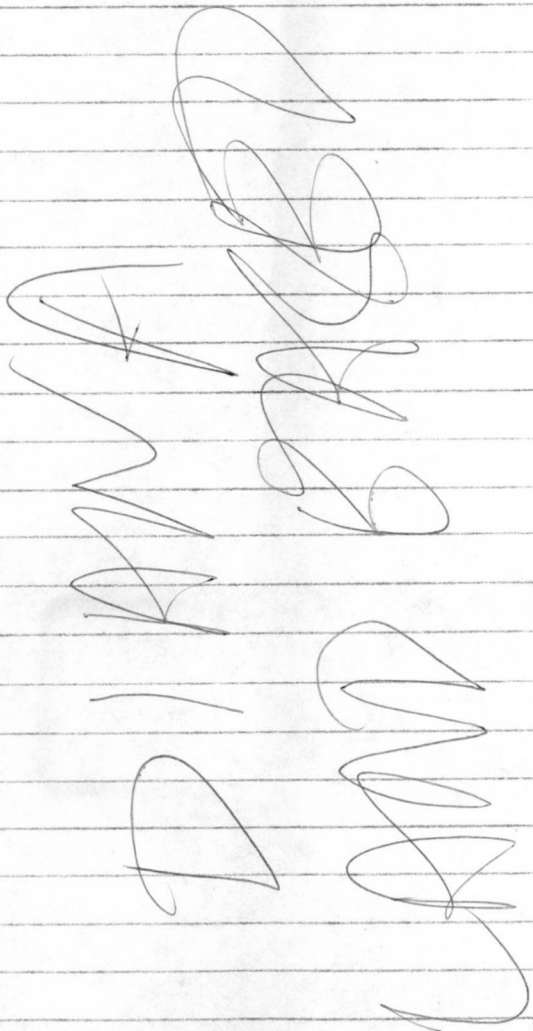


19840911-14 LAND_CHS

OFF 234019



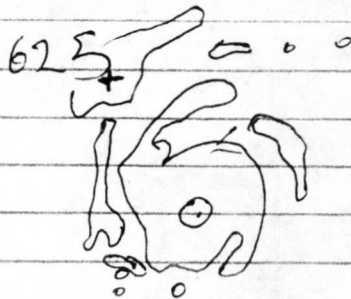
DIANA Sept 11 84

Deployed to Charleston S.C.
via Raleigh N.C.

had troubles with loose
connections - didn't get it
running until 4Z (12 local)
- but radar down only 5
to 10 min...no impact on
operations.

510Z storm-tracking slowly
N, NE ... 977 mb at 32 fix.
rec data at 2°, every 3rd sweep.
15 pulses per integration - if moves
closer will switch maybe to
every other. No CAPPI's yet.
Could not connect VCR because
it loaded down their TV's.

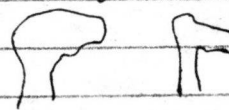
554 ☐ shape to eye wall



no dense echo
~~not seen~~

705 now rec 1° data, every 3rd sweep
- some level 2 showing in
North part of eye wall.

830 outermost band on radar
just off coast now -
RHI's showed some

 structure to cells NE
of radar - also long band
of level 2 East of eye embedded
in the large level 1 area that
encloses eye.

836 - actually 2 level 2 areas
east of eye, also slot NE
of eye seems to be deepening



1006 - strongest convection
in rainband just off CHS
- as we prepare to watch
DIANA sail on by

1803 radar down,

eye 60 mi due South
of ILM nice tight eye
outer band North of
Wilmington, motion
of eye seems to be dead on
ILM

18 Z AIRCRAFT (from wire:)

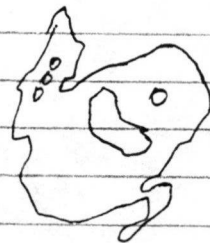
954 mb

125 mph winds

33.2° 78.0°

~ 2130 fix (RADAR)

33°35', 77°43'



~ 2.5 mi SE
of CAPE FEAR
4.5 mi
SSE of ILM
50 mi E of
MYR mark

Sept 11, 1984

CALIB

PRF made, $\div 11$, ~~1280~~

started 1442

✓ running radar

Steve Waterman in Tower
PB noting times.

Sept 13, 84

NHC IS PLANNING TO
DOWNGRADE "DIANA" @ 2200Z/
1800L. Hope All Agree -

THERE'S NO CURE LIKE
SECURE from this shit.

PA

Sept 12 ILM summary

~ 6 pm - arrive, introduce ourselves,
begin hookups

- 730 hookup and recording
RADAR never went down.

Had some problem with mismatch
of grounds (emer. power sys)

recorded data all night
through next day until

Sept 13 ~ 5:00 local

6 pm - downgraded to local
storm.

SWEET DREAMS

Sept. 14:

~ 930 arrived crt station to
do calih.

ILM Personnel:

MIC: Al Hinn

Radar Ops: Donald "Chuck" Holtzinger

✓ Ralph Foote

✓ Dave Stevenson

OUT FRONT Robert Jeniski

✓ Joe Filion

OUT FRONT Russ Ketterman

Art Prosser

Harold Miller

Renn Honeycutt.

Electronics Techs: Roger Clark
Bill Steine
Stines

Sept 14 1984

1408: beg rec Calib.

1411 done

they are calibrating
their DVLP

II. Data Tape Worksheet

1984

①

Storm Name: DIANA

Date: 9/11/84

NWS Station: CHS

Recorded By: _____

Radar Op: ~~Rick Lane~~ Richard Lane, Ruth

EL Techs: Steve

PRF ÷ 11

MIC: DICK SHENOT

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
1	320Z ↓ 327			2°, every 3rd sweep, AZI trigger didn't ship sweeps.
1	2359	648	N O N E	every 3 rd , 2° AZI trigger 402 doing obs (SPEC) RHI 412 " " (but no RHI) 420 - 3 ~ 3° elev. Time sample on DVIP 31 043650 - time sample 15 457 RHI in eye 517 - doing obs RHI 555 OBS 63636 - went continuous

for 3 sweeps

~~REA~~
VCR #1 - 412Z beg, → BUT CAN'T USE - LOADS THEIR KAVOORAS DOWN.

II. Data Tape Worksheet

1984

(2)

Storm Name: DIANA

Date: 9/11/84

MWS Station: CHS

Recorded By: Dodge, Clemenshaw, Bogert

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
2	656	80301	742 1° 743 2° 743 3° 744 4.2° 744 5.3° 6.2° 7.3°	658 700 - changed to 1°, still every 3rd sweep CONTINUOUS 742-748
3	807	-		1°, every 3rd sweep 825 - some RHI'S 837 POWER FLUC,

847 powered up again
reset time (maybe off)

RADAR will be in
short pulse for ~15 min,
852 Steve adjusting
their DVIP...

took tape off
1110 EOT

840

emerg. power off
back to comm. off

II. Data Tape Worksheet

1984

(3)

Storm Name: DIANA

Date: 9/1/84

NWS Station: CHS

Recorded By: Dodger Clemenshaw, Berger

NWS shift change at 10Z:

Radar Op: Steve Blackman, Fred Moore

EL Tech: Steve

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
4	903		94644- 94934	10, every 3rd sweep STOP AT 92904 time was fast on TOP reset to 92730 and resumed recording This only affects part of one sweep → throw out sweep next good sweep: 92834 (STILL SIX SECONDS FAST OVER WNV) 10, 2.1, 3.2, (changed 240-300°) 4.1, 5.2, 6.3, 7.3 1026 RHI's (not rec)

Ran off end 1126

II. Data Tape Worksheet

1984

(4)

Storm Name: "DIANA"

Date: 9/11/84

NWS Station: DODGE, CLEMSTON, ROBERT

Recorded By: CHS

w/ CALABRATION
LVLS...

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
#5	1133 OUTAGE 134100	134400	END	Problems with Radar @ 1134. Radar out of service @ 1136. Stopped TAPE @ 1138 due to RADAR TRANS. failure! -CALS- 131447 LVL 2 131630 LVL 6 TERMINATED @ 131851
				132806 LVL 2 132818 LVL 3 132826 LVL 4 132836 LVL 5 (132904 2nd) 132851 LVL 6 132930 Recorder Stopped.

✓ New
CALC...

II. Data Tape Worksheet

1984

5

Storm Name: "DIANA"

Date: 7/11/84

NWS Station: CHS

Recorded By: Pete, Big John, Phil

IN AZMUTH TRIGGER SEL.
@ 1° w/ every 3rd sweep.

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
#6	015353 025800	023600 - stopped 1855		* Reset Clock @ 015353... 015630 stopped w/ RADAR PROBLEMS, STILL Recording. * 021450 FM C-LOG TO LOG made * @ 023600 stopped Recorder for MORE MAINT - trying to upgrade SIGNAL LEVELS... OPS @ 0300 ops @ 0321 Stopped tape @ 0340 RTec in dome - changing TR Tube

@ 0400 30 Reset clock to 16 0530

1707 waiting for TR tube to be replaced before resuming recording

1715 - ~~radar~~ El Tec's up in Radome...

1829 - radar still down, El Tec's in Radome

1839 - magnetron back up, looks good (comp. to ILM)

II. Data Tape Worksheet

1984

6

Storm Name: DIANA

Date: 9/11/84

MWS Station: CHS

Recorded By: Peter, John, Phil

1°, AZI SEL, every OTHER SWEEP

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
7	1945 1948	1948		1948 tape went bonkers put two cofs, rewound
8	~1950	205023	~1953	1.1, 2.1, 3.01, 4.2, 5.0 Some level 3 in eyewall 1958 doing obs - some RHIs 2025 obs - good rewinding
9	205659	~2154		2107 Vol scan started 2109 End Vol scan FUCKING TAPE RAN OFF
10				

II. Data Tape Worksheet

1984

7

Storm Name: DIANA

Date: 9/11/84

NWS Station: CHS

Recorded By: JOHN PHIL PETER

eye at 125 mm now...

TAPE NUMBER	START TIME	END TIME	CAPPI TIMES	NOTES: (ANTENNA ELEVATION, TOP ELEVATION ANGLE FOR CAPPI'S, OTHER RADAR OBSERVATIONS)
10	2200			1°, every 3 sweeps 2209 obs - RHI'S 2222 - video signal <u>may</u> have weakened, 2231 - signal seems OK <u>now</u> stuff too far away to do any more CAPPI'S RAN OFF END. P.O.S. DRIVE
11	234/29	~2330		1°, every 3rd 0021 - 100 mph winds rep by COAST GD near CAPE FEAR

0024 extensive ground return area.

0033 - TAPE STOP

23 Z radar eye pos: 64° 127 mm

2257 ILM radar fix 33°43' 77°42'

2250 ILM obs;

12

75° 74° 0429647 ~~444~~ 29.58"0

212 Z:
turned recorder
off

DIANA

↔ EASTERN Airlines

ACCT 358 444

Tel. Credit Card #

644 - 174 - 1435 2417

CHARLESTON ~~!!~~

Eastern Reg

MIC Dick ~~Shano~~ ~~Sheno~~

Sheno

BOB JONES =
call every 6 hrs
3, 9

OZ (ex (A#)) 31.3 79.2

FCST

76 kts at 700 mb

NE 11 const
[in SW] [NSW]

977 mb

NE 5 kts

PHIL: types of data for M. Lowell

~~KING'S INN~~

267

PEP 268

KNIGHT'S INN

744 4900

72 hr.
35° 5 75
04Z

CHS - Sept 11 - 1984

175129 ~~7~~ ~~CALLB (7)~~

~~level 1~~ 22

getting magnetron

~~dat~~ radar down from

1540 - 1830 at least

~ 1836 BACK UP.

-1852 obs -

CALL BACK AT 8 this
evening

Sept 11

0033 STOPPED

212 Powered down rec

~~2040~~ Rayleigh
~ 10 AM

CHARLESTON FOLKS:

MIC: DICK SHENOT

EL Techs: Steve Waberman

Charles ~~S~~ Hoback (Columbia)

Radar Operators:

Richard ~~Lange~~ Lane

Ruth Ann Oliver

Steve Blackman

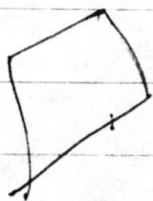
Fred Moore

300.5 Western Union

1800 325
6000

723
~~788~~ 7495

near Church's
Fried Chicken



Shepley's Drugstore

3310 Rivers Ave.

between Cosgrove & Reynolds

N of Aviation

right at Rivers

744-1125

232 Meeting St.

Piggly Wiggly Store:

WILL CALL MONEY ORDER

232 Meeting St.

727-7495

interstate ends

splits stay left

get on (17)

splits again

stay left

1st light

turn South (right)

Sept 10

9am - 1245 GET SHIT TOGETHER

1245 left on EAL

arr. Raleigh ~ 220

car was ready

went to Raleigh WSFO

talked to Bob Mueller MIC
and NHE

picked up recorder

arr CHS 9:30

recording by 12:00 (4Z)



stopped at 9 at night Sept 11

Sept 12

got to WS 930

did calibration

got copies of ~~obs~~ obs

packed up and left for ILM

at ~ 1230

1040Z Sept 13 1984

getting towards end of
tentative tape of 1° data. Hope ~~it~~^{is} ~~is~~
data are getting on there. In the
last couple of hours the emer. power
gen has been fluct. some, - hope
this does not affect us too much -
John says most of what were doing
is PC'ing away. So far 22 volume
scans ^{recorded}. Eye seems to be doing a
wobble over land.

Heavy damage
to Brunswick Co. Power plant reported,
power out all over - 1 death rap. in
Auto Accident near Charlotte.

1134Z extensive damage to
Southport power plant (NUK!)

1148Z latest fix (1/2 219° 28 nmi →

1341Z John doing job of
hunting up tapes - lotsa offers
due to mention on TV show.

Sept 13 ~~also~~

~ 11 local: PB & I leave to get room and breakfast/lunch. Get musty room at Best Western - head off to ~~the~~ food - decide to check out Wrightville Beach - police & nat'l guard have road block at draw-bridge - we show NOAA ID, proceed to Pol. Stn. where an Alderman gets us a temporary pass - drive to south end of beach - damage mostly shingles and small boats over on sides (small cats, rowboats) - check CG stn. they have Anemometer but back at Pol. Stn. find out from CGman that it did not record any data! return, eat buffet at Whaley's (a post hurricane RIP-OFF) I go to hotel to sleep, PB returns to WSO. John & Phil record data till 5 or 40, scored some extra tapes from FAA & others. Meet me at 5:30. eat dinner and guten nacht.

EL TEC's Wilmington

Bill Stines

Roger Clark

FAA. / AFS office Wilmington Airport,

Ronald Sorenson Supervisor

Robie Roberson El Tec

Loaned 6 tapes
Agent Bill Returned them

Glenn Holden

314 N. Hampton Rd.

Wilmington, N.C 28403

919-392-4824

Loaned us 8 tapes
did not use them

asked #1
to insure they were
returned

AIRBILL # (Rebarn)

007 RDU 6583-9314

on EASTERN

Sept 14:

arrive WSO ~ 9:30 am

do calib.

Al Hinn helps us xerox radar obs sheets and anemometer trace

John returns tapes to PAA

we pack up and go after thanking all. (Names in Green Book)

Left Wilmington about 12

arr. Raleigh ~ 4

shipped recording equip. at Eastern.

Stopped by WSPR, shoot the ball with Bob Mueller, John Polisar

Checked in with B. Burpee.

Returned rental car ~ 5:20

GoD tickets changed, left

Raleigh ~ 6 - red to MIAMI

via Atlanta - landed MIA ~ 11pm

CHS

①

Arrived on site ~ 915 local -

Hookup took longer than anticipated but I did not go down for more than ~5 minutes when searching for proper trigger & video. ALL personnel were very helpful.

did not get it working until 339Z
rec. 2°, every 3rd sweep

438Z SWITCH SETTINGS:

DVIP:

NORMAL

Blanking
2K~~Hz~~

LOW

15

C-LOG [is that right?]

DVIP controller

CONT

000

001

PRE

11

03

every
third
sweep

AZI

2°

444 tape 1 still on - all seems cool -

some level 2 near eye. Rain on roof here.

MIC says drift seems to be Northerly.

CFS
@ 325 KW PWR

351 KW

19.7db Insertion Loss

GENERATOR SETTINGS

LEVEL 1 . . . 1 dB ABOVE NOISE

LEVEL 2 . . . -52.7dBm

LEVEL 3 -41.0dBm 10.6

4 -35.7dBm -36.5

5 -30.7dBm 30.3

6 . . . -25.7dBm 25.8

Cal levels recorded

2 @ 144110/144300

3 @ 144326

4 @ 144356

5 @ 144416 , 144720

6 @ 144431

2 @ 1445

3 @ 144534

cable 1.1
Total Mod 4.3

-93

1120.7

112.5 mds

-40.6

~~9.5~~

111.

~~12.8~~

- .1 dbm

351 kw

2885 freq