101				✓
13	163845089	1	-1.1	2119				✓
14	163835098	2	-1.0	2135				✓
15	163845047	3	-0.9	2151				✓
16	163845112	4	-0.9	2207			GOOD GPS PRIOR TO NO GPS FIRST IK	✓
17	163335225	1	-1.0	2222				✓
18	163025105	2	-.9	2245			NO PRESSURE ONLY FLD	✓
19	163845041	3	-1.0	2246			B/u for 18	✓
20	163845101	4	-0.6	2303				✓
21	163455222	1	-.5	2313				✓
22	163335267	2	-.7	2323				✓
23	162715294	3	-.7	2333				✓
24	162715270	4	0.5	0003	NGU			✓
25	143245113	1	-0.6	0014				✓
26	163025104	2	-0.5	0025				✓
27	141145115	3	-1.0	0036				✓
28	163335306	4	-0.7	0048				✓
29	163455168	1	-1.3	0059				✓
30								
31								
32								
33								
34								

Drop 10

Drop 15

Drop 20

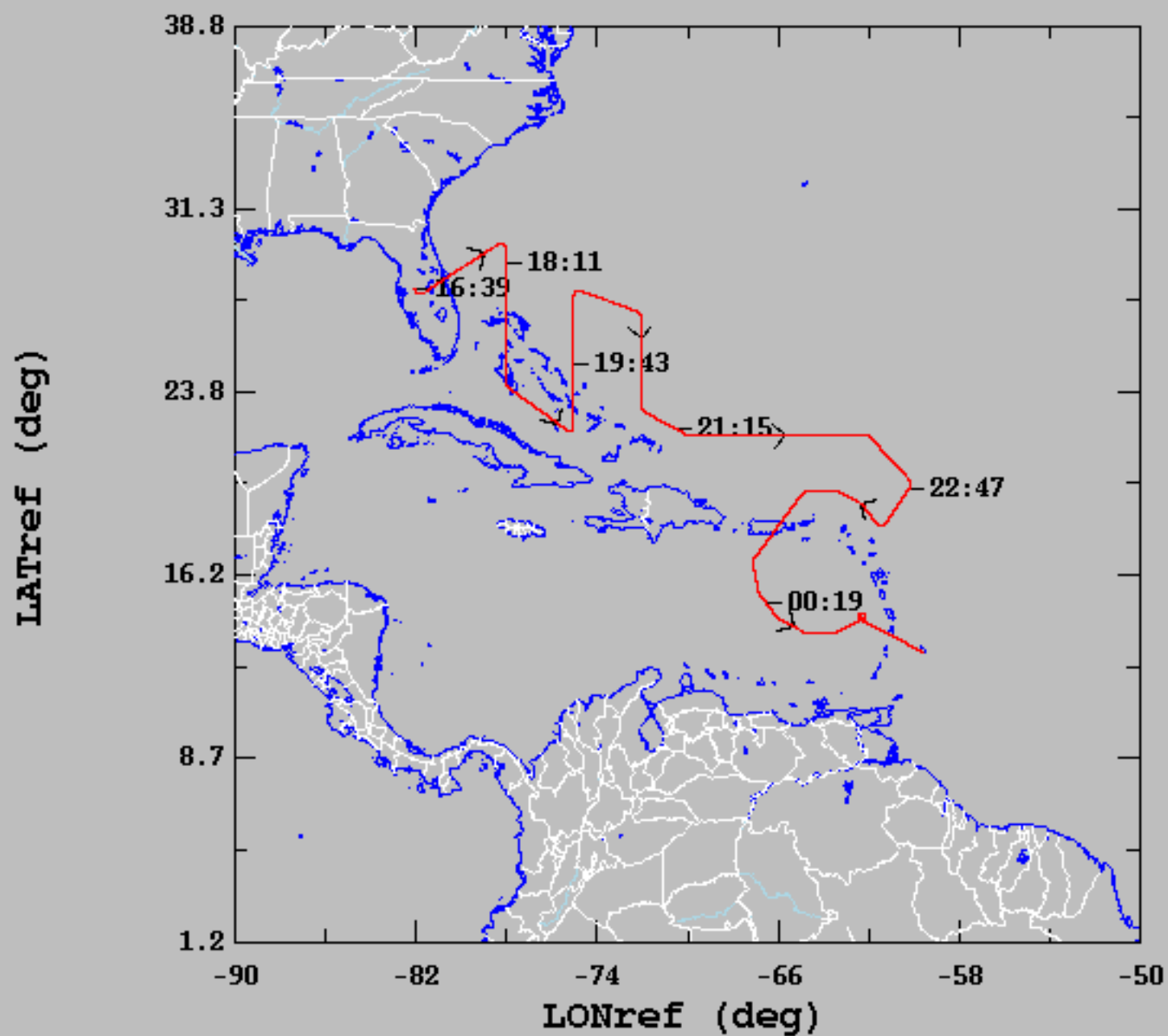
Drop 25

26

27

10

2017-09-19, 16:39:04-25:51:06



	mean	sigma	min	max
— LATref (deg), 1 s/sec	21.70	4.83	13.05	29.84
— LONref (deg), 1 s/sec	-69.52	6.71	-82.03	-59.48

20170919N1

KLAL - KLAL

T/O 1730Z

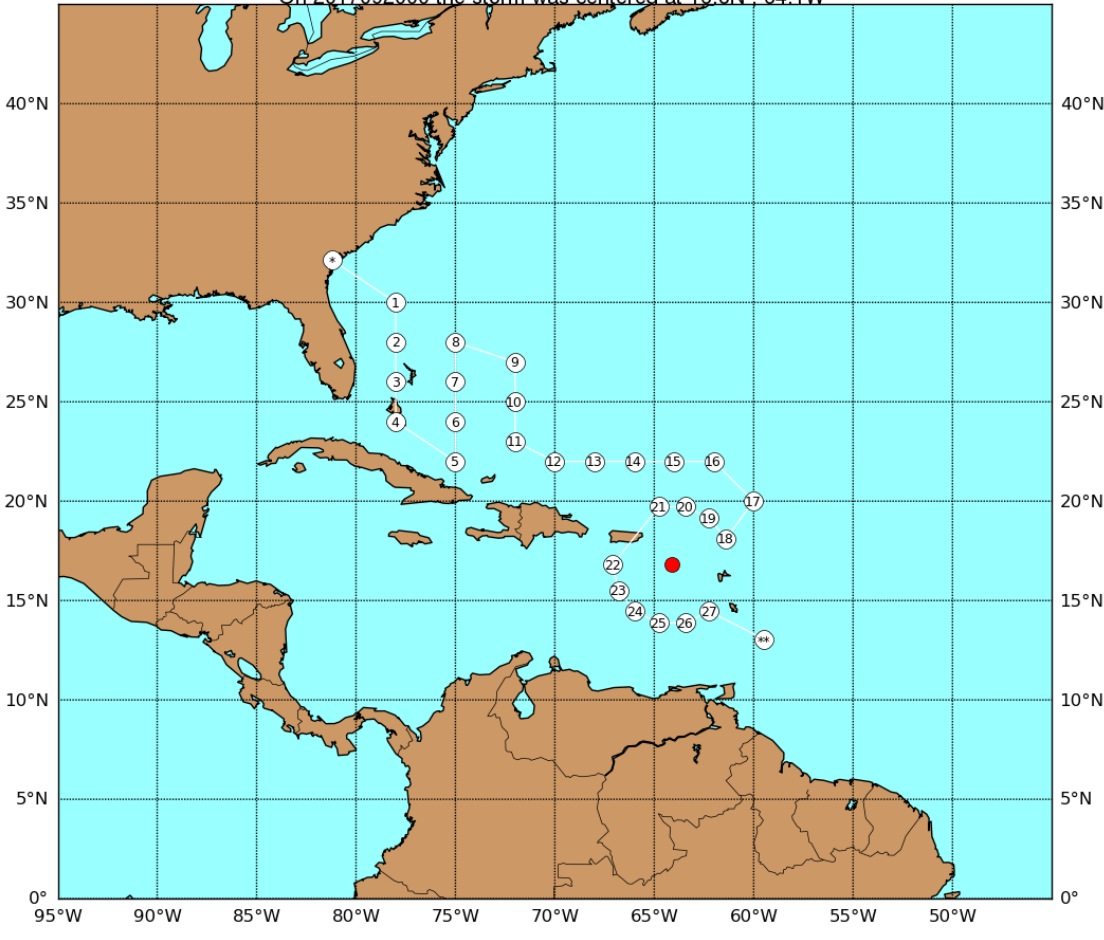
ETE 8+00

NOAA9 0615A MARIA

MISSION OVERVIEW

NOAA G-IV Flight Track Drop Locations for MARIA (AL152017)

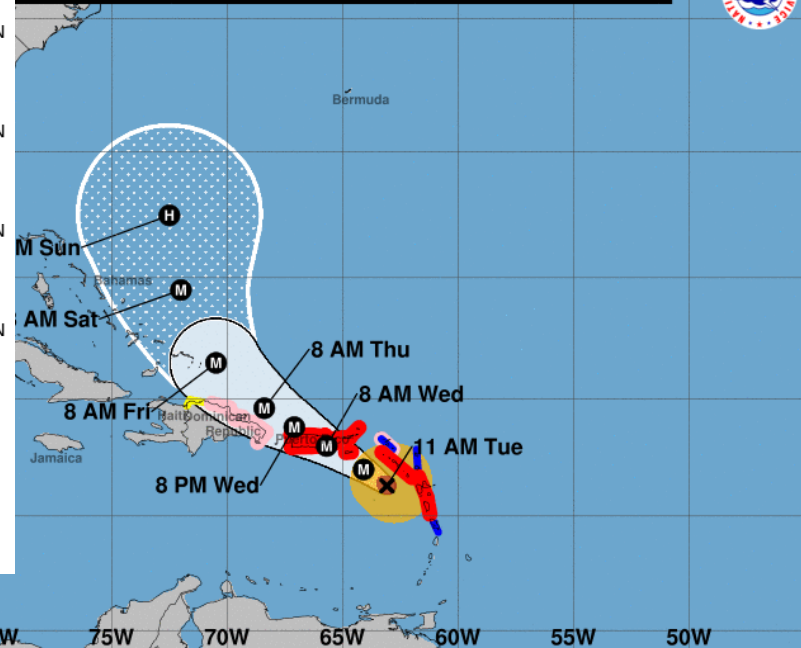
On 2017092000 the storm was centered at 16.8N ; 64.1W



Tasking: NHC

Sondes: 27

contains the probable path of the storm center but does not show storm. Hazardous conditions can occur outside of the cone.

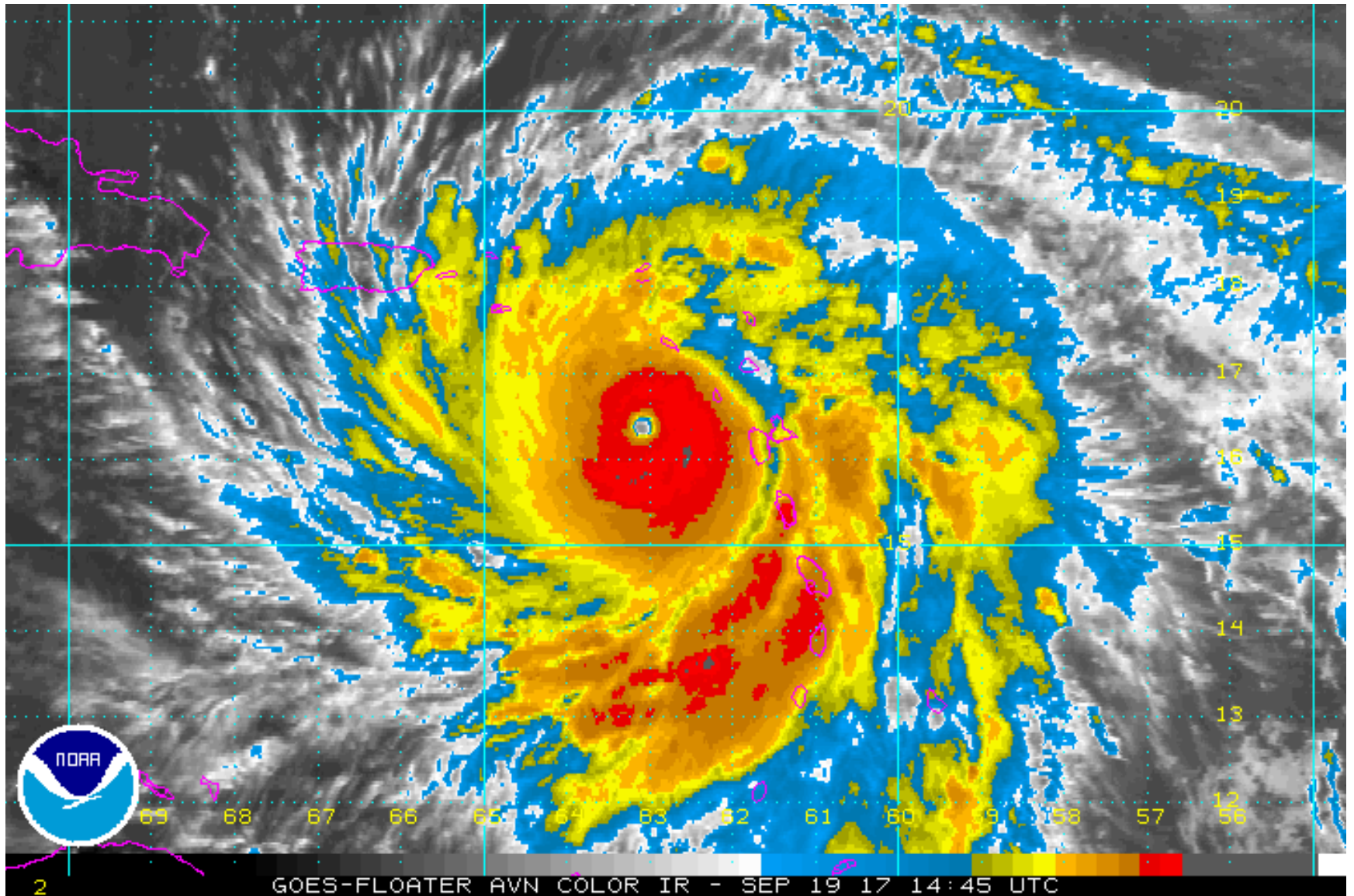


Hurricane Maria
 Tuesday September 19, 2017
 11 AM AST Advisory 14
 NWS National Hurricane Center

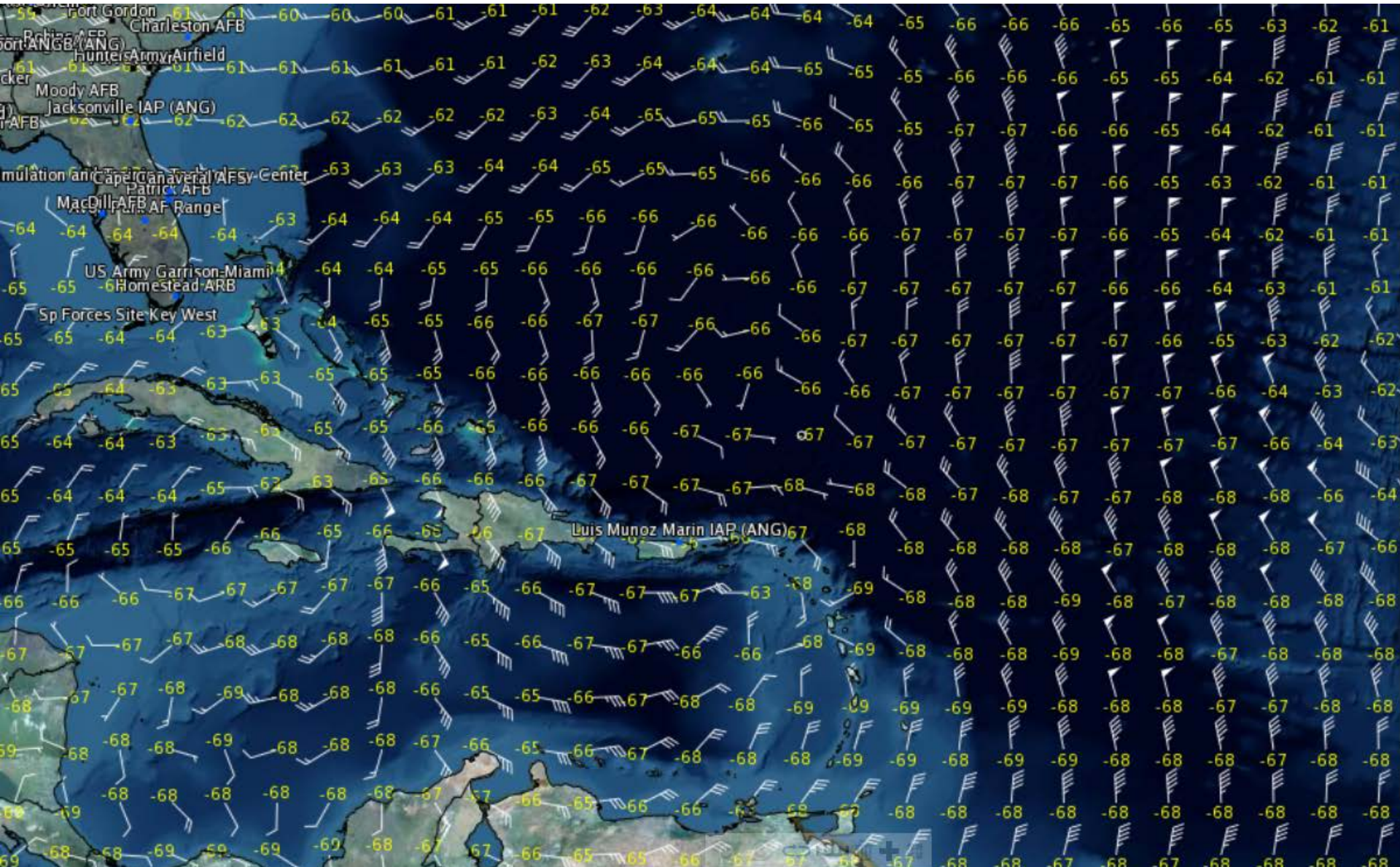
Current information: x
 Center location 16.3 N 63.1 W
 Maximum sustained wind 160 mph
 Movement WNW at 10 mph

Forecast positions:
 ● Tropical Cyclone ○ Post/Potential TC
 Sustained winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110 mph

SATELLITE



FL450 Winds/Temp (VT 20/00Z)



Other Aircraft

- FLIGHT ONE -- TEAL 75
 - A. 19/18Z,21Z,20/00Z
 - B. AFXXX 0515A MARIA
 - C. 19/1615Z
 - D. 16.3N 63.3W
 - E. 19/1730Z TO 20/0000Z
 - F. SFC TO 10,000 FT

Airfield Wx

- KLAL 191450Z 02006KT 10SM BKN020 28/23 A3000
- **KLAL 191519Z 1915/2012 03006KT P6SM SCT025 BKN090**
TEMPO 1915/1918 BKN025
FM191900 05004KT P6SM BKN050
FM200300 VRB03KT P6SM FEW050 FEW250
- TBPB 191500Z 19019KT 9999 SCT010CB 29/26 Q1013 NOSIG
- TAF TBPB 191100Z 1912/2012 **18020KT 7000 FEW010CB BKN034**
TEMPO 1912/1915 3000 TSRA SCT010CB
TEMPO 1915/1922 SHRA

Hazards

- Icing - no
 - Freezing / Melting Altitude ~16000 ft
- Turbulence – In convection
- Volcanic Ash - no
- HD - yes
- Rapid Intensification – no
- Sea Salt Accretion Forecast – no