

U.S. DEPT. COMM./NORA/OAO - DATA SECTION WORK FORM NO.1 OAOWF1 FILE

|                 |                    |                    |
|-----------------|--------------------|--------------------|
| FLT ID: 970209H | FM: SNN            | TO: SNN            |
| FLT NO: 97-023  | BLK IN: 2248Z      | ATA: 2242Z         |
| ETD: 1315       | DLK OUT: 1304Z     | RTD: 1314Z         |
| ETE: 2230       | BLK TIME: 9.44 9.7 | FLT TIME: 9.28 9.5 |
| SPONSOR ORG:    | PROGRAM: FASTEX    | PURPOSE:           |

OAO PERSONNEL

|                          |                      |
|--------------------------|----------------------|
| AC KENNEDY, P ✓          | SYS ENG LYNCH, T ✓   |
| CP TAGGART, B ✓          | DATA SYS BARR, J ✓   |
| NAV STRONG, J ✓          | RADAR MC MILLAN, S ✓ |
| FE WADE, S / TORREY, R ✓ | BT/ODW OFFUTT, D ✓   |
| RADIO                    | CLD PHYS             |
| FD CZYZK, S ✓            | DOPPLER              |

PARTICIPATING SCIENTIST/VISITORS/OAO

| LAST, FIRST NAME | ACTIVITY ON A/C | AFFILIATION |
|------------------|-----------------|-------------|
| JORGENSEN, D ✓   |                 |             |
| LEMAITRE ✓       |                 |             |
| SHEPHERD, T ✓    |                 |             |
| CHALON, J.P. ✓   |                 |             |
| CAILLAULT, K ✓   |                 |             |
|                  |                 |             |
|                  |                 |             |
|                  |                 |             |
|                  |                 |             |

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)  
 RADAR DOWN ~1843-1853Z, 2052-2059

U.S. DEPT. COMM./NOAA/OAD - DATA SECTION WORK FORM NO.2 OADWF2

FLT ID: 970209H

TIME OFF:

TIME ON:

|          | A/C T/O | WX STN       | A/C LAND | WX STN |
|----------|---------|--------------|----------|--------|
| PRESSURE | 1016.3  | 1017.0 30.63 | 1000.5   | 29.59  |

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXDT

AXCP

ODW

PHOTOGRAPHY

|      | FWD | LS | RS | VERT |
|------|-----|----|----|------|
| ON   |     |    |    |      |
| OFF  |     |    |    |      |
| RATE |     |    |    |      |

REMARKS

# FASTEX FLIGHT #8

FLIGHT #08 H970209

## TYPE OF DATA

## SENSOR OR OPTION

|                                                |                    |
|------------------------------------------------|--------------------|
| INE                                            | 2                  |
| Accelerometer                                  | 2                  |
| Temperature probe                              | 1                  |
| Altitude change option<br>(for vertical winds) | RA159              |
| Static pressure                                | Rosemount fuselage |
| Dynamic pressure                               | Rosemount fuselage |
| Time source                                    | Micro 99           |
| Constants file                                 | CO2971.CON         |

## Notes:

More [42%]...

There was one time/data gap 1740:10

Radar Altitude (APN-159) patched from 1313:40 - 1314:00  
2242:00 - 2245:00

Dewpointer#2 (DW2) was replaced by dewpointer#3 (DW3) with an offset of +5 from 2241:10-2245:00.

Downward spikes in radar altimeter data are a result of overflying land.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

## Takeoff

## Landing

More [85%]...

|                          |           |           |
|--------------------------|-----------|-----------|
| Aircraft static pressure | 1016.3 mb | 1000.5 mb |
| Corrected tower pressure | 1017.0 mb | 1002.0 mb |

Flight Meteorologist: Stan Czyzyk, (813) 828-3310 ext. 3086

End...

DATE : 2/9/97  
TO : Chief, AOC Flight Operations  
FROM : Pilot/Flight Director, Aircraft N42RF ON 2248Z BLOCKTIME  
OFF 1304Z 9.7  
SUBJECT: Hazardous Duty

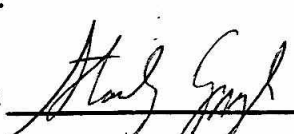
PURPOSE OF FLIGHT: RAДАР work in cyclone ~~area~~ (FASTEX Project)

Hazardous Duty Pay is required for flight made on 2/9/97  
(DATE)

Request based on RAДАР work in cyclone at 5k feet.

Personnel on board authorized Hazard Pay:

|                     |         |
|---------------------|---------|
| <u>CZYZYK, S</u>    | <u></u> |
| <u>BARR, J</u>      | <u></u> |
| <u>LYNCH, T</u>     | <u></u> |
| <u>OFFUTT, D</u>    | <u></u> |
| <u>MC MILLAN, S</u> | <u></u> |
| <u>TORREY, R.</u>   | <u></u> |
| <u>WADE, S.</u>     | <u></u> |
| <u></u>             | <u></u> |
| <u></u>             | <u></u> |

PILOT/FLIGHT DIRECTOR: 

APPROVED: \_\_\_\_\_ DISAPPROVED: \_\_\_\_\_

CHIEF, AOC FLIGHT OPERATIONS: \_\_\_\_\_



# RENAV

|        |             |    |      |     |      |
|--------|-------------|----|------|-----|------|
| 135500 | , 0.0, 0.0  | 54 | 35.4 | -12 | 15.3 |
| 165500 | , 1.1, 0.9  | 58 | 49.7 | -26 | 57.6 |
| 181900 | , 1.6, 0.5  | 58 | 9.3  | -23 | 34.5 |
| 194500 | , 2.0, 0.8  | 57 | 45.8 | -20 | 26.0 |
| 214000 | , 3.1, -1.3 | 53 | 12.9 | -13 | 35.7 |
| 224500 | , 3.9, -1.7 | 52 | 41.7 | -8  | 55.5 |

1739:49 SMALL TIME GLITCH  
 1739:53 - 1739:55 SMALL TIME GLITCH  
 1739:57 - 1740:00 SMALL TIME GLITCH  
 1740:03 - 1740:10 SMALL TIME GLITCH  
 1740:10 BAD BLOCK LENGTH 220  
 1740:44 SMALL TIME GLITCH

X SPIKE IN RA-159 AT TAKEOFF 1313:40 - 1314:00  
 DIPS IN RA-159 1319:00 - 1327:00 RESULT FROM OVERFLING LAND  
 APR FLATLINE (MAX OUT) 2211:30 - 2223:00  
 DIPS IN RA-159 2215:00 - 2222:00 RESULT FROM OVERFLYING LAND

X SPIKE IN RA-159 AT LANDING 2242:00 - 2245:00  
 APR FREEZE 1812:00 - 2030:00  
 BPR FREEZE 1804:00 - 2030:00  
 OPR ACTING UP 2030:00 - 2245:00

✓ PWR FREEZE 1625:00 - 1725:00, 2000:00 - 2035:00  
 ✓ DW1 REPLACED BY DW2  
 ✓ DW2 REPLACED BY DW3 + 5 2241:10 - 2245:00

# NOAA N42RF

## Mission 8 970209H

*Mission:* Low 34a and Cold Frontal Bands

*Altitude:* 5,000 ft

- Takeoff: ~1315 UTC
- Overfly met buoy 62105 at **55.97N 14.20W** at 5k ft
- Track to pt 1 near 57 22N 19 53W
- Execute survey pattern 1 with UK C-130 from 1524 UTC to 1755 UTC.
- Execute survey pattern 2 from 1800 UTC to 2126 UTC
- Overfly met buoy 62105 at **55.97N 14.20W** at 5k ft
- Return to SNN by ~2245 UTC (9.5 hour mission).

Call Signs are **P-3:** "NOAA-42", **Electra:** "308 Delta", **UK C-130:** "Met Man 60"  
VHF frequencies: 122.925 or 123.05

20 BKW 25 BKW

170/17  
11/8

500 mb ferry (18,000 ft) winds

OUT IN  
230/45 230/100 knots

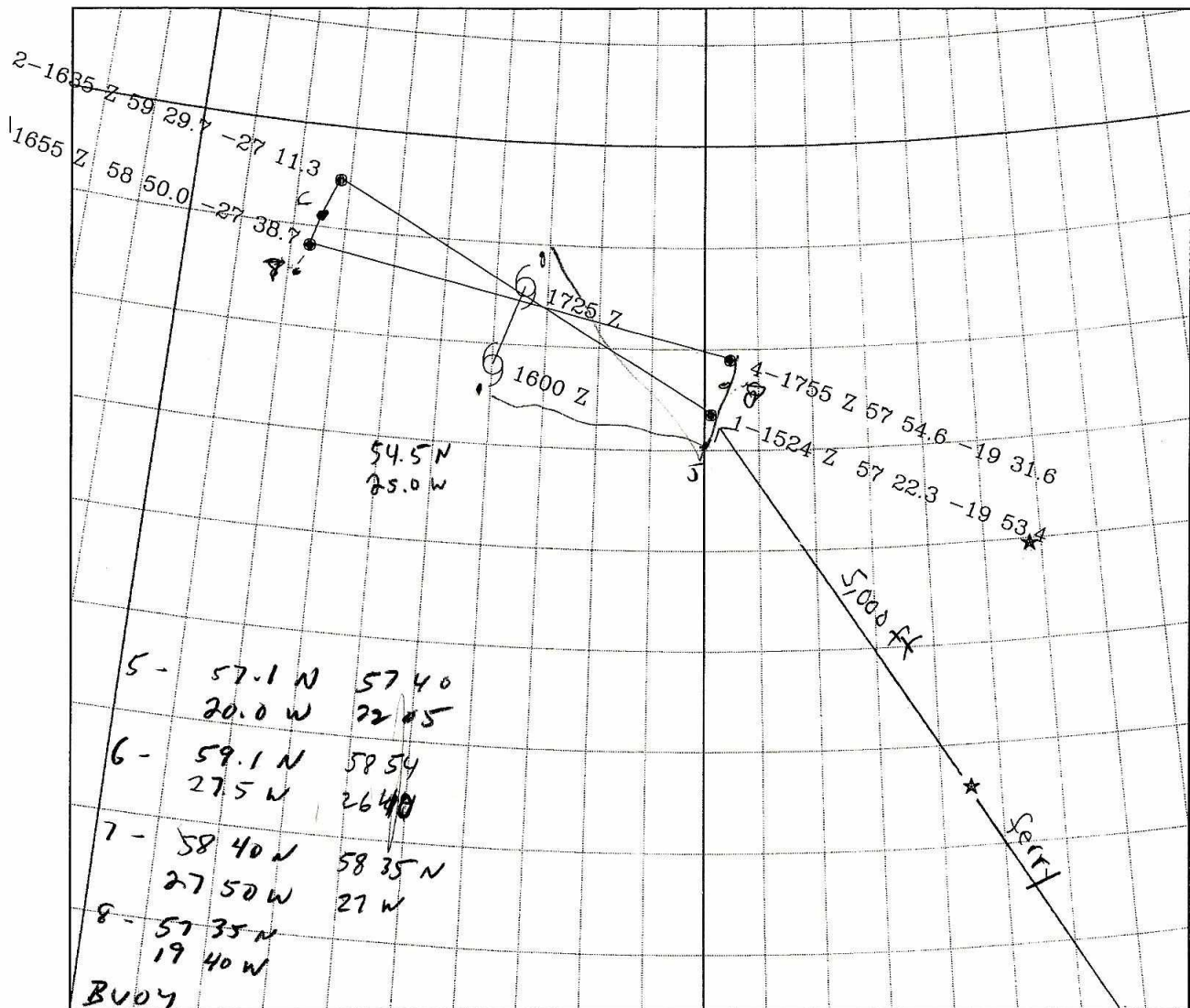
CIRCLE RIGHT

Part 1

COLD FRONT

57 18  
19 39

FASTEX IOP12 P-3 970205H 5,000 ft (61.0,-10.0)



Storm Dir/Spd= 20.0/ 35.0 Wind Dir/Spd=250.0/ 25.0 TAS=235.0 kt

NOAA/NSSL Polar Stereographic (60.0,-20.0)

22.3  
1338

15313

1545Z LEFT

1558Z LEFT

1610Z LEFT

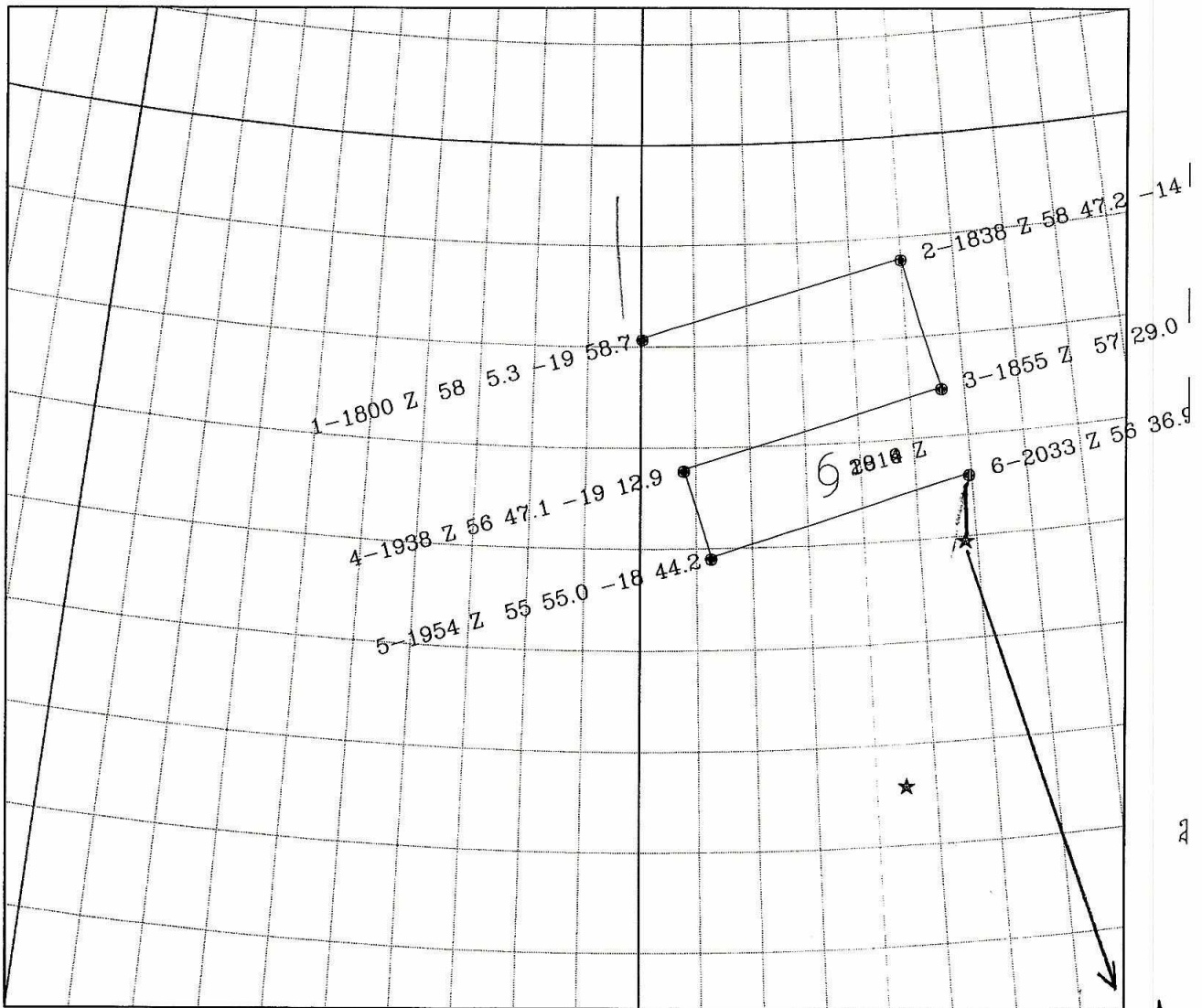
EVERY 10 min CIRCLES LEFT

P-3 Part II  
5,000 ft

500 mb ferry (18,000 ft)  
winds

OUT 230/45      IN 230/100 knots

FASTEX IOP12 P-3a 970205H 5,000 ft (61.0, -10.0)



(51.0, -30.0) Storm Dir/Spd=345.0/ .0 Wind Dir/Spd=180.0/ 55.0 TAS=235.0 kt

★ Land  
22045  
UTC

NOAA/NSSL Polar Stereographic (60.0, -20.0)

Part 1

5,000 ft

FASTEX IOP12 P-3 970205H 5,000 ft

Location of Airport: 52.70 -8.92

Storm Location: 57.800 -23.980 IP time:16.00 Starting Side:r  
Leg length: 480.0 km TAS: 235.0 kt  
Wind Direction: 250.0 Wind speed: 25.0 kt  
Storm Direction: 20.0 Storm Speed: 35.0 kt  
Storm u,v motion: 12.0 32.9  
Wind u,v components: 23.49 8.55

Dist to 1st point: 871.4 km Take-off time: 13.33 (1320 UTC)  
GS: 222.3 kt Trk: 306.8

Point # 1 Distance from center: 75.0 km  
Lat: 57 22.3 Lon:-19 53.4 Time: 15.41 (1524 UTC)  
Trk: 298.5 GS: 219.2 kt Dist: 485.3 km Dt: 70.9 min Mid Run Time:1600  
At mid run time, storm position is: 57.80 -23.98

Point # 2 Distance from center: 75.0 km  
Lat: 59 29.7 Lon: -27 11.3 Time: 16.59 (1635 UTC)

Distance from storm: -25.0 km

Point # 3 Distance from center: -25.0 km  
Lat: 58 50.0 Lon:-27 38.7 Time: 16.92 (1655 UTC)  
Trk: 101.5 GS: 256.6 kt Dist: 485.3 km Dt: 60.6 min Mid Run Time:1725  
At mid run time, storm position is: 58.58 -23.44

Point # 4 Distance from center: -25.0 km  
Lat: 57 54.6 Lon: -19 31.6 Time: 17.93 (1755 UTC)

P-3

Part II

5,000 ft

Point # 1 Distance from center: 200.0 km

Lat: 58 5.3 Lon: -19 58.7 Time: 18.01 (1800 UTC)

Trk: 75.0 GS: 254.8 kt Dist: 300.0 km Dt: 38.1 min Mid Run Time: 1819

At mid run time, storm position is: 56.70 -16.60

Point # 2 Distance from center: 200.0 km

Lat: 58 47.2 Lon: -14 60.0 Time: 18.65 (1838 UTC)

Distance from storm: 50.0 km

Point # 3 Distance from center: 50.0 km

Lat: 57 29.0 Lon: -14 24.8 Time: 18.93 (1855 UTC)

Trk: 255.0 GS: 227.1 kt Dist: 300.0 km Dt: 42.8 min Mid Run Time: 1916

At mid run time, storm position is: 56.70 -16.60

Point # 4 Distance from center: 50.0 km

Lat: 56 47.1 Lon: -19 12.9 Time: 19.64 (1938 UTC)

Distance from storm: -50.0 km

Point # 5 Distance from center: -50.0 km

Lat: 55 55.0 Lon: -18 44.2 Time: 19.92 (1954 UTC)

Trk: 75.0 GS: 254.8 kt Dist: 300.0 km Dt: 38.1 min Mid Run Time: 2014

At mid run time, storm position is: 56.70 -16.60

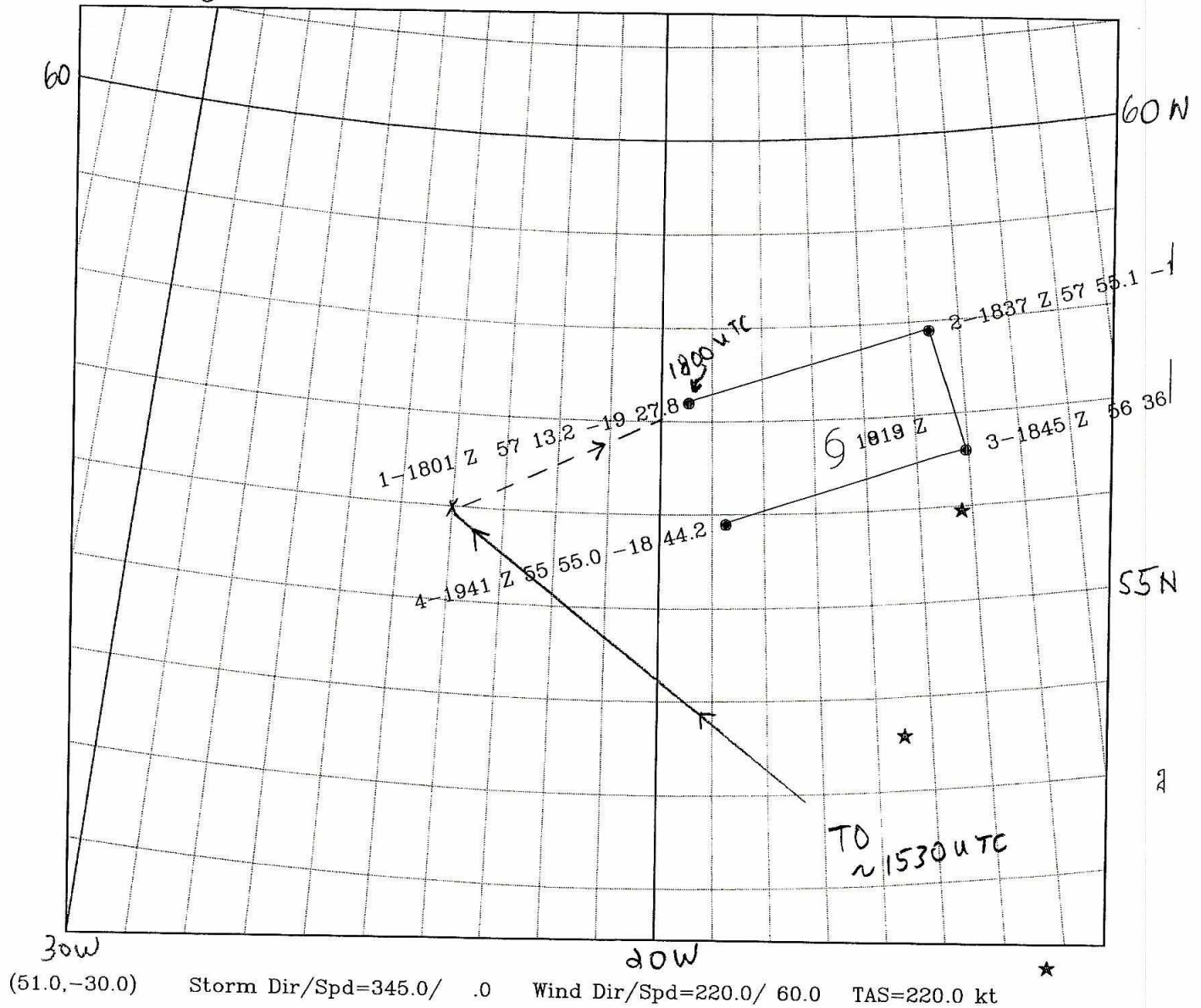
Point # 6 Distance from center: -50.0 km

Lat: 56 36.9 Lon: -14 2.6 Time: 20.55 (2033 UTC)

500 mb (18,000 ft) ferry winds

OUT      IN  
230/45      230/100 knots

FASTEX IOP12 Electra 970205H 2,000 ft (61.0, -10.0)



NOAA/NSSL Polar Stereographic (60.0, -20.0)

Electra Coordinated with P-3  
& C-130

Point # 1 Distance from center: 100.0 km  
Lat: 57 13.2 Lon: -19 27.8 Time: 18.03 (1801 UTC)  
Trk: 75.0 GS: 271.3 kt Dist: 300.0 km Dt: 35.8 min Mid Run Time: 1819  
At mid run time, storm position is: 56.70 -16.60

Point # 2 Distance from center: 100.0 km  
Lat: 57 55.1 Lon: -14 36.3 Time: 18.63 (1837 UTC)

Distance from storm: -50.0 km

Point # 3 Distance from center: -50.0 km  
Lat: 56 36.9 Lon: -14 2.6 Time: 18.76 (1845 UTC)  
Trk: 255.0 GS: 174.3 kt Dist: 300.0 km Dt: 55.7 min Mid Run Time: 1913  
At mid run time, storm position is: 56.70 -16.60

Point # 4 Distance from center: -50.0 km  
Lat: 55 55.0 Lon: -18 44.2 Time: 19.69 (1941 UTC)

