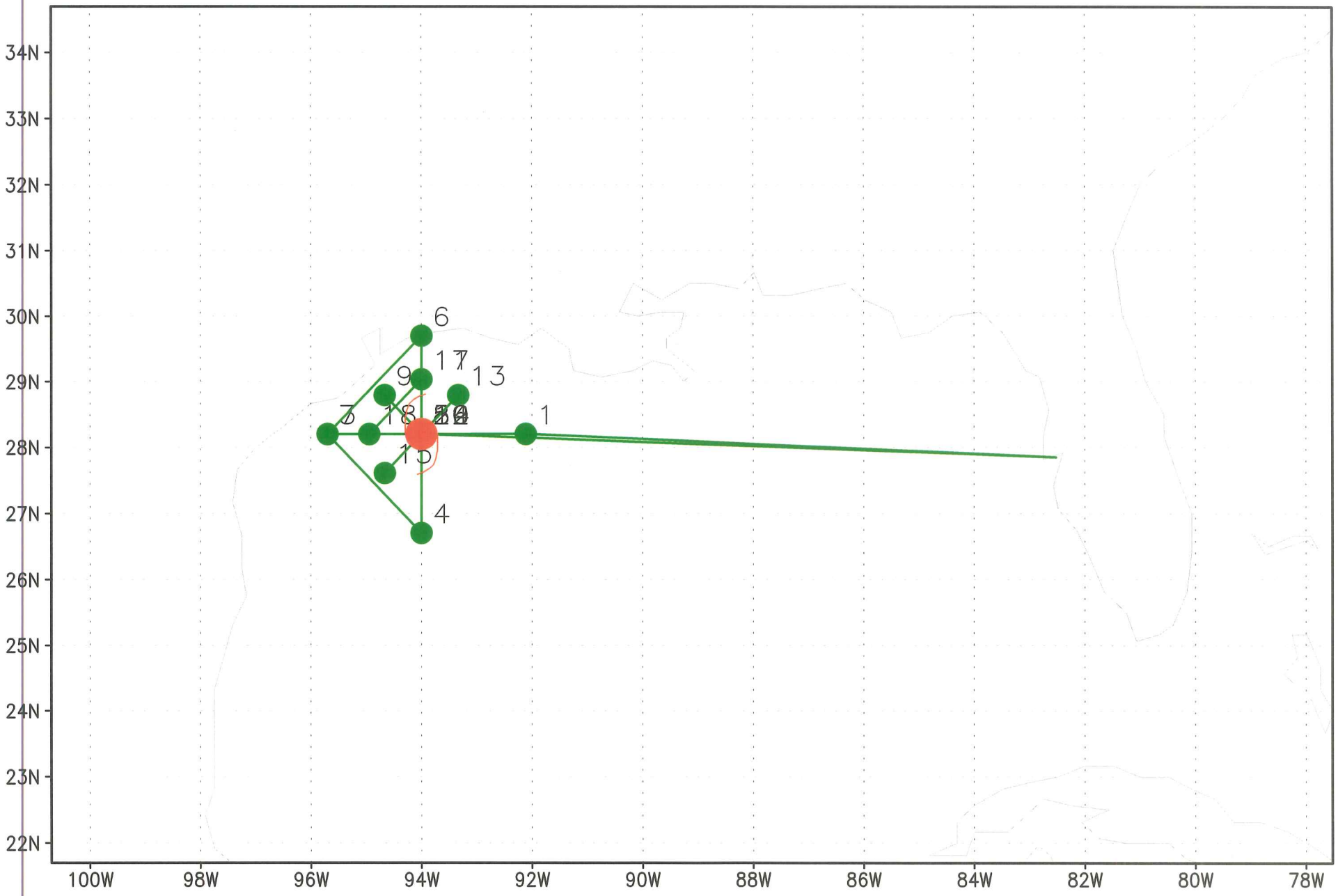
20080912H1 Scientist Log

Time	Comment
210339	TO MacDill AFB
211300	N42RF has a TA working, only scanning perpendicular to heading (no elevation control). If possible we will try to fly at 88D or research radars to get dual-Doppler
215800	No TA radar the Azimuth won't work either
223000	start descent to 8 kft, Houston 88D shows outer band just offshore at Galveston
223200	28 13, 90 00 AXBT#1 SST=26.5 at 8 kft
223900	entering large outer rainband on E side (75 nm from IP) rocking and rolling til 2242
224440	28 11, 90 55 AXBT#2 SST bad
224500	AF fix 28 06 N 093 50 W, motion 305/10
225922	IP COMBO AXBT#3 SST=25.9, dropsonde #1 very weird AXBT temp increased after splash for long time as high as 26.3 start penetration (1)
231125	mid point COMBO AXBT#4 SST=26.2, dropsonde #2, another weird AXBT with long temps above 26
232615	turn TK N in eye (saw AFRC in eye) 28 14, 93 56 extrap 952
233425	N eyewall combo AXBT#5, dropsonde#3 AXBT bad
234615	turn TK 225 about 10 nm from coast pitching dropsondes out every 5 min
234755	dropsonde #4 N end of Bolivar Peninsula on shore wind
235257	dropsonde#5 right off Galveston on shore wind
235755	dropsonde #6 right off San Louis Pass along shore wind
240257	dropsonde#7 offshore wind shallow water for SFMR
240755	dropsonde#8 offshore wind shallow water near Matagorda Bay & Peninsula
241151	at point 2 W of center turn TK 090 to center
241243	dropsonde #9 offshore
243315	W eyewall combo AXBT#6 SST 27.5, dropsonde #10 (penetration 2)
243842	center 28 20, 94 14, turn TK 315 extrap 951 mb (Jim McFadden just broke Harlan Davis' penetration record with 551) and did a live CNN interview in the eye
245300	NW eyewall combo AXBT# 7 (bad), dropsonde #11, best looking convection of the day - lots of heavy rain though
245855	dropsonde #12 just offshore Galveston Beach orbiting waiting for QuikSCAT pass
250740	dropsonde #13 just offshore Galveston again as we turn TK 135 to center (penetration 3)
251311	NW eyewall combo AXBT#8 (bad), dropsonde#14
252100	center 28 24, 94 16
252601	S eyewall combo AXBT#9 SST 27.5, dropsonde #15
253310	turn TK 360 back to eye lightning visible in W eyewall (penetration 4)
254447	center 28 22, 94 15 Eye appears to be wrapping around to NE form smaller eye maybe reacting to land
255145	NE eyewall combo AXBT#10 SST 27.3, dropsonde #16 in new NE eywall
255500	turn TK 225 to center 50 nm from center (penetration 5)
261658	S eyewall dropsonde #17 No PTH data on this sonde
262350	turn Tk 360 to center (penetration 6)
263700	center 28 33, 94 27 TK 350 to point upwind of UAH location
264514	N eyewall dropsonde#18
265046	dropsonde#19 as close to UAH as possible on inside edge of major band along the coast (penetration 7)
270403	center 28 35 94 28, TK 090 for 105 nm then to MacDill
271140	E eyewall dropsonde#20
271947	last dropsonde#21 on inner edge of outer band
273400	start climb out for home Storm center is still 4-5 hours from crossing shore. Outer major band on shore moving inland got one run down coast and twice wne up to coast near Galveston and Bolivar Peninsula to drop sondes for landbase teams

Dropsondes -- 21/20 transmitted
AXBT --10/6 worked
Penetrations -- 7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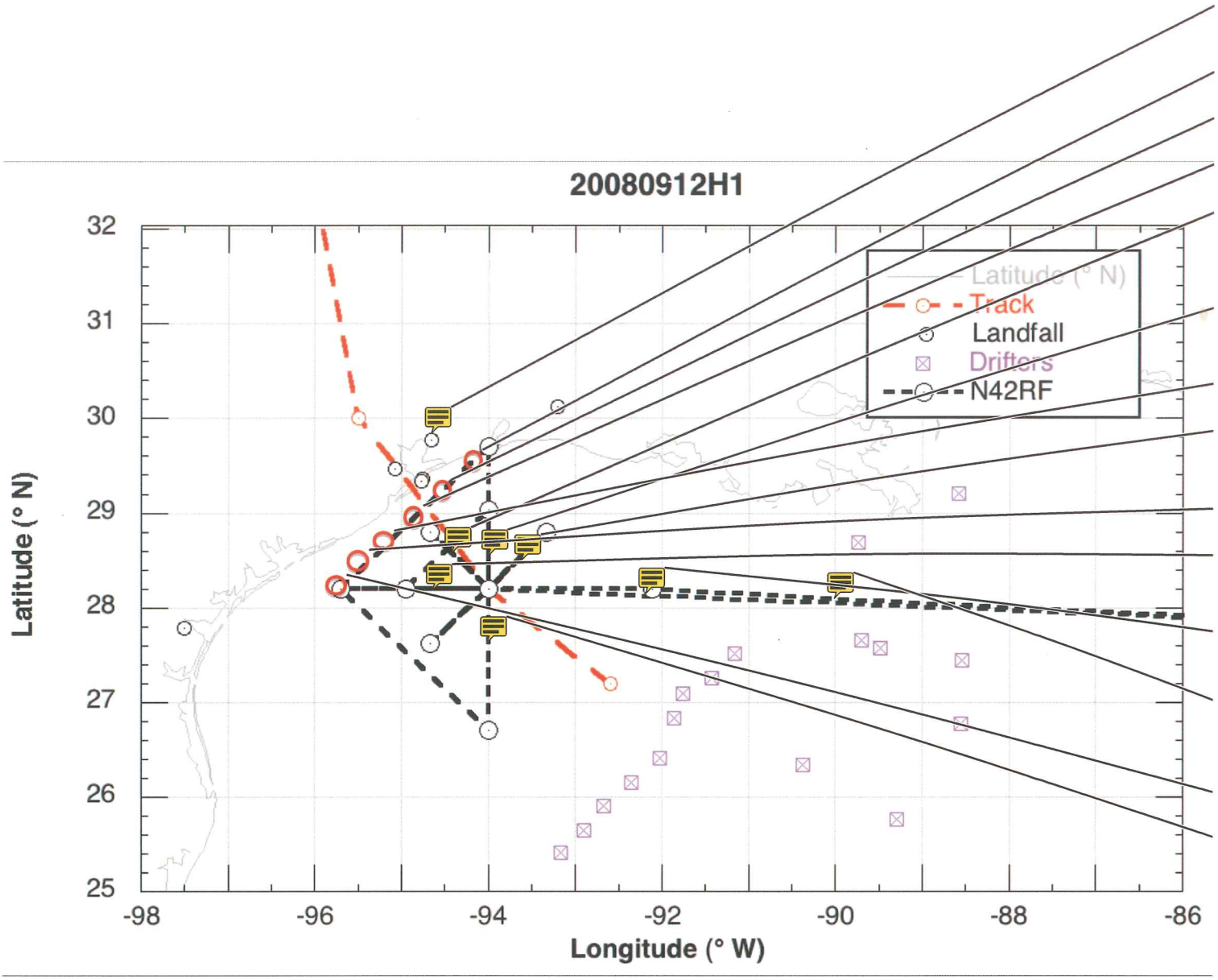
13
1
4


20080912H1
Latitude (° N)
Track
Landfall
Drifters
N42RF
32
31
30
29
28
27
26
25
-98
-96
-94
-92
-90
-88
-86
Latitude (° N)
Longitude (° W)

Summary of Comments on 20080912H1_ftk_loc.pdf

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Author: n42rf HRD macbook Date: 9/12/08 5:31:47 PM
n42rf HRD macbook - Sep 12, 2008 5:31 PM UAH Dualpol radar

Author: n42rf HRD macbook Date: 9/12/08 8:18:32 PM

Author: n42rf HRD macbook Date: 9/12/08 8:19:04 PM

Author: n42rf HRD macbook Date: 9/12/08 8:23:33 PM

Author: n42rf HRD macbook Date: 9/12/08 8:57:01 PM
n42rf HRD macbook - Sep 12, 2008 8:57 PM
NW eyewall combo bad AXBT
2nd NW eyewall combo bad AXBT

Author: n42rf HRD macbook Date: 9/12/08 7:37:47 PM
n42rf HRD macbook - Sep 12, 2008 7:37 PM
Combo eyewall BT failed

Author: n42rf HRD macbook Date: 9/12/08 8:24:37 PM

Author: n42rf HRD macbook Date: 9/12/08 9:54:43 PM
n42rf HRD macbook - Sep 12, 2008 9:54 PM
NW eyewall Combo SST 27.3

Author: n42rf HRD macbook Date: 9/12/08 8:24:54 PM

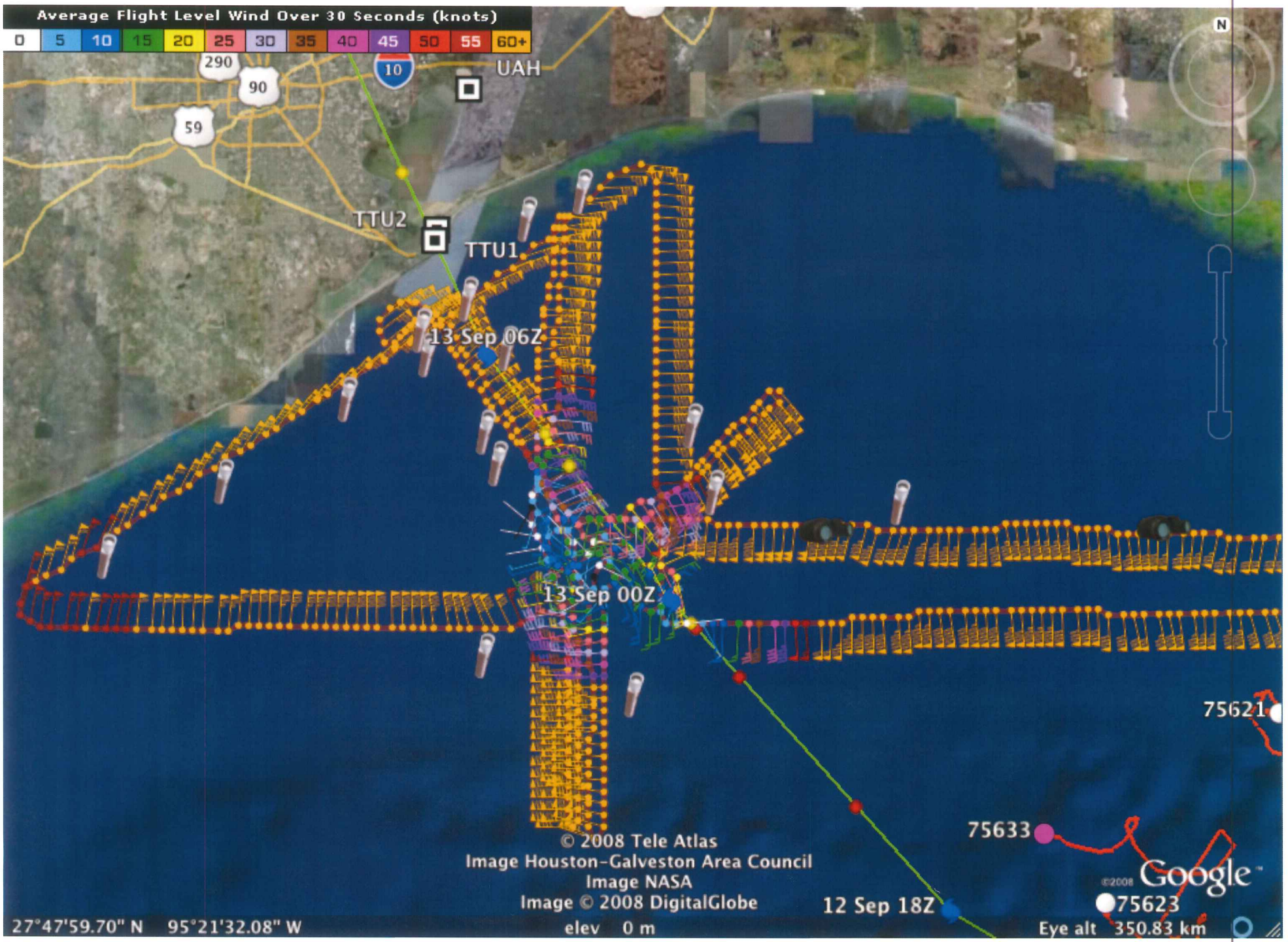
Author: n42rf HRD macbook Date: 9/12/08 8:34:28 PM
n42rf HRD macbook - Sep 12, 2008 8:34 PM
combo W eyewall SST=27.5

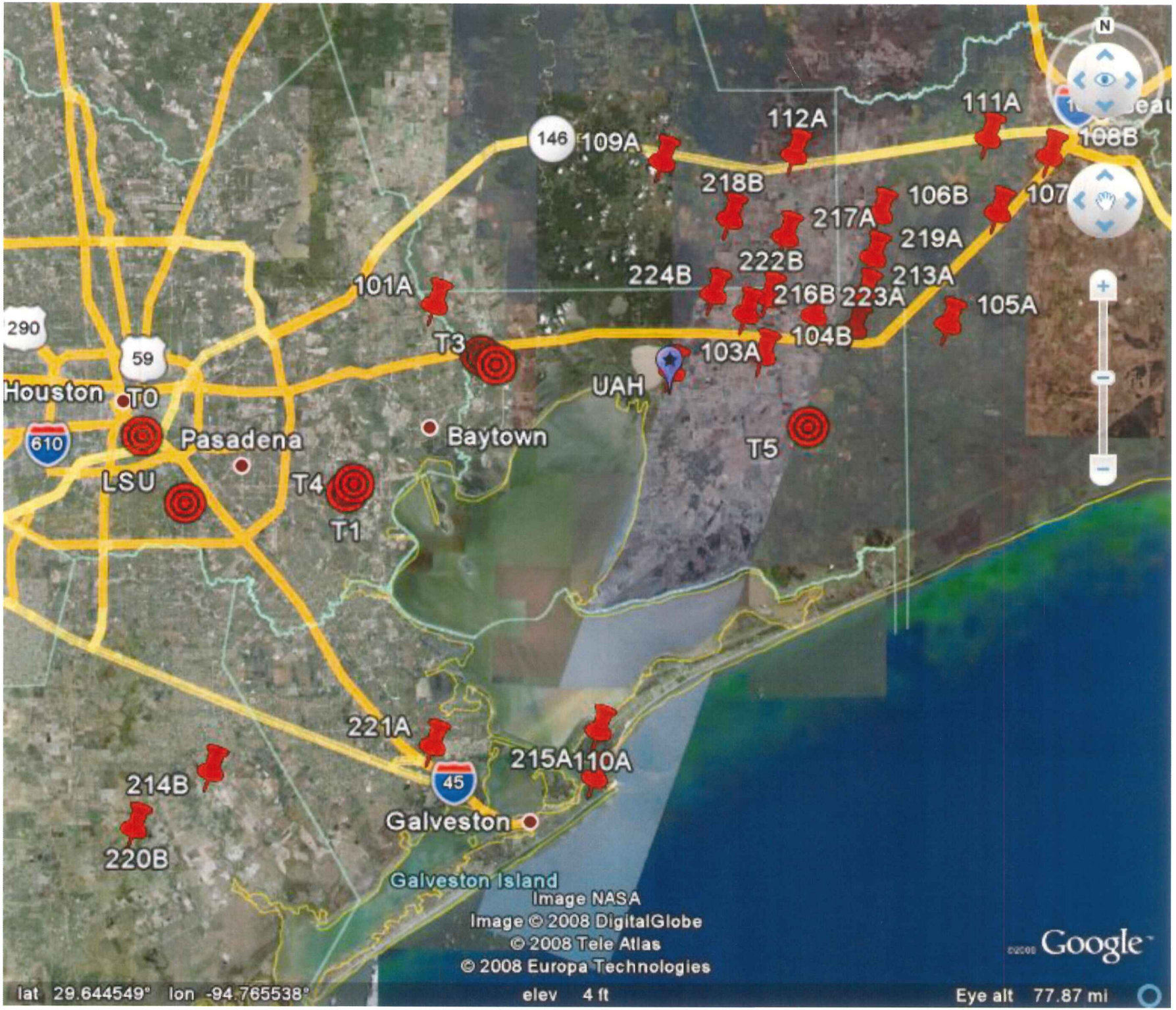
Author: n42rf HRD macbook Date: 9/12/08 7:01:54 PM
n42rf HRD macbook - Sep 12, 2008 7:01 PM
combo 1 SST=25.9

Author: n42rf HRD macbook Date: 9/12/08 6:51:02 PM
n42rf HRD macbook - Sep 12, 2008 6:51 PM
AXBT#1 SST 26.5

Author: n42rf HRD macbook Date: 9/12/08 8:27:43 PM

Author: n42rf HRD macbook Date: 9/12/08 9:27:12 PM
n42rf HRD macbook - Sep 12, 2008 9:27 PM
S eyewall combo SST 27.5


Average Flight Level Wind Over 30 Seconds (knots)
0 5 10 15 20 25 30 35 40 45 50 55 60+
290
90
59
10
UAH
TTU2
TTU1
13 Sep 06Z
13 Sep 00Z
12 Sep 18Z
75621
75633
75623
© 2008 Tele Atlas
Image Houston-Galveston Area Council
Image NASA
Image © 2008 DigitalGlobe
Google
27°47'59.70" N 95°21'32.08" W
elev 0 m
Eye alt 350.83 km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105A
290
59
T3
104B
103A
Houston
T0
UAH
610
Pasadena
Baytown
T5
LSU
T4
T1
221A
215A
110A
214B
45
Galveston
220B
Galveston Island
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Google
lat 29.644549° lon -94.765538°
elev 4 ft
Eye alt 77.87 mi

weather.

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WTNT44 KNHC 130259
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HURRICANE IKE DISCUSSION NUMBER 48
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL092008
1100 PM EDT FRI SEP 12 2008

A PLETHORA OF DATA FROM NOAA DOPPLER WEATHER RADARS...NOAA AND AIR FORCE RECONNAISSANCE AIRCRAFT...AND SATELLITE IMAGERY ALL INDICATE THAT THE STRUCTURE OF IKE HAS IMPROVED MARKEDLY OVER THE PAST 6 HOURS...AND A 40 NMI DIAMETER EYE HAS BECOME PROMINENT. THE LOWEST PRESSURE REPORTED BY RECON HAS BEEN 952 MB. DOPPLER RADAR VELOCITIES IN THE NORTHERN EYEWALL AT 6500 FT HAVE BEEN AS HIGH AS 114 KT...AND A DROPSONDE IN THAT SAME AREA MEASURED A PEAK WIND VALUE OF 116 KT. MAXIMUM FLIGHT-LEVEL WINDS AT 700 MB HAVE RANGED FROM 103-105 KT...AND A RELIABLE SFMR SURFACE WIND SPEED OF 90 KT WAS MEASURED IN THE SOUTHERN EYEWALL AROUND 0140Z. ALL OF THIS INFORMATION CORRESPONDS TO A MAXIMUM SURFACE WIND SPEED ESTIMATE OF 95 KT.

THE LARGE EYE OF IKE HAS BEEN WOBBLING CONSIDERABLY OVER THE PAST 6 HOURS...BUT A GENERAL MOTION OF 315/10 SEEMS TO HAVE BEEN THE PREFERRED DIRECTION OF TRAVEL. SHORT TERM EXTRAPOLATION WOULD PLACE THE CENTER OF IKE ALONG GALVESTON ISLAND AND/OR THE UPPER-TEXAS COAST SHORTLY BEFORE SUNRISE SATURDAY MORNING. AFTER LANDFALL...IKE IS EXPECTED TO CONTINUE MOVING AROUND THE WESTERN PERIPHERY OF A SUBTROPICAL RIDGE SITUATED EAST-WEST ALONG THE NORTHERN GULF COAST AND TURN NORTHWARD IN ABOUT 12-18 HOURS...AND THEN RECURVE RAPIDLY TO THE NORTHEAST BY 24 HOURS AHEAD OF A FAST APPROACHING FRONTAL SYSTEM. BY 36-48 HOURS...IKE MAY BECOME ABSORBED BY THE FRONTAL SYSTEM OVER THE UPPER MIDWEST. THE OFFICIAL FORECAST TRACK IS ESSENTIALLY JUST AN UPDATE OF THE PREVIOUS TRACK...AND IS DOWN THE MIDDLE OF THE TIGHTLY CLUSTERED NHC MODEL GUIDANCE.

IKE STILL HAS ABOUT A 6-HOUR WINDOW OF OPPORTUNITY TO STRENGTHEN INTO A 100-KT MAJOR HURRICANE. EQUALLY IMPORTANT...HOWEVER...IS THE EFFECT THAT STRONGER WINDS ALOFT WILL HAVE ON HIGH RISE BUILDINGS. WIND DATA FROM LAND-BASED DOPPLER RADARS AND AIRCRAFT DROPSONDES INDICATE THAT WINDS NEAR CATEGORY 4 STRENGTH...115 KT OR 130 MPH ...EXIST JUST A FEW HUNDRED FEET ABOVE THE SURFACE. THERE COULD BE A REPEAT OF DAMAGE TO WINDOWS IN HIGH RISE STRUCTURES SIMILAR TO WHAT OCCURRED DURING HURRICANE ALICIA IN 1983. THE PEAK WIND SPEED AND VARIOUS WIND RADII WERE HELD HIGHER THAN OUR INLAND WIND DECAY MODELS ARE PREDICTING DUE TO THE MUCH LARGER SIZE OF IKE.

ONE SHOULD EMPHASIZE THAT IKE IS A VERY LARGE HURRICANE AND
REGARDLESS OF WHERE THE CENTER OF THE HURRICANE MAKES LANDFALL...THE
EFFECTS WILL BE FELT AT LARGE DISTANCES FROM THE CENTER. IN
ADDITION...THE LARGEST STORM SURGE WILL OCCUR WITHIN THE ONSHORE
FLOW NEAR OR JUST AFTER LANDFALL. WATER LEVELS HAVE ALREADY RISEN
MORE THAN 9 TO 12 FEET ACROSS A LARGE AREA OF THE NORTHWESTERN GULF
OF MEXICO...INCLUDING GALVESTON ISLAND.

FORECAST POSITIONS AND MAX WINDS

INITIAL	13/0300Z	28.6N	94.4W	95 KT
12HR VT	13/1200Z	30.3N	95.4W	70 KT...INLAND
24HR VT	14/0000Z	33.2N	95.3W	35 KT...INLAND
36HR VT	14/1200Z	36.6N	92.3W	30 KT...BECOMING EXTRATROPICAL
48HR VT	15/0000Z	40.5N	86.0W	25 KT...EXTRATROPICAL INLAND
72HR VT	16/0000Z...ABSORBED BY A FRONTAL ZONE			

$$
FORECASTER STEWART/BLAKE/BERG

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