H. Willoughby

E.1 Lead Project Scientist (On-Board)

The on-board lead project scientist is responsible for carrying out the scientific mission of his assigned aircraft. (Check off and initial when completed.)

E.1.1 Preflight

____ 1. Participate in general mission briefing.

____ 2. Determine specific mission and flight pattern(s) for his aircraft.

____ 3. Determine from CARCAH or field program director whether aircraft has operational fix responsibility and discuss with RFC flight director/meteorologist and CARCAH, unless briefed otherwise by field program director.

____ 4. Contact NHRL members of crew to:

a. Assure availability for mission.

b. Arrange ground transportation schedule when deployed.

c. Determine equipment status.

____ 5. Meet with RFC flight crew 90 minutes before takeoff, provide copies of flight plans and give a formal briefing to the flight director, navigator, and pilots.

____ 6. Report status of aircraft, systems and crews to appropriate NHRL operations center.

E.1.2 In-Flight

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

____ 2. Confirm camera mode of operation.

____ 3. Confirm data recording rate.

4. Discuss flight pattern and possible changes to the flight pattern directly with the flight director. Proper in-fight coordination between the lead project scientist, the flight director, the pilots and the navigator, may permit the lead project scientist to specify in flight the end of one pattern leg and the beginning of the next leg.

5. Accomplish the true airspeed calibration pattern en route to or from the storm.

6. Complete all form E-1 checklists.

E.1.3 Postflight

1. Debrief crew.

2. Gather completed forms for mission and turn in at the operations center.

3. Contact the local NHRL ground operations center before leaving the aircraft area, if possible. Report landing time, aircraft, crew and mission status to NHRL operations center. Transmit any important messages to all NHRL participants.

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

5. Notify operations center as to where you can be contacted.

On-board Lead Project Scientist Checklist

DATE 17 AUG 83 AIRCRAFT N43RF FLT 830817I2

A. Participants

Function	Participant	Function	Participant
Lead Proj. Sci.	WILLOUGHBY	Gust Probe	
Cloud Physics	BOGERT	Omegasonde	
AXBT		Sys Eng	
Hot Film		Data Tech	
Radar		El Tech	DUENAMARIT
Flt Dir/Met	PARRISH	Other	TATHALL (PHOTO) ZIPSER

Take Off 171944Z Location NOR Landing Location

B. Past and Forecast Storm Position

Date	Time	Latitude	Longitude	MSLP

C. Mission Briefing

VORTEX DYNAMICS FLY PATTERN I AS MUCH AS POSSIBLE GET 2100, 00, 03 FIXES 150 km LEGS ON I

D. Equipment Status

Equipment	Pre Flt	In Flt	Post Flt	Reports Collected
Aircraft	↑	↑	↑	
Radar	↑	↑	↑ *	
Cloud Physics	↑	↑	↑	
Data Sys	↑	↑	↑	
Omegasondes	NOB			
AXBT	NOB			
Gust Probe	NOR			
Hot Film	NOB			
Photography	↑	↑	↑	

REMARKS AT 2238 NOTED TIME ON RADAR IS 10 MIN BEHIND TIME ON DATA SYS

AT 2303 NOTED TIMES ON RADAR ARE JUST PLAIN BAD (IE > 1 hr IN ERROR) EXTENDED LEG TO PASS OUTER BAND

AT 170148 ADC ↓ BACK ↑ AT 0148

* NATURE OF PROBLEM WITH RADAR TIME: NONE OF THE DIGITS ARE ODD IE 4 MAY BE EITHER 4 OR 5. THUS ANY ACTUAL TIME THAT IS ALL EVEN DIGITS IS OK, BUT ANY ACTUAL TIME WITH ODD DIGITS WILL HAVE SAID DIGITS CONVERTED TO THE NEXT SMALLER EVEN DIGIT.

Form E-1
Page 5 of 5

DATE 17 AUG 83 FLIGHT 830817I2 LPS WILLOUGHBY

Lead Project Scientist Event Log

28.13" 94 40

EVENT	TIME*	POSITION	COMMENTS**
T.O.	171944	NOR	
	2030		RAINBAND 30 NMI AHEAD WND 151/22
CENTER	2100Z	28.2 94.6	TK 270 FROM ⊙ 28.2 94.6
TURN 115	2124		
TURN 360	2148	26.98 94.67	
⊙	2208	28.20 94.60	TRACK 360 FROM ⊙
	2228	28.14 94.15	TRACKING ← 150 → ⊙
⊙	2238	28.25 94.65	MIN SLP 969 NOTED TIME ON LF RADAR 2228
	2312	26.31 93.30	TURN PARALELL TO BAND ON OUTSIDE
	2326	27.24 92.74	TURN ACROSS BAND HEAD FOR NEXT POINT
	2350	28-33 93 10	TURN FOR ⊙ 250
⊙	0010	28.35 94.66	⊙ 968 mb 44 m/s
	0019		HEADING OUT 250 45+ m/s ON EXIT
	0040	27.53 95.90	TURN 130
	0050		TURN 025 BACK TO ⊙
⊙	0109	28.37 94.70	TRACK 033 OUT
	0120	29.38 93.92	TRACK 239 PARALELL TO COAST
		28.40 94.77	TRACK TOWARD ⊙
⊙	0154	28.40 94.77	MIN SLP 967 EXIT 137
			TRACK 024

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

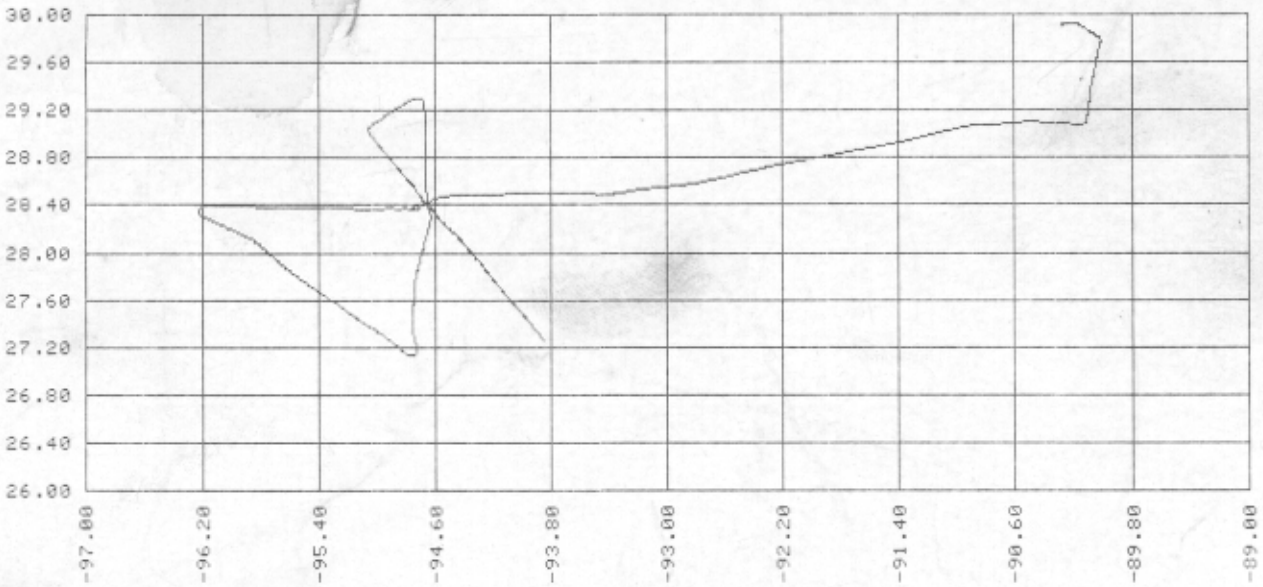
830817I2

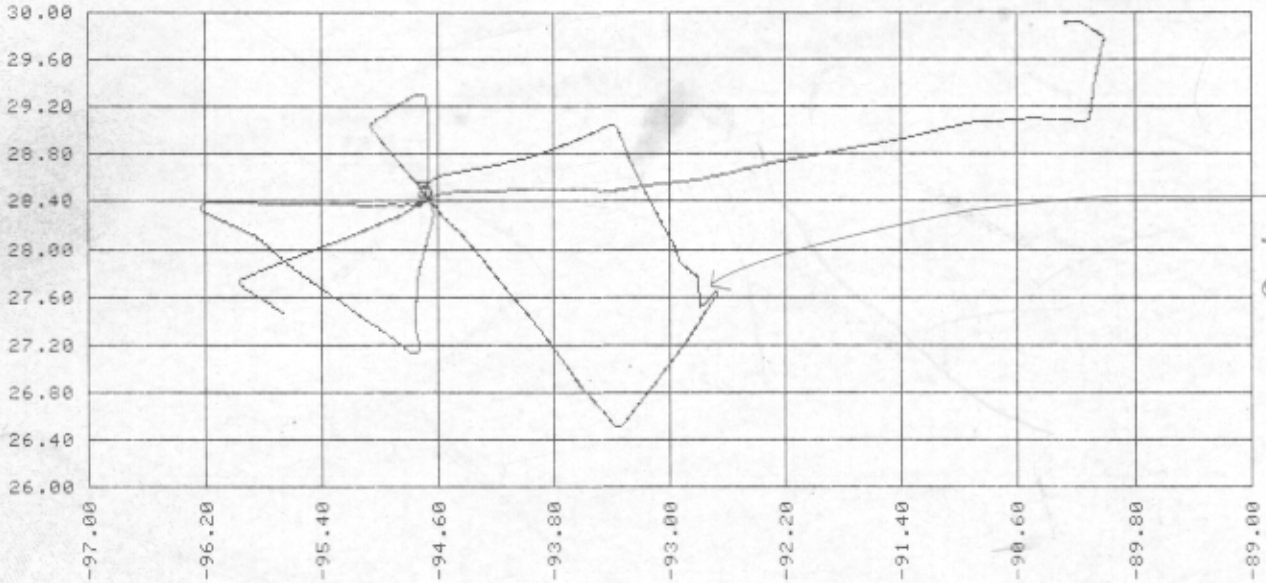
318/

LPS EVENT LOG CONT.

EVENT	TIME	POSITION	COMMENT →
TURN	0226		ORBITING →
TURN	0239		TRACK 270 →
	0259	28.47 94.84	TRACK 270 → SLP 966
		27 4	
TURN	0312		TRACK 120
TURN	0309		TRACK 052 →
	~0328	28.49 94.88	TRACK 080 → NOR 966
	0355		CLIMB TO 9000
LANDING	0434	NOIR	
		29.91N 90.26W	

8308171Z





109 s
Time In
@2329

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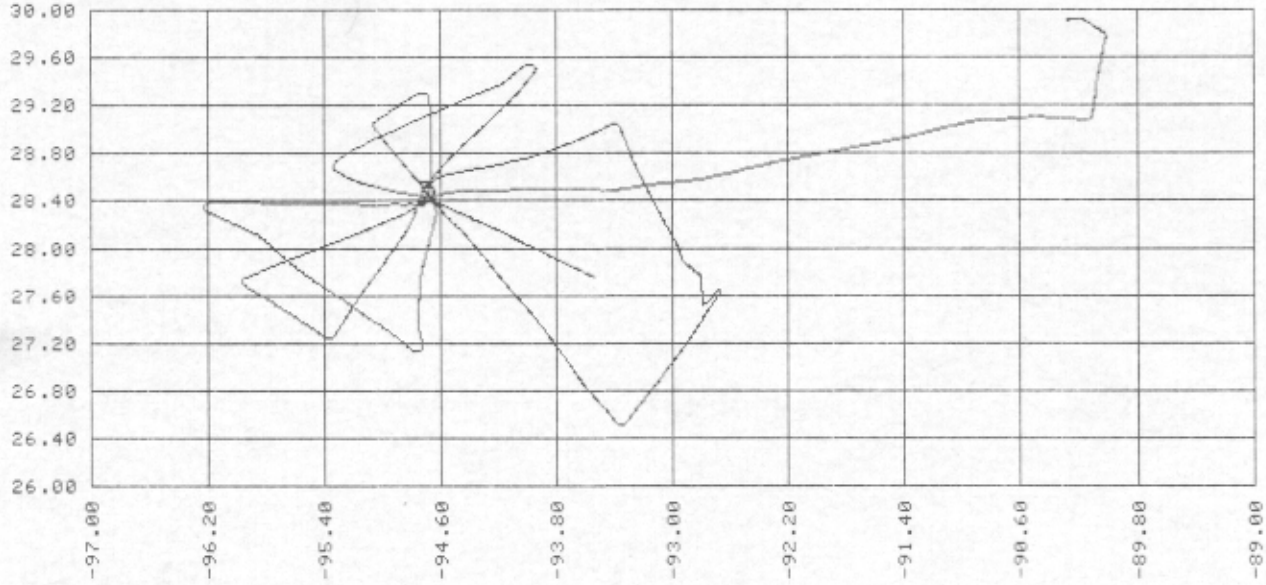
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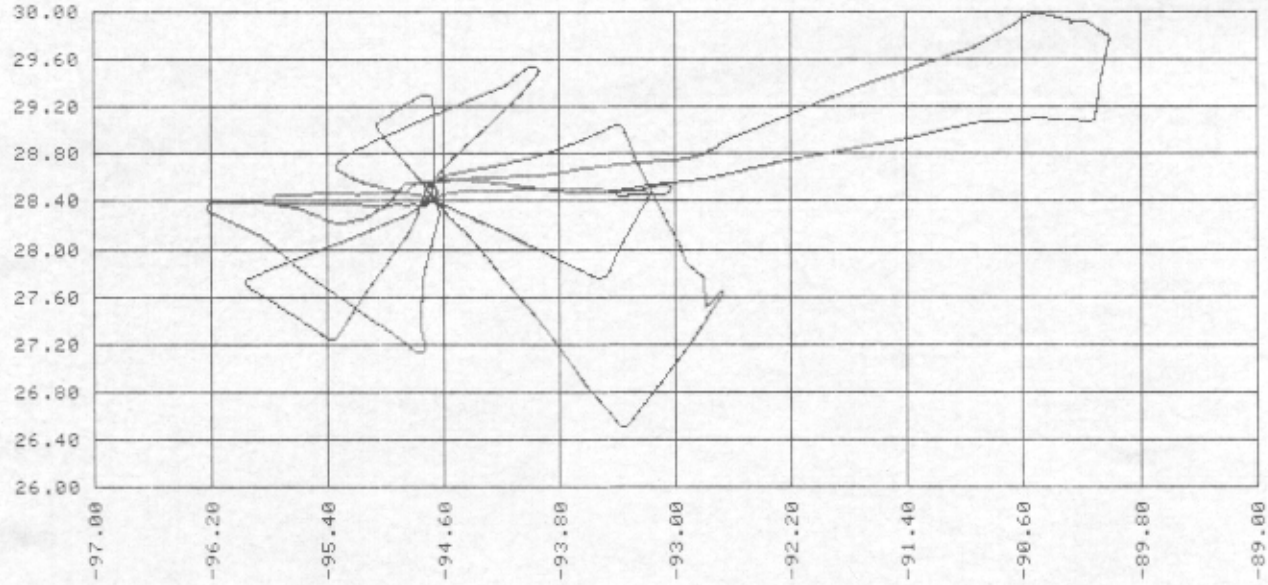
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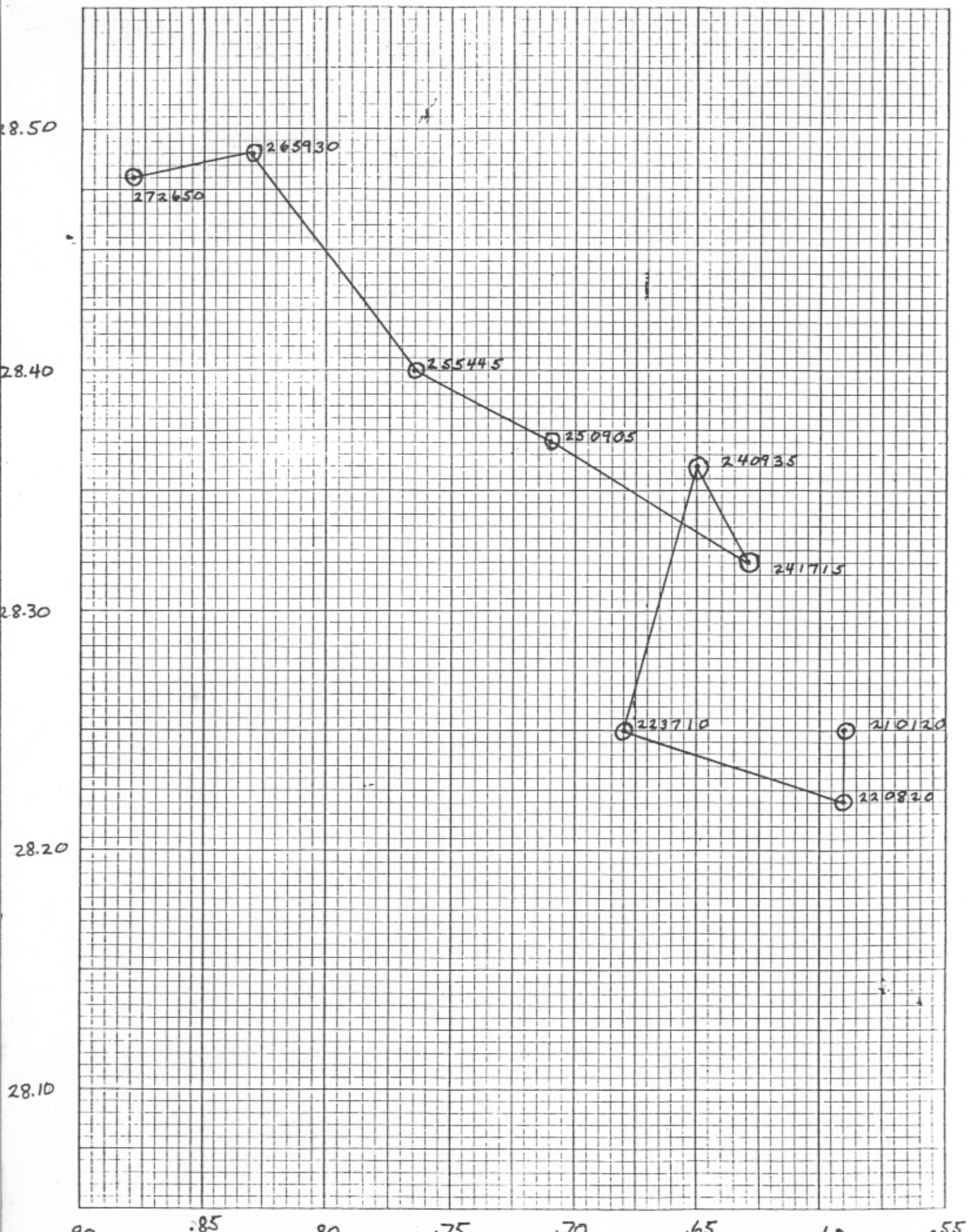
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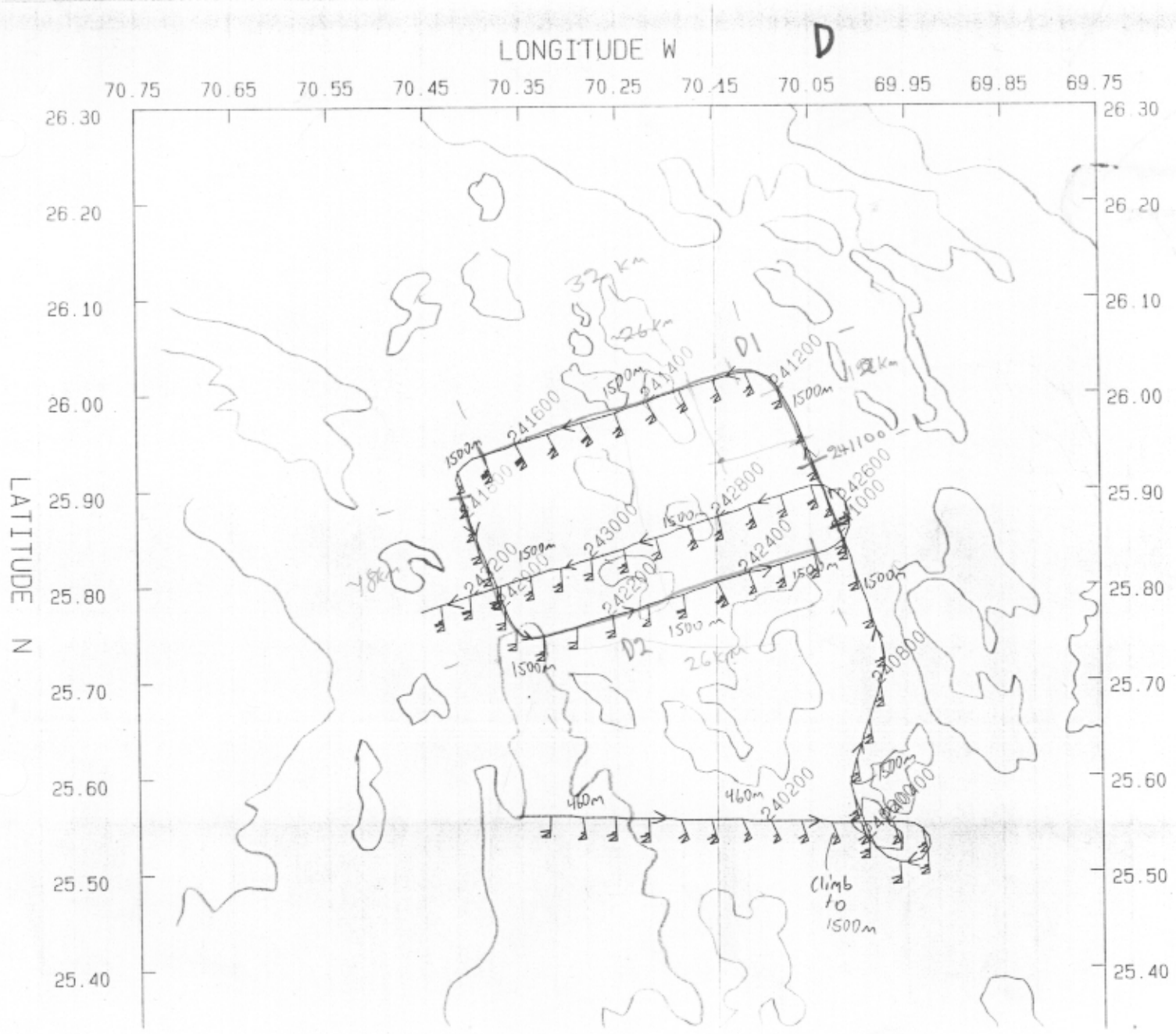
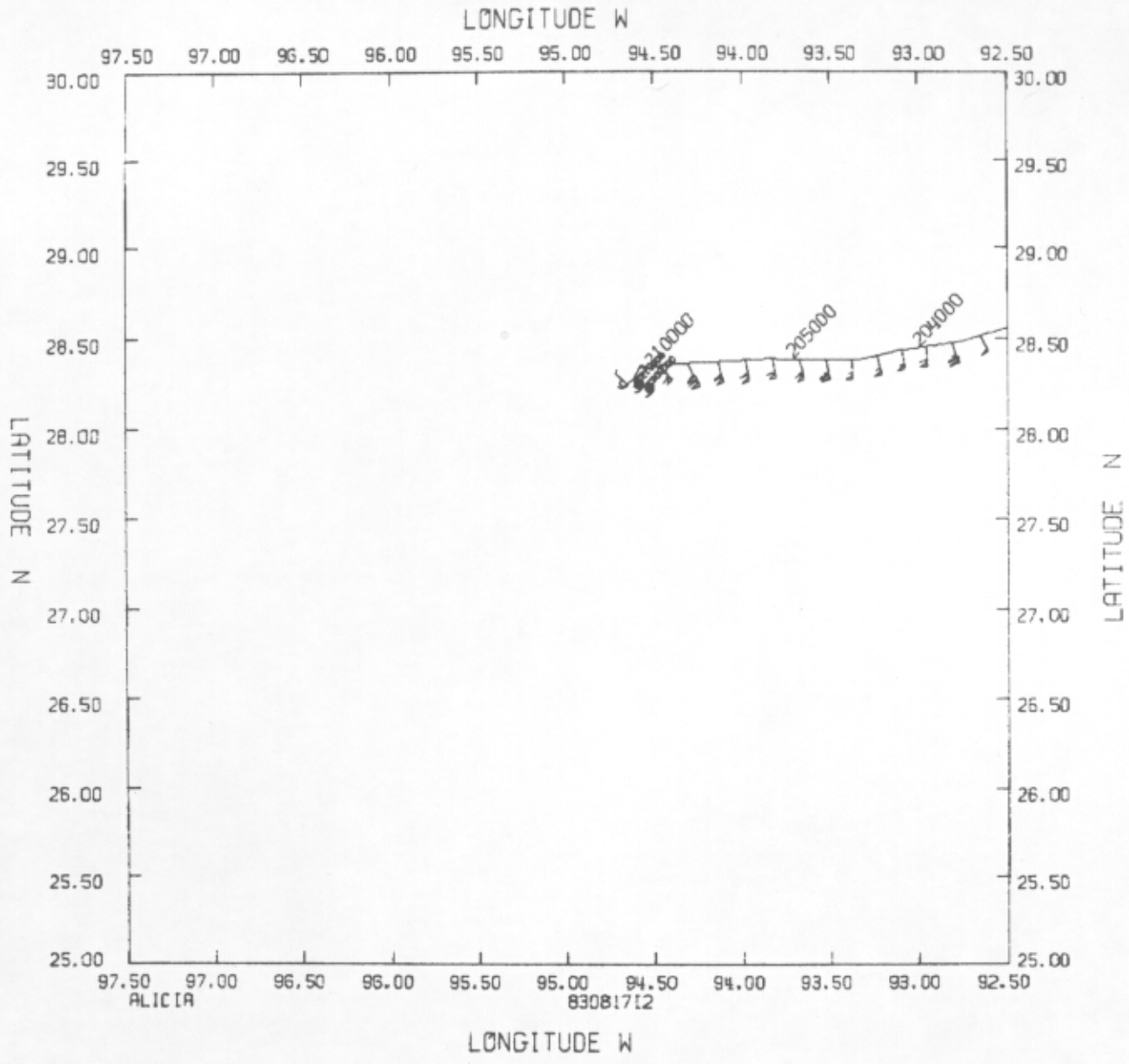


D 2400 - 2432

Doppler
Tape 11 234935-000325

Tail Ref.
Tape
D2/T7 2330-000946
D2/T8 001100-005025

			Pap. Tape	Tail Ref. Tape
D1	2411 - 241630	1500m	11	D2/T8
D2	241730-2425	1500m	11	D2/T8
D3	242230 - 24			
	11 - 1210			
	1240 - 241630			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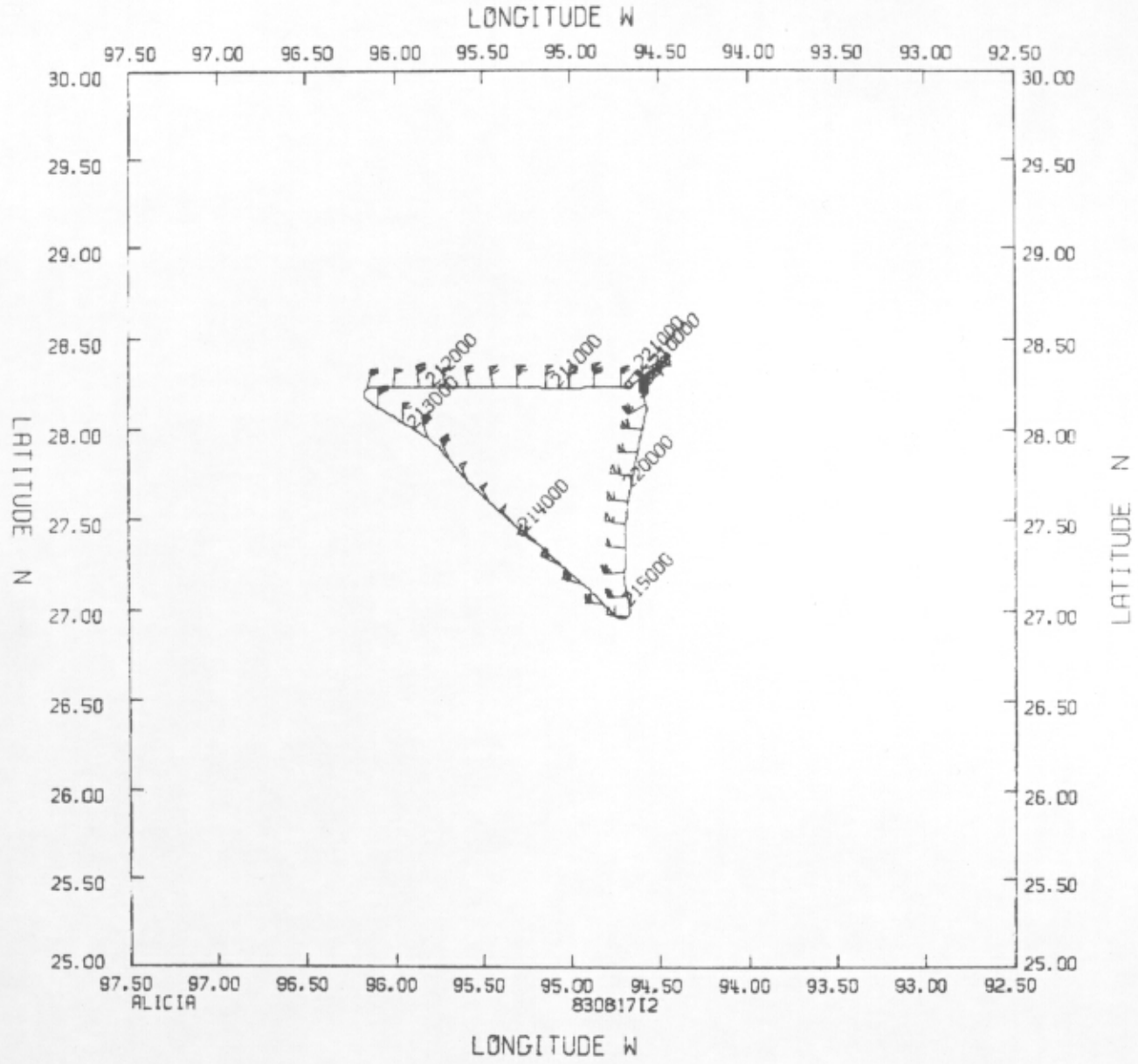
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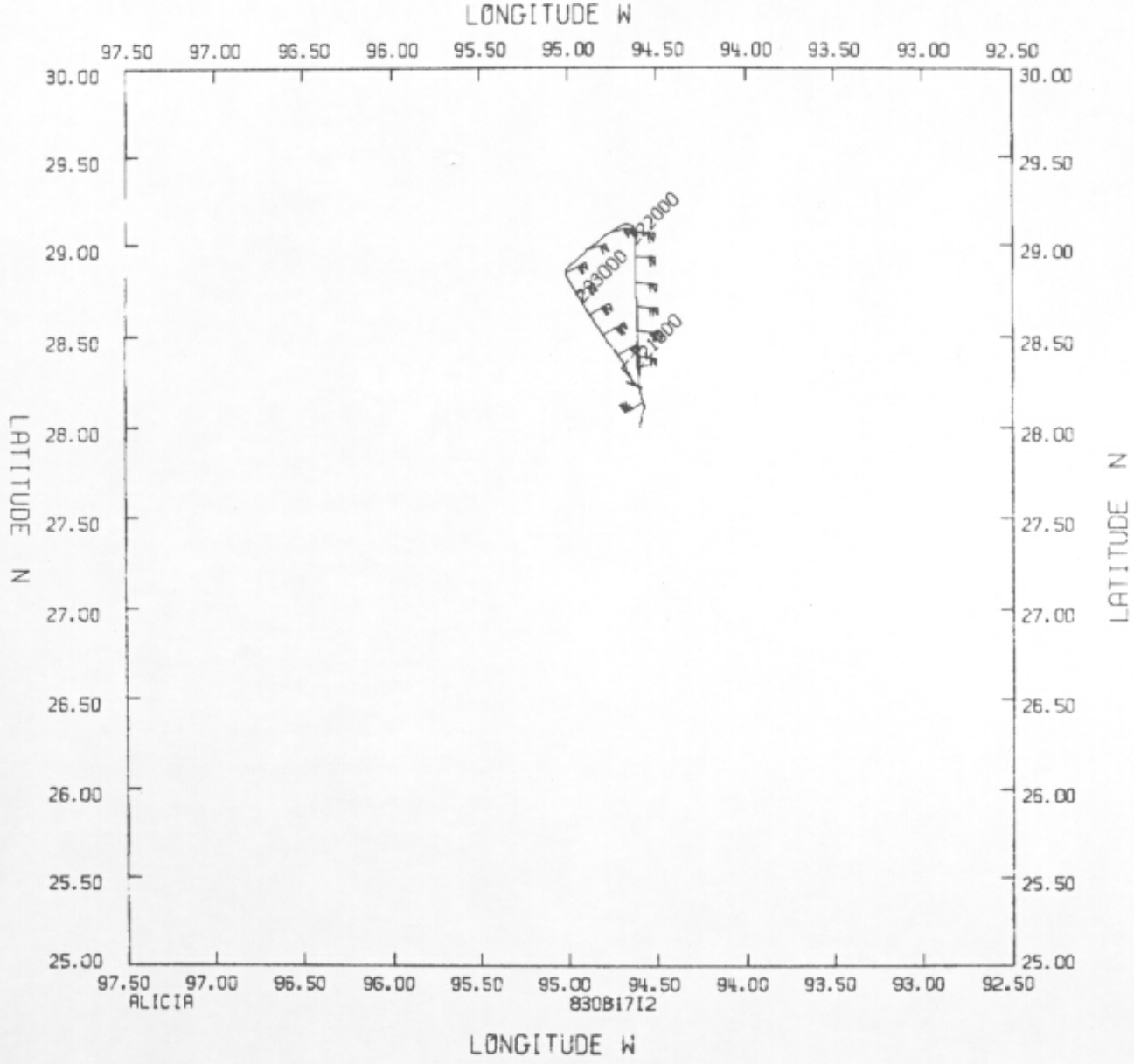
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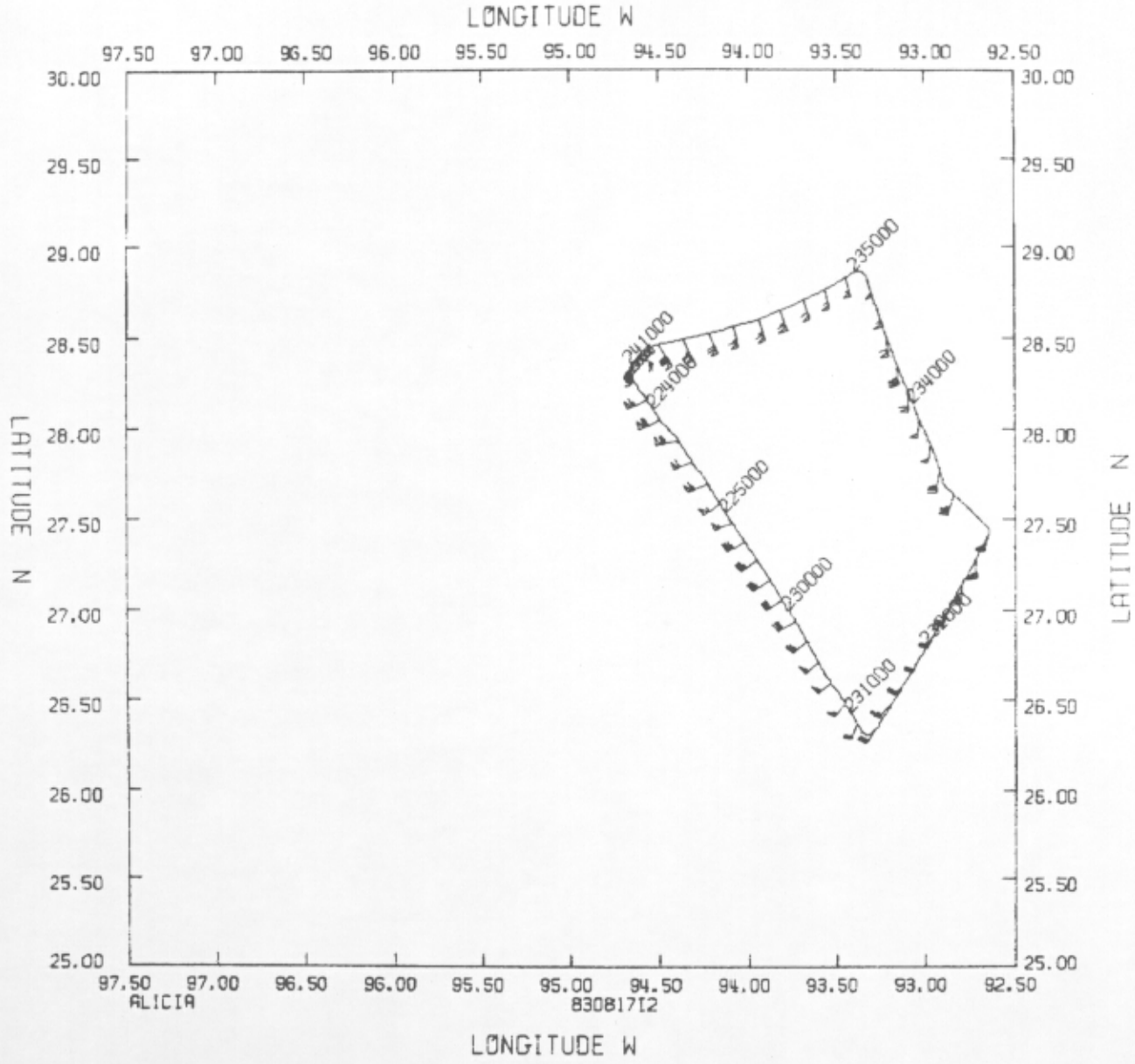
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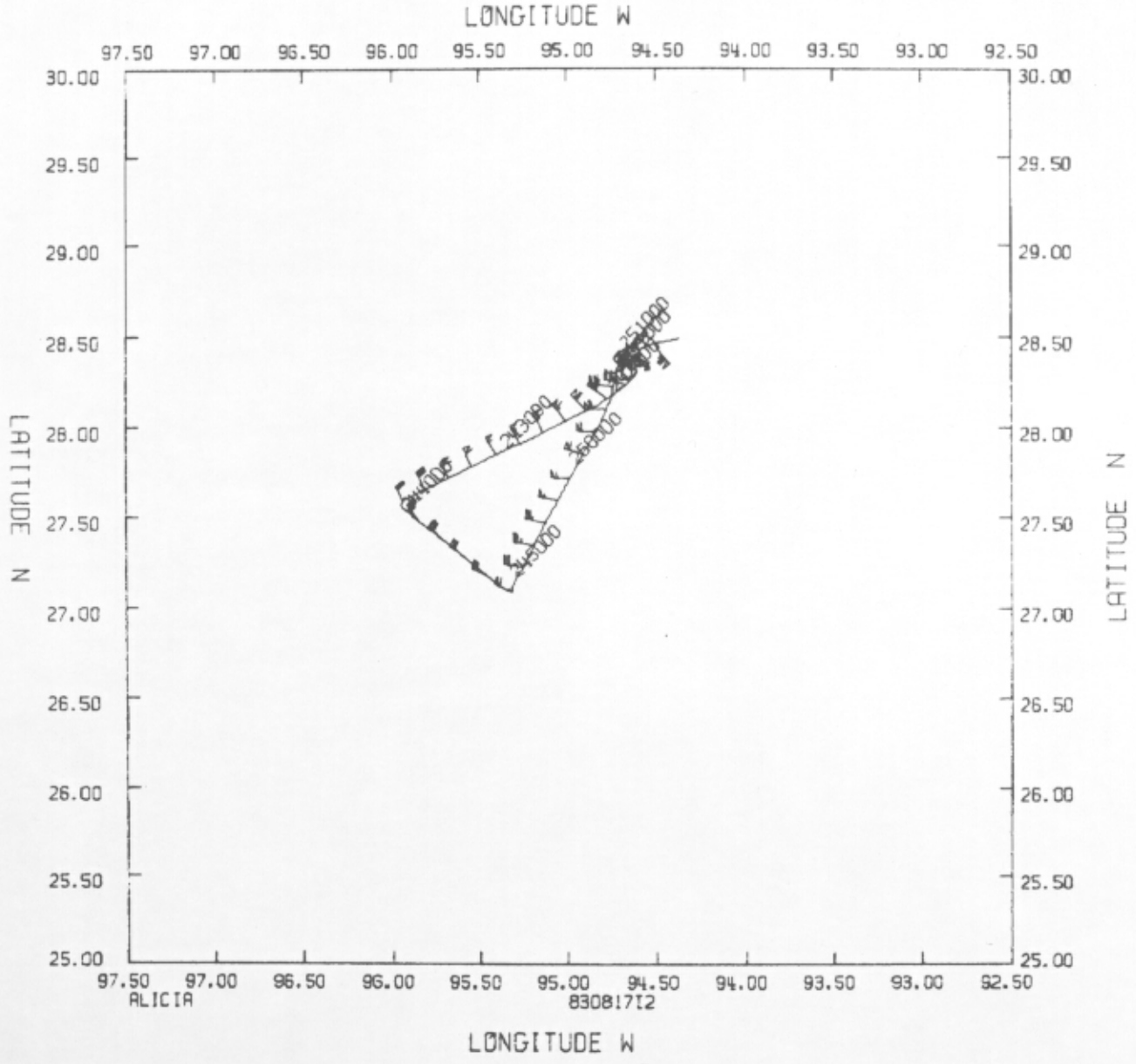
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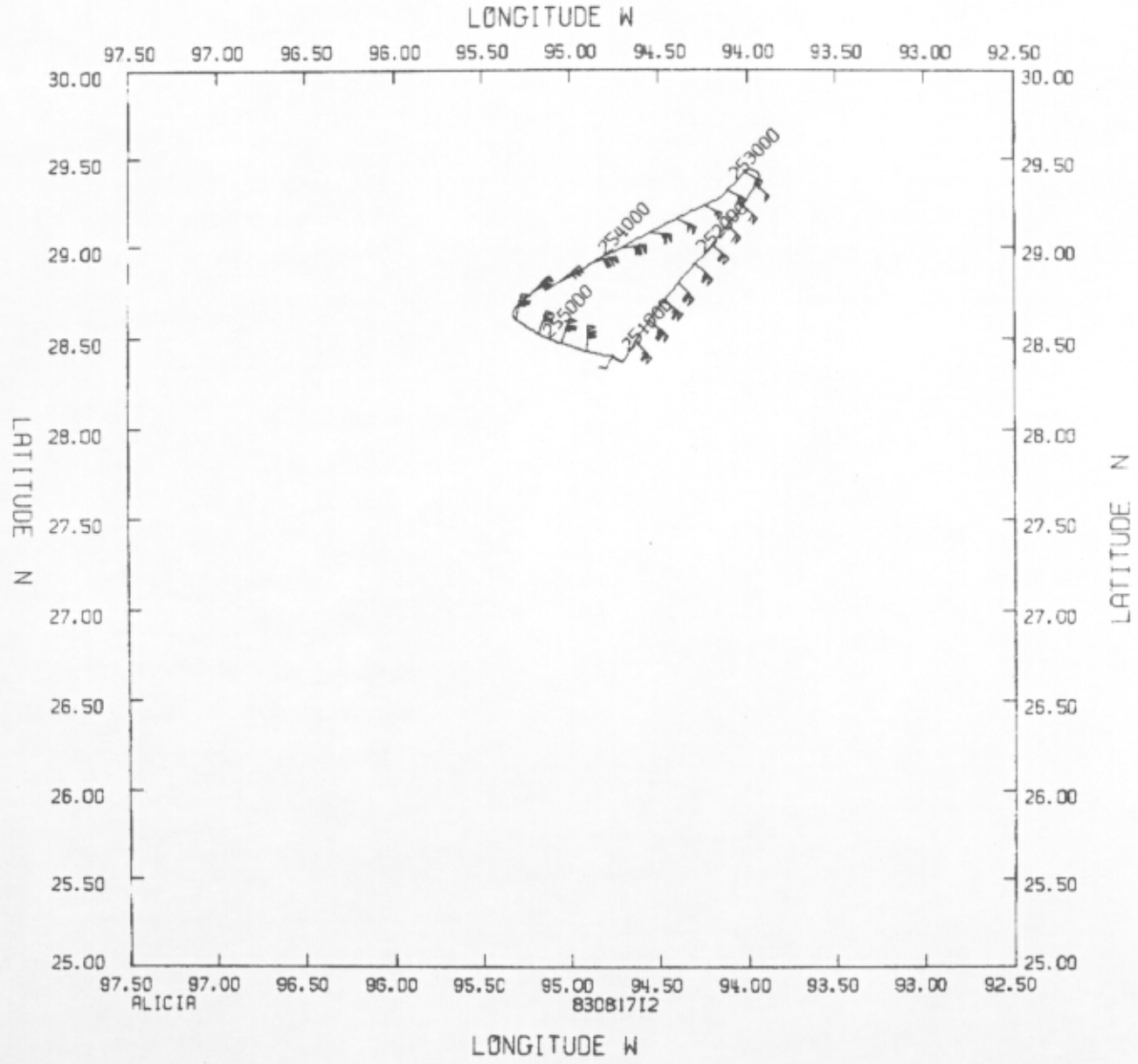
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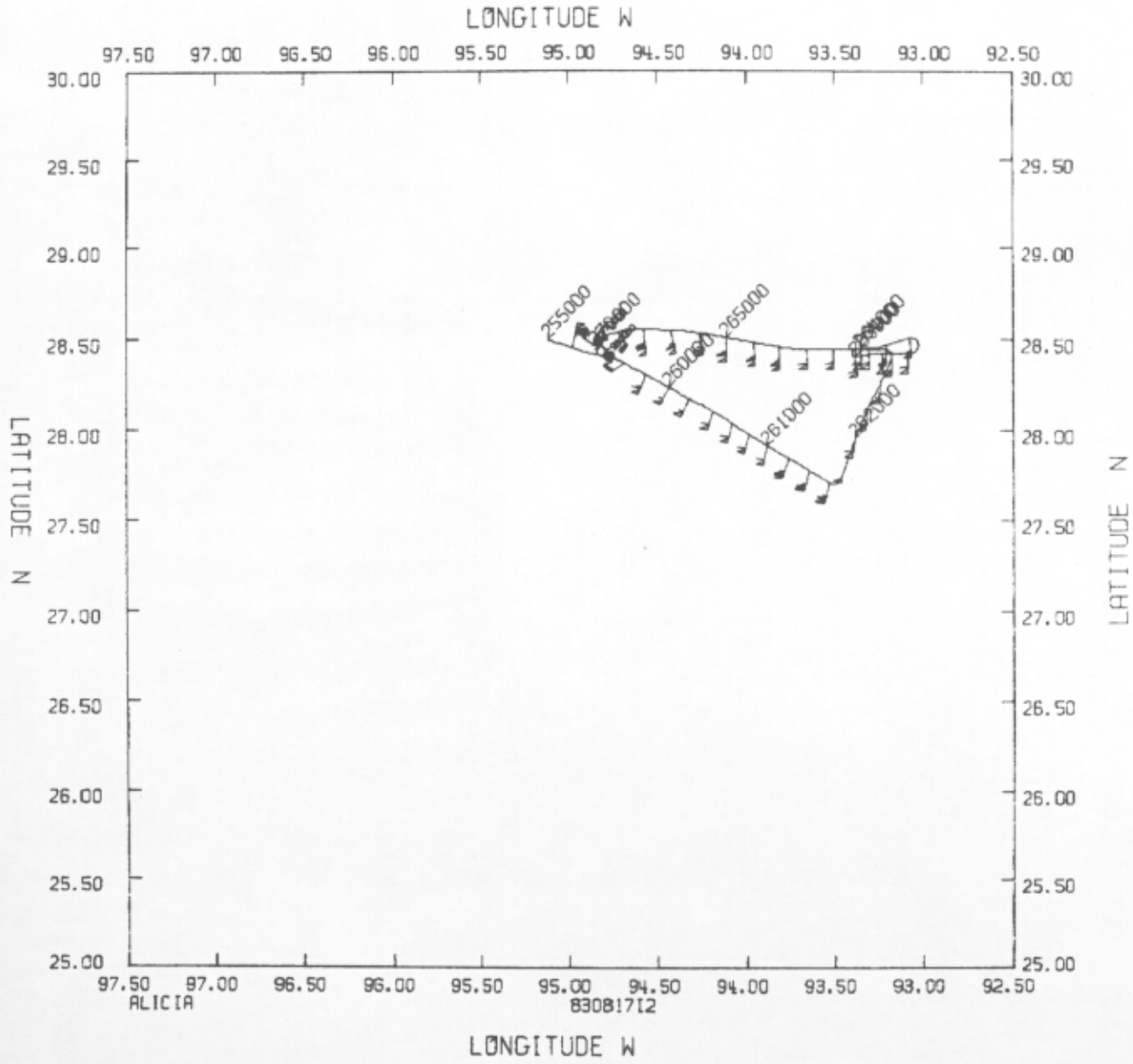
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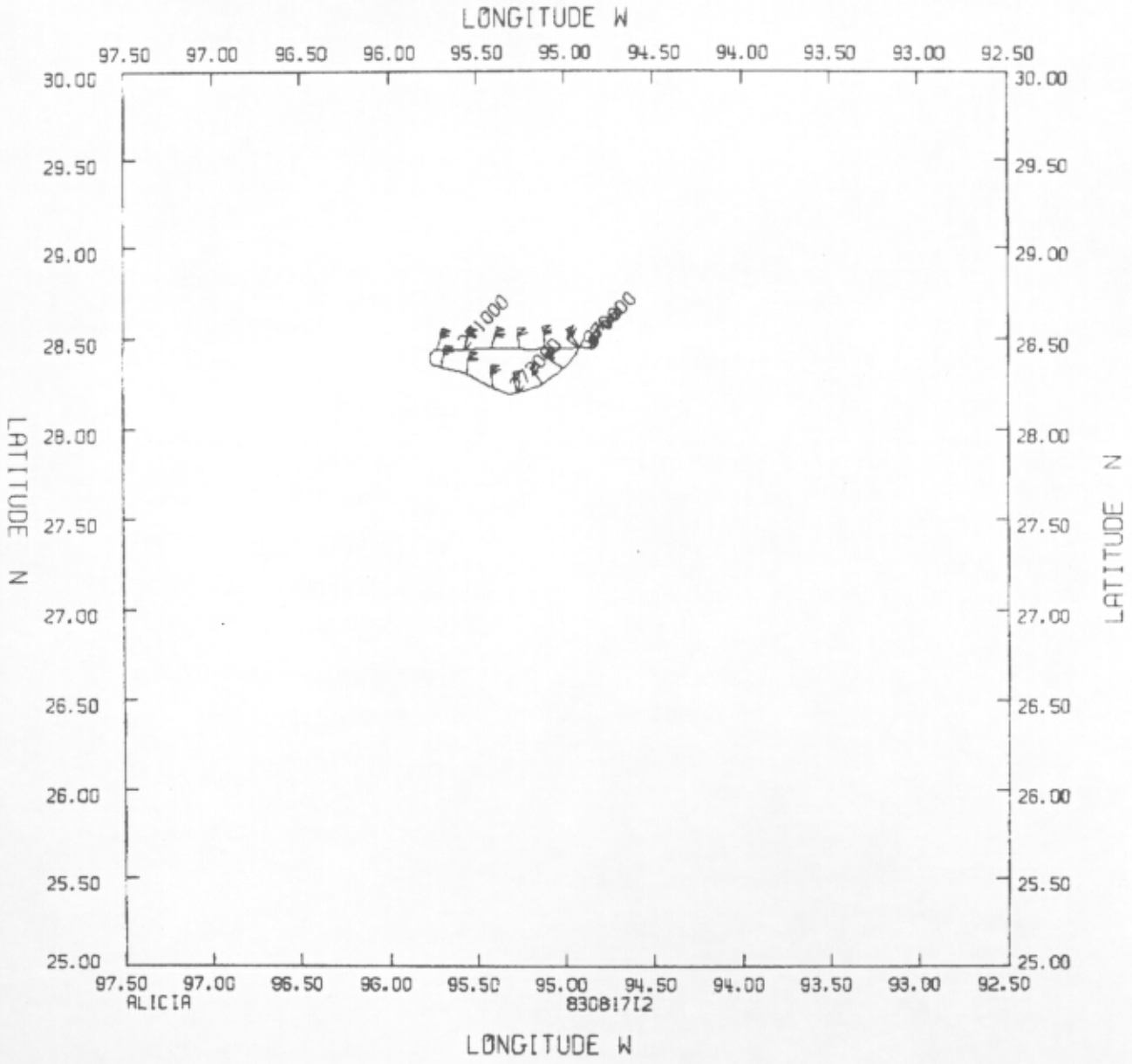
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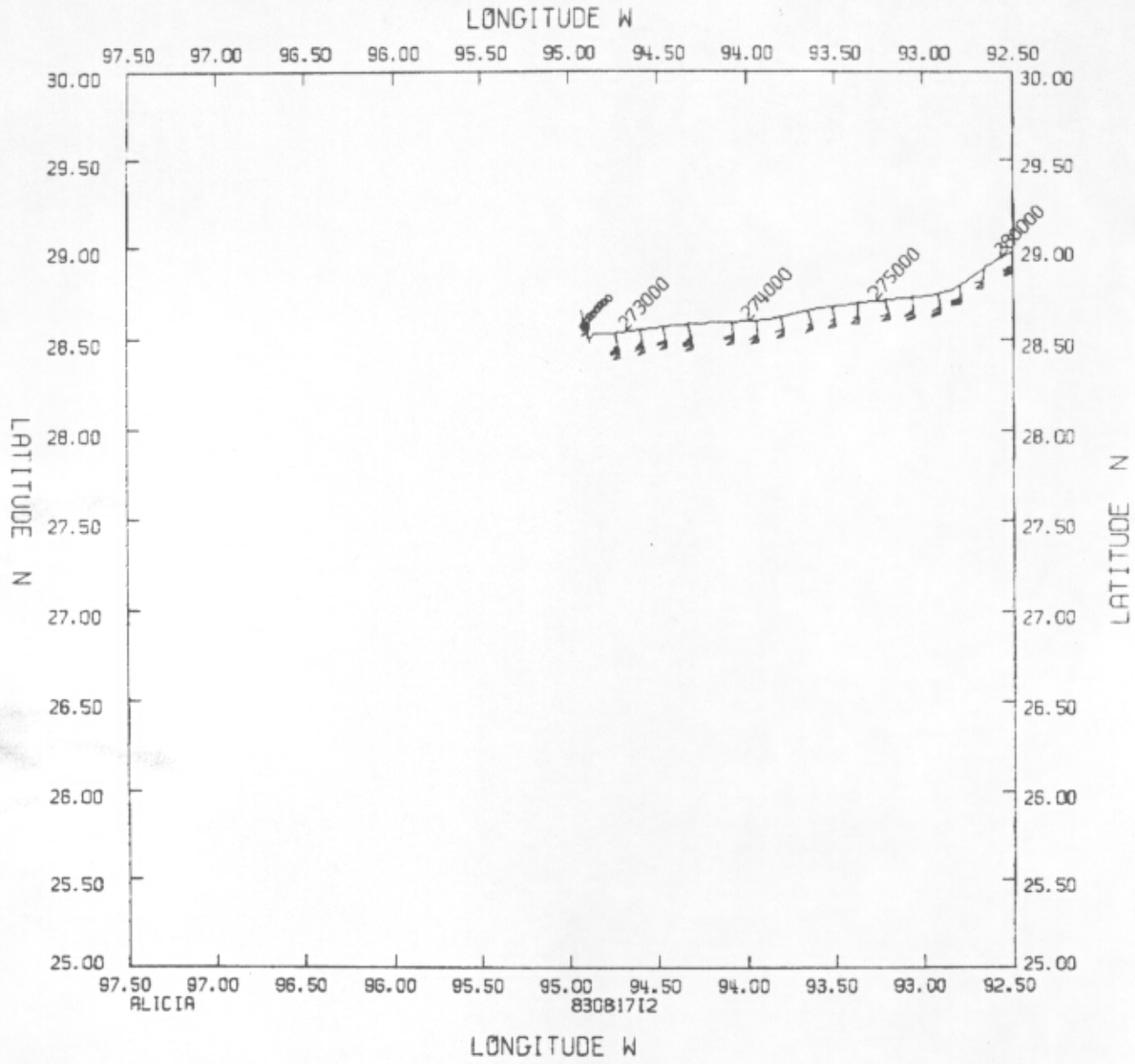
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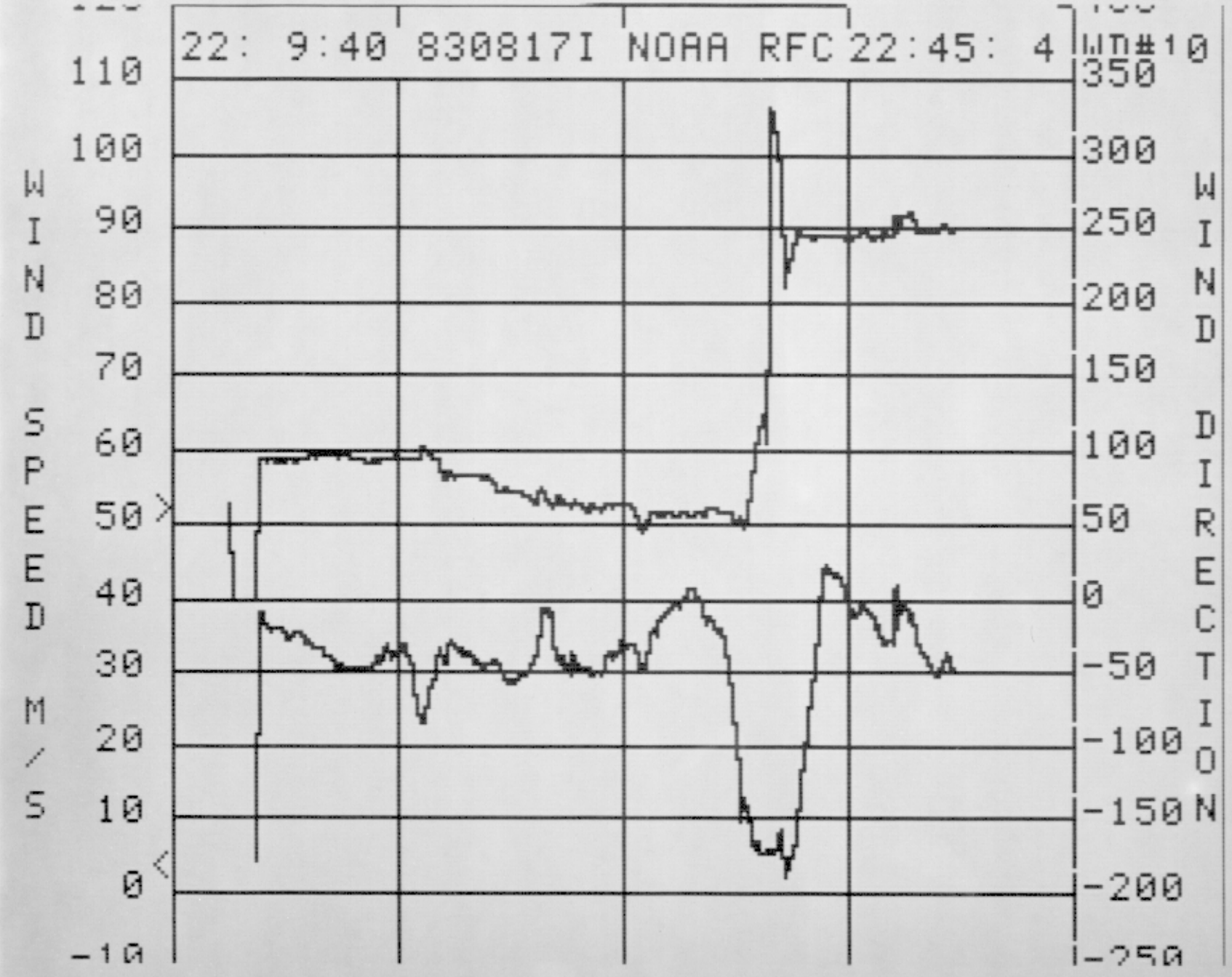
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90
80
70
60
50
40
30
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-10
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50
0
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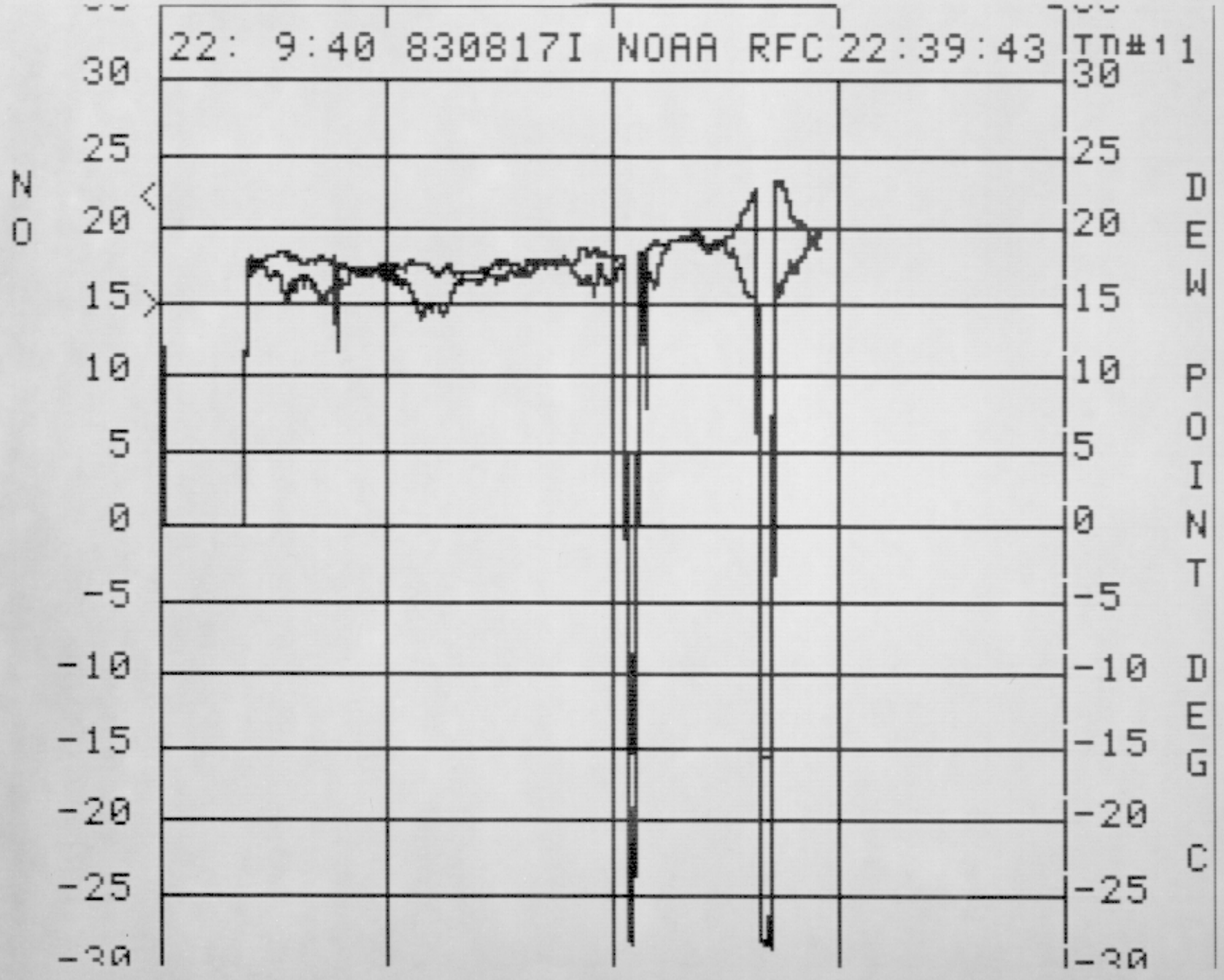
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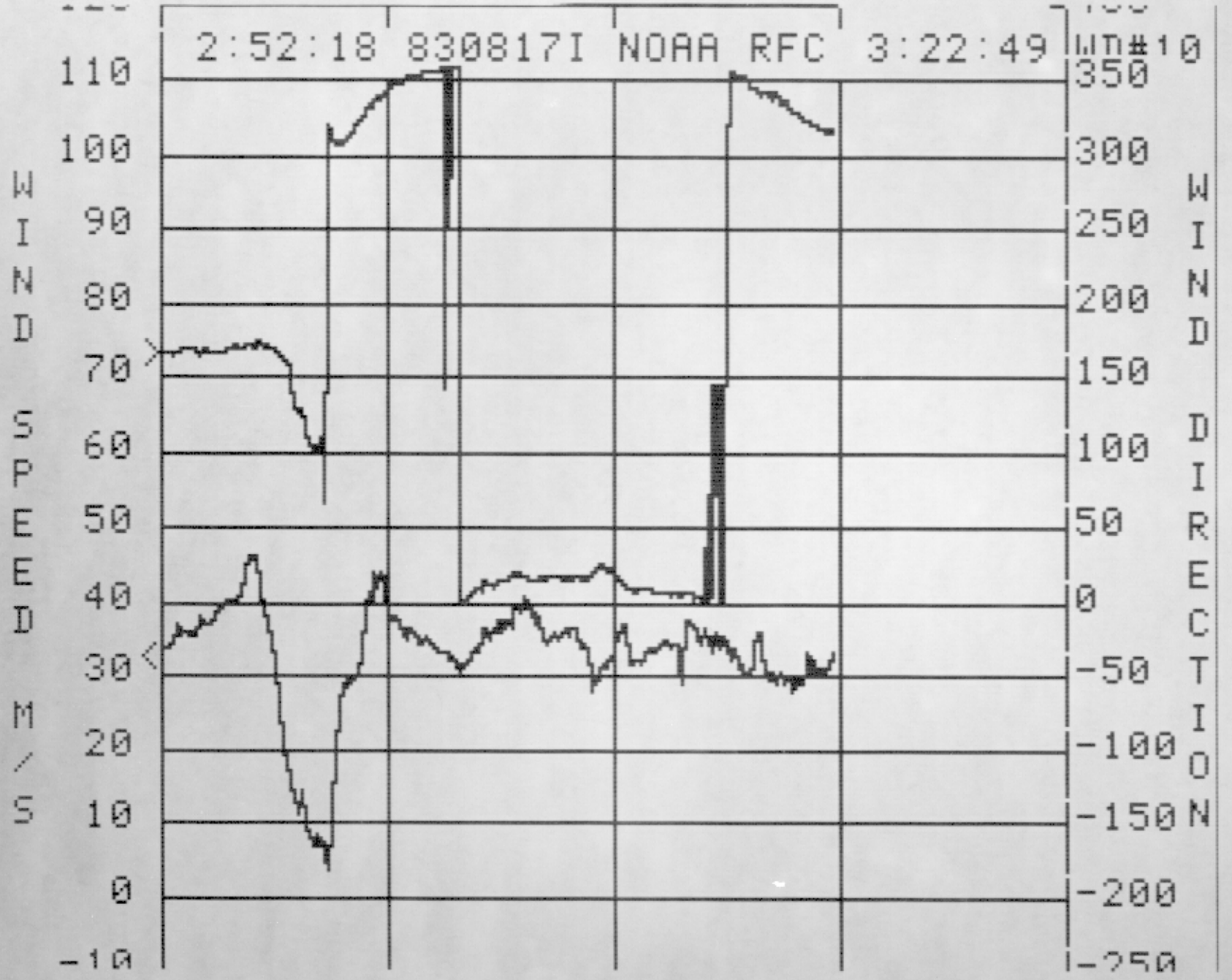
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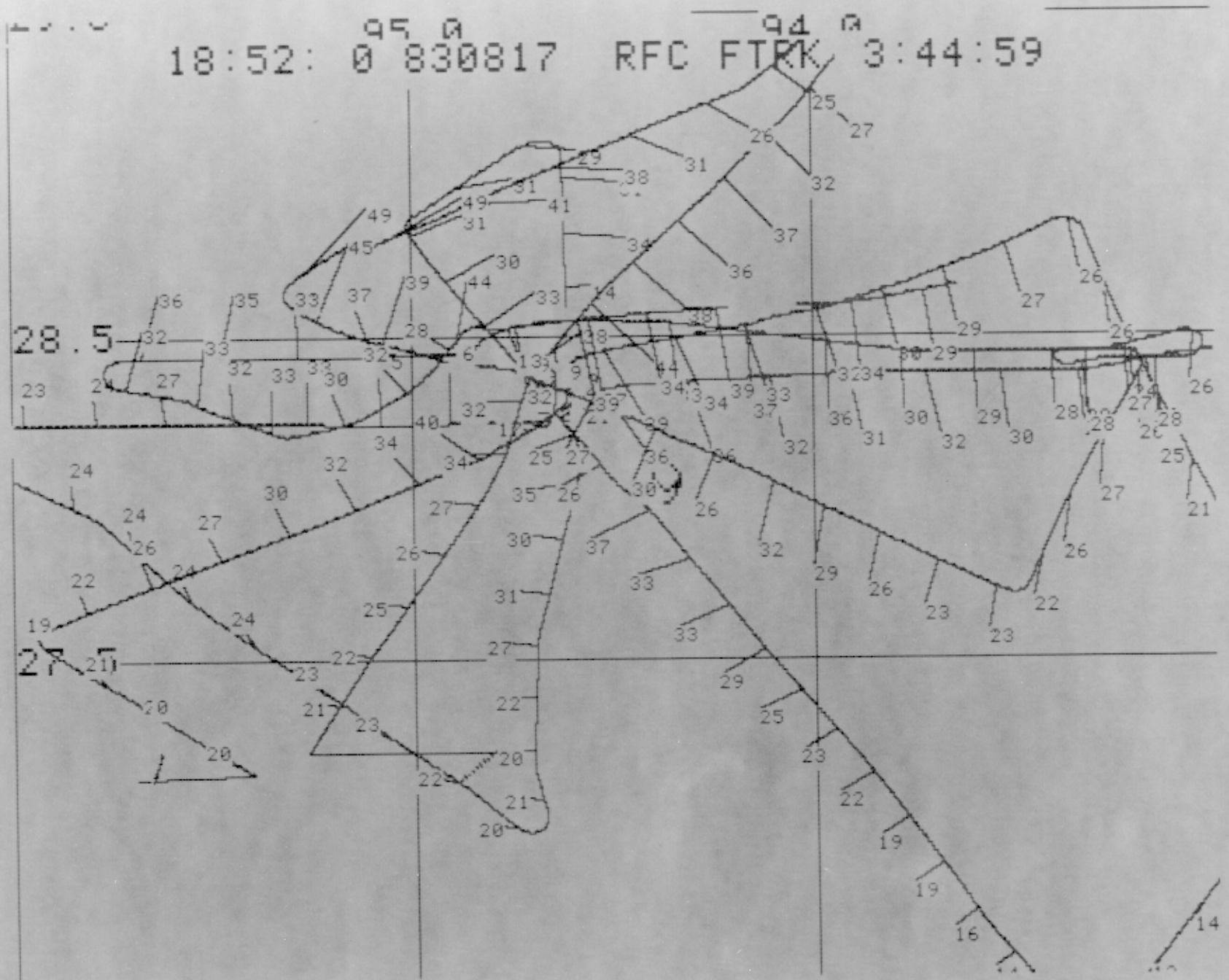
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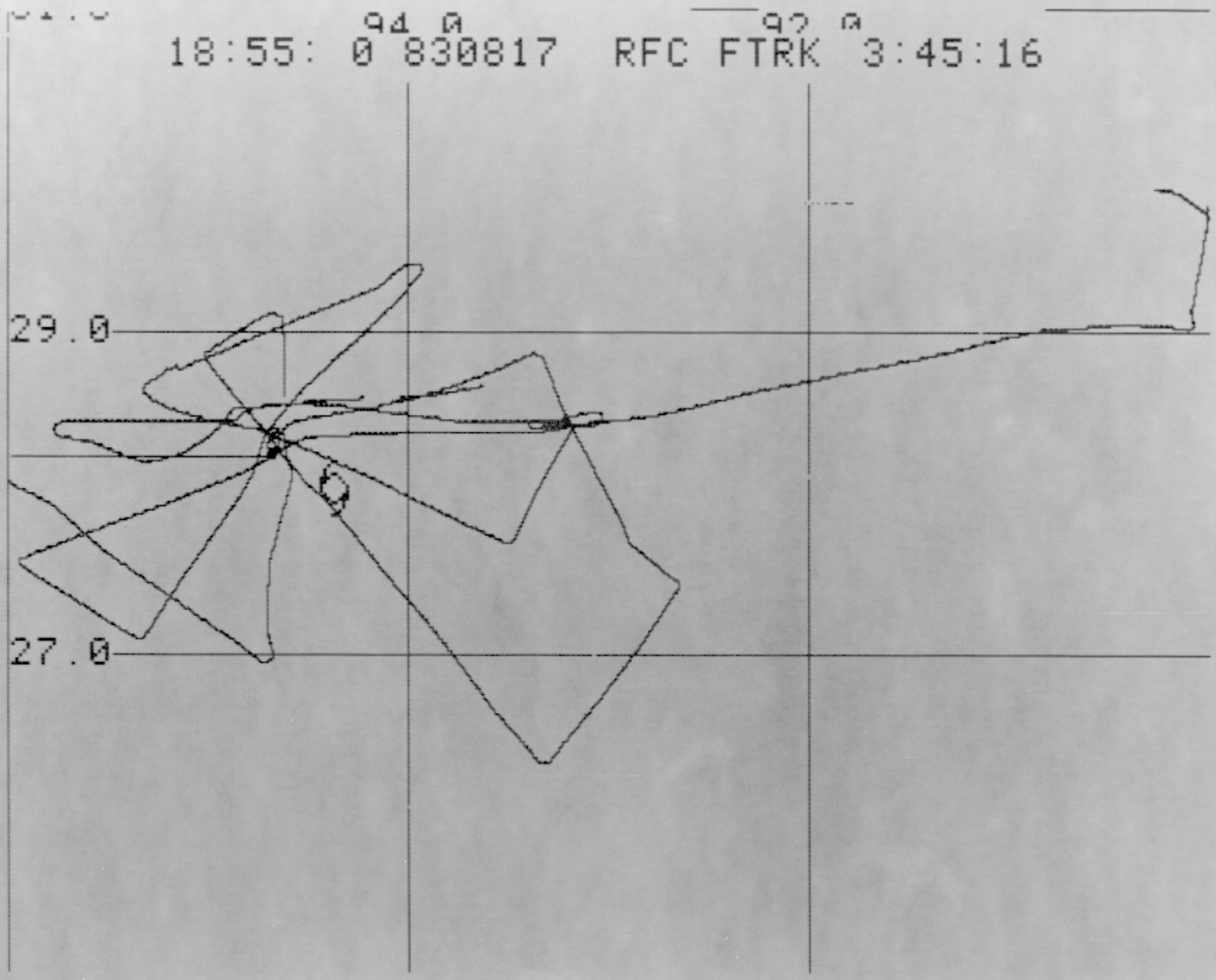
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