28 36
98.34

050829I

Lead Project Scientist

Katrina Landfall

Preflight

MB 1. Participate in general mission briefing.

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

No 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.
do not

MB 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.

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

MB 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.

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

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

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

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

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

In-Flight

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

____ 2 Confirm camera mode of operation.

____ 3. Confirm data recording rate.

____ 4. Complete Lead Project Scientist Form.

____ 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

____ 1. Debrief scientific crew.

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

____ 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.]

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

____ 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.

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

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

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

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

Mission WX12A Katrina
IP

Lead Project Scientist Check List

Storm or Project Katrina **Experiment name** Landfall
Date 8/29/05 **Aircraft** N43 **Flight ID** 050829I

A. Participants:

HRD		AOC	
Function	**Participant**	**Function**	**Participant**
Lead Project Scientist	M. Black/P. Dodge	Flight Director	Tom Shepherd
Radar	Dodge	Pilots	Phil Kennedy, Randy tebeest, Mark Nelson
Workstation	Dodge	Navigator	Pevin Drakob
Cloud Physics	—	Systems Engineer	Greg Bast
Photographer/Observer /Guests	Stan Goldenberg	Data Technician	Sean McMillan
Dropwindsonde	Chris Landsea	Electronics Technician	John Hill
AXBT/AXCP	Stan Goldenberg	Other	Mark Rogers, Randy

AOC Director Steve Koszak

B. Take-off and Landing Times and Locations:

Take-Off: 0655 UTC Location: MacDill

Landing: _____ UTC Location: _____

Number of Eye Penetrations: _____

C. Past and Forecast Storm Locations:

Date/Time	Latitude	Longitude	MSLP	Maximum Wind
29/05Z	28.02	89.54	910	125KT (145 knots)
FCST 29/12Z	29.2	89.7	3	135KT

D. Mission Briefing: 12,000 ft, IP south of storm, N thru ctr, 4 drops S+N ew, 3 BTS 25, IN, Slidell, SW to DLL, IP: 27, 89.48' ~30 sonde 5 BTS east thru eye, NE to coast, coastal run to west onshore flow to 4200', SW thru eye, downwind W-E south of eye straight north to east of eyewall, along wind 4 drop sequence toward coast then to N. Onl, south to eye north to coast, E-W along coast south to outside of N eyewall, another along wind 4 drop sequence, south to eye, E exit to MacDill

(1)

Katrina Landfall

Lead Project Scientist Event Log

Date 8/29/05 **Flight** 050829I **LPS** M. Black

Time	Event	Position	Comments
0655	Takeoff	MacDill	
0758	crossing outer band, descending 27.4 87.3		
0800	Eye clearly visible – concentric eyewalls		
0815	Adjusted track to head NW to speed things up		
0820	Crossing convective rain band – 80-90 kts		
~~0839~~		60 kts SFMR	
IP 0839	~60 miles south of eye turning north, eyewall open south		
0848	BT #1		
	Drop 1	All 4 sondes 3 minutes late with data – w/ AF3 interference	
	Drop 2		
Drops	Drop 3		
	BT #2		
085224	28.75 89.67 eye		
0906 –	circling in eye – will drop an eyedrop to see if interference		
091230	28.85° 89.71° eye – drop 5		
0915	circling to clear eye sonde		
092125	AXBT in eye		
092503	Drop		BT – 27°C
	Drop	North	
	Drop	Eyewall	
0938	Drop of N. Orleans. SFMR looks good in shallow water		
094119	Turn to SW ~75 miles N of Ctr		
094442	Drop		

101421, Drop in west outer eyewall – no launch detected

102105 – drop eyewall,

South eyewall open

14 Kts

(5)

Lead Project Scientist Event Log

Date _____ **Flight** _____ **LPS** _____

Time	Event	Position	Comments
1024	orbiting	In eye	for bathroom break
	elliptical eye		30x50 n.mi.
10302	Drop	East eyewall	105 kts
10423	Drop RT		SFMR
	29 54'	88 30	Mean 42040
	launch Relea		
1055	Outside turnpoint E of Mobile Bay		
	for E-W coastal run		
1058	Drop 19	East of Mobile	
11026	Drop 18	30 12'	88 33
11133	Drop 19	30 12'	89 4
1116	Turn to South		
1118	Drop 20	30° 8'	89° 32' 100 kts
1120	eye over Booth ville		
11265	Drop 21		
11270	Drop 22		
11300	eye	29 21'	89 35'
1148	SSE of eye	75 miles	35 kts SFMR
11254	East of eyewall		
1207	Between inner + outer		
1208	120 kts tail wind		15 miles
120840	10 miles offshore		east
120937	5 miles offshore		of New Orleans
12003	At 700 MB	NW of eye	
	turn to SE and eye		
1219	Over Lake Pontchartrain		

SFMR looks ok

AF 9

Lead Project Scientist Event Log

Date _____ **Flight** _____ **LPS** _____

Time	Event	Position	Comments
122210	Lake Ponchartrain		Prop STMR
1225	Over New Orleans		~75-80 kts
123026	NW eyewall	Drop	inner edge
			90 kts STMR
1233	Eye		
1238	Going around	Feature in	Est eyewall
1239	Strange	Feature on	tail
1242	Drop	in east	eyewall 126 kt
	Help Eqt		Flt lvl
1254	Turn to North	at 88°W	
	For second	coastal	run
1303	Ndg		
1307	Drop		
1312	Drop	near Biloxi	
1313	Turn to	SSE into	wind
1321	Turn around to	Head along	coast
1325	Drop #1	~25 miles	offshore 125
1326	Drop #2	~20 miles	
132645	Drop #3	~15	
132838	Drop #4	~10 miles	
133328	Turn to	South to	eye
134058	Inner Edge	NW	eyewall
135035	Near	Est	eyewall
	Last Drop		
1356	88°W climb		

2nd Drop Sequence

1st Leg

0508291 (3)

Will do ANOTHER drop to see if interference

91220 28°48' 89°33' Sonde data good (DROP)

so now more orbits to get snd seq ready.

92121 BT 28°51' 89°35 IN EYE

WE are HDG N to LIX tr/wing 360

92508 SND #6
92529 #7
92552 #8
92621 #9

N eyewall SEQ for CLONE

These SONDES have same prob - data 3-4 minutes late

94115 turn 30°20' 89°34

1145 snd: 30°21 89°50

(4) 0508291

FOR's:
start time 843 (AN OIR? NO.)
end 941
start 921 ctr 28°51', 89°35'

95505 SND 29°39' 90°31 W of New Orleans overland

1007 trking 90° for E/W pass

1012 W outer eyewall 28°54', 90°25' 87 KT

101423 SND 28°54 90°19 95 kts FLT LVL

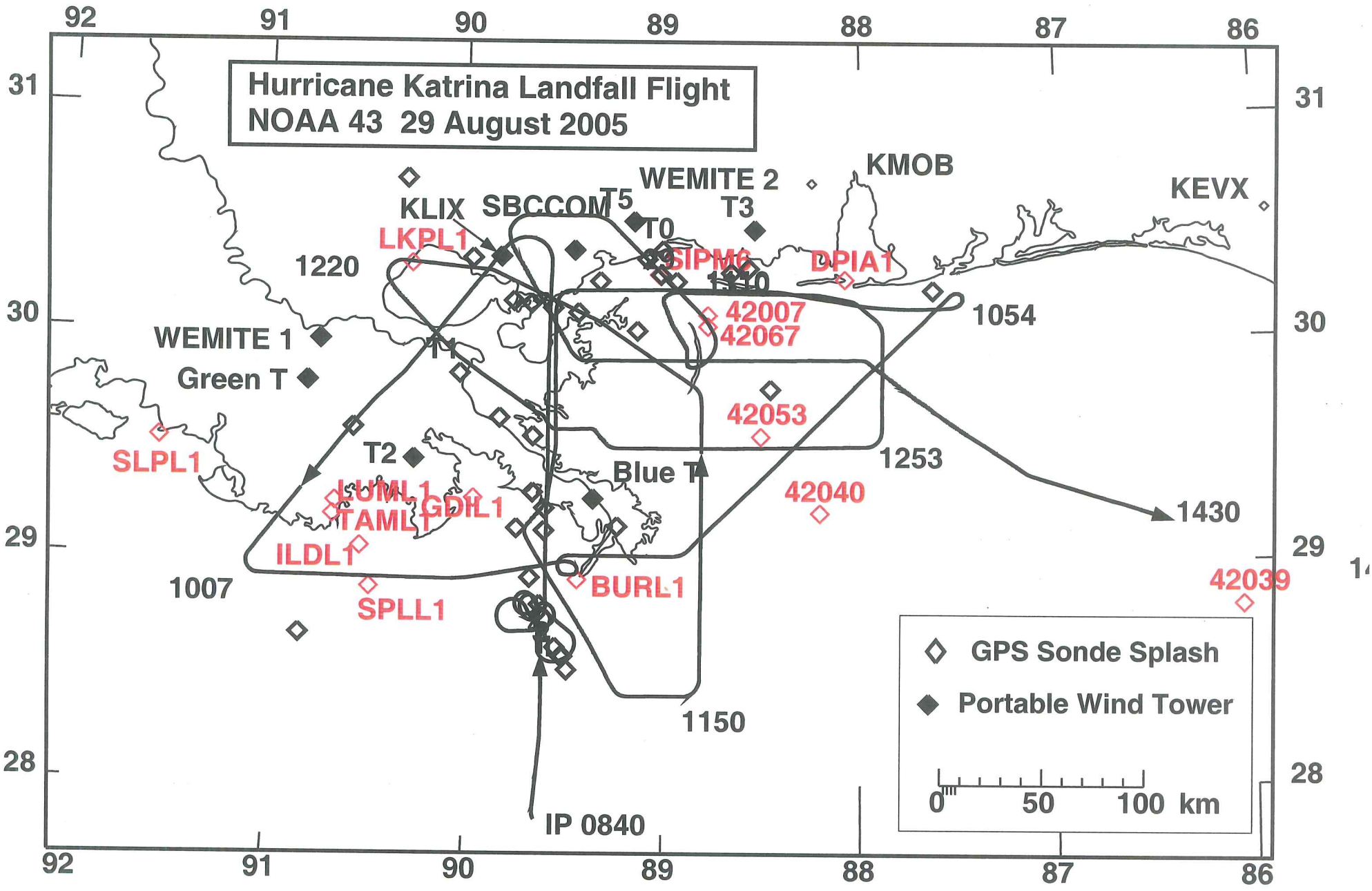
Inner eye ~35 nmi diam 30 nmi

1017 trk 85°, 6, away then 080

102501: SND 28°57 89°42

1023 exit N eye.

1. IP 27.0N 89.8W
2. 30.4 89.8
3. 29 91
4. 29 ~~87~~ 89
5. ~~31.2 87~~ 30.2 97.5
6. 30.6 89
7. 28 90.8
8. 28 89
9. 29.4 89
10. 30.3 90.3
11. 30 90.6
12. 28.4 88.6
13. ~~30.7 88~~
14. ~~30.7 89~~
15. 29.7 89
16. 30.6 90
17. 29.6 89.9
18. 29.2 88
19. McDILL


Hurricane Katrina Landfall Flight
NOAA 43 29 August 2005
92
91
90
89
88
87
86
31
30
29
28
KLIX
SBCCOM
WEMITE 2
T5
T3
T0
KMOB
KEVX
LKPL1
SIPM6
DPIA1
1220
1054
42007
42067
WEMITE 1
T1
Green T
42053
SLPL1
T2
Blue T
1253
42040
LUML1
GDIL1
TAML1
1430
ILDL1
1007
BURL1
42039
SPLL1
1150
IP 0840
GPS Sonde Splash
Portable Wind Tower
0
50
100 km

Altitude? 10 or 12

N-S

20050829I1

26.9 89 21Z init
28.3 89.8 6
30.6 89.9 18Z
00Z ~28.8 89.8

00Z 27.2 89.1

3AM
07Z take off

11PM Init 03Z
27.6 89.4 tampa ~27.5 N 78W

12Z 29.2 89.7

AF
21Z/29
00Z/30
03Z/30th

Stan 710

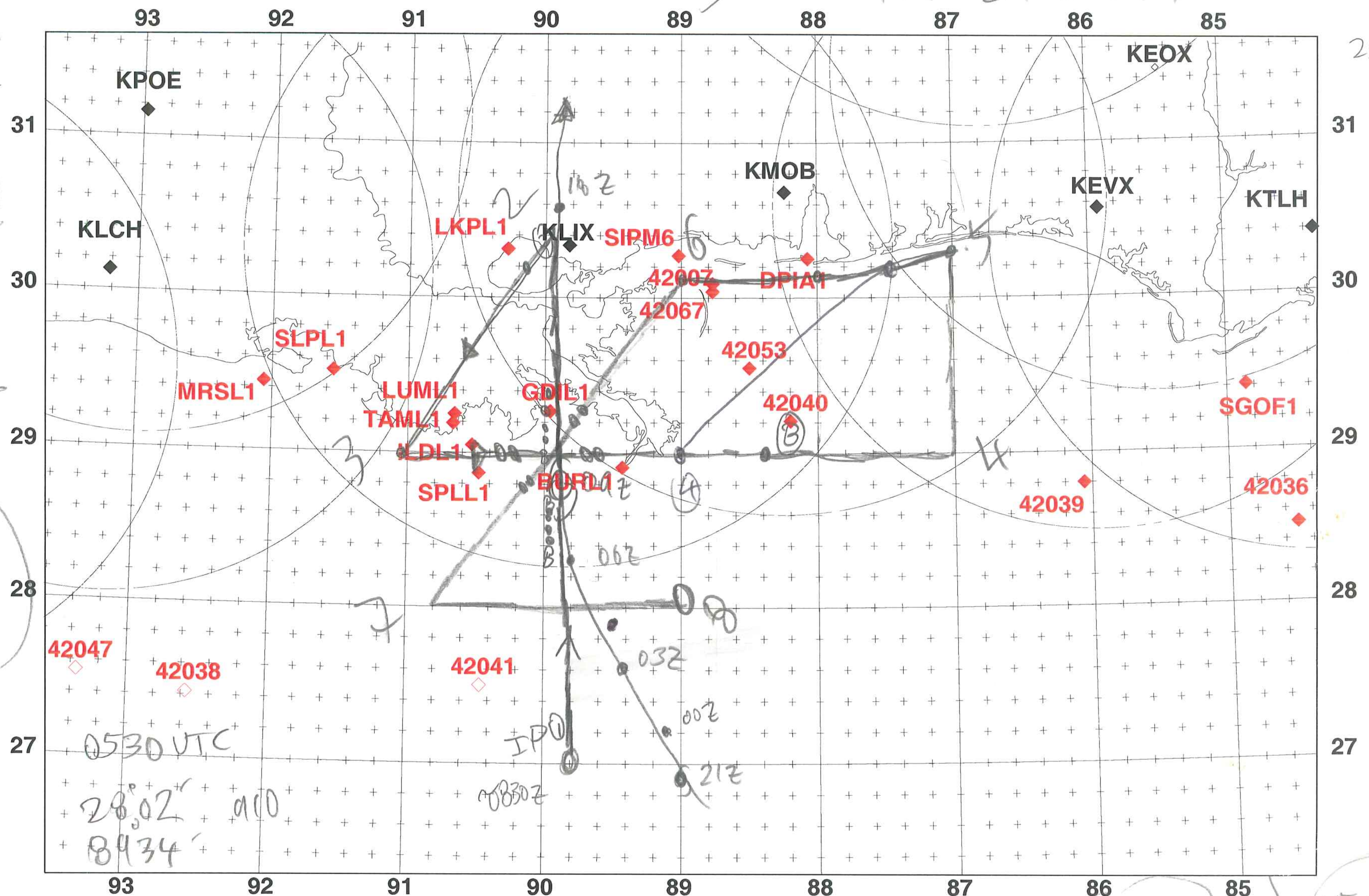
Peter Dodge

Dave 1

6 BTs

25 nmi eye diameter

Center Lat: 29.00 Lon: -89.00



0 50 100 150 km

230 km range rings

0449Z 27 53 89 31 910 mb

IP to 30.4, 89.8
inbound 4 across eyewall (flight level RMW inward) start

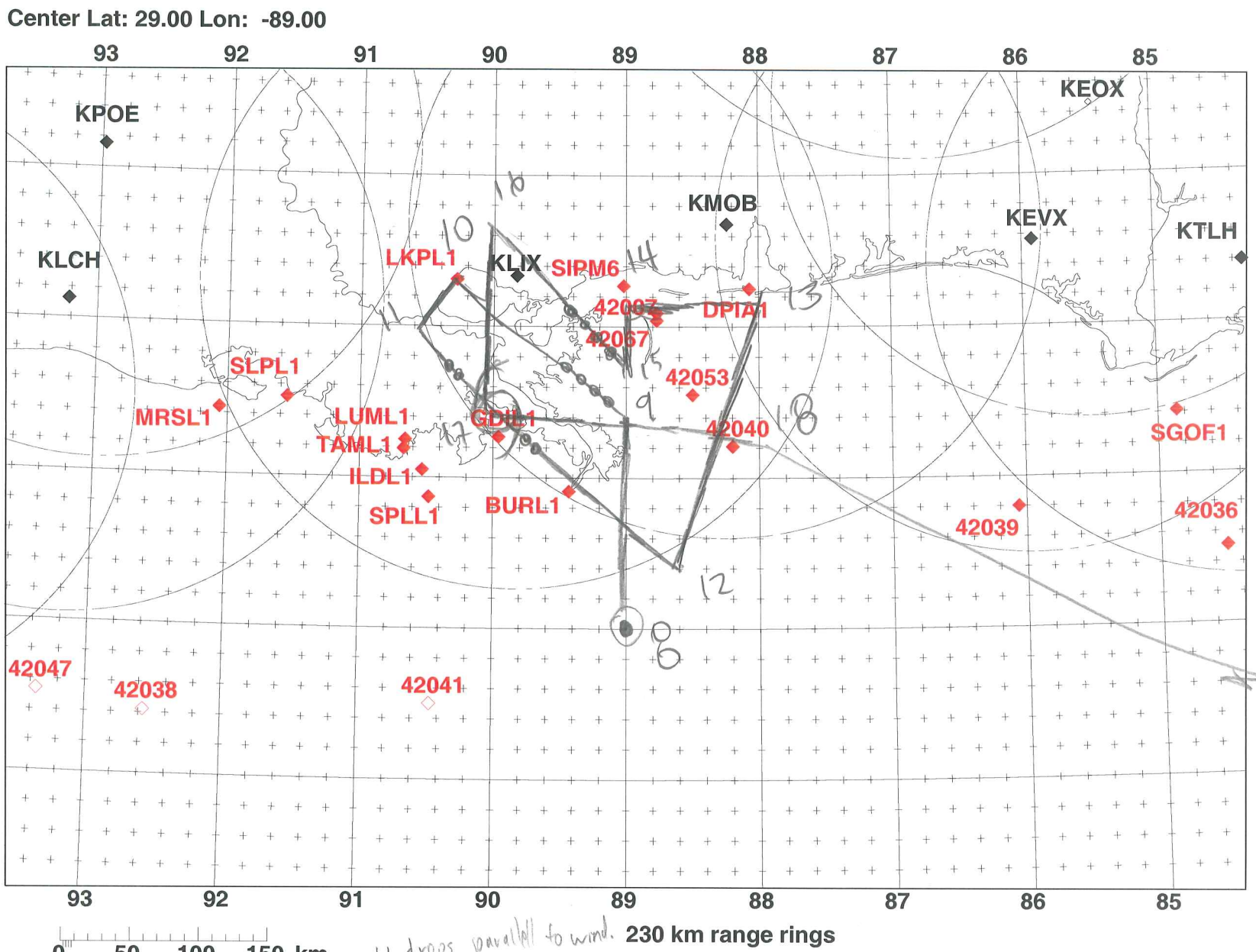
S to N

155 n mi apart sandwiched by BTs

W to E
2 west eyewall
1 eye +BT
2 east eyewall

NE to SW
2 NE eyewall
2 SW eyewall

20050829I1

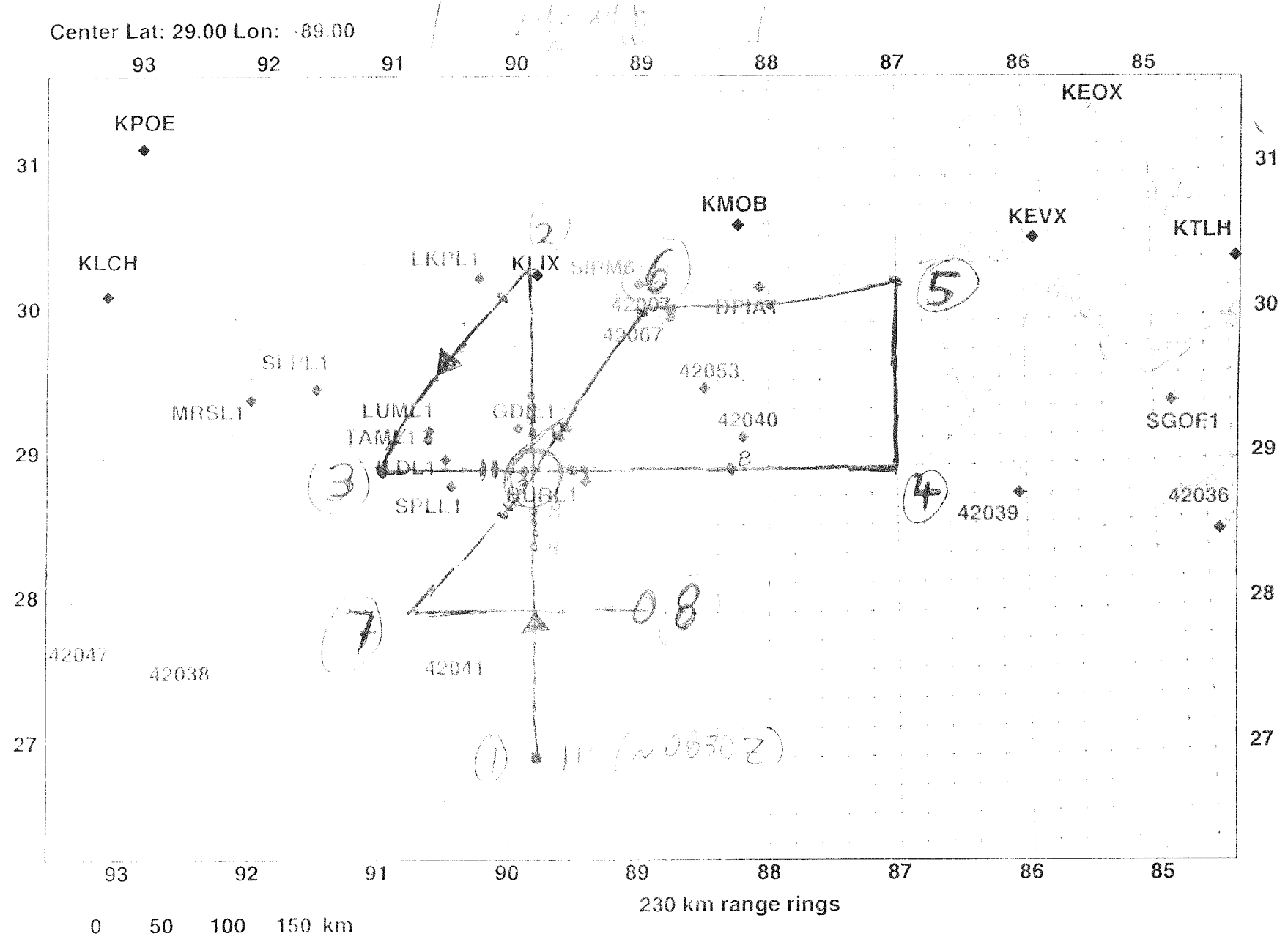


Part II

21 drops so far

14 drops parallel to wind.

NW to SE
2 SW beyond
2 SE beyond


Center Lat: 29.00 Lon: -89.00
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KPOE
KEOX
KMOB
KEVX
KTLH
KLCH
KLIX
LKPL1
SIPM6
42003
42007
DPIA1
42053
SLPL1
MRSL1
LUML1
TAML1
GDIL1
42040
SGOF1
LDL1
SPLL1
BURL1
42039
42036
42047
42038
42041
(1)
(2)
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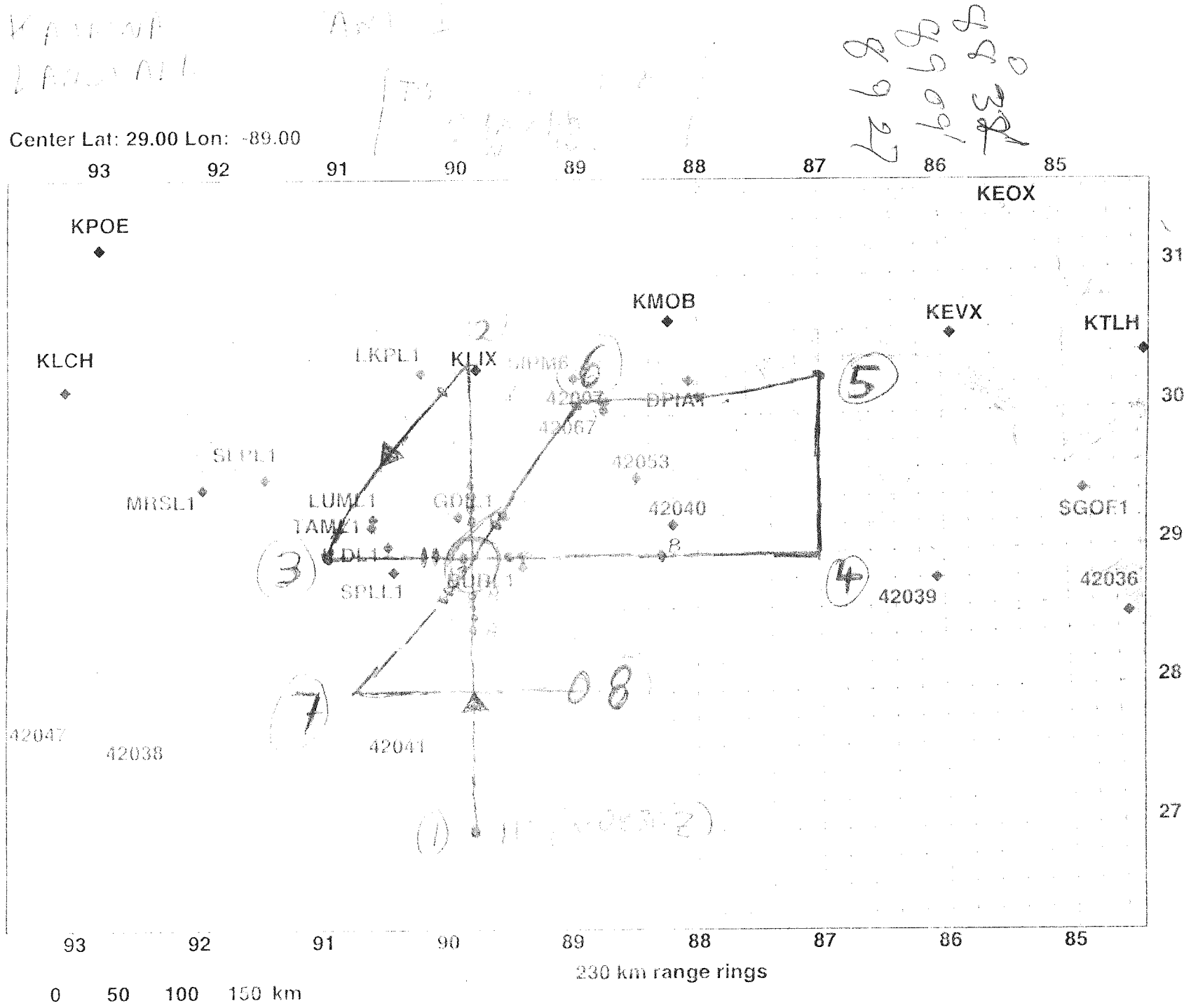
(8)
230 km range rings
0
50
100
150 km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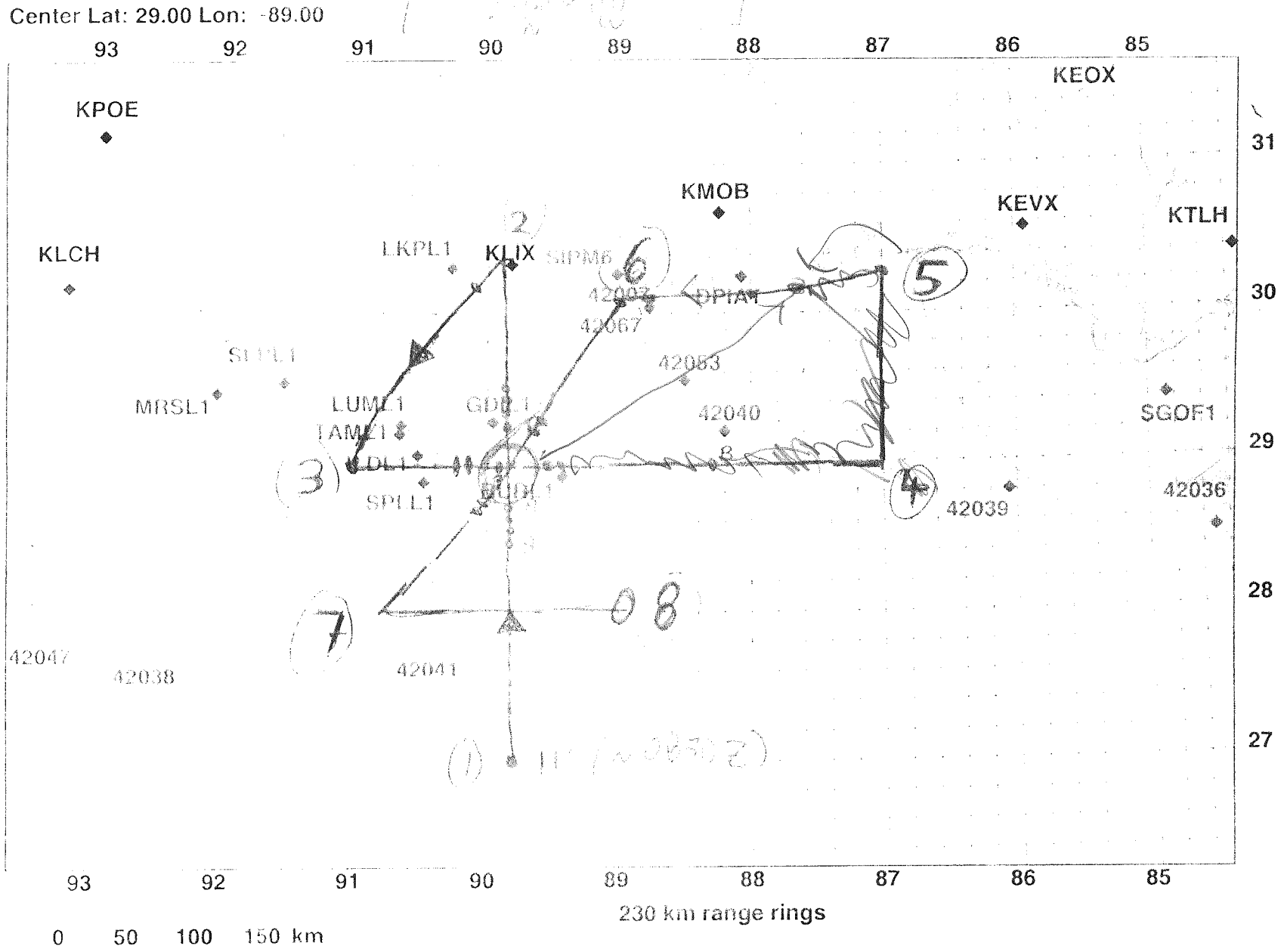
150 km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230 km range rings
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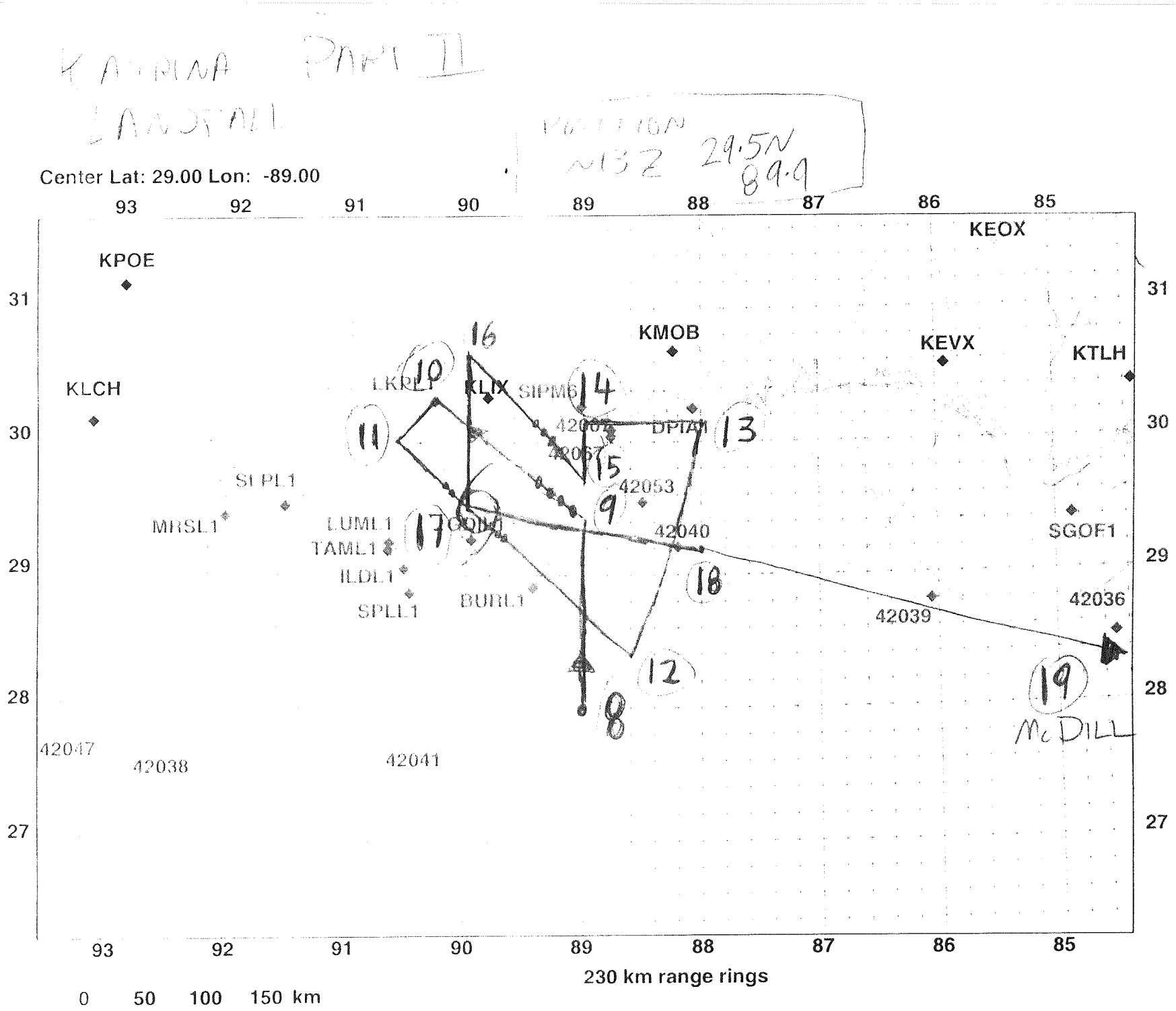
50
100
150 km


KATRINA PART II
LANDFALL
POSITION
~132 29.5N
89.9
Center Lat: 29.00 Lon: -89.00
93 92 91 90 89 88 87 86 85
31 30 29 28 27
KEOX
KPOE
KMOB
KEVX
KTLH
KLCH
LKRL1
KLIX
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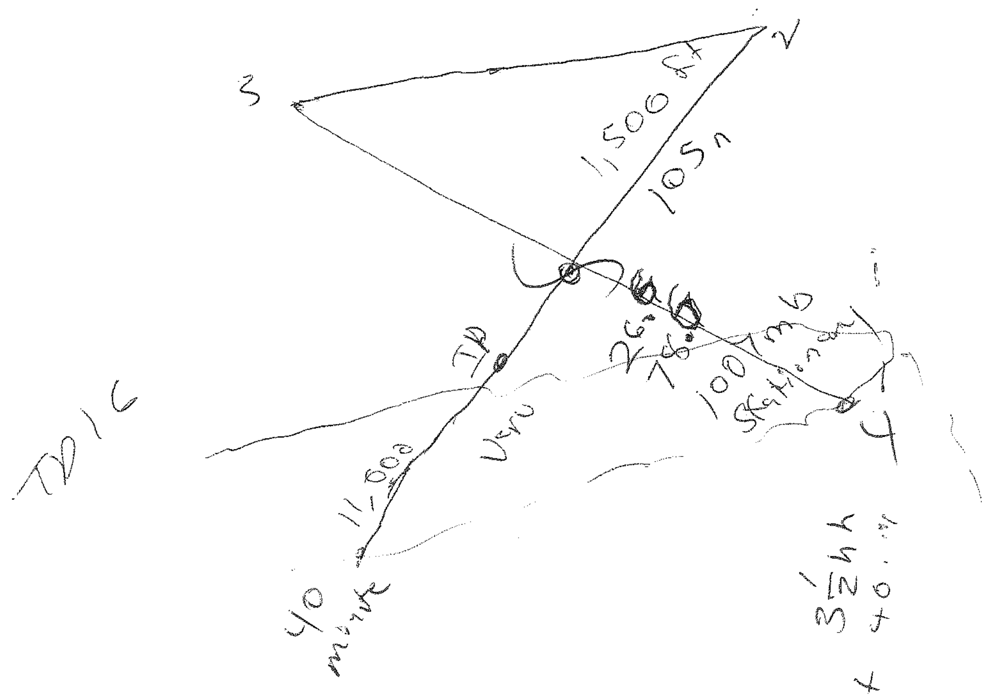
McDILL
230 km range rings
0 50 100 150 km


TDIC
3
2
1,500 ft
105n
11,000