

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

FLT ID: 080830N	From: KMCF	To: KMCF
FLT #: 08-049	Blk In: 0133 <u>28.4</u>	Lnd Time: 0128 <u>28.2</u>
ETD: 1730 Z	Blk Out: 1707 Z	T/O Time: 1717 Z
ETE: 8hrs	Total Blk: 8hrs 26min	Total Flt: 8hrs 9min
Sponsoring Org: NHC	Program: HURR08	Purpose: SURVEILLANCE

AOC Flight Crew

Aircraft Commander: HAGAN	Data System: ROGERS
Co-Pilot: LONGENECKER	Avaps:
Navigator: 1	System Engineer:
Flight Eng: 1	AA: CARPENTER
Flt Director: ALMEIDA MAYEAUX	AA: MILLER
Avionics:	Crew Chief:

Participating Scientists, Visitors, & Add'l Aircrew

Name (Last, First)	Activity on Aircraft	Affiliation

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Storm Name: GUSTAV

Mission ID: NOAA9 1607A

Teal 71-2330Z

Recco

Times: Fix # Fix Time

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

FLT ID: 080830N		T/O Time: 1717 Z		Lnd Time: 0126 Z	
	A/C - Takeoff	Wx Station - Takeoff	A/C - Land		Wx Station - Land
Pressure					
ATIS - Takeoff					
ATIS - Land					
Data Source	Number	Data Disposition / Date / Quality			
Flight Level Tapes	1	but 2 ads files from a/c			
Radar Tapes	/				
Cloud Physics Tapes/CD's	/				
Video Tapes/DVD's	/				
Dropsondes	32	Good: 29 Bad: 3 Sent: 29			
AXBT	/				
AXCP	/				
AXCTD	/				
SONOBUOY	/				

Remarks:

N49RF AOC GPS Dropwindsonde Log

Flight ID 080830N

Flight Director Almeida/mayaux

Page 1 of 2

Mission ID 1607A

Storm Gustav

PT

Drop#	Channel# SONDE ID	Time (UTC)	Lat (°N)	Lon (°W)	Sfc Prs mb	WX Cond.	Comments	OB #	SatComm Failures	Sent Time
2	062839053	180047	2800	7700	1013.5	WIND31	142405	2		1824
4	061229044	183313	2600	7800	1010.4	WIND321	145324	4		1853
6	062439004	192658	2058	8047	1002.0	WIND55	154548	6		1945
76	060256031	193853	20.3	822	999.4	WIND3	155746	7		1957
10	062839080	200851	2015	8540	1002.2	WIND51	162808	9		2028
12	061339263	202912	2236	8644	1005.5	WIND2	165116	11		2051
14	062249250	210158	2400	9000	1007.5	WIND1	172113	13		2121
16	060256035	212859	2354	8630	1004.9	WIND2	174848	15		2148
18	062259061	214908	2531	8428	1007.5	WIND58	180702	17		2207
196	054556416	220124	2550	8330	1007.4	WIND29	182041	18		2220
21	062249075	223405	2600	8700	1007.2	WIND2	183053	19		2231
216	054556416	223707	2600	8745	1007.2	WIND27	185819	20		2257

N49RF AOC GPS Dropwindsonde Log

Flight ID 080830N

Flight Director Almeida/mayeaux

Page 2 of 2

Mission ID 1607A

Storm Gustav

[illegible]

N49RF AOC GPS Dropwindsonde Log

Flight ID: 080830N

Flight Director: ALMEIDA / MAYEAUX

Mission ID: NOAA9 1607A

Track #: GUSTAV

Pg 1 of

Ch. #	Drop #	Sonde ID	Drop Time (UTC)	Lat (°N)	Lon (°W)	SFC Prs (mb)	Wx Cond.	Comments	Ob #	SatComm failures	Sent Time (UTC)	pos+n
1	1	062839005	174727	28 00	79 00	1012.9	OVC CS, Cu, Cb		1			1
2	2	062839053	180047	22 56	77 00	1013.5	BKN CS Cu TCU		2			2
1	3	061329271	181746	26 03	76 07	1011.0	OVC CS Sc Cu		3			3
2	4	061229044	183313	25 58	78 00	1010.4	OVC CS		4			4
1	5	062049016	190314	23 43	80 43	1003.9	OVC		5			5
1	6	062439004	192658	20 59	80 51	1002.0	OVC		6			6
2	7	062429061	193707	20 30	82 00	999.9	OVC	NO winds	400	1st 2 mins		7
4	8	060256031	193853	20 22	82 11	999.4	OVC		7			7b no
1	9	054626292	195838	19 42	84 28	1001.5	OVC CS Cu	Lost+PTH FL 450	8			9 8
2	10	062839060	200851	20 16	85 40	1002.2	OVC CS Cu		9			10
1	11	062439029	201907	21 19	86 30	1004.7	OVC CS As Sc		10			11
2	12	061339263	202912	22 32	86 52	1005.5	OVC		11			12
1	13	054626295	204552	22 04	88 59	1006.5	OVC		12			13
2	14	062249250	210158	23 56	89 53	1007.5	BKN Cu CS		13			14
1	15	062839003	211700	24 00	88 00	1006.4	OVC		14			15
2	16	060256035	212859	23 57	86 30	1004.9	OVC		15			16
1	17	054556110	213912	24 57	85 38	1005.3	OVC		16			17
4	18	062259061	214908	25 29	84 33	1007.5	OVC		17			18
1	19	062339085	215925	25 42	83 18	1007.0	OVC	NO winds	—	until ~ 600 mb		19
2	20	054556416	220124	25 53	83 28	1007.4	OVC		18			19b
4	21	061319068	221242	26 56	84 31	1007.2	OVC		19			20
1	22	062249075	223405	26 00	87 00	1007.4	OVC CS	Lost+ winds	—			21
2	23	061529152	223907	26 01	87 40	1007.7	OVC CS Cu		20			21b
4	24	054626288	225041	26 03	89 11	1008.2	OVC CS Cu TCU		21			22
1	25	061429112	230416	26 03	91 02	1008.8	OVC Cu TCU HAZE		22			23
2	26	062839057	231910	26 02	93 02	1009.4	.		23			24
1	27	062049014	233325	26 05	94 54	1009.2	BKN Cu HAZE CS		24			25
2	28	061329148	235052	27 57	93 59	1011.0	BKN Cu TCU HAZE		25			26
1	29	054626293	000541	28 03	91 59	1010.3	BKN Cu HAZE		26			27
2	30	062839239	002015	28 04	90 00	1010.2	Sun setting HAZE		27			28
1	31	061229090	003445	28 03	87 59	1010.1	DARK — Late winds		28			29
2	32	062249087	004828	28 00	86 03	1009.7	DARK		29			30

N49RF AVAPS DropSonde Log

Project: Hurr '08 Flight ID: 080830 Flt Dir: Almeida
 Mission: GUSTAV Flight #: 2 Status: Sys 1 ☒ Sys 2 ☒ Launcher S/N: 02

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments /Status/ Failure Reason	\$	GOOD ☒
1	062 839 005	1	1747	✓	20	DWC	OK	N	✓
2	062 839 053	2	1800		1				✓
3	061 329 271	1	1817		2				✓
4	061 229 044	2	1833		21				✓
5	062 049 016	1	1903		21				✓
6	062 439 004	1	1926		5				✓
7	062 439 061	2	1937		2 mins		Late winds		✓
8	060 256 031	4	1938		2		b/u for drop #7		✓
9	054 626 292	1	1958		3		drop 9 - lost signal for part of drop		✓
10	062 839 060	2	2008		1		OK		✓
11	062 439 029	1	2019		2				✓
12	061 339 263	2	2029		2				✓
13	054 626 295	1	2045		2				✓
14	062 249 250	2	2101		14				✓
15	062 839 003	1	2116		3				✓
16	060 256 035	2	2128		2				✓
17	054 556 110	1	2138		53				✓
18	062 259 061	4	2149		8				✓
19	062 339 085	1	2159				No winds until 550mb		✓
20	054 556 416	2	2201		29		b/u for drop 19		✓
21	061 319 068	4	2212		7		Drop 20		✓
22	062 249 075	1	2234		3		Lost winds @ 360mb		✓
23	061 529 152	2	2239		27		b/u for drop 21		✓
24	054 626 288	4	2250		4		drop 22		✓
25	061 429 112	1	2304		2		23		✓
26	062 839 057	2	2319		2				✓
27	062 049 014	1	2333		3				✓
28	061 329 148	2	2350		5				✓
29	054 626 293	1	0005		6				✓
30	062 839 239	2	0020		5				✓
31	061 229 090	1	0034		2 mins		Late winds		✓
32	062 249 087	2	0048	✓	10	✓	OK	✓	✓
33									

\$ Codes A = AOC N = NHC/NWS H = HRD OW = NESDIS

080830n.log	Latitude	Longitude	Press	Temp	DP	WD
16:58:51	27 50.94'N	82 29.55'W	1010.5	34.5	60.4	301.4
17:07:16	27 50.94'N	82 29.55'W	1010.4	39.9	59.2	276.9
17:17:07	27 50.69'N	82 31.53'W	1009.3	28.4	55.2	109.7
17:20:07	27 53.30'N	82 20.83'W	892.0	21.9	32.6	87.5
17:24:22	27 49.27'N	82 00.75'W	648.5	7.1	14.6	79.6
17:32:33	27 48.81'N	81 03.12'W	358.9	-21.0	-28.1	87.6
17:47:30	27 59.95'N	78 59.54'W	181.2	-55.7	-56.2	233.5
17:53:49	28 00.21'N	78 03.09'W	175.6	-57.2	-60.5	254.1
layer						
18:01:01	27 55.84'N	76 59.68'W	175.6	-58.1	-61.8	252.4
18:17:47	26 03.00'N	76 07.27'W	175.6	-57.9	-63.2	248.2
18:21:04	26 00.16'N	76 30.59'W	175.6	-57.8	-63.3	244.5
layers						
18:33:16	25 58.37'N	78 00.63'W	174.7	-57.9	-61.9	222.3
18:34:56	25 51.61'N	78 10.56'W	174.5	-57.7	-62.0	216.8
18:59:15	24 03.40'N	80 23.08'W	166.5	-59.4	-61.6	172.6
at ~1853z						
19:03:13	23 43.22'N	80 43.60'W	166.5	-59.2	-61.9	142.3
19:12:05	22 40.76'N	80 45.77'W	166.5	-58.9	-62.4	133.2
turb						
19:17:04	22 06.33'N	80 46.19'W	167.5	-58.8	-62.6	141.6
19:26:59	20 58.86'N	80 50.70'W	167.6	-58.3	-62.5	157.3
19:37:08	20 29.75'N	82 00.10'W	167.6	-58.6	-60.8	203.1
for first 2 mins						
19:38:56	20 22.28'N	82 10.79'W	167.5	-58.5	-60.5	199.2
19:43:27	20 02.82'N	82 37.85'W	166.7	-58.7	-59.8	204.8
19:43:27	20 02.82'N	82 37.85'W	166.7	-58.7	-59.8	204.8
~1951z						
19:58:38	19 41.73'N	84 28.27'W	159.5	-59.9	-62.7	188.8
20:08:52	20 16.21'N	85 40.38'W	159.6	-61.2	-64.1	207.3
20:19:10	21 18.90'N	86 29.74'W	159.7	-60.6	-67.3	184.5
20:29:13	22 31.74'N	86 51.71'W	159.7	-61.5	-67.2	172.9
20:45:54	22 04.42'N	88 58.81'W	159.7	-59.1	-66.9	171.3
20:54:48	23 05.66'N	89 32.55'W	159.6	-59.7	-67.1	166.3
21:02:00	23 56.49'N	89 53.20'W	152.0	-61.4	-67.8	163.8
21:17:00	23 59.93'N	87 59.74'W	152.0	-61.9	-68.4	166.7
21:29:00	23 57.12'N	86 29.95'W	152.0	-63.6	-68.5	141.4
21:39:14	24 57.36'N	85 38.48'W	152.2	-64.0	-68.8	168.2
21:46:48	25 23.41'N	84 44.25'W	152.1	-63.9	-68.9	142.4
21:48:23	25 28.64'N	84 33.07'W	152.2	-64.5	-68.9	142.7
21:48:23	25 28.64'N	84 33.07'W	152.2	-64.5	-68.9	142.7
21:48:23	25 28.64'N	84 33.07'W	152.2	-64.5	-68.9	142.7
2157z						
21:59:27	25 41.59'N	83 17.57'W	147.9	-64.0	-64.6	169.4
due to winds crash - no winds						
22:01:26	25 53.36'N	83 28.23'W	144.7	-65.7	-69.3	183.0
backup						
22:12:43	26 56.41'N	84 31.39'W	144.9	-66.8	-70.2	188.3
22:34:07	26 00.48'N	87 00.30'W	144.7	-64.4	-69.6	190.5
22:39:11	26 01.03'N	87 40.35'W	144.7	-64.8	-69.8	189.2
22:50:44	26 02.66'N	89 11.74'W	144.8	-64.0	-69.7	187.0
23:04:19	26 03.32'N	91 01.70'W	144.8	-62.3	-69.2	181.6
23:19:11	26 02.48'N	93 02.09'W	144.6	-63.1	-69.0	317.6
23:33:28	26 05.26'N	94 54.06'W	144.5	-63.8	-69.5	344.0

080830n.log

WS	MSL Alt	G Alt	Heading	Track	TAS	GS	V Vel	Event Comments
1.6	13.9	13.9	316.2	11.1	2.0	0.5	0.01	test
0.8	8.8	8.8	316.2	354.5	1.9	0.8	0.01	block out
2.3	14.1	14.1	40.1	39.8	76.5	75.7	0.20	t/o
12.4	1069.3	1068.2	74.5	72.9	133.7	121.0	11.70	in rain shower
11.8	3762.4	3756.9	115.2	117.5	184.6	174.9	7.77	in turbulence
7.4	8362.6	8344.4	84.1	83.8	205.0	197.5	6.86	clear of storm line
22.7	13012.1	12974.5	91.1	87.6	225.5	243.9	5.38	drop 1 - light turb
18.9	13215.5	13176.9	91.5	90.2	227.4	245.5	-0.44	light turb, in cs
15.3	13215.1	13176.4	135.3	131.3	228.3	235.8	-0.43	drop 2
22.7	13212.0	13171.5	224.7	221.0	231.1	210.6	-0.54	drop 3
23.3	13223.8	13183.1	268.4	270.9	229.3	208.2	-0.53	light turb. betw cs
24.8	13232.5	13191.8	243.8	246.5	229.9	207.0	-0.53	drop 4
24.0	13228.8	13188.0	227.7	228.9	230.2	206.5	1.72	climbing to FL420
22.8	13526.7	13482.6	223.1	227.6	227.7	213.9	-0.12	turb assoc w/clouds
16.7	13524.5	13480.1	197.2	201.1	228.2	219.1	0.06	drop 5
15.0	13507.7	13462.5	178.3	180.9	228.4	218.0	-0.14	over cuba, light
20.7	13502.3	13456.5	177.6	180.8	228.3	211.8	0.03	past cuba now
14.7	13510.5	13463.8	216.0	218.5	229.4	221.9	-0.02	drop 6
18.5	13511.6	13464.5	236.8	239.9	228.2	213.1	-0.28	drop 7 - no winds
16.9	13518.0	13470.7	230.6	232.9	228.9	214.6	0.05	drop 8 - ob 7
12.0	13513.4	13465.9	231.7	233.0	230.0	219.3	0.01	winds program crash
12.0	13513.4	13465.9	231.7	233.0	230.0	219.3	0.01	climbing to FL430
13.7	13802.2	13752.8	282.5	285.3	229.5	230.6	-0.17	drop 9 - ob 8
13.5	13787.4	13738.5	310.3	313.0	226.5	229.8	-0.17	drop 10 - ob 9
9.1	13789.7	13741.7	336.6	337.0	227.8	235.7	0.10	drop 11 - ob 10
12.6	13773.1	13726.3	293.0	296.5	223.9	230.6	0.32	drop 12 - ob 11
17.6	13770.0	13722.8	294.3	296.9	231.5	241.3	-0.83	drop 13 - ob 12
11.9	13761.1	13714.9	334.5	334.8	227.3	238.9	1.37	climbing to FL440
11.3	14044.3	13997.2	38.5	34.7	227.7	234.6	-0.21	drop 14 - ob 13
23.8	14069.0	14021.9	97.6	91.5	228.1	221.0	-1.73	drop 15 - ob 14
19.7	14080.5	14033.2	65.4	60.9	227.3	223.3	-0.28	drop 16 - ob 15
14.4	14086.0	14039.7	56.5	52.6	224.2	230.0	0.47	drop 17 - ob 16
14.0	14093.8	14047.9	66.8	63.3	227.3	224.2	0.41	light turb above cdo
15.6	14084.2	14038.4	68.0	63.7	223.3	219.8	-0.06	drop 18 - ob 17
15.6	14084.2	14038.4	68.0	63.7	223.3	219.8	-0.06	winds program crash
15.6	14084.2	14038.4	68.0	63.7	223.3	219.8	-0.06	climbing to FL450 ~
12.8	14263.7	14217.2	324.9	327.7	224.5	236.3	1.81	drop 19 - delayed
8.4	14402.2	14355.2	318.2	319.5	226.6	232.6	-0.90	drop 20 - ob 18 -
25.8	14382.6	14336.7	274.5	281.6	224.7	224.7	-0.33	drop 21 - ob 19
32.3	14369.4	14322.6	255.4	262.4	226.2	214.0	-0.17	drop 22 - lost winds
32.3	14360.9	14314.2	264.4	272.4	227.1	221.0	0.47	drop 23 - ob 20
31.5	14348.2	14301.6	263.2	271.1	224.2	218.7	-0.13	drop 24 - ob 21
12.0	14334.5	14288.0	266.4	269.4	227.7	226.9	-0.31	drop 25 - ob 22
4.3	14334.6	14288.1	269.1	268.2	226.4	223.7	-0.05	drop 26 - ob 23
10.9	14345.9	14299.3	336.6	334.9	226.3	215.5	-0.61	drop 27 - ob 24

3:48:59	27 45.76'N	94 07.22'W	144.8	-63.4	-69.7	82.6
23:50:53	27 56.99'N	93 58.79'W	144.7	-63.5	-69.7	81.0
00:05:43	28 02.59'N	91 59.40'W	144.8	-61.7	-69.4	340.5
00:20:17	28 03.51'N	89 59.66'W	144.7	-62.1	-68.9	162.6
00:34:45	28 02.60'N	87 59.28'W	145.0	-64.2	-69.8	197.5
00:48:29	28 00.08'N	86 03.01'W	144.9	-64.7	-70.4	197.5
01:26:25	27 50.39'N	82 31.82'W	1009.1	26.6	24.5	40.7
01:33:10	27 50.94'N	82 29.54'W	1010.0	26.2	23.7	262.3
01:33:10	27 50.94'N	82 29.54'W	1010.0	26.2	23.7	262.3

080830n.log								
4.3	14352.0	14307.2	25.0	24.1	227.4	225.1	-0.13	light turb
5.7	14347.0	14302.5	54.6	53.3	227.4	222.3	-0.17	drop 28 - ob 25
1.2	14345.7	14301.2	88.3	88.6	226.6	227.0	0.08	drop 29 - ob 26
14.6	14362.5	14317.9	93.6	90.1	227.8	223.0	0.14	drop 30 - ob 27
19.5	14357.1	14312.6	96.2	91.4	226.1	230.7	0.32	drop 31 - ob 28
16.0	14389.0	14344.3	96.3	92.3	225.8	229.5	-0.06	drop 32 - ob 29
0.9	11.5	11.5	38.9	41.4	65.9	64.9	-0.91	land
3.2	8.5	8.5	315.0	76.2	0.4	3.0	0.03	block in
3.2	8.5	8.5	315.0	76.2	0.4	3.0	0.03	block in

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: GUSTAV

National Hurricane Center: August 29, 2008 2:30:24 PM

Aircraft: N49RF

Proposed takeoff: 30/1730Z

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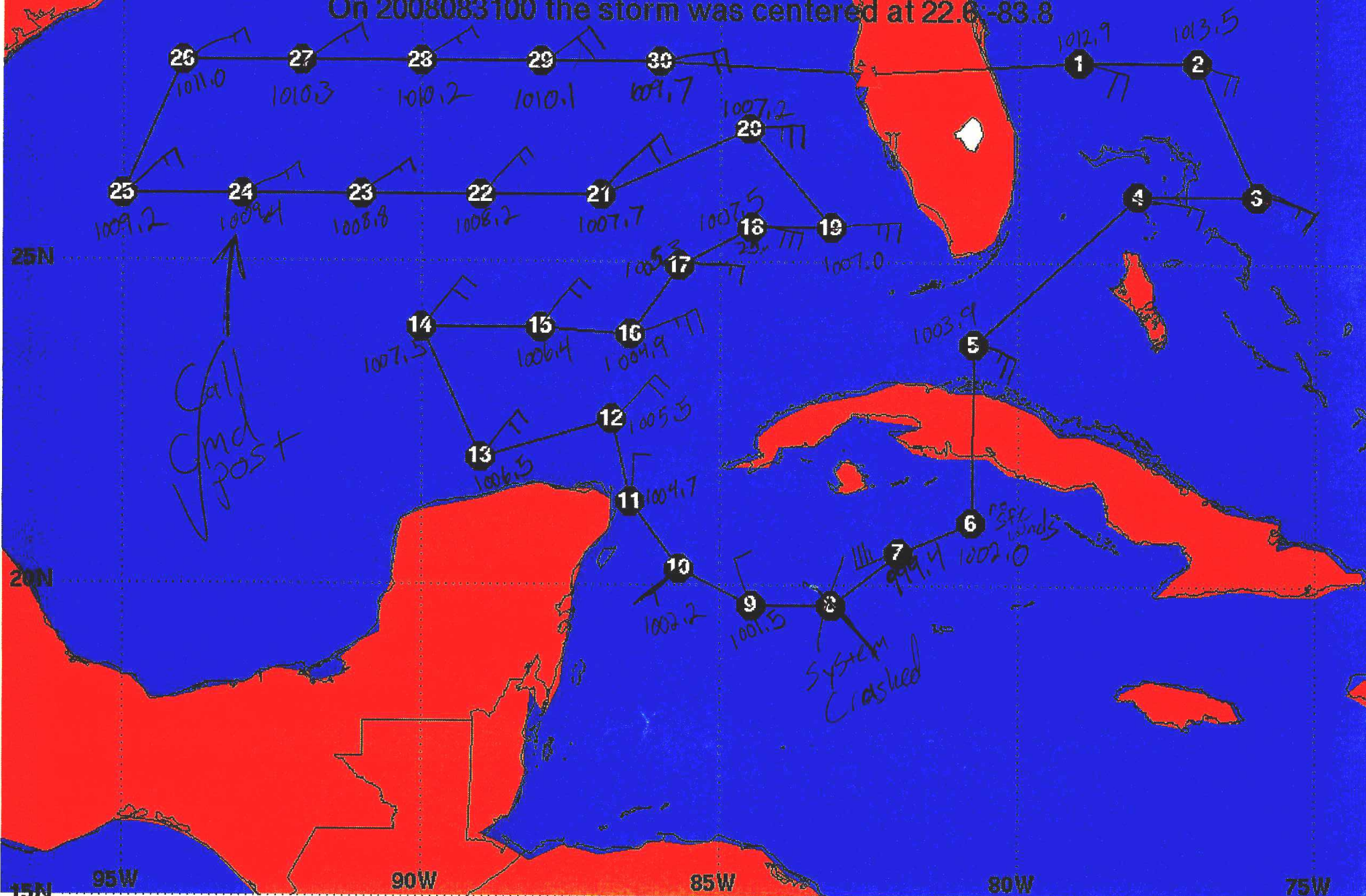
DROP LOCATIONS

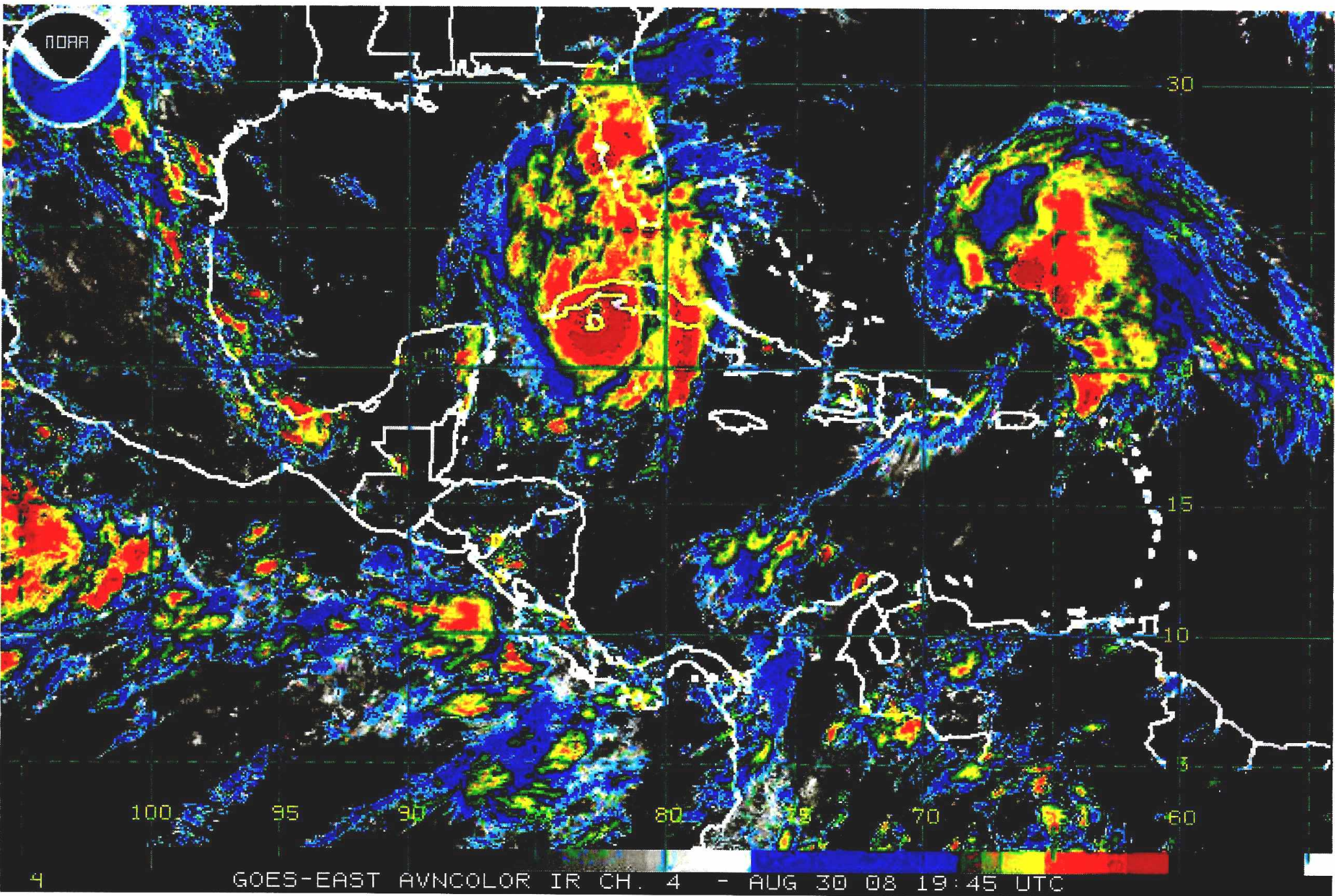
#	LAT (d m)	LON (d m)	TIME (h:mm)
1	28 00	-79 00	0:27
2	28 00	-77 00	0:42
3	26 00	-76 00	1:01
4	26 00	-78 00	1:16
5	23 45	-80 45	1:44
6	20 58	-80 47	2:07
7	20 30	-82 00	2:17
8	19 41	-83 08	2:29
9	19 41	-84 28	2:39
10	20 15	-85 40	2:50
11	21 18	-86 30	3:01
12	22 36	-86 48	3:12
13	22 00	-89 00	3:30
14	24 00	-90 00	3:48
15	24 00	-88 00	4:03
16	23 54	-86 30	4:15
17	24 57	-85 40	4:26
18	25 31	-84 28	4:36
19	25 31	-83 08	4:47
20	27 00	-84 30	5:03
21	26 00	-87 00	5:24
22	26 00	-89 00	5:39
23	26 00	-91 00	5:55
24	26 00	-93 00	6:10
25	26 00	-95 00	6:26
26	28 00	-94 00	6:44
27	28 00	-92 00	6:59
28	28 00	-90 00	7:15
29	28 00	-88 00	7:30
30	28 00	-86 00	7:45

~1930Z

NOAA G-IV Flight Track for GUSTAV (AL072008)

On 2008083100 the storm was centered at 22.6;-83.8





NOAA

100 95 90 85 80 75 70 65 60

30

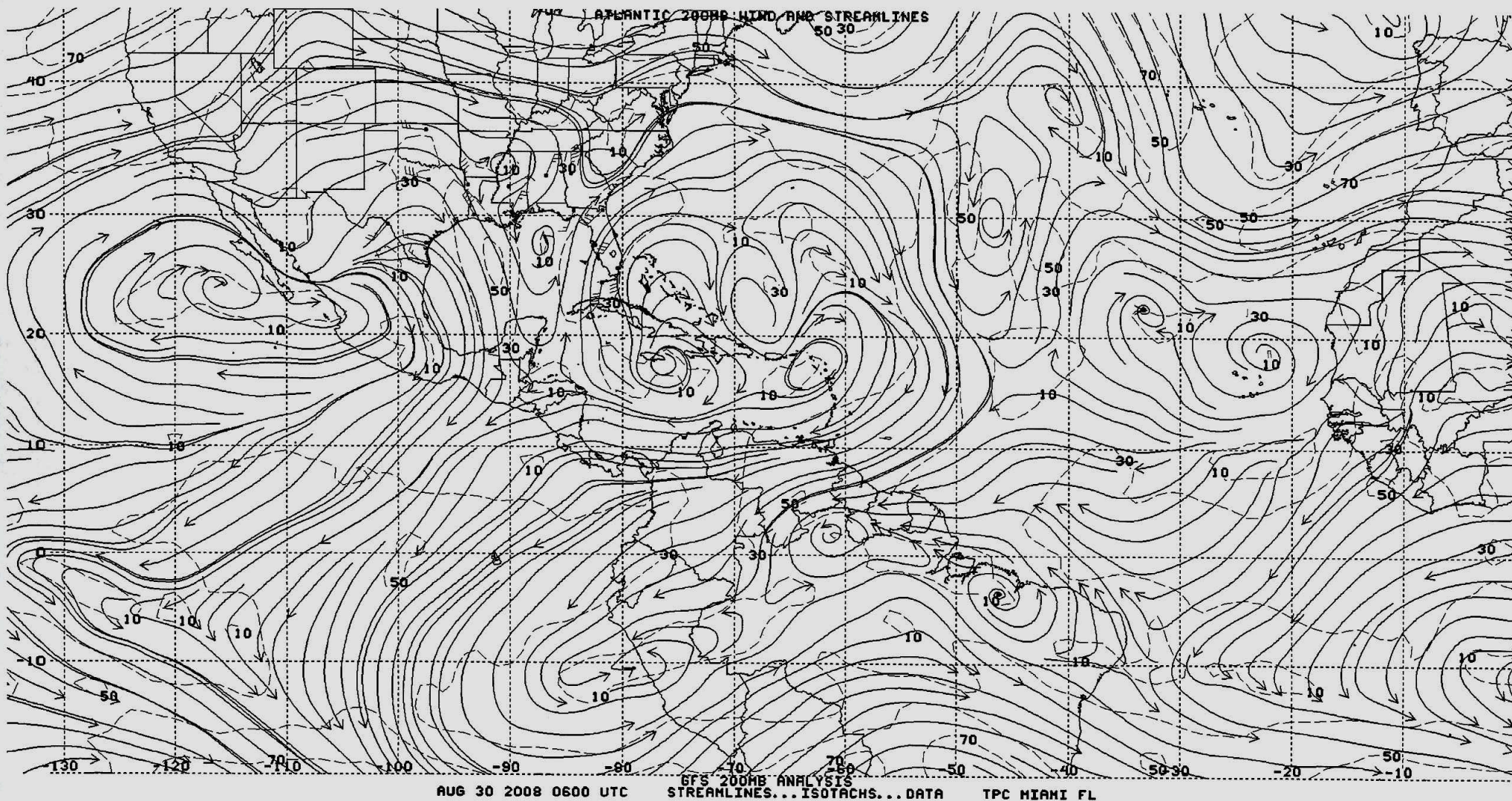
15

10

5

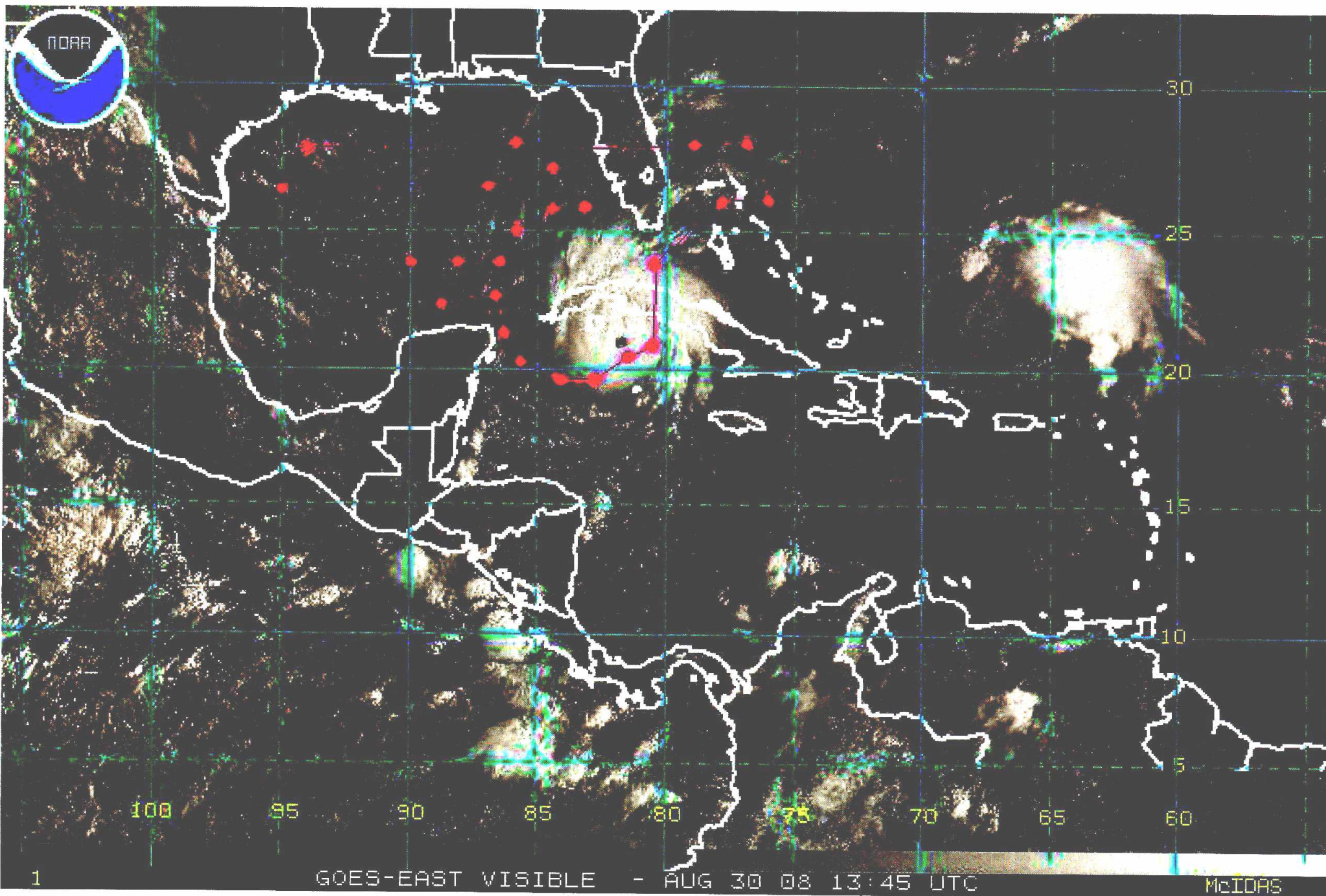
4

GOES-EAST AVNCOLOR IR CH. 4 - AUG 30 08 19:45 UTC

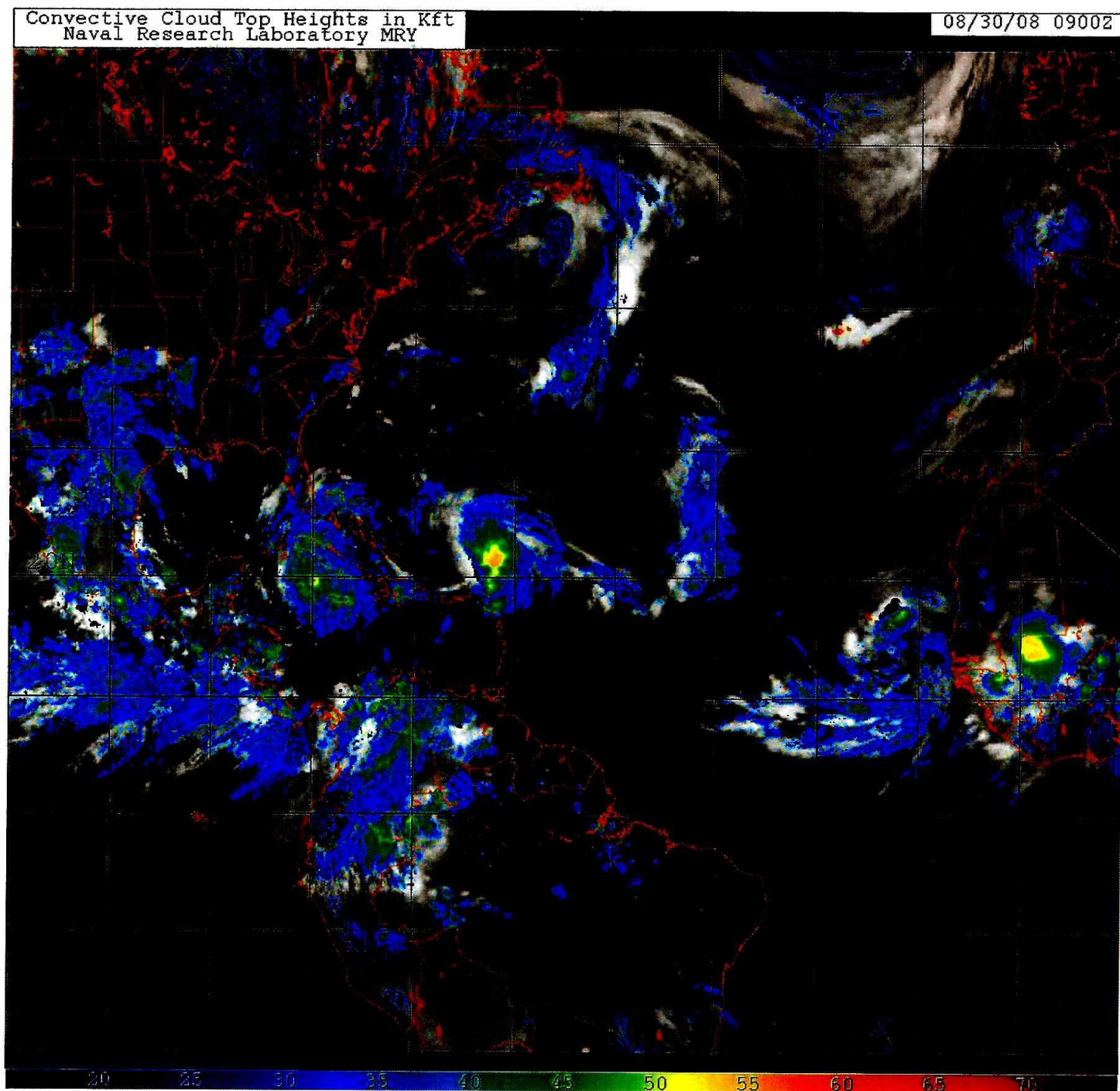


SAT 2am

10-30-50k+s
around
storm
tail ~~to~~ headwind
GOMEX WEST
North



SAT 9:45am



SAT 0500LCL