NOAA2 0911A KYLE

Lead Project Scientist

Flight ID 080925H1 **Storm** KYLE **LPS** Murillo

Preflight

SY 1. Participate in general mission briefing.

SY 2. Determine specific mission and flight requirements for assigned aircraft.

SY 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.

SY 4. Contact HRD members of crew to:
   a. Assure availability for mission.
   b. Review field program safety checklist
   c. Arrange ground transportation schedule when deployed.
   d. Determine equipment status.

SY 5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.

SY 5. Meet with AOC flight crew at least 2 hours before take-off for crew briefing. Provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.

SY 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).

SY 7. Before take-off, brief the on-board GPS dropsonde operator on times and positions of drop times.

SY 7. Make sure each HRD flight crew members have life vests

SY 7. Perform a headset operation check with all HRD flight crew members. Make sure everyone can hear and speak using the headset.

SY 8. Collect "mess" fee ($2.00) from all on-board HRD flight crew members.

In-Flight

SY 1. Confirm from AOC flight director that satellite data link is operative (information).

SY 2. Confirm camera mode of operation.

SY 3. Confirm data recording rate.

SY 4. Complete Lead Project Scientist Form.

SY 5. Check in with the flight director to make sure the mission is going as planned (i.e. turns are made when they are supposed to be made).

Post flight

SY 1. Debrief scientific crew.

SY 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, *etc.*) remaining aboard the aircraft to MGOC.

SY 3. Gather completed forms for mission and turn in at the appropriate operations center. [**Note**: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

SY 4. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms

SY 5. Obtain a copy of the radar DAT tapes. Turn in with completed forms.

___ 6. ~~Obtain a copy of the all VHS videos form aircraft cameras (3-4 approx.). Turn in with completed forms.~~

SY 7. Obtain a copy of CD with all flight data. Turn in with completed forms.

SY 8. Determine next mission status, if any, and brief crews as necessary.

SY 9. Notify MGOC as to where you can be contacted and arrange for any further coordination required.

SY 10. Prepare written mission summary using **Mission Summary** form (due to Field Program Director a week after the flight).

Lead Project Scientist Check List

Storm or Project KYLE **Experiment name** NOAA2 0911A KYLE
Date 080925 **Aircraft** N42RF NOAA42 **Flight ID** 080925H1

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	P. Chang	Flight Director	A. Barry Damiano
Radar	Aberson	Pilots	M. Nelson S. Pierce A. Girimonte
Workstation	Sellwood	Navigator	J. Bishop
Cloud Physics	Murillo	Systems Engineer	S. Wade / G. Bast
Photographer/Observer /Guests		Data Technician	J. Roles
Dropwindsonde	Sellwood	Electronics Technician	Basto Diney
~~AXBT/AXCP~~		Other	L. Miller Z. Jelenak J. Manus

B. Take-off and Landing Times and Locations:

Take-Off: 195459 UTC Location: MacDill

Landing: 045552 UTC Location: MacDill

Number of Eye Penetrations: — system wks a tropical storm

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Sfc. Wind
9/25 / 6z	22.1	69.3	1005 mb	
9/25 / 18z	23.1	68.4	1003 mb	40 kts
9/25 21z	23.5	68.3	1001 mb	40 kts 10/7
9/26 / 0	24.2	68.0	994 mb	45 kts 20110.

D. Mission Briefing:

Ocean Winds Mission is to sample KYLE and then sample AL94. We are doing a fig. 4 in Kyle. Then will will also send out radar analyses (TDR).

TDR = tail Doppler radar

E. —Equipment Status (Up ↑, Down ↓, Not Available —, Not Used O)

Equipment	Pre-Flight	In-Flight	Post-Flight	# DATs / Cds /Expendables/ Printouts
Radar/LF	↓	↓	↓	
Doppler Radar/TA	↑	↑	↑	1 DAT
Cloud Physics	—	—	—	
Data System	↑	↑	↑	
GPS sondes	↑	↑	↑	
AXBT/AXCP	—	—	—	—
Ozone instrument				
Workstation	↑	↑	↑	
Videography	↑	↑	↑	

REMARKS:

LF radar is still down.

Lead Project Scientist Event Log

Date 080925 **Flight** 080925H1 **LPS** Murillo

Time	Event	Position	Comments
195459z	take off from Mac	27.84° 82.53°W	
AFRC Vortex msg → 1858z	Vortex msg AFRC	23.18°N 68.33°W	1001mb. sfmr 38 kts
	new IP	23.37 69.13	
5pm NHC Disc.	better defined low-level circulation named	TS Kyle.	
	SW vertical shear is expected to limit the strengthen of Kyle		
	circ. center is a bit elongated. Motion 10°/7		
215430z	TDR turned on and recording		
225111z	reached IP		✗
225325z	sonde #1 launch	flight lvl 116 kts 320°	23.669° -69.158°W
225516z	turned E. 90° →	hunting for center, now 70° 230 kts, see attached	
231800z	24.06" 68.02" mins.	"center drop" flight level winds ~4kts. extrap sfc 996mb	
	heading towards NE	point. 24°59" N	67.04" W
233731z	turning towards S (180°)		✗ 18 on 7/13
		23 13 67 04	
234404z	sonde #3	24.64 67.05°W	flt lvl winds 39 kts
	winds from sonde	108°/41 kts sfc	
	experienced several updrafts and downdrafts through the		
	N-S leg		
001015z	turning towards NW (319°)	23.19° 67.07°W	
003335	"center" drop #4	sfmr ~43 kts flt level ~20 kt	✗
	↳ 24.4 68.2	sfc. 1002.4mb sfc.	76°/27 kts @10m
	reached last point	leaving Kyle	✗
0047z	Sonde #5	25.2° 68.9°	
	heading for AL94		
AL94 AFRC Vortex MSG → 002970	33.25° 78.28°	AL94 51 kts sfmr, 58 flt lvl 991mb sfc	from sonde
011842	Whoa! 8m/s updraft in clear air	followed by a 4m/s downdraft	
	CAT! clear air	turbulance	

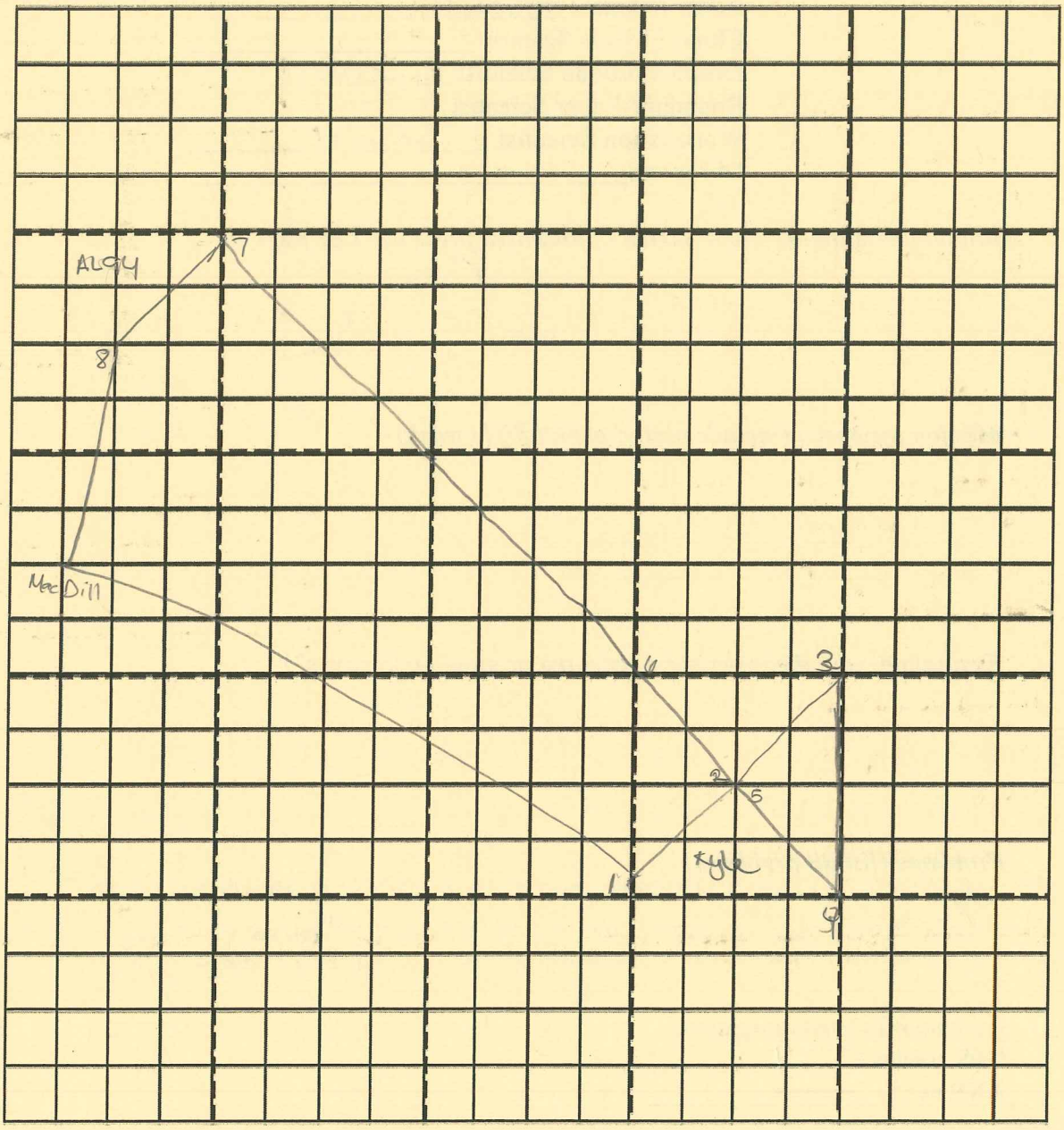
Lead Project Scientist Event Log

Date 080925 **Flight** 080925A1 **LPS** Murillo

Time	Event	Position	Comments
023750	can't be below 11,000ft → FAA has blocked it. we can't descend to		
024917z			8,000ft.
024917z	Sonde launched	near Gulf stream	as we approach ALG4
	sfmr=30kt		
025708z	sonde launched	in Gulf stream	
	32.91° 76.76°	45.3ft @ flt lvl, good sonde	
030634	Sonde launched	at NE most point in ALG4	
	33.61° 77.17W	flight level winds 51.2 kt winddir 161°	
030827z	turning WSW° (240°)		
033957	sonde launched at	SW end point of leg ALG4	
045552	landed at MacDill		

~~Observer's~~ LPS Flight Track Worksheet

Date 080925 Flight 080925H1 ~~Observer~~ LPS Murillo



Latitude (°)

Longitude (°)

Mission Summary

Storm name

YYMMDDA# Aircraft 4~~2~~RF

Scientific Crew (4~~2~~RF)

Lead Project Scientist Murillo

Radar Scientist Aberson

Cloud Physics Scientist —

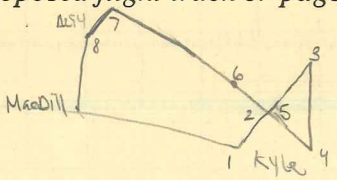
Dropwindsonde Scientist K. Sellwood

Boundary-Layer Scientist —

Workstation Scientist K. Sellwood

Observers —

Mission Briefing: (include sketch of proposed flight track or page #)



Mission Synopsis: (include plot of actual flight track)

Evaluation: (did the experiment meet the proposed objectives?)

Problems:(list all problems)

operator error w/ radar.dat file which caused us to restart radar capture therefore we couldn't run 2nd radar analyses b/c we started radar capture after 0z it named files 080926HA

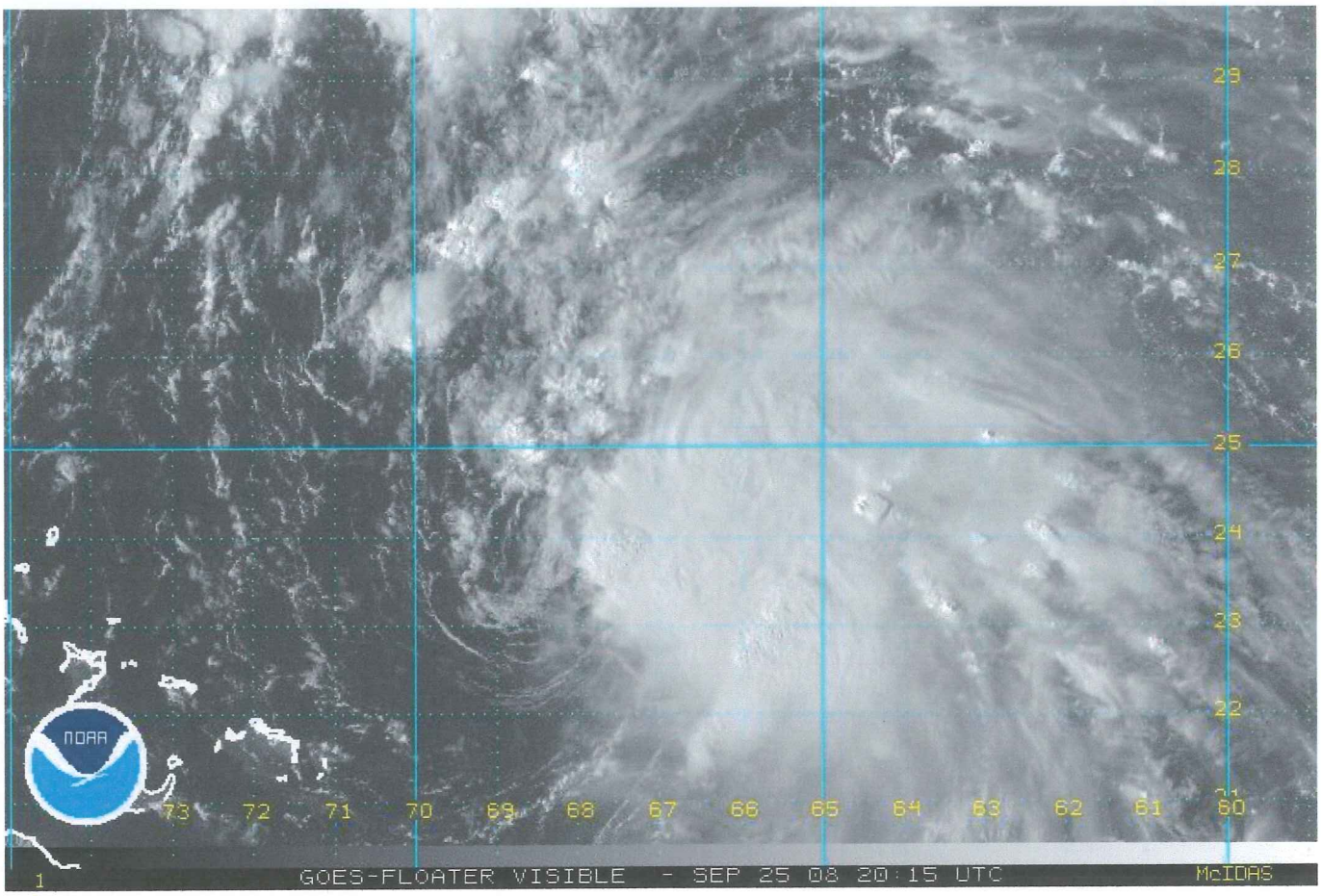
Expendables used in mission:

GPS sondes : 9

AXBTs : —

Sonobuoys: —

TS Kyle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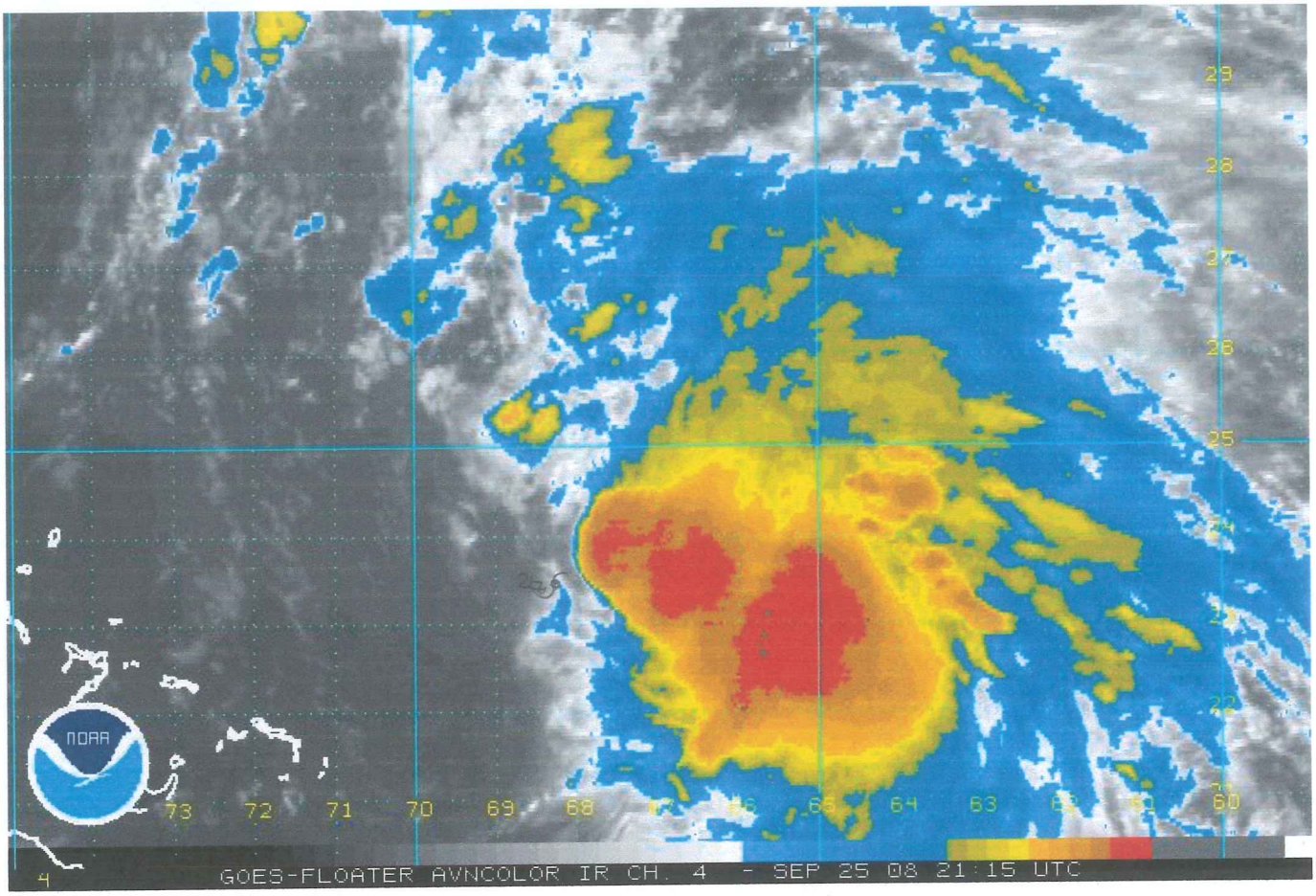
GOES-FLOATER VISIBLE - SEP 25 08 20:15 UTC
McIDAS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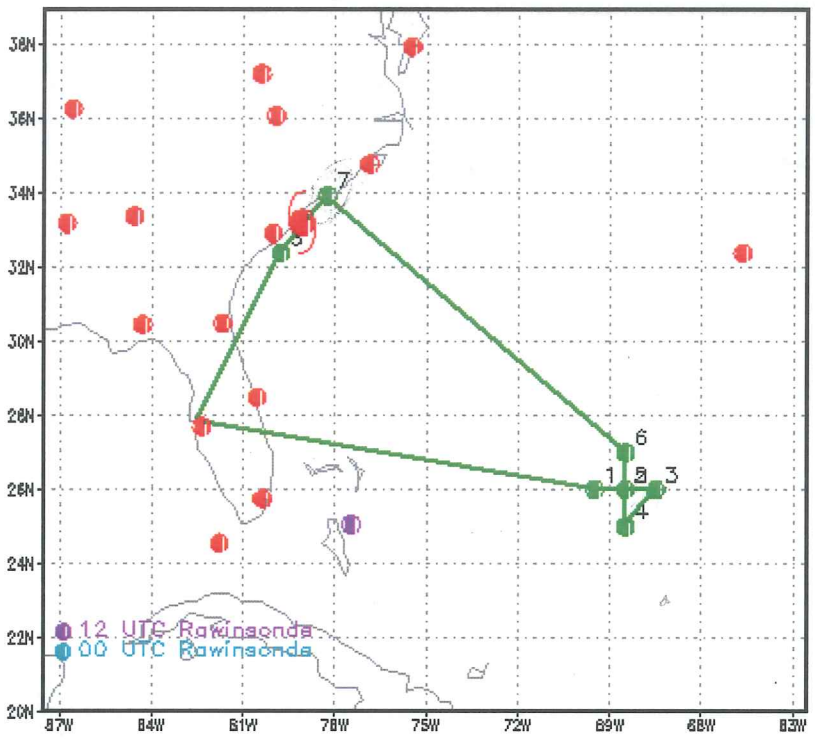

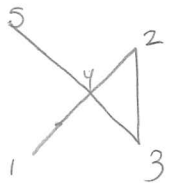

new IP → 23.37° 69.13°

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MISSION PLAN:

Prepared by the Hurricane Research Division File: current1.ftk

Aircraft: N43RF Altitude: FL180-250 Proposed takeoff: 10/0350Z

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TRACK DISTANCE TABLE

#	LAT (d m)	LON (d/m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	MACDILL			0.	0.	0:00
1	26 00	69 30		706.	706.	2:43
2	26 00	68 30		54.	760.	2:58
3	26 00	67 30		54.	814.	3:13
4	25 00	68 30		81.	895.	3:35
5	26 00	68 30		60.	955.	3:52
6	27 00	68 30		60.	1015.	4:08
7S	33 55	78 16	60/045	654.	1669.	6:58
8S	32 23	79 47	60/215	120.	1789.	7:30
9	MACDILL			307.	2096.	8:34

proposed flight track.eml	**Content-Type:** message/rfc822 **Content-Encoding:** 7bit

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Tropical Storm KYLE Forecast Discussion

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WTNT41 KNHC 260257
TCDAT1
TROPICAL STORM KYLE DISCUSSION NUMBER 2
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL112008
1100 PM EDT THU SEP 25 2008

A NOAA HURRICANE HUNTER AIRCRAFT WHICH WAS INVESTIGATING KYLE EARLIER THIS EVENING MEASURED AN EXTRAPOLATED SURFACE PRESSURE OF 994 MB AND MAXIMUM FLIGHT LEVEL WINDS OF 56 KT. THERE WERE ALSO A FEW SFMR RETRIEVALS NEAR 55 KT...BUT THE FLIGHT METEOROLOGIST ON BOARD ESTIMATED THAT THESE MEASUREMENTS WERE LIKELY ABOUT 10 KT TOO HIGH. IN ADDITION...A DVORAK CLASSIFICATION USING THE SHEAR PATTERN WOULD YIELD A DATA-T NUMBER OF 3.0. ALL OF THIS INFORMATION UNANIMOUSLY SUPPORTS AN INITIAL INTENSITY OF 45 KT.

THE LATEST AIRCRAFT FIX INDICATES THAT KYLE HAS ACCELERATED AND IS NOW MOVING AT 010/11. THIS MOTION IS EXPECTED TO CONTINUE OVER THE NEXT FEW DAYS AS THE CYCLONE IS ADVECTED NORTHWARD BETWEEN A MID-LEVEL HIGH JUST EAST OF BERMUDA AND THE LARGE CUT-OFF LOW NEAR THE EAST COAST OF THE UNITED STATES. MODEL AGREEMENT IS EXCEPTIONAL THROUGH THE FORECAST PERIOD AND VERY LITTLE ADJUSTMENT WAS REQUIRED FROM THE PREVIOUS FORECAST.

KYLE IS CURRENTLY UNDER THE INFLUENCE OF 20 KT OF WESTERLY SHEAR AS DIAGNOSED BY THE SHIPS MODEL. THIS SHEAR IS EXPECTED TO CONTINUE FOR ANOTHER 12 HOURS OR SO...DURING WHICH ONLY MODEST STRENGTHENING IS EXPECTED. VERTICAL SHEAR WILL DIMINISH AFTER THAT AND KYLE WILL HAVE AN OPPORTUNITY TO STRENGTHEN TO A HURRICANE IN 36-48 HOURS AS IT MOVES OVER WARM WATERS AT A FAIRLY SPEEDY CLIP. THE FORECAST INTENSITY IS CLOSE TO THAT SHOWN BY THE LGEM...HWRF...FSU SUPERENSEMBLE...AND CONTINUITY. HOWEVER...THE GFDL AND SHIPS MODELS MAKE KYLE A LITTLE BIT STRONGER. KYLE WILL THEN CROSS NORTH OF THE GULF STREAM AFTER 48 HOURS AND SOME WEAKENING IS EXPECTED. MODEL GUIDANCE SUGGESTS THAT EXTRATROPICAL TRANSITION COULD BEGIN ONCE KYLE MOVES ACROSS THE CANADIAN MARITIMES IN 72 HOURS WITH THE PROCESS COMPLETED BY 96 HOURS. BY DAY 5...THE EXTRATROPICAL LOW IS EXPECTED TO BECOME ABSORBED INTO A FRONTAL ZONE.

INTERESTS IN BERMUDA SHOULD MONITOR KYLE IN CASE THERE IS A SIGNIFICANT DEVIATION TO THE RIGHT OF THE EXPECTED TRACK. IN ADDITION...PORTIONS OF EASTERN NEW ENGLAND AND THE CANADIAN MARITIMES SHOULD ALSO MONITOR THE PROGRESS OF KYLE.

FORECAST POSITIONS AND MAX WINDS

INITIAL	26/0300Z	24.8N	68.0W	45 KT
12HR VT	26/1200Z	26.5N	68.1W	50 KT
24HR VT	27/0000Z	29.2N	68.7W	60 KT
36HR VT	27/1200Z	32.4N	68.9W	65 KT
48HR VT	28/0000Z	36.3N	68.3W	70 KT
72HR VT	29/0000Z	44.5N	65.5W	60 KT...INLAND...NOVA SCOTIA
96HR VT	30/0000Z	50.0N	60.0W	50 KT...EXTRATROPICAL
120HR VT	01/0000Z...ABSORBED BY A FRONTAL ZONE			

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FORECASTER BERG

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REPORTS FROM AIR FORCE AND NOAA RESERVE HURRICANE HUNTER AIRCRAFT INDICATE THAT KYLE IS SOMEWHAT DISORGANIZED THIS AFTERNOON...WITH THE FLIGHT-LEVEL CENTERS AT 850 MB AND 700 MB DISPLACED TO THE NORTH OR NORTHEAST OF THE SURFACE CENTER BY 15-20 KT OF WESTERLY VERTICAL WIND SHEAR. THE CENTRAL PRESSURE HAS RISEN TO 1003 MB...AND THE CONVECTIVE PATTERN HAS BECOME ELONGATED NORTH-NORTHWEST TO SOUTH-SOUTHEAST IN SATELLITE IMAGERY. THE AIR FORCE AIRCRAFT REPORTED 56 KT FLIGHT-LEVEL WINDS AT 850 MB...WITH SFMR WINDS OF 45-48 KT IN THE NORTHEAST QUADRANT. BASED ON THIS...THE INITIAL INTENSITY REMAINS 50 KT.

AFTER A NUDGE TO THE LEFT THIS MORNING...KYLE HAS MADE A NUDGE TO THE RIGHT THIS AFTERNOON. THE 12 HR MOTION AND ADVISORY MOTION IS 345/11...BUT THE SHORT-TERM MOTION IS ALMOST DUE NORTH. KYLE REMAINS ON THE SOUTHWEST SIDE OF A BUILDING RIDGE OVER THE CENTRAL ATLANTIC...AND SOON SHOULD PASS BETWEEN THE RIDGE AND A DEEP-LAYER LOW PRESSURE AREA OVER THE EASTERN UNITED STATES. THIS PATTERN SHOULD STEER KYLE GENERALLY NORTH-NORTHWESTWARD AND NORTHWARD FOR THE NEXT 24-36 HR. AFTER THAT...THE GUIDANCE FORECASTS KYLE TO TURN MORE TOWARD THE NORTH-NORTHEAST AS IT APPROACHES THE MAIN BRANCH OF THE WESTERLIES AND THE NORTHERN END OF THE ATLANTIC RIDGE. THE MODEL GUIDANCE HAS SHIFTED A LITTLE TO THE RIGHT TOWARD WESTERN NOVA SCOTIA OVER THE PAST 6 HOURS...WITH MOST OF GUIDANCE NOW SHOWING A SLIGHTLY SLOWER FORWARD MOTION THAN PREVIOUSLY. BASED ON THE NEW GUIDANCE AND THE INITIAL POSITION/MOTION...THE NEW FORECAST TRACK IS SHIFTED A LITTLE TO THE EAST OF THE PREVIOUS TRACK. HOWEVER...IT LIES ALONG THE WESTERN EDGE OF THE MODEL CONSENSUS.

IF ANYTHING...THE INTENSITY FORECAST HAS BECOME MORE COMPLEX THAN IT WAS 6 HOURS AGO. THE CURRENT SHEAR MAY DECREASE SOMEWHAT OVER THE NEXT 24 HOURS...WHICH WOULD ALLOW KYLE TO GRADUALLY INTENSIFY. AFTER THAT...KYLE IS FORECAST TO ENCOUNTER STRONG...BUT DIVERGENT...UPPER-LEVEL SOUTHWESTERLY FLOW....WITH THE RESULTING SHEAR TRYING TO WEAKEN THE CYCLONE AND THE DIVERGENCE TRYING TO STRENGTHEN IT. A NEW COMPLICATION IS A COLD AIR MASS APPROACHING KYLE FROM THE EAST...WHICH IF IT REACHES THE CYCLONE COULD CAUSE WEAKENING OR A FASTER EXTRATROPICAL TRANSITION. DESPITE THE NEGATIVE FACTORS...THE SHIPS...HWRF...AND GFDL MODELS CALL FOR KYLE TO BECOME A HURRICANE. THE NEW INTENSITY FORECAST THUS CALLS FOR THE CYCLONE TO REACH A PEAK INTENSITY OF 65 KT IN 36 HR. AFTER THAT TIME...KYLE WILL MOVE OVER COLD SEA SURFACE TEMPERATURES AND BEGIN EXTRATROPICAL TRANSITION...AND THIS COMBINATION SHOULD CAUSE WEAKENING. KYLE SHOULD LOSE TROPICAL CHARACTERISTICS AFTER LANDFALL AND EVENTUALLY BE ABSORBED IN A FRONTAL SYSTEM IN A FRONTAL SYSTEM OVER EASTERN CANADA.

INTERESTS IN EASTERN NEW ENGLAND AND THE CANADIAN MARITIMES SHOULD CLOSELY MONITOR THE PROGRESS OF KYLE. WATCHES MAY BE REQUIRED FOR PORTIONS OF THE NEW ENGLAND COAST ON SATURDAY.

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FORECAST POSITIONS AND MAX WINDS

INITIAL      26/2100Z 27.6N  68.7W    50 KT
 12HR VT     27/0600Z 29.5N  69.3W    55 KT
 24HR VT     27/1800Z 32.6N  69.5W    60 KT
 36HR VT     28/0600Z 36.5N  69.0W    65 KT
 48HR VT     28/1800Z 40.3N  67.8W    65 KT
 72HR VT     29/1800Z 47.5N  64.5W    45 KT...EXTRATROPICAL
 96HR VT     30/1800Z 52.0N  62.0W    35 KT...INLAND EXTRATROPICAL
120HR VT     01/1800Z...ABSORBED BY FRONTAL SYSTEM

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* ATLANTIC SHIPS INTENSITY FORECAST *
* GOES/OHC INPUT INCLUDED *
* KYLE AL112008 09/27/08 00 UTC *

TIME (HR)	0	6	12	18	24	36	48	60	72	84	96	108	12(
V (KT) NO LAND	50	51	54	56	58	63	67	65	66	67	65	65	61
V (KT) LAND	50	51	54	56	58	63	67	48	46	33	30	30	2(
V (KT) LGE mod	50	51	52	54	55	55	50	37	38	31	30	30	4(
SHEAR (KTS)	14	14	15	16	27	27	31	40	48	49	41	37	4(
SHEAR DIR	279	263	257	229	236	232	211	206	228	243	247	242	24(
SST (C)	28.7	28.6	28.3	27.6	27.0	23.8	14.9	13.7	12.7	10.8	9.0	6.6	7.(
POT. INT. (KT)	148	147	143	134	127	100	71	70	68	64	62	63	6(
ADJ. POT. INT.	132	130	127	120	113	89	68	67	65	62	61	62	6(
200 MB T (C)	-52.8	-53.5	-53.9	-53.0	-53.6	-54.6	-54.2	-54.7	-55.8	-57.6	-59.5	-60.5	-60.(
TH_E DEV (C)	10	9	8	7	6	3	1	0	0	0	0	0	(
700-500 MB RH	57	58	59	57	56	55	57	54	43	41	44	56	6(
GFS VTEX (KT)	15	17	16	17	18	20	25	22	21	20	16	15	1(
850 MB ENV VOR	1	-6	-15	-9	-6	0	31	78	15	-26	-22	-9	-(
200 MB DIV	71	54	70	99	62	95	97	58	42	35	74	57	3(
LAND (KM)	1008	894	787	692	639	381	140	-37	-16	-172	-245	-47	13(
LAT (DEG N)	28.7	30.0	31.3	33.1	34.9	38.8	42.5	46.1	49.5	51.8	52.9	54.1	54.(
LONG(DEG W)	68.6	68.8	69.0	69.0	68.9	68.0	66.6	64.9	63.3	62.0	61.0	58.8	55.(
STM SPEED (KT)	13	13	16	18	19	20	19	18	15	9	7	10	1(
HEAT CONTENT	31	24	14	24	18	0	0	9999	0	9999	9999	9999	(

FORECAST TRACK FROM OFCI INITIAL HEADING/SPEED (DEG/KT): 0/ 13 CX,CY: 0/ 13
T-12 MAX WIND: 50 PRESSURE OF STEERING LEVEL (MB): 521 (MEAN=625)
GOES IR BRIGHTNESS TEMP. STD DEV. 100-300 KM RAD: 32.1 (MEAN=20.0)
% GOES IR PIXELS WITH T < -20 C 50-200 KM RAD: 57.0 (MEAN=68.6)

INDIVIDUAL CONTRIBUTIONS TO INTENSITY CHANGE

	6	12	18	24	36	48	60	72	84	96	108	120
SAMPLE MEAN CHANGE	1.	2.	3.	4.	6.	8.	9.	10.	11.	12.	12.	13.
SST POTENTIAL	1.	2.	3.	3.	2.	-1.	-4.	-7.	-9.	-11.	-13.	-14.
VERTICAL SHEAR	1.	1.	2.	3.	5.	6.	7.	7.	9.	10.	9.	5.
PERSISTENCE	0.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	0.	0.
200/250 MB TEMP.	0.	0.	0.	0.	0.	0.	2.	5.	10.	17.	23.	29.
THETA_E EXCESS	0.	0.	-1.	-1.	-2.	-4.	-6.	-9.	-13.	-16.	-18.	-20.
700-500 MB RH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	-1.
GFS VORTEX TENDENCY	0.	0.	0.	1.	3.	7.	5.	4.	3.	0.	-1.	-3.
850 MB ENV VORTICITY	0.	0.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-2.	-2.	-2.
200 MB DIVERGENCE	0.	1.	2.	2.	4.	6.	8.	8.	8.	9.	9.	8.
ZONAL STORM MOTION	0.	0.	0.	0.	-1.	-1.	-2.	-2.	-3.	-3.	-4.	-4.
STEERING LEVEL PRES	0.	0.	1.	1.	1.	2.	2.	2.	3.	2.	2.	2.
DAYS FROM CLIM. PEAK	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SUB-TOTAL CHANGE	2.	5.	8.	11.	16.	20.	18.	17.	18.	16.	16.	12.
SATELLITE ADJUSTMENTS												
MEAN ADJUSTMENT	0.	0.	0.	0.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-2.
GOES IR STD DEV	-1.	-1.	-2.	-2.	-2.	-1.	-1.	0.	0.	0.	0.	0.
GOES IR PIXEL COUNT	0.	0.	0.	-1.	-1.	0.	0.	0.	1.	1.	1.	0.
OCEAN HEAT CONTENT	0.	0.	0.	0.	0.	0.	-1.	-1.	-1.	-1.	-1.	-1.
TOTAL ADJUSTMENT	-1.	-2.	-2.	-3.	-3.	-3.	-2.	-2.	-1.	-1.	-1.	-2.
TOTAL CHANGE (KT)	1.	4.	6.	8.	13.	17.	15.	16.	17.	15.	15.	11.

** 2008 ATLANTIC RI INDEX AL112008 KYLE 09/27/08 00 UTC **
(25 KT OR MORE MAX WIND INCREASE IN NEXT 24 HR)

12 HR PERSISTENCE (KT): 0.0 Range:-45.0 to 30.0 Scaled/Wgted Val: 0.6/ 1.1
850-200 MB SHEAR (KT) : 17.2 Range: 35.1 to 3.2 Scaled/Wgted Val: 0.6/ 0.9
D200 (10**7s-1) : 71.2 Range:-20.0 to 149.0 Scaled/Wgted Val: 0.5/ 0.8
POT = MPI-VMAX (KT) : 74.5 Range: 25.1 to 130.7 Scaled/Wgted Val: 0.5/ 0.5

```
850-700 MB REL HUM (%):  69.4 Range: 56.0 to  88.0 Scaled/Wgted Val:  0.4/  0.2
% area w/pixels <-30 C:  47.0 Range: 17.0 to 100.0 Scaled/Wgted Val:  0.4/  0.1
STD DEV OF IR BR TEMP :  25.2 Range: 35.1 to   3.2 Scaled/Wgted Val:  0.3/  0.4
Heat content (KJ/cm2) :  22.2 Range:  0.0 to 132.0 Scaled/Wgted Val:  0.2/  0.0

Prob of RI for 25 kt RI threshold=    17% is   1.4 times the sample mean(12.3%)
Prob of RI for 30 kt RI threshold=    11% is   1.4 times the sample mean( 7.8%)
Prob of RI for 35 kt RI threshold=     6% is   1.3 times the sample mean( 4.5%)

  ##         ANNULAR HURRICANE INDEX (AHI) AL112008       KYLE 09/27/08  00 UTC         ##
  ## STORM NOT ANNULAR, SCREENING STEP FAILED, NPASS=2 NFAIL=5                         ##
  ## AHI=  0   (AHI OF 100 IS BEST FIT TO ANN. STRUC., 1 IS MARGINAL, 0 IS NOT ANNULAR) ##
  ##     ANNULAR INDEX RAN NORMALLY
```

National Weather Service
National Hurricane Center

Vortex Data Message

ALGY

```
000
URNT12 KNHC 260046
VORTEX DATA MESSAGE   AL942008
A. 26/00:29:30Z
B. 33 deg 15 min N
   078 deg 17 min W
C. 850 mb 1331 m
D. 51 kt
E. 352 deg 25 nm
F. 080 deg 58 kt
G. 352 deg 25 nm
H. 991 mb
I. 12 C / 1511 m
J. 19 C / 1525 m
K. 12 C / NA
L. NA
M. NA
N. 12345 / 8
O. 0.02 / 1 nm
P. AF303 03GGA LOW                OB 09
MAX FL WIND 58 KT NE QUAD 23:32:50Z
;
```

Quick Navigation Links:
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Hurricane Awareness - How to Prepare - About NHC - Contact Us

NOAA/ National Weather Service
National Centers for Environmental Prediction
National Hurricane Center
Tropical Prediction Center
11691 SW 17th Street
Miami, Florida 33165-2149 USA
nhcwebmaster@noaa.gov
Page last modified: Friday, 26-Sep-2008 00:47:11 GMT

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center. 24.5 68.3

- times should be 6 digits.
- ATCF # is raw II
- make sure ~~born date and flight~~ ID are correct
- Jaafile display, use previously corrected values, rather than current values
- uses 48 hr. clock.
- there should not be any -999s in 3 colums
- only run ja_ts