

|                   |                    |                             |
|-------------------|--------------------|-----------------------------|
| Flt ID: 010923I   | From: KMCF         | To: KILM                    |
| Flt No: 01-055    | Blk In: 0201Z      | ATA: 0153Z                  |
| ETD: 17Z          | Blk Out: 1702Z     | ATD: 1714Z                  |
| ETE: 03Z          | Blk Time: 8:59 9.0 | Flt Time: 8:39 8.7          |
| Sponsor Org: NOAA | Program: CAMEX/HAD | Purpose: COVES TS. HUMBERTO |

## AOC Personnel

|                          |                     |
|--------------------------|---------------------|
| AC: KENUL, P ✓           | Sys Eng: LYNCH, T ✓ |
| CP: TEBEEST, R ✓         | Data Sys:           |
| Nav: ADLER, J ✓          | Radar: BARR, J ✓    |
| FE: WADE, S ✓ / FLOYD, D | GPS/BT: SMITH, J ✓  |
| FD: CZYZYK, J ✓          | Cld Phys:           |
| Avionics: SANS SUCI, D ✓ |                     |

## Participating Scientists / Vendors / AOC

| Name (Last, First) | Activity on Aircraft | Affiliation |
|--------------------|----------------------|-------------|
| BLACK, M ✓         | PI                   | HAD         |
| GOLDENBERG, S ✓    | HARS                 | "           |
| DODGE, P ✓         | RADAR                | "           |
| BARNES, G ✓        | SCIENTIST            | "           |
| WALSH, E ✓         | SRA                  | NASA        |
| MCFAADDEN, J ✓     | P.M                  | AOL         |
|                    |                      |             |
|                    |                      |             |
|                    |                      |             |

## Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

20Z ETA

BAL DW#1 1753:30, 1856Z, 1859:25Z

BAL DW#2 1801Z

3 PENE'S

159 H05ED 0103Z 90109Z

Flt ID: **010923I**
 Time Off: **1714Z**
 Time On: **0153Z**

Wx Station / Land: **1015.4**
 Wx Station / Land: **30.01**
 Wx Station / Land: **30.03**

|                     | Number | Data Disposition / Date / Quality |
|---------------------|--------|-----------------------------------|
| Flt Lvl Tapes       |        |                                   |
| Radar Tapes         |        |                                   |
| Cloud Physics Tapes |        |                                   |
| Video Tapes         |        |                                   |
|                     |        |                                   |
|                     |        |                                   |
|                     |        |                                   |
| AXBT                | 18     |                                   |
| AXCP                |        |                                   |
| AXCTD               |        |                                   |
| Dropsondes          | 25     | 226000                            |

|          | Forward | Left Side | Right Side | Down | Remarks |
|----------|---------|-----------|------------|------|---------|
| Time On  |         |           |            |      |         |
| Time Off |         |           |            |      |         |
| Rate     |         |           |            |      |         |

Remarks



Flight ID:

010903F

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U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

Form 413-50

| TIME   | LAT   | LONG  | TK   | HD  | TA   | TD    | WD  | WS   | PA   | GA   | PS    | SP     | REMARKS            |
|--------|-------|-------|------|-----|------|-------|-----|------|------|------|-------|--------|--------------------|
| 173800 | 28 09 | 81 09 | 59   | 60  | -1.6 | -7.1  | 112 | 4.4  | 4563 | 4794 | 572.6 | 1013.0 | LEVEL 15K RAD      |
| 185230 | 29 39 | 84 21 | 81   | 82  | -2.6 | -20.8 | 102 | 5.9  | 4719 | 4989 | 520.8 | 1015.8 |                    |
| 193340 | 30 06 | 70 15 | 83   | 83  | -0.6 | -32.5 | 299 | 8.2  | 4753 | 5025 | 558.2 | 1011.7 |                    |
| 195220 | 30 27 | 68 18 | 76   | 77  | 0.3  | -31.4 | 266 | 18.6 | 4741 | 4991 | 5     |        | GPS DROP / DESCENT |
| 20035  | 30 37 | 67 27 | 77   | 77  | 15.2 | 12.2  | 281 | 18.1 | 1719 | 1813 | 823.4 | 1014.8 | LEVEL 61K          |
| 200235 | 30 41 | 67 18 | 4    | 1   | 15.8 | 10.8  | 271 | 16.7 | 1718 | 1808 | 823.2 | 1013.9 | IP DROP NO GAD     |
| 201518 | 31 31 | 67 15 | 5    | 358 | 16.9 | 9.9   | 262 | 38.8 | 1742 | 1799 | 820.8 | 1009.1 | GPS/BT             |
| 202210 | 32 00 | 67 12 |      |     |      |       | 255 | 70.1 |      |      |       |        | GPS/BT             |
| 202300 | 32 03 | 67 12 |      |     |      |       |     |      |      |      |       |        | GPS                |
| 2027   | 32 00 | 67 16 |      |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 2030   | 32 30 | 67 17 |      |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 204120 | 33 14 | 67 17 | 1    | 9   | 14.5 | 13.7  | 68  | 37.2 | 1751 | 1826 | 823.3 | 1012.8 | GPS/BT             |
| 205653 | 34 04 | 67 15 | 246  | 245 | 14.8 | 11.2  | 84  | 24.0 | 1717 | 1823 | 823.3 | 1016.3 | GPS/BT             |
| 210800 | 33 45 | 68 09 | 246  | 248 | 14.6 | 12.1  | 59  | 28.7 | 1714 | 1810 | 823.6 | 1015.4 | GPS/BT             |
| 211920 | 33 26 | 69 02 | 247  | 252 | 15.5 | 15.3  | 38  | 29.9 | 1712 | 1812 | 823.8 | 1015.7 | GPS/BT             |
| 214311 | 32 58 | 68 06 | 119  | 110 | 16.5 | 9.4   | 31  | 40.9 | 1711 | 1972 | 822.8 | 1009.7 | GPS/BT             |
| 215437 | 32 37 | 67 24 |      |     |      |       |     |      |      |      |       |        | GPS                |
|        |       |       |      |     |      |       |     |      |      |      |       |        | BT                 |
|        |       |       |      |     |      |       |     |      |      |      |       |        | GPS                |
| 2158   | 32 35 | 67 07 |      |     |      |       |     |      |      |      |       |        | GPS                |
| 220330 | 32 26 | 66 47 | 120  | 142 | 16.6 | 16.4  | 192 | 87.5 | 1751 | 1824 | 809.8 | 998.4  | GPS/BT             |
| 221214 | 32 11 | 66 13 | 120  | 133 | 16.3 | 12.6  | 197 | 49.7 | 1778 | 1848 | 817.0 | 1010.0 | GPS/BT             |
| 223020 | 31 57 | 65 18 | 347  | 346 | 15.8 | 12.8  | 183 | 39.4 | 1752 | 1857 | 820.4 | 1015.0 | GPS BT             |
| 230351 | 33 43 | 65 18 | 241  | 233 | 15.7 | 9.8   | 145 | 40.2 | 1753 | 1866 | 819.7 | 1016.0 | GPS/BT             |
| 231400 | 33 19 | 66 04 | 1330 |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 232538 | 32 57 | 66 47 |      |     | 16.3 | 14.2  | 150 | 95   |      |      |       |        | GPS/BT             |
| 232639 | 32 36 | 66 51 |      |     |      |       |     |      |      |      |       |        | GPS                |
| 2330   | 32 48 | 67 03 |      |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 233312 | 32 41 | 67 13 |      |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 234350 | 32 18 | 3/067 | 529  |     |      |       |     |      |      |      |       |        | GPS/BT             |
| 235450 | 31 56 | 68 44 | 240  | 246 | 14.9 | 10.0  | 356 | 27.5 | 1772 | 1871 | 817.7 | 1015.2 | GPS/BT             |



NOAA • AOC • SED  
N43RF AVAPS DROP LOG

Project: Hurricane '01 / Epic

Mission : Hambo

Flight ID : 0109231

Take Off : \_\_\_\_\_

Landing : \_\_\_\_\_

| Drop # | Sonde Serial #       | Rcvr #       | Press Offset | Launch Time | Winds Time | Operator | Comments                   |
|--------|----------------------|--------------|--------------|-------------|------------|----------|----------------------------|
| 1      | 002428 042           | 14           | Ø            | 1952        | 28         | JAS      | GOOD                       |
| 2      | 003115 257           | 1            | Ø            | 2002        | ~60        | JAS      | LATE LAUNCH <del>Det</del> |
| 3      | 003115 410           | 1            | Ø            | 2015        | 34         |          | GOOD                       |
| 4      | 003115399            | 2            | Ø            | 2022        | ?          |          |                            |
| 5      | 003135293            | 1            | .7           | 2023        | ?          |          |                            |
| 6      | 003135149            | 3            | Ø            | 2027        |            |          |                            |
| 7      | 003115447            | 1            | Ø            | 2029        |            |          | System Lockup!             |
| 8      | 003115446            | 21           | Ø            | 2041        | 25         |          | GOOD                       |
| 9      | 003135298            | 2            | Ø            | 2057        | 24         |          | GOOD                       |
| 10     | 003115448            | 1            | Ø            | 2108        | 25         |          | GOOD                       |
| 11     | 003135301            | 2            | Ø            | 2119        | ✓          |          | GOOD                       |
| 12     | 003135089            | 1            | Ø            | 2143        | 15         |          | "                          |
| 13     | 003115407            | 2            | Ø            | 2154        |            |          | "                          |
| 14     | 003135295            | 1            | Ø            | 2154        |            |          | "                          |
| 15     | 003115398            | 3            | Ø            | 2203        | <20        |          | "                          |
| 16     | 011378102            | 1            | Ø            | 2212        | 35         |          | "                          |
| 17     | 001948003            | 1            | .5           | 2230        | 50         |          | "                          |
| 18     | 003115258            | 2            | Ø            | 2303        | 16         |          | "                          |
| 19     | 012225037            | 1            | .4           | 2314        | 50         |          | "                          |
| 20     | 003135048            | 2            | .5           | 2325        | ✓          |          | "                          |
| 21     | 012525026            | 1            | .4           | 2326        |            |          | O/O SATS                   |
| 22     | 003115405            | 3            | .5           | 2330        |            |          | "                          |
| 23     | 003135155            | 2            | 0            | 2333        |            |          | LATE WINDS 90SEC           |
| 24     | 012525031            | 1            | ?            | 2343        | 40         |          | GOOD                       |
| 25     | 003135090            | 2            | Ø            | 2355        | 15         |          | GOOD                       |
| 26     | <del>012525028</del> | <del>1</del> | <del>Ø</del> |             |            |          |                            |

ALL SONDES CHARGE TO HRD  
except general DROPS  
PROBLEM W/VIDEO CNX/CARD CAUSED

ALL SENSES CHARGE TO HRD  
except eye and DROPS  
PROBLEM W/VIDEO CNX/CARD CAUSED  
lockups - charge all senses to HRD

RA-159 SPIKE & TAKEOFF REPLACE w/232 BEG-1716:30 X  
JUMP/OFF ~~1800~~ 1758:23<sup>+50</sup>-1800:30 X, 1917:54<sup>+50</sup>-1919:33 X REPLACE w/232  
SPIKE 1824-1825, ✓

~~1702:30-1703~~, 1714-1714:30 X  
PITCH 2 SPIKES 1715:30-1716:30 (2) X, 1717:00-1717:30 X, 1719:40-1720:10 X  
1721:30<sup>roll</sup>, 1722:30-1723, 1728-1728:30 X

~~1702:30-1703~~, 1714-1714:30 X REPLACE w/ROLL  
PITCH SPIKE 1716-1716:30 X, (1716:59-1717:38 (2)) X, 1719:53-1720:00 X  
1722:30-1723 X

TT1 OUT 1823:20-1823:40 X

TT2 OUT 1823-1823:30 -

DW1 BALANCE SPIKE 1753-1757 -  
DW2 BALANCE SPIKE 1800<sup>4</sup>-1802:56 REPLACE w/DW1 X  
DW1 BALANCE SPIKE 1856-1858, 1859-1903 -  
DW1 OSCILLATING 1959-? -  
DW3 SPIKE 2030:30-2031:30, 2034-2036 -

653MCPs SPIKE 1718:30-1719, 1735:30-1736, 1759:30-1800, 1849:30-1850:30,  
2001-2002, 2002:30-2003, 2003:30-2004:30, 2007:30-2008, 2024-2024:30,  
2029:30-2031, 2038:30-2039.

643MCPs 1718:30-1719, 1735:30-1736, 1738:30-1739, 1849:30-1850:30, 1931:30-1932:30,  
1959:30-2000:30, 2001-2002, 2002:30-2003, 2018:30-2019, 2024-2024:30,  
643MCPs 1704:30-1706:00, 1718:30-1719, 1735:30-1736, 1738:30-1739, 1759:30-1800,  
1931:30-1932:30, 1954-1954:30, 1959:30-2000, 2002-2004, 2007:30-2008,  
2024-2024:30, 2029:30-2031, 2038:30-2039,

NO KING

RA-232 SPIKE 1953-1953:30, 1958-1958:30,

LAT-GPS 1722:30-1723:30 (2), 1738:30-1739, 1752-1753, 1813:30-1814, 1816:30-1817,  
1832:30-1833, 1838:30-1839:30 (2), 1858-1858:30, 1900-1901, 1902:30-1903,  
1941:30-1942, 1948-1949, 1959:30-2000, 2002:30-2003, 2004-2004:30, 2009-2010,  
2018:30-2019, 2024-2024:30, 2028-2028:30, 2030-2031 (2), 2035-2035:30,  
2038:30-2038:00,



010923 I

~~1700:41~~ 1700:41 - 0158:00  
1711 - 0156

INEZ

TI

DWZ

RA-159

AVZ

~~Time~~

2051:11 BAD POSITION

~~2051:11 - 2~~

2051:11 - 2051:20

2118:11 BAD POSITION

2118:11 - 2118:20

2129:01 - 2129:20

2130:41 - ~~2130:51~~ BAD POSITION

2130:51 BAD POSITION

2130:41 - 2131:00

2132:41 BAD POSITION

2132:51 BAD POSITION

2132:41 - 2133:00

2237:51 BAD POSITION

2237:51 - 2238:00

RENAV (13)

174400 0.8, -0.2

180000 1.4, -0.4

190000 3.1, -1.2

195400 4.9, -2.5

202700 5.4, -3.2

210300 6.2, -3.4

214800 5.9, -4.5

223600 7.0, -6.3

233000 6.3, -6.7

241400 6.6, -7.2

003200 5.9, -8.5

011200 6.1, -8.4

015800 5.4, -9.7

~~0000~~

LOAN-GPS SPIRES 1718:30-1719, 1722:30-1723:30(2),  
1738:30-1739, 1743:30-1744, 1752-1753,  
1755:30-1756, 1813:30-1814, 1816:30-1817,  
1832:30-1833, 1838:30-1839:30(2), 1842-1842:30,  
1846-1846:30, 1858-1858:30, 1900-1901, 1922:30-1923,  
1941:30-1942, 1948-1949, 1953:30-1954:30,  
1955:30-2000,

010923I

65X3MGPS 2055:30-2056, 2104:30-2105:30, 2120-2120:30,

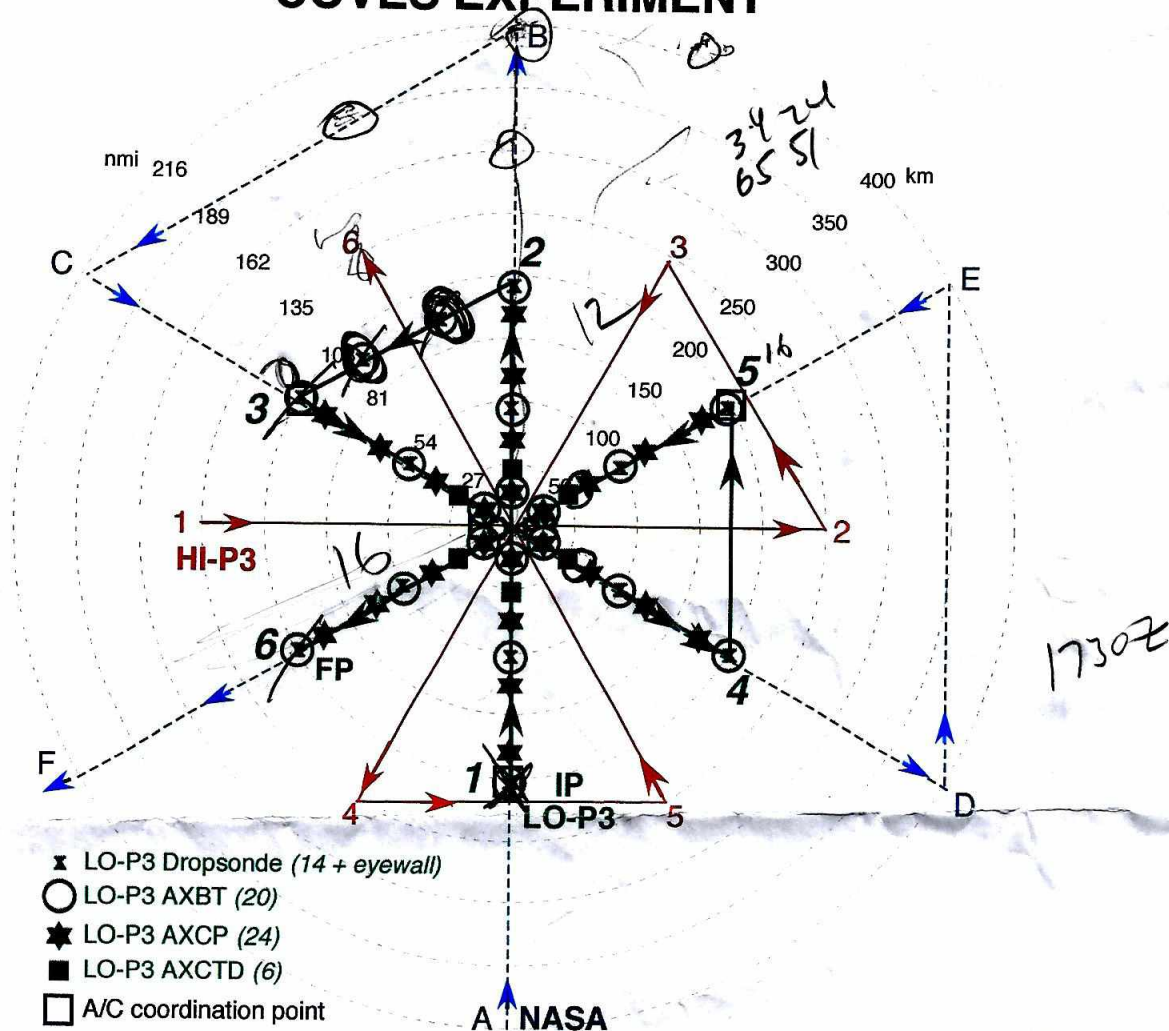
TT2 Dropouts in RAIN 2029-2033, 2151-2157, 2241-2245,  
2315-2317,

RA-159 OUT 0102:<sup>+75</sup>35-0109:04 REPLACE W/232 \*

RA-159 SPIKE @ LANDING REPLACE W/232 0152:00-END \*

171550-171616 ✓  
171610-171630 ✓  
1717-1717:20 ✓  
1717:20-171735

# COVES EXPERIMENT



**Fig. 3. Coordinated Short Pattern: (b) Lower WP-3D**

- Note 1. All aircraft should reach their respective IP's as simultaneously as possible.
- Note 2. Aircraft should not deviate from pattern to find the center in the eye.
- Note 3. The pattern may be entered at any compass heading and the DC-8 and ER-2 entries should be along the same heading as the lower WP-3D.
- Note 4. The lower WP-3D aircraft should fly at 5,000-12,000 ft.
- Note 5. WP-3D Doppler radar should be operated in F/AST mode at a single PRF  $\geq 2400$  and  $20^\circ$  tilt.
- Note 6. Lower WP-3D sondes and AXBTs within the eyewall are launched at the discretion of the lead scientist.
- Note 7. Lower WP-3D is responsible for remaining coordinated with DC-8 and ER-2 during legs 2-3.





| DATE                      | SCHEDULED FIX TIME                                                                                                                                                                                                     | AIRCRAFT NUMBER | ARWO                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WX MISSION IDENTIFICATION |                                                                                                                                                                                                                        |                 | OR                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| VORTEX DATA MESSAGE       |                                                                                                                                                                                                                        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| A                         | 23/2027                                                                                                                                                                                                                | Z               | DATE AND TIME OF FIX                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                           | 32 DEG 20 MIN (N) S                                                                                                                                                                                                    |                 | LATITUDE OF VORTEX FIX                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| B                         | 67 DEG 16 MIN E (W)                                                                                                                                                                                                    |                 | LONGITUDE OF VORTEX FIX                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| C                         | 850 MB 1296                                                                                                                                                                                                            | M               | MINIMUM HEIGHT AT STANDARD LEVEL                                                                                                                                                                                                                                                                                                                                                                                                                        |
| D                         | 65                                                                                                                                                                                                                     | KT              | ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED                                                                                                                                                                                                                                                                                                                                                                                                               |
| E                         | 180 DEG 12                                                                                                                                                                                                             | NM              | BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND                                                                                                                                                                                                                                                                                                                                                                                                   |
| F                         | 251 DEG 79                                                                                                                                                                                                             | KT              | MAXIMUM FLIGHT LEVEL WIND NEAR CENTER                                                                                                                                                                                                                                                                                                                                                                                                                   |
| G                         | 167 DEG 16                                                                                                                                                                                                             | NM              | BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND                                                                                                                                                                                                                                                                                                                                                                                              |
| H                         | 984 Drop                                                                                                                                                                                                               | MB              | MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.                                                                                                                                                                                                                                                                                                                              |
| I                         | 17 C/ 1800                                                                                                                                                                                                             | M               | MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                 |
| J                         | 21 C/ 1968                                                                                                                                                                                                             | M               | MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                  |
| K                         | 14 C/ 24                                                                                                                                                                                                               | C               | DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                               |
| L                         | OPEN SW                                                                                                                                                                                                                |                 | EYE CHARACTER: Closed wall, poorly defined, open SW, etc.                                                                                                                                                                                                                                                                                                                                                                                               |
| M                         | C30                                                                                                                                                                                                                    |                 | EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C -Circular; CO - Concentric; E- Elliptical. Transmit orientation of major axis in tens of degree, i.e., 01-010 to 190; 17-170 to 360. Transmit diameter in nautical miles. Examples: C8 - Circular eye 8 miles in diameter. EO9/16/6 - Elliptical eye, major axis 090-270, length of major axis 16 NM, length of minor axis 6NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM. |
| N                         | 12345 / 8                                                                                                                                                                                                              |                 | FIX DETERMINED BY/FIX LEVEL. FIX DETERMINED BY: 1 - Penetration; 2 - Radar; 3 - Wind; 4 - Pressure; 5 - Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers only when same): 0 - Surface; 1 - 1500ft; 9-925mb; 8 - 850 mb; 7 - 700 mb; 6 - 600 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; NA - Other.                                                                                   |
| O                         | 1 / 1                                                                                                                                                                                                                  | NM              | NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY                                                                                                                                                                                                                                                                                                                                                                                                         |
| P                         | REMARKS                                                                                                                                                                                                                |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                           | MAX FL WIND <u>79</u> KT <u>5</u> QUAD <u>23/2023</u> Z<br>SLP EXTRAP FROM (1500 FT/ 925 MB/ 850 MB/ <u>DROPSONDE</u> )<br>SFC CNTR _____ / _____ NM FROM FL CNTR<br>MAX FL TEMP _____ C _____ / _____ NM FROM FL CNTR |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

INSTRUCTIONS: Items A through G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the ARWO's discretion for scheduled (intermediate) fixes.



| DATE                      | SCHEDULED FIX TIME                                                                                                                                                                                                 | AIRCRAFT NUMBER | ARWO                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WX MISSION IDENTIFICATION |                                                                                                                                                                                                                    |                 | OR 9                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| VORTEX DATA MESSAGE       |                                                                                                                                                                                                                    |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| A                         | 23/2330                                                                                                                                                                                                            | Z               | DATE AND TIME OF FIX                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                           | 32 DEG 48 MIN (N) S                                                                                                                                                                                                |                 | LATITUDE OF VORTEX FIX                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| B                         | 67 DEG 03 MIN E (W)                                                                                                                                                                                                |                 | LONGITUDE OF VORTEX FIX                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| C                         | 850 MB 1286                                                                                                                                                                                                        | M               | MINIMUM HEIGHT AT STANDARD LEVEL                                                                                                                                                                                                                                                                                                                                                                                                                          |
| D                         | NA                                                                                                                                                                                                                 | KT              | ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED                                                                                                                                                                                                                                                                                                                                                                                                                 |
| E                         | NA DEG                                                                                                                                                                                                             | NM              | BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND                                                                                                                                                                                                                                                                                                                                                                                                     |
| F                         | 153 DEG 98                                                                                                                                                                                                         | KT              | MAXIMUM FLIGHT LEVEL WIND NEAR CENTER                                                                                                                                                                                                                                                                                                                                                                                                                     |
| G                         | 55 DEG 15                                                                                                                                                                                                          | NM              | BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND                                                                                                                                                                                                                                                                                                                                                                                                |
| H                         | 983                                                                                                                                                                                                                | MB              | MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.                                                                                                                                                                                                                                                                                                                                |
| I                         | 16 CI 1744                                                                                                                                                                                                         | M               | MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                   |
| J                         | 23 CI 1978                                                                                                                                                                                                         | M               | MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                    |
| K                         | 12 CI NA                                                                                                                                                                                                           | C               | DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE                                                                                                                                                                                                                                                                                                                                                                                                                 |
| L                         | OPEN SW-SE                                                                                                                                                                                                         |                 | EYE CHARACTER: Closed wall, poorly defined, open SW, etc.                                                                                                                                                                                                                                                                                                                                                                                                 |
| M                         | C40                                                                                                                                                                                                                |                 | EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of major axis in tens of degree, i.e., 01-010 to 190; 17-170 to 360. Transmit diameter in nautical miles. Examples: C8 - Circular eye 8 miles in diameter. EO9/15/5 - Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM. |
| N                         | 1234.57.8                                                                                                                                                                                                          |                 | FIX DETERMINED BY/FIX LEVEL. FIX DETERMINED BY: 1 - Penetration; 2 - Radar; 3 - Wind; 4 - Pressure; 5 - Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers only when same): 0 - Surface; 1 - 1500ft; 9-925mb; 8 - 850 mb; 7 - 700 mb; 6 - 600 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; NA - Other.                                                                                                 |
| O                         | 112                                                                                                                                                                                                                | NM              | NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY                                                                                                                                                                                                                                                                                                                                                                                                           |
| P                         | REMARKS                                                                                                                                                                                                            |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                           | MAX FL WIND <u>98</u> KT <u>NE</u> QUAD <u>2325</u> Z<br>SLP EXTRAP FROM (1500 FT/925 MB/850 MB/ <u>DROPSONDE</u> )<br>SFC CNTR _____ / _____ NM FROM FL CNTR<br>MAX FL TEMP _____ C _____ / _____ NM FROM FL CNTR |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

INSTRUCTIONS: Items A through G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the ARWO's discretion for scheduled (intermediate) fixes.

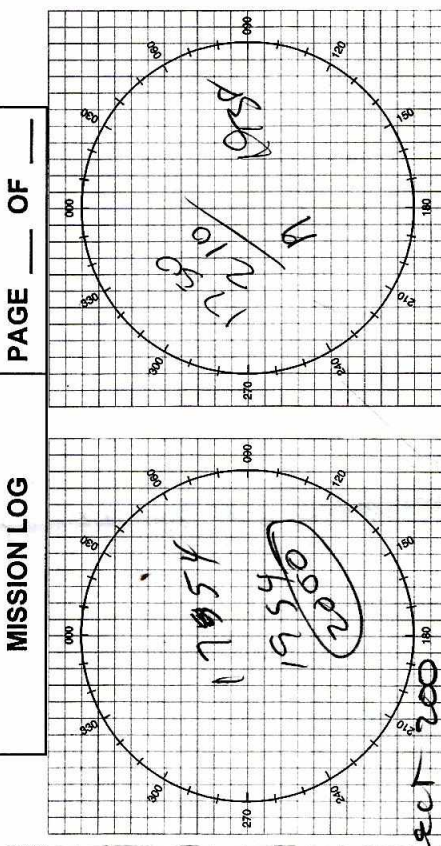


GRANT FILED  
135.87

11PM latest

100000 085°M 520

| CLEARANCES |     |               |
|------------|-----|---------------|
| FREQ       | ALT | HDG           |
|            |     | OTHER         |
|            |     | 6607 0015     |
|            |     | 6603          |
|            |     | 24K 100°M     |
|            |     | 212K 2160°M   |
|            |     | 215K          |
|            |     | PP FAIRL      |
|            |     | R-763         |
|            |     | BACCUS        |
|            |     | ATLAS         |
|            |     | ELCITY DIRECT |



| MISSION LOG      |  | PAGE | OF |
|------------------|--|------|----|
| POSITION REPORT  |  |      |    |
| 1. POSITION      |  |      |    |
| 2. TIME          |  |      |    |
| 3. ALTITUDE      |  |      |    |
| 4. NEXT POSITION |  |      |    |
| 5. ETA           |  |      |    |
| 6. NEXT POSITION |  |      |    |

| EMERGENCY MESSAGE                                                                                                                                                             |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES: |                 |
| UHF/VOICE 243.0                                                                                                                                                               | VHF/VOICE 121.5 |
| HF/CW 8364 KHZ                                                                                                                                                                | MF/CW 2182 KHZ  |
| MAYDAY, MAYDAY, MAYDAY                                                                                                                                                        |                 |
| THIS IS NOAA                                                                                                                                                                  |                 |
| - POSITION                                                                                                                                                                    |                 |
| - HEADING                                                                                                                                                                     |                 |
| - AT                                                                                                                                                                          |                 |
| - FLIGHT LEVEL OR ALTITUDE                                                                                                                                                    |                 |
| - WE ARE A P-3 AIRCRAFT WITH                                                                                                                                                  |                 |
| - NATURE OF EMERGENCY                                                                                                                                                         |                 |
| - ASSISTANCE DESIRED                                                                                                                                                          |                 |
| - PILOT INTENTIONS                                                                                                                                                            |                 |
| - WE HAVE                                                                                                                                                                     |                 |
| - ENDURANCE REMAINING                                                                                                                                                         |                 |

| TIME | FIX TYPE | POSITION            | INS 1 POSITION      | K ERR        | INS 2 POSITION      | K ERR        | VAR | TH | DR  | TRK  | GS  | WD  | WS | ALT  | TAS | NEXT PT | DIST | TIME | ETA  | REMARKS      |
|------|----------|---------------------|---------------------|--------------|---------------------|--------------|-----|----|-----|------|-----|-----|----|------|-----|---------|------|------|------|--------------|
| 1659 | ENG      |                     |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      |              |
| 1702 | TRK      |                     |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      |              |
| 1714 | TRK      |                     |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      |              |
| 1727 | TRK      | 27 43.6<br>081 55.3 | 27 43.6<br>081 55.3 | +0<br>+2     | 27 43.3<br>081 55.1 | +1.3<br>+1.2 |     |    | 2L  | 057  | 236 | 135 | 10 | 25K  | 232 | H082    |      |      |      |              |
| 1744 | TRK      | 28 23.9<br>080 41.9 | 28 23.9<br>080 41.7 | +1.1<br>+2   | 28 23.7<br>080 41.8 | +1.7<br>+1.1 |     |    | 2L  | 057  | 291 | 180 | 10 | 65K  | 283 |         |      |      |      |              |
| 1800 | TRK      | 28 53.6<br>079 21.2 | 28 53.2<br>079 20.8 | +1.4<br>+1.4 | 28 52.3<br>079 21.3 | +1.3<br>-1.1 |     |    | 2L  | 080  | 276 | 200 | 15 | 15.5 | 270 | 255E    | 227  | 149  | 1849 |              |
| 1900 | TRK      | 29 45.2<br>073 36.3 | 29 44.5<br>073 36.3 |              | 29 42.2<br>073 38.0 |              |     |    | 1L  | 082  | 311 | 180 | 5  | 15.5 | 310 | 255E    | 323  | 1402 | 2002 |              |
| 1954 | TRK      | 30 29.4<br>068 07.9 | 30 28.5<br>068 06.2 |              | 30 24.6<br>068 10.1 |              |     |    | 1L  | 077  | 340 | 245 | 24 | 26K  | 308 |         |      |      |      |              |
| 2002 | TRK      |                     |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      | 4 turn north |
| 2027 | TRK      | 32 20.4<br>067 16.0 |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      | CENTER       |
| 2103 | TRK      | 33 53.2<br>067 44.8 | 33 52.9<br>067 43.1 | +1.3<br>+1.7 | 33 47.4<br>067 48.1 | +5.8<br>-3.7 |     |    | 2L  | 250  | 271 | 085 | 30 | 6K   | 240 |         |      |      |      |              |
| 2148 | TRK      | 32 49.7<br>067 48.0 | 32 49.7<br>067 47.3 | +0<br>+1.7   | 32 43.8<br>067 52.6 | +5.9<br>-4.6 |     |    | 9R  | 117  | 230 | 035 | 38 | 6K   | 258 |         |      |      |      |              |
| 2158 | TRK      | 32 35.1<br>067 06.9 |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      |              |
| 2236 | TRK      | 32 23.0<br>065 24.4 | 32 23.2<br>065 22.6 |              | 32 16.4<br>065 30.7 |              |     |    | 0   | 3456 | 280 | 170 | 40 | 6K   | 234 | 255E    | 121  | 126  | 2302 | 23 56        |
| 2300 | TRK      | 32 48.4<br>067 02.6 |                     |              |                     |              |     |    |     |      |     |     |    |      |     |         |      |      |      | FIX          |
| 2345 | TRK      | 32 15.9<br>068 00.9 | 32 17.1<br>067 58.8 |              | 32 09.2<br>068 08.4 |              |     |    | 10L | 242  | 247 | 350 | 40 | 6K   | 240 |         |      |      |      | FIX          |
| 0112 | TRK      | 31 51.4<br>074 39.1 | 31 51.3<br>074 36.9 |              | 31 48.4<br>074 40.9 |              |     |    | 1L  | 267  | 291 | 285 | 15 | 26K  | 280 |         |      |      |      | 26K          |







