

On-board Lead Project Scientist Checklist

DATE 9/14/82 AIRCRAFT 43RF FLT. 820914 I I

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	<u>JORGENSEN/BLACK</u>	Gust Probe	<u>—</u>
Cloud Physics	<u>—</u>	Omegasonde	<u>stone</u>
AXBT	<u>—</u>	Sys Eng	<u>Schricker</u>
<u>Doppler</u> Hot Film	<u>MARKS</u>	Data Tech	<u>Paradis</u>
Radar	<u>Parrish</u>	EI Tech	<u>Goldstern</u>
Flt Dir/Met	<u>Haydu</u>	Other	<u>—</u>

Take Off Mia Location 1735 Z Landing MIA Location 0258Z

B. Past and Forecast Storm Position

Date	Time	Latitude	Longitude	MSLP
<u>9/14</u>	<u>12Z</u>	<u>23.3</u>	<u>71.9</u>	<u>1006</u>
<u>9/15</u>	<u>06Z</u>	<u>25.1</u>	<u>73.0</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

C. Mission Briefing

Doppler/PBL feasibility study
No fix responsibility / 3 ODWs in route
1 ODW on way back

Proposed and Actual Flight Patterns

D. Equipment Status

<u>Equipment</u>	<u>Pre Flt</u>	<u>In Flt</u>	<u>Post Flt</u>	<u>Reports Collected</u>
Aircraft	<u>ok</u>	<u>ok</u>	<u>ok</u>	_____
Radar	<u>ok</u>	<u>ok</u>	<u>ok</u>	_____
Cloud Physics	<u>ok</u>	<u>Not used</u>	_____	_____
Data Sys	<u>ok</u>	<u>ok</u>	_____	_____
Omegasondes	<u>ok</u>	<u>ok</u>	_____	_____
AXBT	<u>N/A</u>	<u>N/A</u>	_____	_____
Doppler Gust Probe	<u>ok</u>	<u>ok</u>	_____	_____
Hot Film	_____	_____	_____	_____
Photography	<u>1/2 sec</u>	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

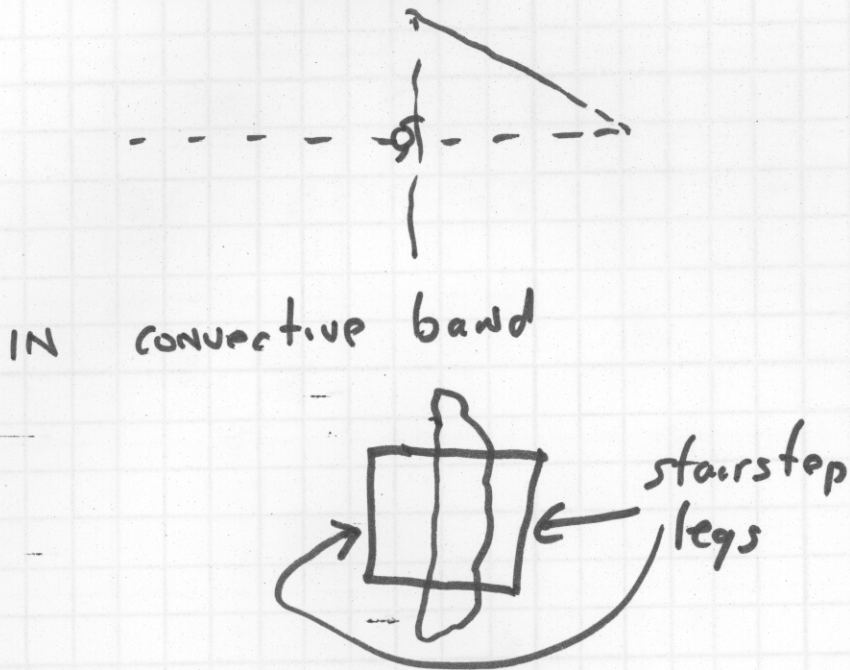
REMARKS

Tail antenna stopped during last penetration
maybe motor burned out.

HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF ϕ AND λ

E. Proposed and Actual Flight Patterns



LATITUDE

30 20 10 50 40 30 20 10 50 40 30 20 10 50 40 30 20 10 50 40 30 20 10 50 40 30

DATE _____ LONGITUDE _____ OBSERVER _____

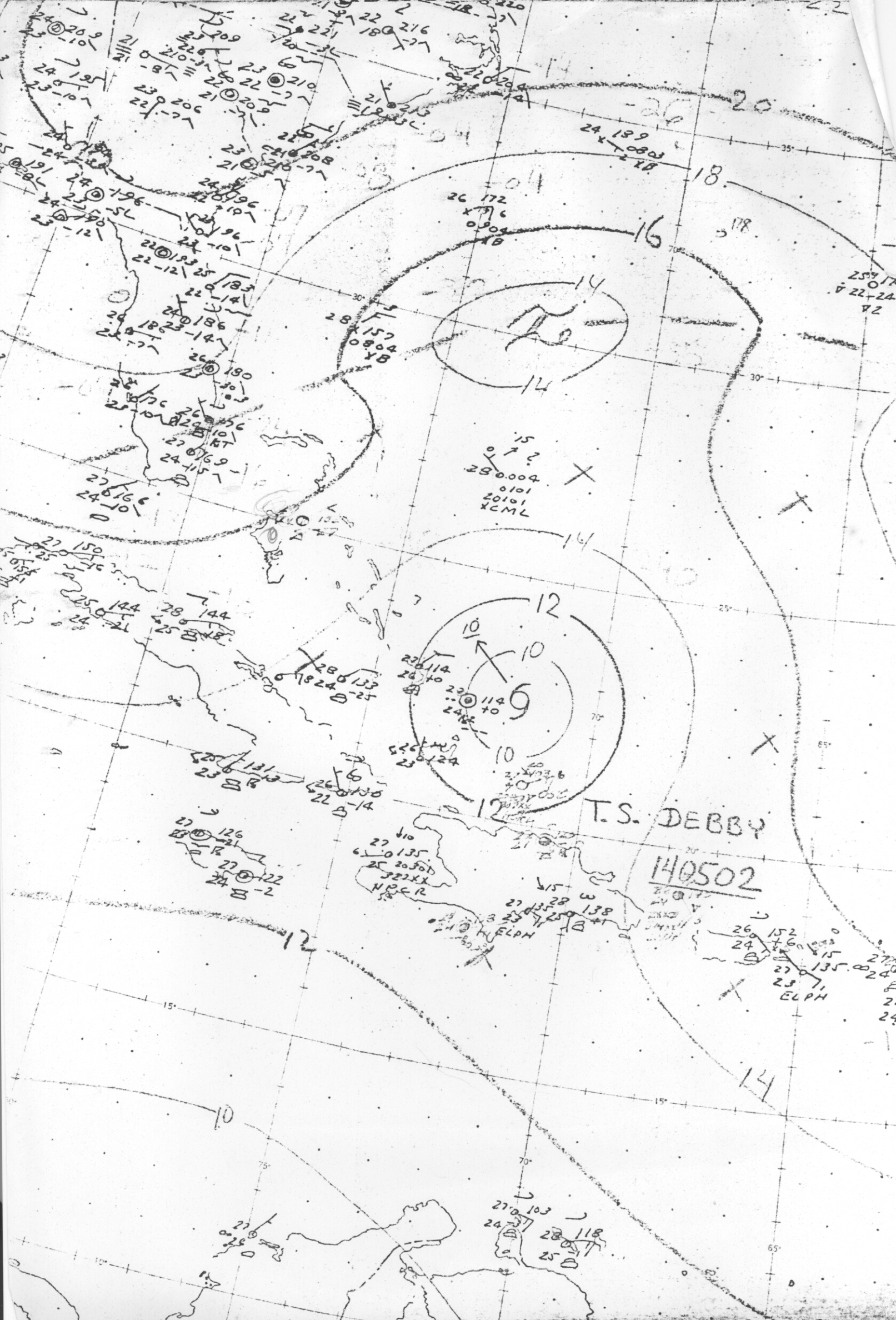
NOTE: Label full degrees according to location of flight area

DATE _____ FLIGHT _____ LPS _____

Lead Project Scientist Event Log

EVENT	TIME*	POSITION	COMMENTS**
SEE ATTACHED LOG SHEET			
A. Participants			
Function	Participant	Function	Participant
Lead Prog	[Faint]	Lead Prog	[Faint]
AVRT	[Faint]	Sys Eng	Schrieker
Doppler	[Faint]	Data Tech	Paradis
Radar	[Faint]	E Tech	Goldstein
Flt Dir/Met	[Faint]	Other	[Faint]
Take Off	[Faint]	[Faint]	[Faint]
B. Past and forecast Storm position	[Faint]	[Faint]	[Faint]
Date	Time	Latitude	NSLP
9/14	[Faint]	[Faint]	[Faint]
9/15	[Faint]	[Faint]	[Faint]
C. Mission Briefing	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]
[Faint]	[Faint]	[Faint]	[Faint]

*Log times of all significant altitude changes, turns, and eye fixes
 **New altitude, heading, center position, etc.

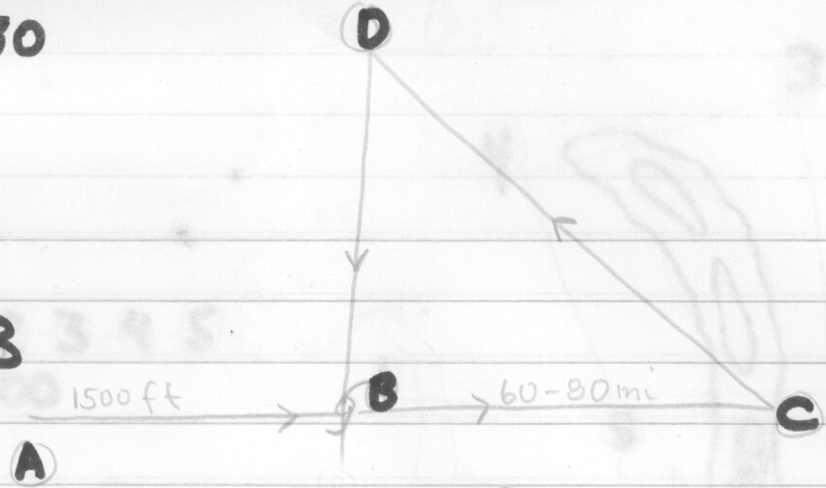


1830 - 0030

--- See cross section
 --- 1500 ft
 --- 500 ft
 --- 5000 ft

FLY A-B-C-D-B

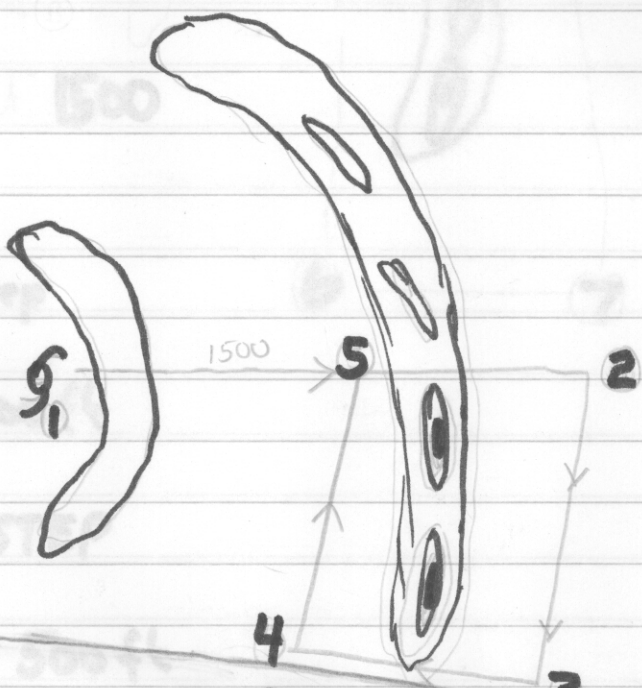
at 1500 ft



06

FLY 1-2-3-4-5

at 1500 ft



FLY 5-2 at 5000 ft

FLY 2-3 STAIRSTEP at 5000 ft

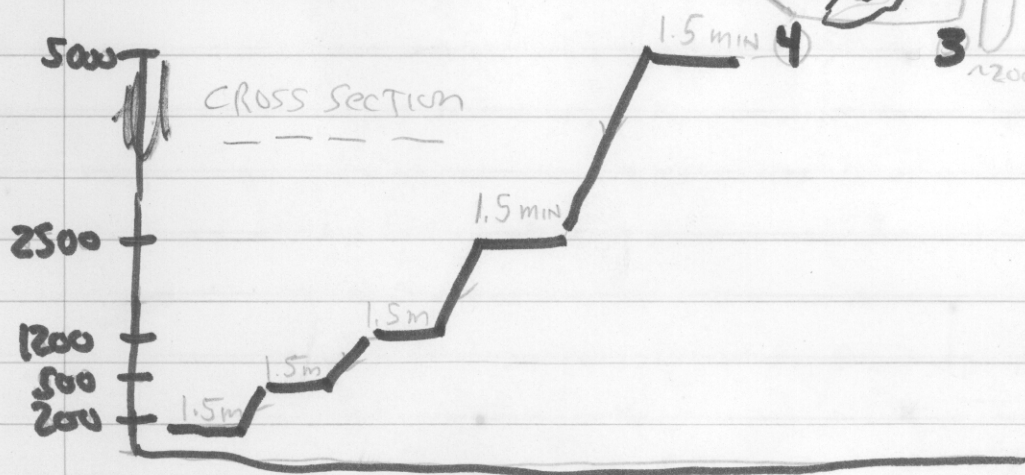
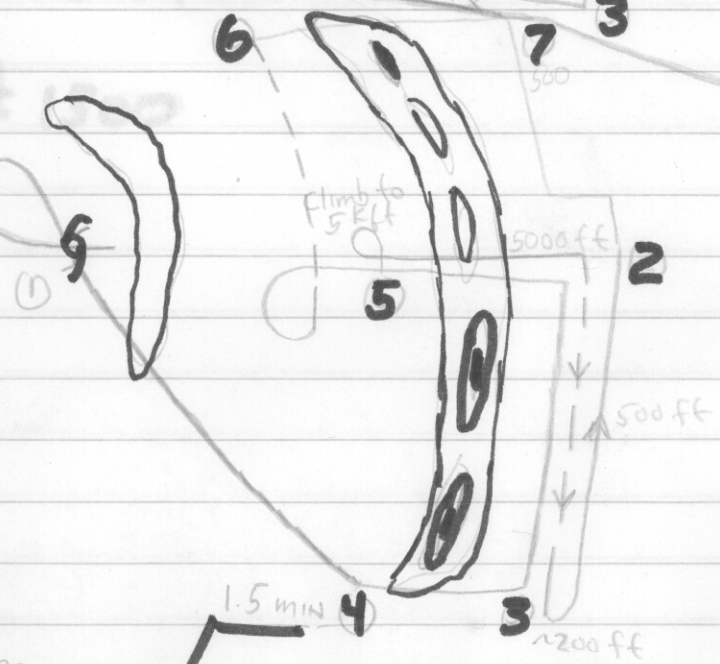
FLY 3-2-7-6 at 500 ft

FLY 6-5 STAIRSTEP at 500 ft

FLY 5-2-3-4-1 at 500 ft

at 500 ft

FLY 4-1 at 1500 ft



WIND →

2d Part

FLY 1-2-3-4-5
at 1500

FLY 5-4-3 at 1500
CLIMB TO 5000

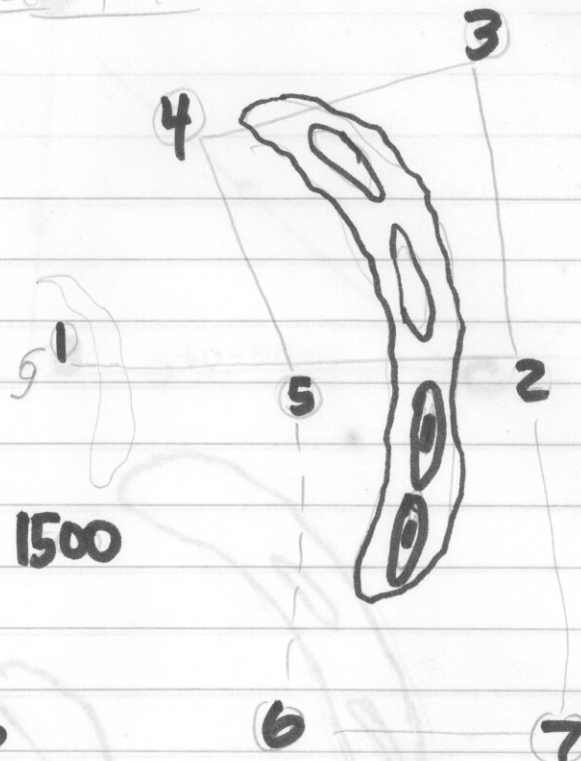
FLY 3-2 stairstep

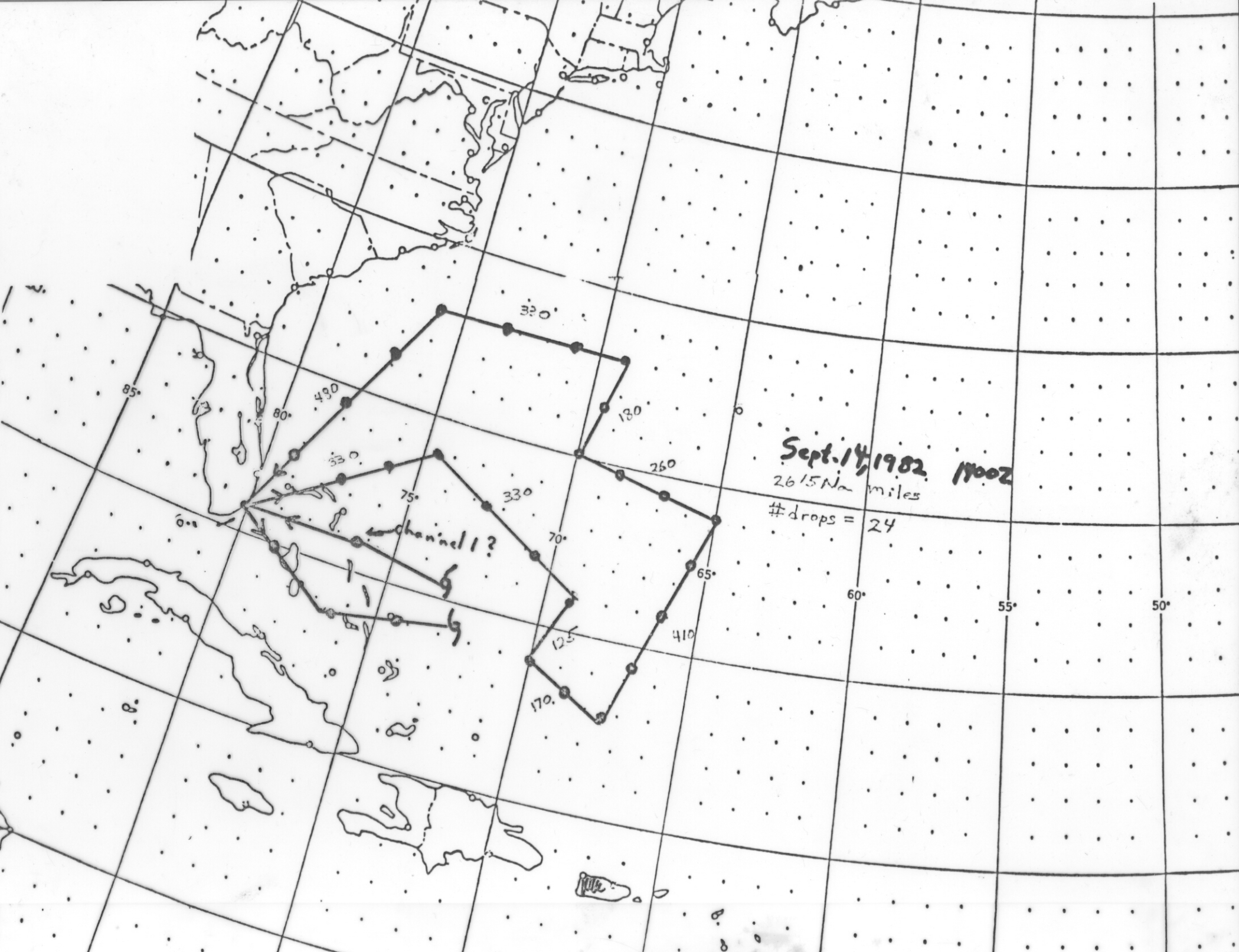
FLY 2-5 at 5000ft

FLY 5-6 STAIRSTEP

FLY 6-7-2 at 500ft

FLY 2-1 at 1500





Sept. 14, 1982 1100Z

2615 Na miles

#drops = 24

channel 1?

0.0

490

330

75°

330

70°

125

170

410

65°

260

180

330

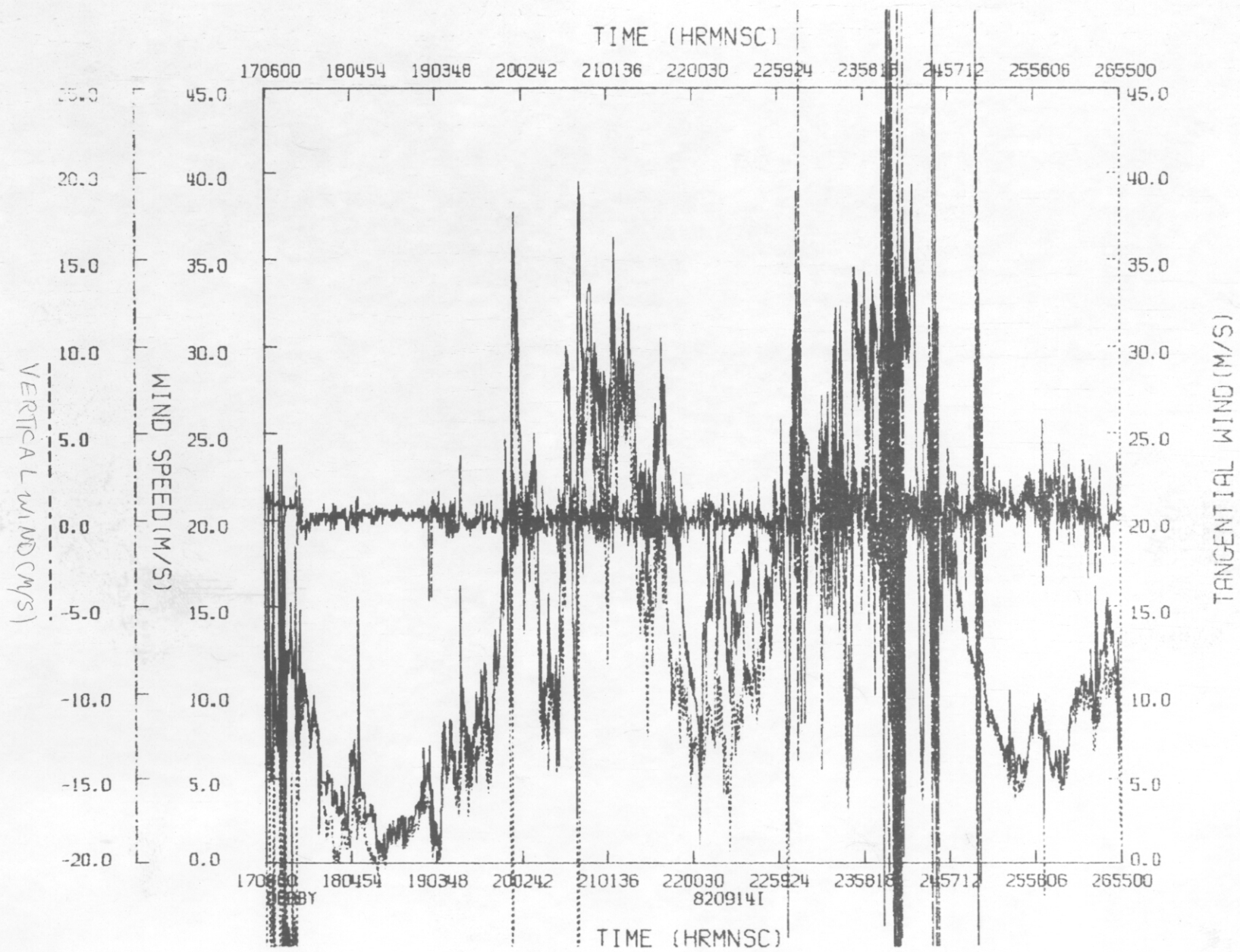
85°

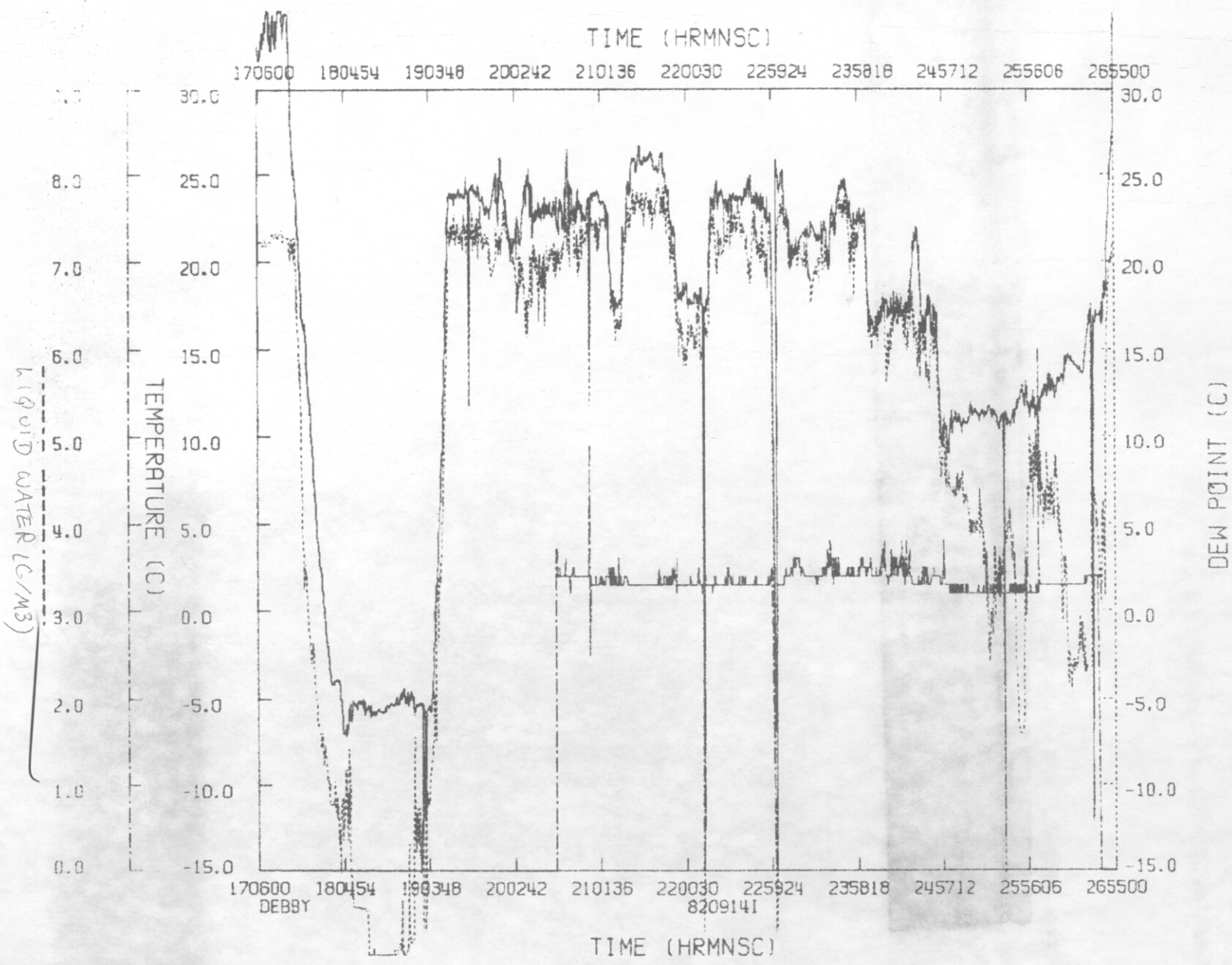
80°

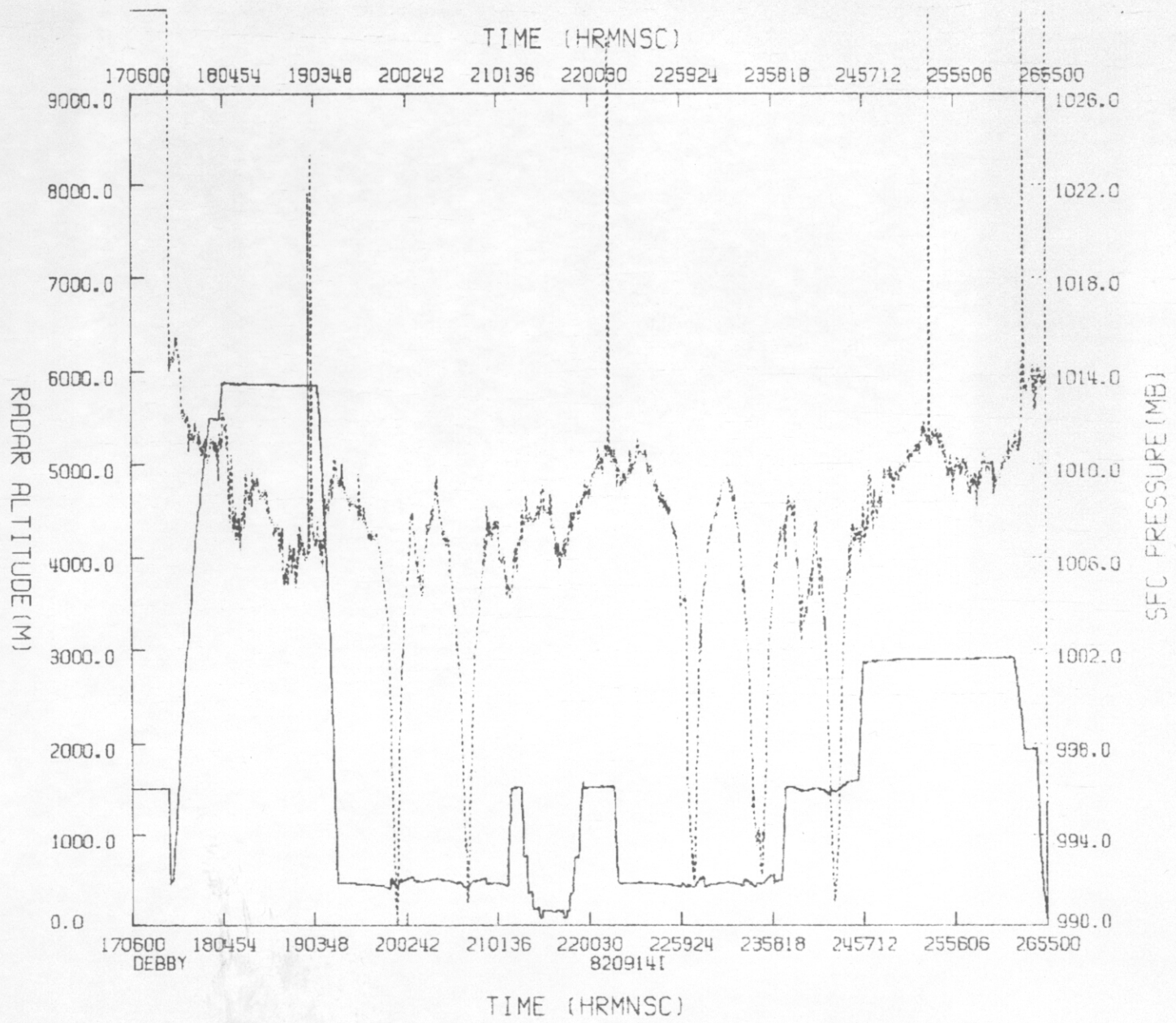
60°

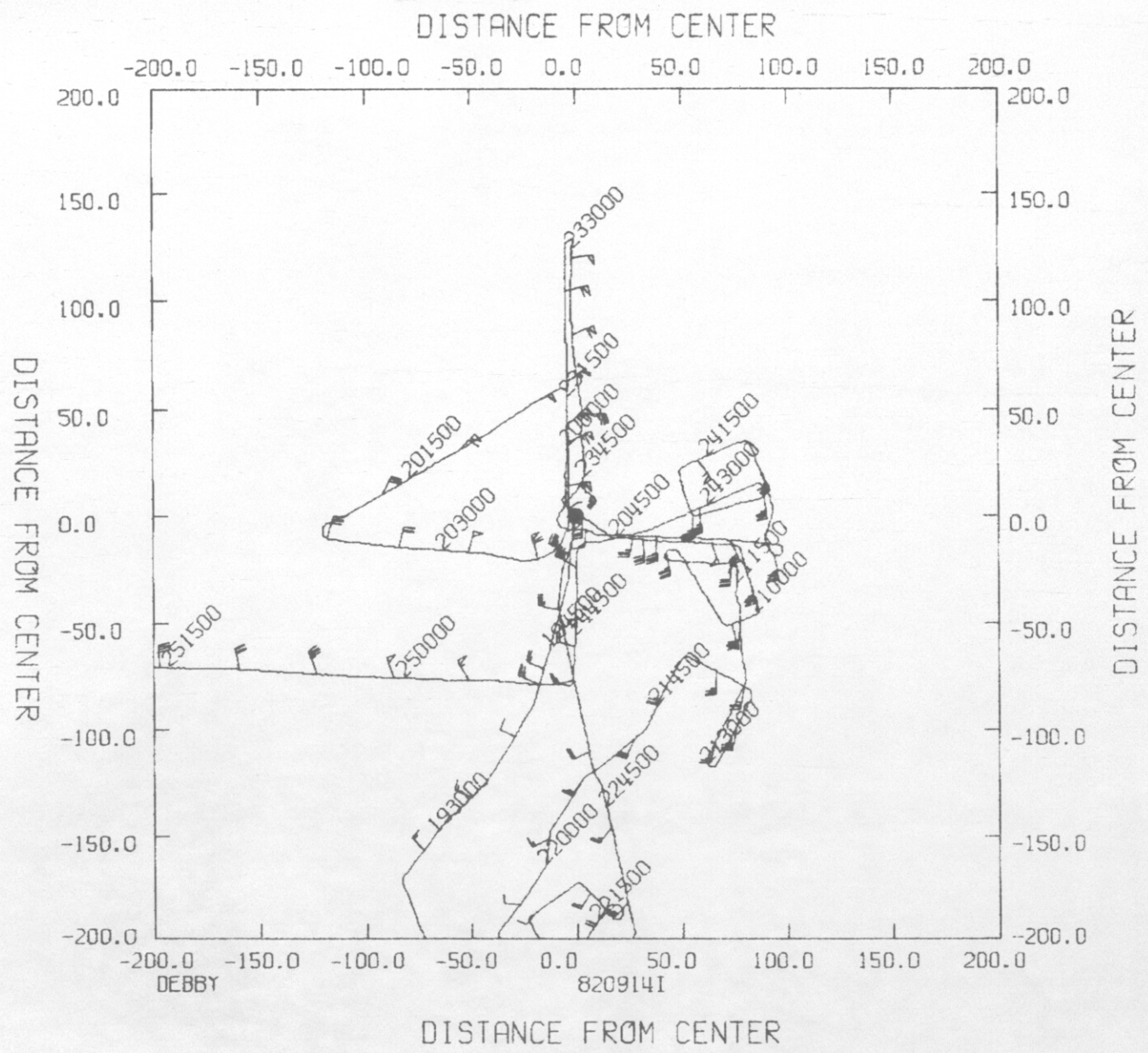
55°

50°









820914 II T.S. Debby

3 ODW drops before storm / Doppler - PBL exp
T.O. 1727 z No fixs / Research

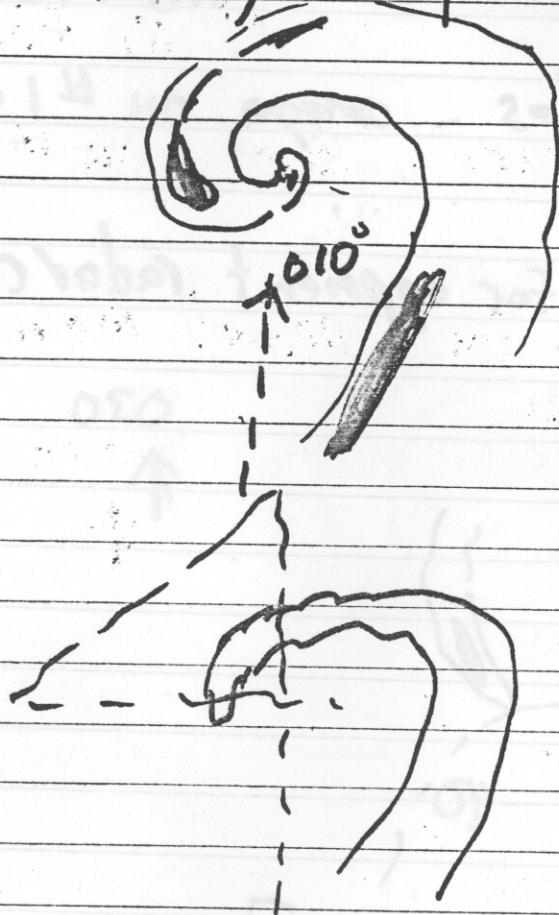
Finished both sondes - omega ON #1 and #2
looked bad

192845 - Trk 36° for opposite radar center
winds 263/8 m/s



194310

~~1943~~ - Starting Dop recording



1955 24.18 71.18 990⁰ mb Center

End of North run 200430

End of SW run 202047 turning W

Center 204050 25.05 71.12

Eyewall looks ragged band SE cellular

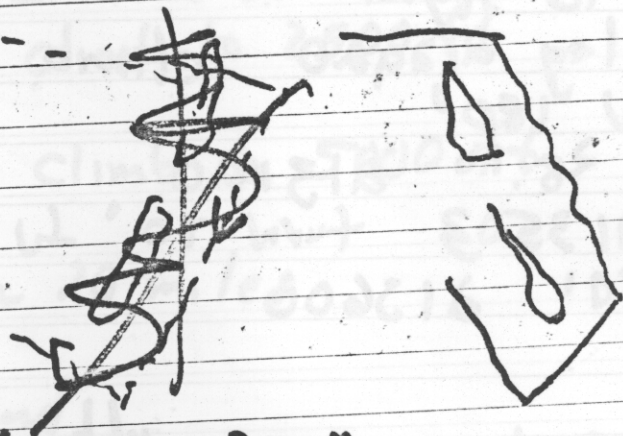
TRK 176 204100

2044 TRK 90
looks like ~50 knots a/c wind 60 at fl.

205125 trk 90° across bond

End 205340

205420 trk 160° 23.4°/22.2 T/Td



End 205921 turning 250°

st 210000

End 210200 turning 340°

st 210230

End 210644 climb to 5 kft

st 90° leg 210930

line very broken and cellular

End leg 211325 turning 90° begin starstep

leg 21400 start trk 179

End leg 211540 descend to 2500

2500 ft 211730

End 211905

Descending to 1200 ft
start at 12000 1200 ft leg

only level 3

End at 12210

turning 30° right to parallel bend
Start 500 ft run at 12400

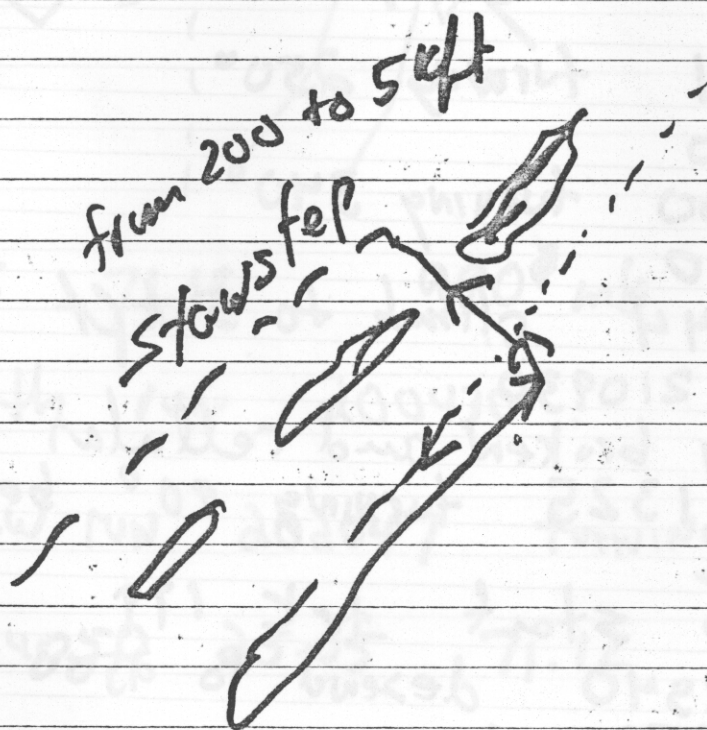
End at 12600 descending to 200 ft
good cells leaning outward with height
to right

End leg at 12920 climb to 500 ft
turn 180°

TRK 28.10 at 13100

End at 13503 turn 70° to left

TRK 30' at 13600



End 214000 descend to 200 ft.

Start 214100 at 500 ft might be good
descend to 200 ft 214250 eval how

Start 200 ft run 214310

End 214445 climb to 500 ft

Start 214510

End 214655 climb to 1200 ft

Start 214730 at 1200 ft

End 214912 climb to 2500 ft

Start 215030

End 215220 climb to 5000 ft

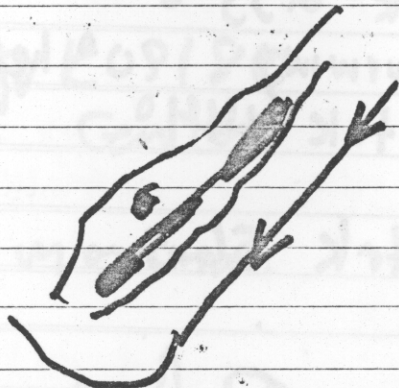
St 215345

band left ~ 20 miles

some lut 3

good linear band

Start 5000 run 200010 trk 221°



End 220535 turn 90° to left

Good deal

start run 220630 TRK 127°

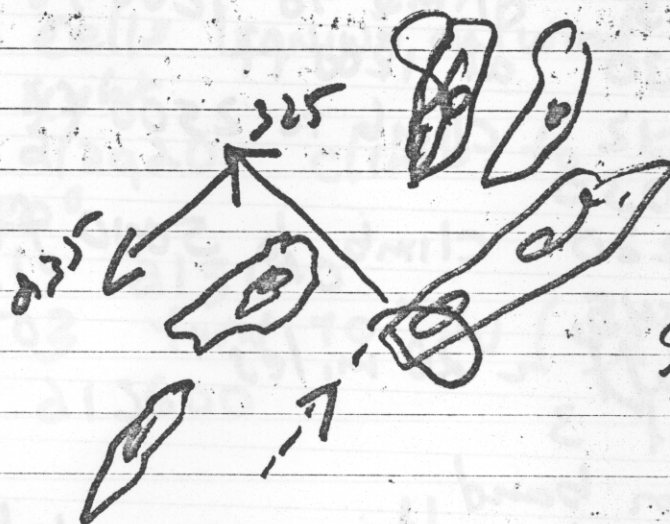
End 221010 turn 90° left

start 221103 TRK 34°

End 221550 End descend to 1500

for another box - 270 to right

start 221850 TRK 325°



good shears
tilt + outward

End 222130 turning 90° left

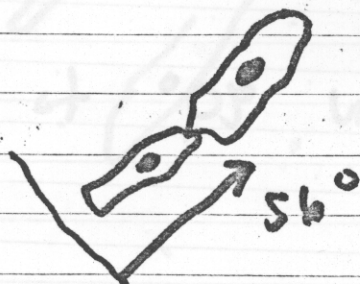
start 222235 TRK 235°

End 222604 turning 90° left

start 222730 TRK 144°

End 223053

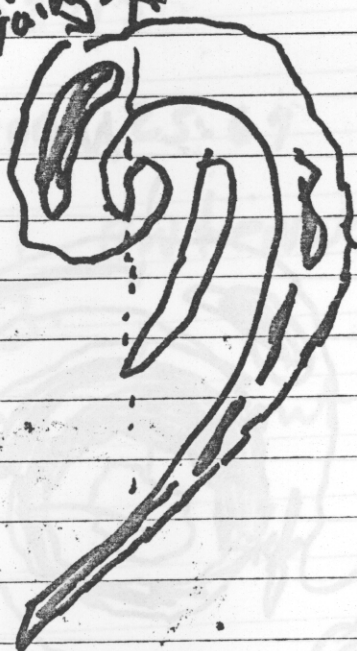
start 223210 TRK 56.5



End of leg 223600

going back to Eye

start form rain



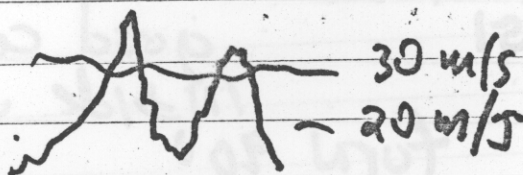
N
↑

data system down 2300 up 2302

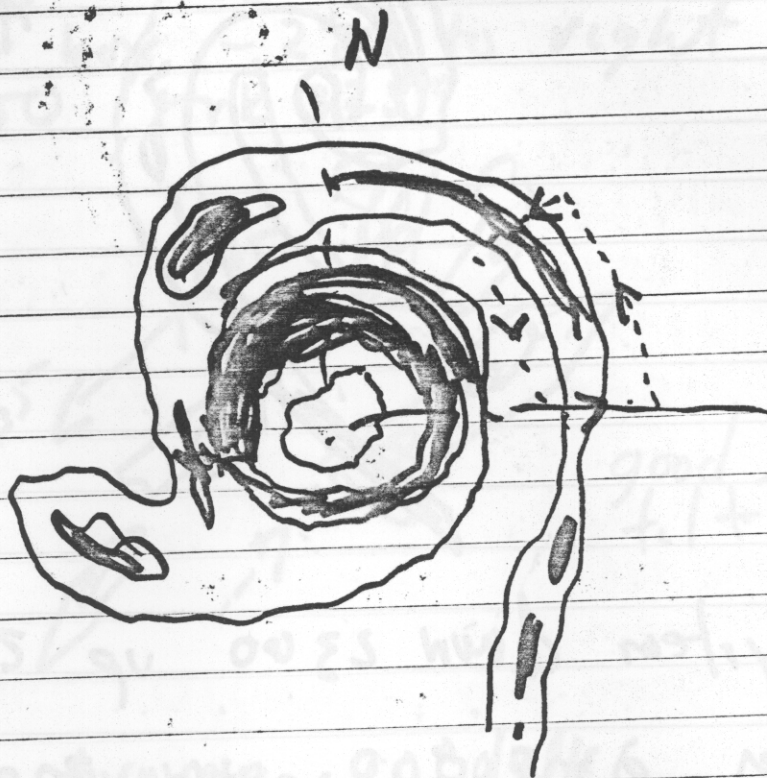
Center 230700 25.56 7096 992

turn 180 track 180 232900
to storm center

Double wind maxima.



Center 25.56 70.95 993 234800



End 000340 climb to 5000

start 000640 good string band
string outward tilt

End of line 001158

start 001251

good cells
inside wind map

End 011635 turn 90°

End 002025 turn 00

level 002122 trk 070
End 002500 turn 180°
+rk 250° 002715

Center 003900 25.69 70.82 991

004130 fuel antenna stopped at
~90° Az.

005300 - climb out of 5k f. 79k