

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

|                   |                    |                             |
|-------------------|--------------------|-----------------------------|
| FLT ID: 980902I   | FM: KMCF           | TO: KMCF                    |
| FLT NO: 98-0      | BLK IN: 0326Z      | ATA: 0317Z                  |
| ETD: 1900Z        | BLK OUT: 1914Z     | RTD: 1926Z                  |
| ETE: 0400Z        | BLK TIME: 8:12 8.2 | FLT TIME: 7.51 7.9          |
| SPONSOR ORG: NOAA | PROGRAM: HRD       | PURPOSE: HURR EARL LANDFALL |

OAO PERSONNEL

|                                        |                     |
|----------------------------------------|---------------------|
| RC MCKIM, G                            | SYS ENG McMILLAN, S |
| CP TENNESSON, D / OMARA, T             | DATA SYS BARR, J    |
| NAV RATHBUN, D                         | RADAR MCNAMARA, R   |
| FE TORREY, R                           | DT/ODW              |
| RADIO <del>ROGERS</del> TA SANS SOURCE | CLD PHYS            |
| FD C2424K, S                           | DOPPLER             |

PARTICIPATING SCIENTIST/VISITORS/OAO

| LAST, FIRST NAME       | ACTIVITY ON A/C | AFFILIATION |
|------------------------|-----------------|-------------|
| DODGE, P               | PI              | HRD         |
| BLACK, M / FRANKLIN, J | SCIENTIST       | HRD         |
| GAMACHE, J / BLACK, B  | "               | HRD         |
| ROGERS, R              | "               | HRD         |
| WASH, E                |                 | NASA        |
| PATTERSON, J           | MEDIA           | NBC-8       |
| GREENE, W              | MEDIA           | NBC-8       |

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

INEZ BETTER

21Z TEAC02 GALLAGHER  
104 KT EAST SIDE 80 NM OUT

L 23Z TEAL22 DETHRIDGE

NOAAS NX05A EARL

6 PENETRATIONS

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OROWF2

FLT ID: 980962 I

TIME OFF: 1926Z

TIME ON: 0317Z

|          | A/C T/O | WX STN | A/C LAND | WX STN |
|----------|---------|--------|----------|--------|
| PRESSURE |         |        | 1006.2   | 29.70  |

NO DATA DISPOSITION/DATE/QUALITY

|                       |    |  |
|-----------------------|----|--|
| 1/2 SEC FLT LVL TAPES | 2  |  |
| FAST FLT LVL TAPES    |    |  |
| RADAR TAPES           |    |  |
| DOPPLER TAPES         |    |  |
| ODW CASSETTES         |    |  |
| HARD COPIES           | 1  |  |
| AXBT                  | 18 |  |
| AXCP                  |    |  |
| ODW                   |    |  |
| GPS                   | 28 |  |

PHOTOGRAPHY

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

REMARKS

980902H

1933:00 - 0320

RENAV

|        |    |      |     |      |
|--------|----|------|-----|------|
| 200600 | 28 | 33.6 | -84 | 49.2 |
| 203700 | 29 | 4.6  | -87 | 9.2  |
| 211000 | 29 | 2.2  | -87 | 10.5 |
| 213200 | 30 | 16.3 | -86 | 23.1 |
| 215000 | 29 | 9.4  | -87 | 7.1  |
| 222400 | 27 | 15.2 | -86 | 21.7 |
| 235900 | 29 | 5.5  | -85 | 24.5 |
| 002400 | 29 | 19.5 | -86 | 45.2 |
| 005200 | 29 | 19.6 | -86 | 43.6 |
| 013100 | 30 | 7.7  | -87 | 59.2 |
| 020600 | 29 | 33.6 | -86 | 17.7 |
| 024100 | 28 | 33.5 | -84 | 22.8 |
| 032600 | 27 | 50.9 | -82 | 29.6 |

RA-159 SPIKE & LANDING SET TO ZERO 0317:00 - END ✓

RA-159 (POSSIBLE LAND) OIRS 0127-0129 YES

DATA SYSTEM CRASH @ TAKEOFF 7 MIN DATA MISSING

PRECIP ( ~~ADP~~ >100% RH)

PSW SPIKE 0102:01-0102:30 (2)

DWZ SUCKS

TTZ DROP OUT IN PRECIP

BPF  
HDI ← LOOK OK

IMEI, ADI, DWI, TT1

980902 I

| TIME   | LAT   | LONG  | TK  | HL  | TA   | TD   | WD  | WS   | PA   | GA   | PS    | SP     | REMARKS   |
|--------|-------|-------|-----|-----|------|------|-----|------|------|------|-------|--------|-----------|
| 194948 | 28 02 | 83 42 | 305 | 297 | 2.2  | 0.5  | 217 | 46.7 | 4327 | 4524 | 590.4 | 1004.7 | LEVEL 14K |
| 200106 | 28 36 | 84 32 | 282 | 274 | 1.3  | 0.1  | 207 | 53.9 | 4370 | 4550 | 582.5 | 1004.0 | DROP #1   |
| 200210 |       |       |     |     |      |      |     |      |      |      |       |        | BT 1      |
| 200731 | 28 35 | 84 56 | 282 | 274 |      |      |     |      |      |      |       |        | DROP #2   |
| 202221 | 28 48 | 86 03 |     |     | 3.5  | -1.8 | 211 | 56.2 |      |      |       |        | DROP #3   |
| 202321 | 28 49 | 86 07 |     |     |      |      |     |      |      |      |       |        | BT 2      |
| 2037   | 29 09 | 87 09 |     |     |      |      |     |      |      |      |       |        |           |
| 205057 |       |       |     |     |      |      |     |      |      |      |       |        |           |
| 205104 | 29 09 | 88 18 |     |     |      |      |     |      |      |      |       |        | DROP #4   |
| 210245 | 28 34 | 87 30 |     |     |      |      |     |      |      |      |       |        | BT 3      |
| 210246 |       |       |     |     |      |      |     |      |      |      |       |        | DROP #5   |
| 2110   | 29 05 | 87 09 |     |     |      |      |     |      |      |      |       |        | BT 4      |
| 211656 | 29 26 | 86 48 |     |     |      |      |     |      |      |      |       |        |           |
| 212031 | 29 39 | 86 37 |     |     |      |      |     |      |      |      |       |        | BT 5      |
| 212136 | 29 43 | 86 35 |     |     |      |      |     |      |      |      |       |        | DROP #6   |
| 213206 | 30 16 | 86 24 |     |     |      |      |     |      |      |      |       |        | DROP #7   |
| 214335 |       |       |     |     |      |      |     |      |      |      |       |        | DROP #8   |
| 214432 | 29 20 | 86 57 |     |     |      |      |     |      |      |      |       |        | DROP #9   |
| 214534 | 29 27 | 86 54 |     |     |      |      |     |      |      |      |       |        | DROP #10  |
| 215016 | 29 08 | 87 08 |     |     |      |      |     |      |      |      |       |        | BT 6      |
| 2149   |       |       |     |     |      |      |     |      |      |      |       |        | DROP #11  |
| 222914 | 27 16 | 85 50 |     |     |      |      |     |      |      |      |       |        |           |
| 222915 |       |       |     |     |      |      |     |      |      |      |       |        | DROP #12  |
| 223417 | 27 29 | 85 27 | 45  | 46  | 3.4  | 0.8  | 226 | 51.7 | 4391 | 4566 | 985.6 | 999.7  | BT 7      |
| 223805 | 27 52 | 85 09 |     |     |      |      |     |      |      |      |       |        | DROP #13  |
| 224006 | 27 52 | 85 09 | 316 | 306 | 3.5  | -3.5 | 231 | 53.1 | 4392 | 4562 | 985.7 | 998.8  | DROP #14  |
| 224445 | 28 03 | 85 57 |     |     |      |      |     |      |      |      |       |        | BT 8      |
| 225408 | 28 37 | 85 21 |     |     |      |      |     |      |      |      |       |        | DROP #15  |
| 225409 |       |       |     |     |      |      |     |      |      |      |       |        | DROP #16  |
| 225606 | 28 43 | 85 11 |     |     |      |      |     |      |      |      |       |        | BT 9      |
| 230525 | 28 35 | 84 27 |     |     |      |      |     |      |      |      |       |        | DROP #17  |
| 230526 | 28 35 | 84 27 |     |     |      |      |     |      |      |      |       |        | DROP #18  |
| 231206 |       |       |     |     |      |      |     |      |      |      |       |        | BT 10     |
| 232205 | 29 45 | 83 37 |     |     |      |      |     |      |      |      |       |        | DESCEND   |
| 233022 | 30 05 | 84 10 |     |     |      |      |     |      |      |      |       |        | DROP #18  |
| 233110 | 30 03 | 84 13 |     |     |      |      |     |      |      |      |       |        | DROP #19  |
| 233428 | 29 57 | 84 24 |     |     |      |      |     |      |      |      |       |        | DROP #20  |
| 233714 | 29 52 | 84 34 |     |     |      |      |     |      |      |      |       |        | DROP #21  |
| 235138 | 29 16 | 85 03 |     |     |      |      |     |      |      |      |       |        | DROP #22  |
| 001042 | 28 48 | 86 00 |     |     |      |      |     |      |      |      |       |        | DROP #23  |
| 001048 |       |       |     |     |      |      |     |      |      |      |       |        | DROP #24  |
| 001328 | 28 51 | 86 10 |     |     |      |      |     |      |      |      |       |        | BT 11     |
| 002425 | 29 21 | 86 47 |     |     |      |      |     |      |      |      |       |        | DROP #25  |
| 0024   | 29 19 | 86 44 |     |     |      |      |     |      |      |      |       |        | BT 12     |
| 004220 | 28 54 | 87 06 |     |     |      |      |     |      |      |      |       |        |           |
| 0052   | 29 20 | 86 43 |     |     |      |      |     |      |      |      |       |        | BT 13     |
| 010100 | 29 51 | 86 24 |     |     |      |      |     |      |      |      |       |        |           |
| 010739 | 30 14 | 86 19 |     |     |      |      |     |      |      |      |       |        | BT 14     |
| 012515 | 30 12 | 87 50 |     |     |      |      |     |      |      |      |       |        | DROP #26  |
| 014034 | 29 49 | 87 24 |     |     |      |      |     |      |      |      |       |        | DROP #27  |
| 0206   | 29 39 | 86 18 |     |     |      |      |     |      |      |      |       |        | BT 15     |
| 021730 | 29 22 | 85 33 | 111 | 128 | 17.1 | 13.3 | 189 | 66.7 | 1919 | 1855 | 803.0 | 993.1  |           |
| 023020 | 28 57 | 84 55 |     |     |      |      |     |      |      |      |       |        | BT 16     |
| 023807 | 28 39 | 84 32 |     |     |      |      |     |      |      |      |       |        | BT 17     |
| 024020 | 28 34 | 84 25 |     |     |      |      |     |      |      |      |       |        | DROP #28  |
|        |       |       |     |     |      |      |     |      |      |      |       |        | BT 18     |

NO LOUNCH DETECT NR APPALACH.

BUOY DOWN

BUOY

MOBILE BOY

Aircraft Operations Center  
PO Box 6829  
MacDill AFB, FL 33608-0829

March 16, 1996 AOC1:sw

MEMORANDUM FOR: *Dr. Hugh Willoughby, Director HRD*

FROM: Captain George C. Player, III, NOAA  
Director, Aircraft Operations Center

SUBJECT: Hazard Duty Flight

The mission flown on AOC aircraft # *N43RF* on *9/2/98* has been declared hazardous. The following personnel from your laboratory participated in this mission.

|                    |                  |
|--------------------|------------------|
| <i>DODGE, P</i>    | <i>ROGERS, R</i> |
| <i>BLACK, M</i>    | <i>BLACK, B</i>  |
| <i>FRANKLIN, J</i> |                  |
| <i>GAMACHE, J</i>  |                  |

For purpose of computing allowable hazard duty time, the hazard period during this mission was from *1525* local time on *9/2/98* until *2320* on *9/2/98*.

DATE : 9/2/98  
TO : Chief, AOC Flight Operations  
FROM : Pilot/Flight Director, Aircraft N42RF ON 0326Z BLOCKTIME  
OFF 1914Z 8.2  
SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: LANDFALL HURR. EARL

Hazardous Duty Pay is required for flight made on 9/2/98  
(DATE)

Request based on PENETRATIONS INTO HURR.

Personnel on board authorized Hazard Pay:

OZYZYK, S

TORREY, R

SANS SOUCI, D

McMILLAN, S

BARR, J

McNAMARA, R

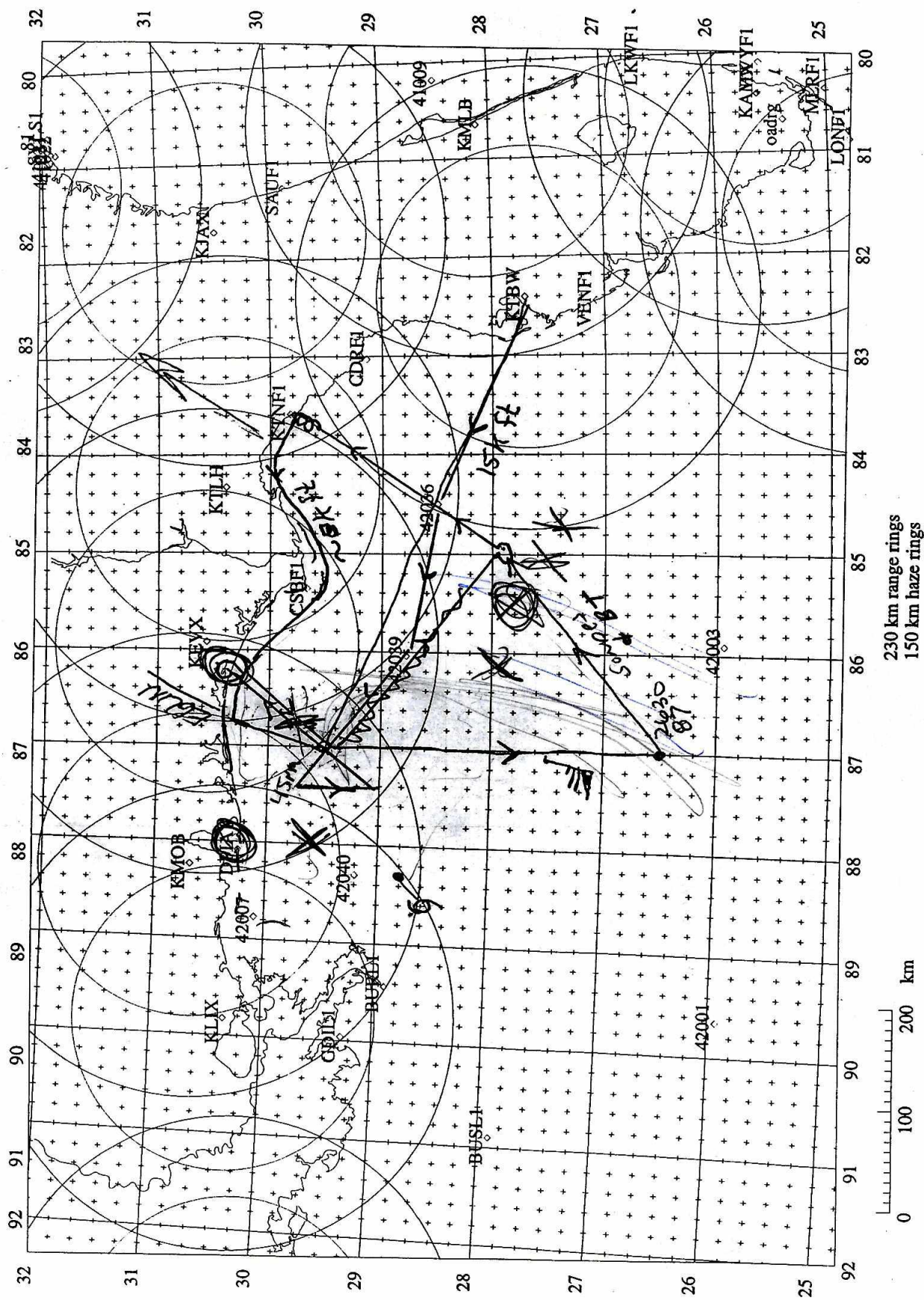
PILOT/FLIGHT DIRECTOR: [Signature]

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

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

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

Center Lat: 28.50 Lon: -86.00



2845  
8706

18Z NASA817  
CITATION  
TEAL

77ND

SONDE & BTS & BUOYS  
+ @ 4 TURN POINTS  
3 DRIPS ON WAY TO 1P  
SONDE ALONG COAST

# BUOY / C-MAN LOCATIONS

~~43~~ 42036 28°30'22" 84°30'37" (28.51°, 84.51°)  
 42039 28°47'05" 86°02'16" (28.78°, 86.04°)

KTNF1 29.82° 83.59° Keaton Beach

CSBF1 29.67° 85.36° Cape San Blas

Apalachicola Bay 29.72 85.00

Panama City  
 Tide Stn 30.20 85.87

CDRF1 29.14° 83.03° Cedar Key

DP1A1 30.25° 88.07°

42007 30.09° 88.77°

~~42004~~  
 42040 29.20° 88.25°

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## WSR - 88D's

|     |          |          |             |
|-----|----------|----------|-------------|
| MOB | 30.6794° | 88.2397° | Mobile      |
| EVX | 30.5644° | 85.9214° | Eglin       |
| TLH | 30.3975° | 84.3289° | Tallahassee |
| TBW | 27.7056  | 81.4022° | Tampa       |
|     | 28.2717  | 89.0756  | Alachua     |



NOAA FORM 56-49  
(2-95)

MISSION PREFLIGHT LOG

DESTINATION  
KMC-3KMC

MISSION  
S EARL

NAVIGATOR  
RATHBUN

AIRCRAFT COMMANDER  
MCKIN

FLIGHT DIRECTOR  
C272YK

SCHEDULED / ACTUAL TAKEOFF Z  
1900Z ' 1926Z

DATE OF TAKEOFF  
2 SEP 98

| WP  | LAT / LON                     | RTE   | MH                    | VAR<br>+E==> | TH | DR<br>+R==> | TRK | GS  | WD | WS | ALT | TAS | LEG / TOT<br>DIST | LEG / TOT<br>TIME | PROP<br>ETA | ATA | REMARKS |
|-----|-------------------------------|-------|-----------------------|--------------|----|-------------|-----|-----|----|----|-----|-----|-------------------|-------------------|-------------|-----|---------|
| 1   | P1E 2754.5<br>8241.1          |       |                       |              |    |             |     | 250 |    |    | 15K |     | 115               | 728               | 1954        |     |         |
| 2   | 42036 2830.6<br>8430.6        | 6P390 |                       |              |    |             |     | 260 |    |    |     |     | 85<br>200         | 720<br>748        | 2014        |     |         |
| 3   | 42039 2846.8<br>8602.4        | 6P391 |                       |              |    |             |     | 260 |    |    |     |     | 65<br>265         | 715<br>743        | 2029        |     |         |
| 4   | 87000 2930<br>87000           | 6P390 |                       |              |    |             |     | 280 |    |    |     |     | 25<br>200         | 706<br>740        | 3088        |     |         |
| 5   | 8725 2945<br>8725             |       |                       |              |    |             |     | 280 |    |    |     |     | 45<br>335         | 710<br>719        | 2045        |     |         |
| 6   | 8737 2837<br>8737             |       |                       |              |    |             |     | 250 |    |    |     |     | 125<br>460        | 730<br>749        | 2105        |     |         |
| 7   | 8555.284 3033.864<br>8555.284 | 6P392 | PANAMA CITY<br>330/25 |              |    |             |     | 250 |    |    |     |     | 85<br>545         | 720<br>749        | 2135        |     |         |
| 8   | 87000 2900<br>87000           | 6P390 |                       |              |    |             |     | 260 |    |    |     |     | 780<br>725        | 743<br>752        | 2208        |     |         |
| 9   | 87000 2630<br>87000           |       |                       |              |    |             |     | 260 |    |    |     |     | 140<br>865        | 732<br>742        | 2250        |     |         |
| 10  | 87000 2830<br>87000           |       |                       |              |    |             |     | 300 |    |    |     |     | 90<br>995         | 718<br>751        | 2307        |     |         |
| 11  | 87000 2949.2<br>87000         | 6P393 | PANAMA CITY<br>300/30 |              |    |             |     | 240 |    |    |     |     | 195<br>11190      | 748<br>759        | 0000        |     |         |
| 12  | 87000 3014<br>87000           | 6P390 | 170/20                |              |    |             |     | 240 |    |    |     |     | 50<br>1240        | 713<br>752        | 0008        |     |         |
| 13  | 87000 2750.9<br>87000         |       |                       |              |    |             |     | 280 |    |    |     |     | 250<br>1490       | 755<br>747        | 0113        |     |         |
| 14  | 87000 2750.9<br>87000         |       |                       |              |    |             |     | 150 |    |    |     |     | 15<br>1505        | 713<br>740        | 0126        |     |         |
| 15  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 16  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 17  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 18  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 19  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 20  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 21  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 22  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 23  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 24  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 25  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 26  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 27  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 28  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 29  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 30  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 31  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 32  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 33  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 34  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 35  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 36  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 37  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 38  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 39  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 40  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 41  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 42  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 43  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 44  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 45  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 46  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 47  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 48  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 49  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 50  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 51  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 52  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 53  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 54  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 55  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 56  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 57  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 58  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 59  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 60  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 61  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 62  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 63  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 64  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 65  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 66  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 67  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 68  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 69  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 70  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 71  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 72  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 73  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 74  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 75  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 76  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 77  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 78  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 79  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 80  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 81  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 82  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 83  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 84  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 85  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 86  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 87  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 88  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 89  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 90  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 91  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 92  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 93  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 94  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 95  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 96  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 97  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 98  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 99  |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |
| 100 |                               |       |                       |              |    |             |     |     |    |    |     |     |                   |                   |             |     |         |

INS PERFORMANCE

BEGIN ALIGN  
TIME

ALIGN  
STATUS (0-5)

END NAV  
TIME

START NAV  
TIME

DELTA T

INS 1

INS 2

1730Z

0

0315Z

1910Z

8405

7

0

7

7

7

TERMINAL ERRORS

DELTA LAT

DELTA LON

RGS

RADIAL  
ERROR

INS 1

INS 2

-7.4

15.3

3

9

12.3

7

4

2.

REMARKS