



#306

ISIS 2  
EXPERIMENT OPERATION LOG  
71-024A-00F



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## **1. INTRODUCTION:**

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

## 2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

***When printing, special settings may be required to make the text box appear on the printed output.***

| Version | Date | Person | Page | Description of Change |
|---------|------|--------|------|-----------------------|
| 01      |      |        |      |                       |
| 02      |      |        |      |                       |

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC  
INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents      To find associated documents you will need to know the document ID number and then click here.  
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

ISIS 2

EXP OPERATION LOG, TAPE

71-024A-00F

XXN0-00432

THIS DATA SET HAS BEEN RESTORED.  ORIGINALLY IT CONTAINED ONE 9-TRACK, 800 BPI TAPE WRITTEN IN EBCDIC.  THERE IS ONE RESTORED TAPE WRITTEN IN ASCII.  THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI.  THE ORIGINAL TAPE WAS CREATED ON AN IBM 360 COMPUTER AND WAS RESTORED ON THE MRS.  THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBER AND TIME SPAN IS AS FOLLOWS:

| DR#      | DS#      | D#      | FILES | TIME SPAN           |
|----------|----------|---------|-------|---------------------|
| DR005620 | DS005620 | D019055 | 37    | 12/01/74 - 12/31/74 |

REQ AGENT  
CMT

RAND #  
RC3703

ACQ. AGENT  
LLD

ISIS 2

EXPERIMENT OPERATION LOG

71-024A-00F

This data set consists of 1 data tape that was produced on an IBM 360/75 computer. The tape is 9 track, 800 BPI and written in <sup>ASCII</sup>~~EBCDIC~~. There is one file for each calender month, in time order from December 1971 through to and including December 1974. There is a total of 37 files. Listed below is the tape D + C numbers.

| <u>D#</u> | <u>C#</u> | <u>FILES</u> | <u>TIME SPAN</u>    |
|-----------|-----------|--------------|---------------------|
| D-19055   | C-15747   | 37           | 12/01/71 - 12/31/74 |

B 26567

71-024A - OOF

R Post

*R Post  
Return for file  
Not for dist*

PLEASE NOTE

With the receipt of the October 1972 ISIS-II spacecraft turn-on summary your files should now be complete i.e. launch to April 1973 inclusively. Please notify SATCON if there are any gaps in your data. We are now processing monthly data on a real-time basis and the results will be mailed approximately 3 weeks after the end of each month.

During the several phases of summary outputs, the original program was modified to try and give a more accurate picture of actual spacecraft experimental modes. Hence the degree of accuracy will depend upon the date that a certain month was processed.

SATCON started processing at the December 1971 summary. Summaries generated previous to December 1971 must be considered as general guides only. Changes were gradually made to the program from this month onwards to the point that at present, SATCON feels that the monthly summaries give an accurate picture of the ISIS-II experimental turn-ons and modes. We would appreciate any comment on improvements or corrections which could be made to the present summaries.

28 May 1973

71-12

Title = Explanation of Comments used in ISIS-II Listings

Author = Whittaker, J.

The following list may be used as an aid in interpreting the comments in the ISIS-II Experimental Listings.

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| A1, B1, C1, D1, G1  | - data transmitted directly to ground                           |
| A2, B2, C2, D2, G2  | - data stored on on-board recorder                              |
| AC SPEC             | - pass scheduled in conjunction with aircraft flight            |
| ASCS                | - Attitude Sensing and Control System                           |
| ATO                 | - Automatic Turn Off                                            |
| BEACON OUT          | - 136.41 MHz beacon off                                         |
| CMD = CMS           | - spacecraft command operations                                 |
| DELETED             | - scheduled pass deleted                                        |
| D                   | - on-board recorder dump pass                                   |
| DL                  | - dump and load programmer pass                                 |
| EXC IN              | - VLF Exciter on                                                |
| FFx                 | - Sounder fixed frequency x on                                  |
| HIGH AGC            | - high telemetry receiver agc - telemetry interference          |
| L                   | - load on-board programmer pass                                 |
| LOAD CANCELLED      | - load part of pass cancelled                                   |
| N/A                 | - not accepted                                                  |
| NO REPORT           | - no pass report received                                       |
| NOT SUCCESSFUL      | - operation not successful                                      |
| PASS MISSED         | - pass not taken for some unexplained reason                    |
| PM ONLY             | - 136.59 MHz transmitter only on                                |
| POSSIBLE ISIS-A INT | - possible interference from ISIS-A                             |
| PRE CAL             | - prepass calibration                                           |
| PROP DIST           | - propagation disturbance on 136 MHz                            |
| RFI                 | - radio frequency interference                                  |
| SPEC OPS            | - special operations - large number of commands                 |
| STA SPEC            | - pass scheduled in conjunction with special station conditions |
| STDN CONFLICT       | - pass cancelled due to conflict at NASA/STDN station           |
| T/C                 | - time code                                                     |
| UHF                 | - ultra-high frequency - 401.7 MHz transmitter on               |
| UNSUCC              | - unsuccessful                                                  |
| 73, 05, 32 etc      | - spacecraft command numbers                                    |
| 2x, 3x, etc         | - number of attempts                                            |

CRC SATCON  
9 November 1972

Title = Explanation of Comments used in ISIS-II Listings

Author = Whitaker, J.

The following list may be used as an aid in interpreting the comments in the ISIS-II Experimental Listings.

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| A1, B1, C1, D1, G1  | - data transmitted directly to ground                           |
| A2, B2, C2, D2, G2  | - data stored on on-board recorder                              |
| AC SPEC             | - pass scheduled in conjunction with aircraft flight            |
| ASCS                | - Attitude Sensing and Control System                           |
| ATO                 | - Automatic Turn Off                                            |
| BEACON OUT          | - 136.41 MHz beacon off                                         |
| CMD = CMS           | - spacecraft command operations                                 |
| DELETED             | - scheduled pass deleted                                        |
| D                   | - on-board recorder dump pass                                   |
| DL                  | - dump and load programmer pass                                 |
| EXC IN              | - VLF Exciter on                                                |
| FFx                 | - Sounder fixed frequency x on                                  |
| HIGH AGC            | - high telemetry receiver agc - telemetry interference          |
| L                   | - load on-board programmer pass                                 |
| LOAD CANCELLED      | - load part of pass cancelled                                   |
| N/A                 | - not accepted                                                  |
| NO REPORT           | - no pass report received                                       |
| NOT SUCCESSFUL      | - operation not successful                                      |
| PASS MISSED         | - pass not taken for some unexplained reason                    |
| PM ONLY             | - 136.59 MHz transmitter only on                                |
| POSSIBLE ISIS-A INT | - possible interference from ISIS-A                             |
| PRE CAL             | - prepass calibration                                           |
| PROP DIST           | - propagation disturbance on 136 MHz                            |
| RFI                 | - radio frequency interference                                  |
| SPEC OPS            | - special operations - large number of commands                 |
| STA SPEC            | - pass scheduled in conjunction with special station conditions |
| STDN CONFLICT       | - pass cancelled due to conflict at NASA/STDN station           |
| T/C                 | - time code                                                     |
| UHF                 | - ultra-high frequency - 401.7 MHz transmitter on               |
| UNSUCC              | - unsuccessful                                                  |
| 73, 05, 32 etc      | - spacecraft command numbers                                    |
| 2x, 3x, etc         | - number of attempts                                            |

DECEMBER

ISIS II DATA FROM 1972

EXPERIMENT CODES:      BLANK = OFF;      \* = ON

SOUNDER    A = NORMAL MODE  
             C = MIXED MODE: TRANSMITTER ON FIXED FREQ., RECEIVER SWEEP FREQ.  
             D = TRANSMITTER - ON 2 FRAMES, OFF 2 FRAMES  
             G = ALTERNATE FRAMES OF SWEEP FREQ. AND FIXED FREQ.  
             R = RECEIVE ONLY; TRANSMITTER OFF

VLF        RCVR = RECEIVER  
             EXC = EXCITER  
             IMP = IMPEDANCE  
             ABI = ANTENNA BIAS

DME        SPS = SOFT PARTICLE SPECTROMETER  
                     1 = NORMAL  
                     2 = SPECIAL

EPD = ENERGETIC PARTICLE DETECTOR

IMS = ION MASS SPECTROMETER  
             A = ANALOGUE  
             P = PEAK

CEP = CYLINDRICAL ELECTROSTATIC PROBE  
             1 = SEQUENTIAL MODE  
             2 = AUTOMATIC MODE

RPA = RETARDING POTENTIAL ANALYZER

PHOTOMETERS    RLP = RED LINE PHOTOMETER

ASP = AURORAL SCANNING PHOTOMETER  
             PM = ANALOGUE DATA ON PCM WORD 20  
             FM = DIGITAL DATA ON FM 30KHZ SCO

NOTE: REC DENOTES THE ON-BOARD RECORDER

| IDENTIFIER:<br>  STN MO BY TIME TIME | ANALOGUE<br>TAPE # | SOUNDER<br>ACDGR FF | EXPERIMENTS<br>VLF DATA<br>IRCVR EXC IMP ABI | DIRECT MEASUREMENT<br>VLF-DATA<br>SPS EPD TMS CEP RPAI | PHOTOMETERS<br>ASP<br>RLP PM FM | COMMENTS                                |
|--------------------------------------|--------------------|---------------------|----------------------------------------------|--------------------------------------------------------|---------------------------------|-----------------------------------------|
|                                      |                    |                     |                                              |                                                        |                                 |                                         |
| BTTA 12 01 0012 0026 1322B 0386Y     |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| QUIT 12 01 0028 0038 0942            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| SNTA 12 01 0037 0050 0832            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| SCLA 12 01 0049 0058 0450            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| RESB 12 01 0157 0207 0912            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| BTTA 12 01 0206 0220 1323A 0387Y     |                    | **                  | 3 *                                          | *                                                      | 2 * P 2 * * * *                 | UHF 67 N/A POOR SIGNAL<br>STDN CONFLICT |
| QUIT 12 01                           |                    |                     |                                              |                                                        |                                 |                                         |
| SNTA 12 01 0232 0245 0833            |                    | **                  | *                                            |                                                        | 1 * P 2 * * * *                 |                                         |
| JBBU 12 01 0656 0710 0542 0543       |                    | **                  | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| BAGA 12 01 0711 0722 0326            |                    | **                  | *                                            |                                                        | 1 * P 2 * * * *                 |                                         |
| WNKF 12 01 0722 0735 0556 0557       |                    | **                  | *                                            | *                                                      | 1 * P 2 * * * *                 | UHF                                     |
| RESB 12 01 0736 0746 0913            |                    | **                  |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| ALAS 12 01 0745 0754 1211            |                    | **                  |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| LAUD 12 01 0816 0831 0193            |                    | **                  |                                              |                                                        | 2 * P 2 * * * *                 | FEO                                     |
| SNTA 12 01                           |                    |                     |                                              |                                                        |                                 | STDN CONFLICT                           |
| QUIT 12 01 1247 1300 0943 0944       |                    | **                  | *                                            | *                                                      | 1 * P 2 * * * *                 | UHF                                     |
| BTTA 12 01 1300 1314 1323B 0387Y     |                    | *                   | *                                            | *                                                      | 1 * P 2 * * * *                 | UHF                                     |
| RESB 12 01 1315 1324 0913            |                    |                     | *                                            | *                                                      | 2 * P 2 * * * *                 |                                         |
| BTTA 12 01 1456 1508 1324A           |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 | L                                       |
| RESB 12 01 1507 1517 0914            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| TROM 12 01 1516 1525 0743            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| AMEB 12 01 1528 1544 0107            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| ALAS 12 01 1847 1902 1212            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| TROM 12 01 1901 1911 0743            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| WNKF 12 01 1910 1921 0558 0559       |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| BRZY 12 01                           |                    |                     |                                              |                                                        |                                 | CNES CONFLICT                           |
| JBBU 12 01 1937 1946 0544            |                    | *                   |                                              |                                                        | 1 * P 2 * * * *                 |                                         |
| ADEL 12 01 2152 2209 0692            |                    | *                   |                                              |                                                        | 1 * P 2 * * * *                 | G1                                      |
| CROR 12 01                           |                    |                     |                                              |                                                        |                                 | STDN CONFLICT                           |
| RESB 12 02 0040 0052 0914            |                    | *                   |                                              |                                                        | 2 * P 2 * * * *                 |                                         |
| BTTA 12 02 0051 0105 1324B 0386Y     |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| QUIT 12 02 0104 0117 0945 0946       |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| SNTA 12 02 0116 0130 0834 0835       |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| RESB 12 02 0234 0246 0915            |                    | *                   | *                                            |                                                        | 2 * P 2 * * * *                 |                                         |
| BTTA 12 02 0245 0256 1325A 0388Y     |                    | *                   | *                                            | *                                                      | 2 * P 2 * * * *                 | UHF                                     |
| AMEB 12 02 0403 0417 0108            |                    | *                   | *                                            |                                                        | 2 * P 2 * * * *                 |                                         |
| TROM 12 02 0420 0432 0744            |                    | *                   | *                                            |                                                        | 2 * P 2 * * * *                 |                                         |

245206

ISIS 2

PAGE 2

YEAR

1972

| IDENTIFIER: |    |     |      | ANALOGUE |        |         |       | EXPERIMENTS |       |          |     |     |          | DIRECT MEASUREMENT |     |     |     | PHOTOMETERS |     |    |    | COMMENTS |                   |
|-------------|----|-----|------|----------|--------|---------|-------|-------------|-------|----------|-----|-----|----------|--------------------|-----|-----|-----|-------------|-----|----|----|----------|-------------------|
| STRT STOP   |    |     |      | TAPE #   |        | SCUNDER |       | VLF         |       | VLF=DATA |     |     |          | ASP                |     |     |     |             |     |    |    |          |                   |
| STN         | MO | DAY | TIME | TIME     | 136 MH | 400     | ACDGR | FF          | IRCVR | EXC      | IMP | ABI | 136MH400 | SPS                | EPD | TMS | CEP | RPAI        | RIP | PM | FM |          |                   |
| ALAS        | 12 | 02  | 0431 | 0445     | 1213   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF NOT SUPPORTED |
| TROM        | 12 | 02  | 0611 | 0626     | 0744   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 02  | 0625 | 0638     | 1214   | 1215    |       |             | *     |          | *   |     | *        | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| WNKF        | 12 | 02  | 0759 | 0812     | 0560   | 0561    |       |             | *     |          | *   |     | *        | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| RESB        | 12 | 02  | 0813 | 0823     | 0915   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 02  | 0822 | 0831     | 1216   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| LAUD        | 12 | 02  | 0853 | 0909     | 0194   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | FFO               |
| WNKF        | 12 | 02  | 0954 | 1007     | 0562   |         |       |             | *     |          | *   |     |          | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| RESB        | 12 | 02  | 1006 | 1015     | 0916   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| OROR        | 12 | 02  | 1044 | 1054     | 0770   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| AOEL        | 12 | 02  | 1053 | 1109     | 0692   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | G1                |
| OTTA        | 12 | 02  | 1147 | 1158     | 1325B  | 0389Y   | *     | *           | 4     | *        |     |     | *        | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| RESB        | 12 | 02  | 1159 | 1208     | 0916   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| AOEL        | 12 | 02  | 1248 | 1303     | 0693   |         |       |             | *     |          | *   |     |          | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        | G1                |
| QUIT        | 12 | 02  | 1323 | 1339     | 0947   |         |       |             | *     |          | *   |     | *        | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| OTTA        | 12 | 02  | 1338 | 1352     | 1326A  | 0389Y   | *     |             | *     |          | *   |     | *        | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF L             |
| RESB        | 12 | 02  | 1353 | 1402     | 0916   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 02  | 1731 | 1746     | 1217   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| TROM        | 12 | 02  | 1745 | 1800     | 0745   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 02  | 1925 | 1940     | 1218   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| TROM        | 12 | 02  | 1939 | 1949     | 0745   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| WNKF        | 12 | 02  | 1948 | 2000     | 0563   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| AOEL        | 12 | 02  | 2230 | 2247     | 0694   |         |       |             | *     |          | *   |     |          | 1                  | *   | P   | 2   | *           | *   | *  | *  | *        | G1                |
| OROR        | 12 | 02  |      |          |        |         |       |             | *     |          | *   |     |          |                    |     |     |     |             |     |    |    |          | STON CONFLICT     |
| RESB        | 12 | 02  | 2324 | 2336     | 0917   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| OTTA        | 12 | 02  | 2335 | 2347     | 1326B  | 0390Y   | *     |             | *     |          | *   |     | *        | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| SOLA        | 12 | 03  | 0004 | 0020     | 0451   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| RESB        | 12 | 03  | 0118 | 0130     | 0917   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| OTTA        | 12 | 03  | 0129 | 0143     | 1327A  | 0390Y   | *     |             | *     |          | *   |     | *        | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| AMEB        | 12 | 03  | 0247 | 0301     | 0109   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| RESB        | 12 | 03  | 0312 | 0327     | 0918   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| TROM        | 12 | 03  | 0456 | 0510     | 0746   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 03  | 0509 | 0523     | 1219   | 1220    | *     |             | *     |          | *   |     | *        | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| TROM        | 12 | 03  | 0648 | 0703     | 0747   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |
| ALAS        | 12 | 03  | 0703 | 0717     | 1221   | 1222    | *     |             | *     |          | *   |     | *        | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | UHF               |
| LAUD        | 12 | 03  | 0739 | 0752     | 0194   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        | FFO               |
| WNKF        | 12 | 03  | 0836 | 0846     | 0563   |         |       |             | *     |          | *   |     |          | 2                  | *   | P   | 2   | *           | *   | *  | *  | *        |                   |

COMPUTING CENTRE

COMMUNICATIONS RESEARCH CENTRE

| IDENTIFIER: |     | ANALOGUE |      | EXPERIMENTS |             | DIRECT MEASUREMENT |          | PHOTOMETERS       |          | COMMENTS                       |
|-------------|-----|----------|------|-------------|-------------|--------------------|----------|-------------------|----------|--------------------------------|
| STN         | MO  | DY       | TIME | TIME        | TAPE #      | SCUNDER            | VLF      | VLF-DATA          | ASP      |                                |
| 1           | STN | MO       | DY   | TIME        | TIME        | 136 MH 400         | ACDGR FF | IRCVR EXC IMP ABI | 136MH400 | SPS EPD IMS CEP RPAI RLP PM FM |
| TRSM        | 12  | 03       | 0845 | 0858        | 0747        | *                  |          |                   |          |                                |
| ALAS        | 12  | 03       | 0857 | 0907        |             | *                  |          |                   |          |                                |
| CROR        | 12  | 03       | 0928 | 0939        | 0771        | *                  |          |                   |          | NO REPORT                      |
| ADEL        | 12  | 03       | 0938 | 0953        | 0695        | *                  |          |                   |          |                                |
| CROR        | 12  | 03       | 1123 | 1132        | 0772        | *                  |          |                   |          | G1                             |
| ADEL        | 12  | 03       | 1131 | 1147        | 0696        | *                  |          |                   |          |                                |
| SHTA        | 12  | 03       |      |             |             |                    |          |                   |          | G1                             |
| QUIT        | 12  | 03       | 1402 | 1416        | 0948 0949   | *                  |          |                   |          | STON CONFLICT                  |
| OTTA        | 12  | 03       | 1416 | 1430        | 13278 0391Y | *                  |          |                   |          | UHF                            |
| RESB        | 12  | 03       | 1431 | 1440        | 0918        | *                  |          |                   |          | UHF L                          |
| AMER        | 12  | 03       | 1450 | 1506        | 0109        | *                  |          |                   |          |                                |
| ALAS        | 12  | 03       | 1617 | 1628        | 1223 1224   | *                  |          |                   |          |                                |
| TRSM        | 12  | 03       | 1629 | 1643        | 0748        | *                  |          |                   |          | UHF                            |
| ALAS        | 12  | 03       | 1809 | 1822        | 1225 1226   | *                  |          |                   |          |                                |
| TRSM        | 12  | 03       | 1823 | 1834        | 0748        | *                  |          |                   |          | UHF                            |
| WNKF        | 12  | 03       | 1833 | 1842        | 0564        | *                  |          |                   |          |                                |
| ALAS        | 12  | 03       | 2004 | 2018        | 1227        | *                  |          |                   |          |                                |
| TRSM        | 12  | 03       | 2017 | 2030        | 0749        | *                  |          |                   |          |                                |
| WNKF        | 12  | 03       | 2029 | 2038        | 0564        | *                  |          |                   |          |                                |
| ADEL        | 12  | 03       | 2114 | 2131        | 0697        | *                  |          |                   |          |                                |
| CROR        | 12  | 03       |      |             |             |                    |          |                   |          | G1                             |
| RESB        | 12  | 04       | 0002 | 0013        | 0919        | *                  |          |                   |          | STON CONFLICT                  |
| OTTA        | 12  | 04       | 0012 | 0026        | 1328A 0391Y | *                  |          |                   |          |                                |
| SOLA        | 12  | 04       | 0042 | 0058        | 0452        | *                  |          |                   |          | UHF                            |
| RESB        | 12  | 04       | 0156 | 0207        | 0919        | *                  |          |                   |          |                                |
| OTTA        | 12  | 04       | 0206 | 0219        | 1328B 0392Y | * * 3              | *        |                   |          |                                |
| AMER        | 12  | 04       | 0324 | 0339        | 0110        | *                  |          |                   |          | UHF                            |
| TRSM        | 12  | 04       | 0342 | 0354        | 0749        | *                  |          |                   |          |                                |
| ALAS        | 12  | 04       | 0353 | 0407        | 1228 1229   | *                  |          |                   |          |                                |
| TRSM        | 12  | 04       | 0535 | 0547        | 0750        | *                  |          |                   |          | UHF                            |
| ALAS        | 12  | 04       | 0547 | 0601        | 1230        | *                  |          |                   |          |                                |
| WNKF        | 12  | 04       | 0721 | 0735        | 0565        | *                  |          |                   |          | UHF NOT SUPPORTED              |
| RESB        | 12  | 04       | 0735 | 0746        | 0920        | *                  |          |                   |          |                                |
| ALAS        | 12  | 04       |      |             |             |                    |          |                   |          |                                |
| LAUD        | 12  | 04       | 0815 | 0830        | 0195        | *                  |          |                   |          | STON CONFLICT                  |
| WNKF        | 12  | 04       | 0915 | 0929        |             | *                  |          |                   |          | FFO                            |
| RESB        | 12  | 04       | 0928 | 0937        | 0920        | *                  |          |                   |          | NO REPORT                      |

ISIS 2  
D-17055  
December 1, 1971  
Equipment Operational Log.  
TP-00 (dated)

|                            |    |   |   |   |   |   |   |     |            |     |
|----------------------------|----|---|---|---|---|---|---|-----|------------|-----|
| LAUD 12 01 0008 0023 0012  | *  | 4 | 2 | T | P | 1 | T | REC | 1, LENGTH  | 132 |
| REC 12 01 0146 0203        | *  | 4 | 1 | T | P | 1 | T | REC | 2, LENGTH  | 132 |
| D2                         |    |   |   |   |   |   |   |     |            |     |
| OROR 12 01 0200 0220 0251  | *  | 4 | 2 | T | P | 1 | T | REC | 3, LENGTH  | 132 |
| RF1 FROM AOS TO 020700     |    |   |   |   |   |   |   |     |            |     |
| KSH1 12 01 0227 0242 0023  | *  | 4 | 1 | T | P | 1 | T | REC | 4, LENGTH  | 132 |
| D1                         |    |   |   |   |   |   |   |     |            |     |
| OTTA 12 01 0258 0306 0599A |    | 0 | 0 |   |   | 0 |   | REC | 5, LENGTH  | 132 |
| SPEC OPS NO CME NO SND     |    |   |   |   |   |   |   |     |            |     |
| SOLA 12 01 0327 0344 0332  | ** | 3 | 2 | T | P | 2 | T | REC | 6, LENGTH  | 132 |
| OTTA 12 01 0451 0507 0599B | ** | 3 | 2 | T | P | 1 | T | REC | 7, LENGTH  | 132 |
| RESB 12 01 0635 0647 0270  | ** | 3 | 2 | T | P | 1 | T | REC | 8, LENGTH  | 132 |
| OTTA 12 01 0645 0658 0600A | *  | 4 | 2 | T | P | 1 | T | REC | 9, LENGTH  | 132 |
| SPEC OPS ASCS              |    |   |   |   |   |   |   |     |            |     |
| WNKF 12 01 1200 1216 0232  | *  | 4 | 1 | T | P | 1 | T | REC | 10, LENGTH | 132 |
| STA SPEC RF1 PREPASS       |    |   |   |   |   |   |   |     |            |     |
| REC 12 01 1308 1325        | *  | 4 | 1 | T | P | 1 | T | REC | 11, LENGTH | 132 |
| D2                         |    |   |   |   |   |   |   |     |            |     |
| REC 12 01 1502 1519        | *  | 4 | 1 | T | P | 1 | T | REC | 12, LENGTH | 132 |
| D2                         |    |   |   |   |   |   |   |     |            |     |
| OTTA 12 01 1548 1600 0600B | *  | 4 | 2 | T | P | 1 | T | REC | 13, LENGTH | 132 |
| SPEC OPS                   |    |   |   |   |   |   |   |     |            |     |
| SOLA 12 01 1707 1722 0333  | ** | 3 | 2 | T | P | 1 | T | REC | 14, LENGTH | 132 |
| OTTA 12 01 1738 1756 0601A | *  | 4 | 2 | T | P | 1 | T | REC | 15, LENGTH | 132 |
| DL SPEC OPS                |    |   |   |   |   |   |   |     |            |     |
| OTTA 12 01 1937 1946 0601B | *  | 4 | 2 | T | P | 1 | T | REC | 16, LENGTH | 132 |
| REC 12 02 0027 0044        | *  | 4 | 1 | T | P | 1 | T | REC | 17, LENGTH | 132 |
| D2                         |    |   |   |   |   |   |   |     |            |     |
| LAUD 12 02 0045 0101 0012  | *  | 5 | 2 | T | P | 1 | T | REC | 18, LENGTH | 132 |
| REC 12 02 0224 0241        | *  | 5 | 1 | T | P | 1 | T | REC | 19, LENGTH | 132 |
| D2                         |    |   |   |   |   |   |   |     |            |     |
| OROR 12 02 0238 0257 0252  | *  | 5 | 2 | T | P | 1 | T | REC | 20, LENGTH | 132 |
| OTTA 12 02 0335 0349 0602A | *  | 5 | 2 | T | P | 1 | T | REC | 21, LENGTH | 132 |
| SPEC OPS                   |    |   |   |   |   |   |   |     |            |     |
| RESB 12 02 0518 0531 0271  | *  | 5 | 2 | T | P | 1 | T | REC | 22, LENGTH | 132 |

|                                                 |    |   |   |   |   |   |   |     |            |     |
|-------------------------------------------------|----|---|---|---|---|---|---|-----|------------|-----|
| OTTA 12 02 0529 0545 0602B<br>SPEC OPS ASCS     | *  | 5 | 2 | T | P | 1 | T | REC | 23, LENGTH | 132 |
| QUIT 12 02 0543 0559 0370                       | ** | 3 | 2 | T | A | 1 | T | REC | 24, LENGTH | 132 |
| OTTA 12 02 0725 0732 0603A                      | *  | 5 | 1 | T | P | 1 | T | REC | 25, LENGTH | 132 |
| REC 12 02 0737 0754<br>D2                       | *  | 5 | 1 | T | P | 1 | T | REC | 26, LENGTH | 132 |
| JOBV 12 02 1019 1035 0228                       | *  | 5 | 2 | T | P | 1 | T | REC | 27, LENGTH | 132 |
| REC 12 02 1221 1238<br>D2                       | *  | 5 | 1 | T | P | 1 | T | REC | 28, LENGTH | 132 |
| QUIT 12 02 1610 1623 0371<br>FROM 1622Z         | *  | 5 | 1 | T | A | 1 | T | REC | 29, LENGTH | 132 |
| OTTA 12 02 1623 1639 0603B 0198Y<br>SPEC OPS DL | *  | 5 | 1 | T | P | 1 | T | REC | 30, LENGTH | 132 |
| OTTA 12 02 1818 1832 0604A<br>SPEC OPS ASCS     | *  | 3 | 1 | T | P | 1 | T | REC | 31, LENGTH | 132 |
| REC 12 03 0105 0122<br>C2                       | *  | 3 | 1 | T | P | 1 | T | REC | 32, LENGTH | 132 |
| LAUD 12 03 0123 0138 0013                       | *  | 3 | 2 | T | P | 1 | T | REC | 33, LENGTH | 132 |

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December 1, 1972

| STATION                    | FREQ | MODE  | TIME  | DATE | LENGTH | REMARKS |
|----------------------------|------|-------|-------|------|--------|---------|
| OTTA 12 01 0012            | 0026 | 13228 | 0386Y |      |        |         |
| *** UHF                    |      |       |       |      |        |         |
| QUIT 12 01 0028            | 0038 | 0942  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| SNTA 12 01 0037            | 0050 | 0832  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| SOLA 12 01 0049            | 0058 | 0450  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| RESB 12 01 0157            | 0207 | 0912  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| OTTA 12 01 0206            | 0220 | 1323A | 0387Y |      |        |         |
| *** UHF 67 N/A PGDR SIGNAL |      |       |       |      |        |         |
| QUIT 12 01                 |      |       |       |      |        |         |
| STDN CONFLICT              |      |       |       |      |        |         |
| SNTA 12 01 0232            | 0245 | 0833  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| JOBU 12 01 0656            | 0710 | 0542  | 0543  |      |        |         |
| *** UHF                    |      |       |       |      |        |         |
| OAGA 12 01 0711            | 0722 | 0326  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| WKNF 12 01 0722            | 0735 | 0556  | 0557  |      |        |         |
| *** UHF                    |      |       |       |      |        |         |
| RESB 12 01 0736            | 0746 | 0913  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| ALAS 12 01 0745            | 0754 | 1211  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| LAUD 12 01 0816            | 0831 | 0193  |       |      |        |         |
| *** FF0                    |      |       |       |      |        |         |
| SNTA 12 01                 |      |       |       |      |        |         |
| STDN CONFLICT              |      |       |       |      |        |         |
| QUIT 12 01 1247            | 1300 | 0943  | 0944  |      |        |         |
| *** UHF                    |      |       |       |      |        |         |
| OTTA 12 01 1300            | 1314 | 1323B | 0387Y |      |        |         |
| *** UHF                    |      |       |       |      |        |         |
| RESB 12 01 1315            | 1324 | 0913  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| OTTA 12 01 1456            | 1508 | 1324A |       |      |        |         |
| *** L                      |      |       |       |      |        |         |
| RESB 12 01 1507            | 1517 | 0914  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| TROM 12 01 1516            | 1525 | 0743  |       |      |        |         |
| ***                        |      |       |       |      |        |         |
| AMEB 12 01 1528            | 1544 | 0107  |       |      |        |         |
| ***                        |      |       |       |      |        |         |

[illegible]

ISTS 2  
December 1, 1973

|   |   |   |   |     |           |
|---|---|---|---|-----|-----------|
| 0 | * | 2 | * | REC | 2. LENGTH |
| 0 | * | 2 | * | REC | 132       |

|   |   |   |   |   |   |     |           |     |
|---|---|---|---|---|---|-----|-----------|-----|
| 0 | * | P | 2 | * | * | REC | 3, LENGTH | 132 |
|---|---|---|---|---|---|-----|-----------|-----|

|   |   |   |   |   |   |     |    |        |     |
|---|---|---|---|---|---|-----|----|--------|-----|
| 0 | * | P | 2 | * | * | REC | 4. | LENGTH | 132 |
|---|---|---|---|---|---|-----|----|--------|-----|

|  | * P | Z | * | * | REC | S. LENGTH |
|--|-----|---|---|---|-----|-----------|
|  |     |   |   |   |     | 132       |

| * P | * * | REC | 6. LENGTH |
|-----|-----|-----|-----------|
| 132 |     |     |           |

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 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 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

|         |                     |
|---------|---------------------|
| * P 2 * | * REC 8, LENGTH 132 |
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REC 9. LENGTH 132

REC 10, LENGTH 132

\* P 2 \* \* REC 11, LENGTH 132

\* P 2 \* \* REC 12, LENGTH 132

|         |                      |
|---------|----------------------|
| * P 2 * | * REC 13. LENGTH 132 |
|---------|----------------------|

B \* P 2 \* \* REC 14, LENGTH 132

|         |                      |
|---------|----------------------|
| * P 2 * | * REC 15, LENGTH 132 |
|---------|----------------------|

|         |                      |
|---------|----------------------|
| * P 2 * | * REC 16, LENGTH 132 |
|---------|----------------------|

| REC | 17, LENGTH | 132 |
|-----|------------|-----|
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| REC | 18, LENGTH | 132 |
|-----|------------|-----|
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REC 19. LENGTH 132

| B | * | A | 2 | * | * | REC | 20, LENGTH | 132 |
|---|---|---|---|---|---|-----|------------|-----|
|---|---|---|---|---|---|-----|------------|-----|

| 0 | * | P | 2 | * | * | REC | 21, LENGTH | 132 |
|---|---|---|---|---|---|-----|------------|-----|
|---|---|---|---|---|---|-----|------------|-----|

| 0 | * | P | 2 | * | * | REC | 22, LENGTH | 132 |
|---|---|---|---|---|---|-----|------------|-----|
|---|---|---|---|---|---|-----|------------|-----|

|     |      |    |    |          |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
|-----|------|----|----|----------|------|------|--|---|--|---|--|---|---|---|---|---|---|-----|-----|--------|-----|
| RES | 335  | 12 | 01 | 1940     | 1955 | 2186 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 23. | LENGTH | 132 |
| **  |      |    |    | STA SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 335  | 12 | 01 | 2134     | 2149 | 2186 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 24. | LENGTH | 132 |
| **  |      |    |    | STA SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| BUR | 335  | 12 | 01 | 2250     | 2259 | 1125 |  | * |  | 4 |  | 0 | * | P | 2 | * | * | REC | 25. | LENGTH | 132 |
| **  |      |    |    |          |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 335  | 12 | 01 | 2326     | 2341 | 2187 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 26. | LENGTH | 132 |
| **  |      |    |    | RKT SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| LAU | 336. | 12 | 02 | 0005     | 0018 | 0670 |  | * |  | 1 |  | B | * | P | 2 | * | * | REC | 27. | LENGTH | 132 |
|     |      |    |    | FFI      |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| WNK | 336  | 12 | 02 | 0110     | 0119 | 1299 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 28. | LENGTH | 132 |
| **  |      |    |    | RKT SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 336. | 12 | 02 | 0118     | 0129 | 2187 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 29. | LENGTH | 132 |
| **  |      |    |    | RKT SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| ULA | 336  | 12 | 02 | 0128     | 0135 | 2840 |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 30. | LENGTH | 132 |
| **  |      |    |    | RKT SPEC |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| ADL | 336. | 12 | 02 | 0206     | 0221 | 2050 |  | * |  | 2 |  |   | * | P | 2 | * | * | REC | 31. | LENGTH | 132 |
|     |      |    |    | A1       |      |      |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| KSH | 336  | 12 | 02 | 0331     | 0340 | 0213 |  | * |  | 2 |  |   | * | P | 2 | * | * | REC | 32. | LENGTH | 132 |

| RES | 335 12 01 0041 0055 2185              | * | 2 | B   | * | P | 2 | * | * | REC | 1. LENGTH  | 132 |
|-----|---------------------------------------|---|---|-----|---|---|---|---|---|-----|------------|-----|
| **  | RKT SPEC                              |   |   |     |   |   |   |   |   |     |            |     |
| LAU | 335 12 01 0121 0137 0669              | * | 4 | 0   | * | P | 2 | * | * | REC | 2. LENGTH  | 132 |
| ADL | 335 12 01 0321 0337 2048<br>A1        | * | 4 | 0   | * | P | 2 | * | * | REC | 3. LENGTH  | 132 |
| KRU | 335 12 01 0404 0413 0027              | * | 4 | 0   | * | P | 2 | * | * | REC | 4. LENGTH  | 132 |
| OTT | 335 12 01 0416 0425 2765A<br>L 89 N/A | * | 4 |     | * | P | 2 | * | * | REC | 5. LENGTH  | 132 |
| RES | 335 12 01 0424 0433 2185              | * | 4 |     | * | P | 2 | * | * | REC | 6. LENGTH  | 132 |
| AGO | 335 12 01 0545 0554 1454              | * | 4 |     | * | P | 2 | * | * | REC | 7. LENGTH  | 132 |
| QUI | 335 12 01 0553 0602 2017              | * | 4 |     | * | P | 2 | * | * | REC | 8. LENGTH  | 132 |
| AME | 335 12 01<br>POWER FAILURE            |   |   |     |   |   |   |   |   | REC | 9. LENGTH  | 132 |
| AME | 335 12 01<br>POWER FAILURE            |   |   |     |   |   |   |   |   | REC | 10. LENGTH | 132 |
| BUR | 335 12 01 1043 1059 1124              | * | 4 |     | * | P | 2 | * | * | REC | 11. LENGTH | 132 |
| ODG | 335 12 01 1229 1238 0637              | * | 4 |     | * | P | 2 | * | * | REC | 12. LENGTH | 132 |
| ADL | 335 12 01 1303 1315 2049<br>A1        | * | 4 |     | * | P | 2 | * | * | REC | 13. LENGTH | 132 |
| LAU | 335 12 01 1320 1327 0669              | * | 4 | 136 | B | * | P | 2 | * | REC | 14. LENGTH | 132 |
| CNA | 335 12 01 1417 1426 0084              | * | 4 |     | * | P | 2 | * | * | REC | 15. LENGTH | 132 |
| ORR | 335 12 01 1512 1521 1375              | * | 4 |     | * | P | 2 | * | * | REC | 16. LENGTH | 132 |
| RES | 335 12 01<br>POWER FOR RKT SF         |   |   |     |   |   |   |   |   | REC | 17. LENGTH | 132 |
| OTT | 335 12 01<br>POWER FOR RKT SF         |   |   |     |   |   |   |   |   | REC | 18. LENGTH | 132 |
| RES | 335 12 01<br>POWER FOR RKT SF         |   |   |     |   |   |   |   |   | REC | 19. LENGTH | 132 |
| OTT | 335 12 01 1756 1810 2765B             | * | 4 | B   | * | A | 2 | * | * | REC | 20. LENGTH | 132 |
| QUI | 335 12 01 1814 1822 2018              | * | 4 | 0   | * | P | 2 | * | * | REC | 21. LENGTH | 132 |
| AGO | 335 12 01 1824 1833 1455              | * | 4 | 0   | * | P | 2 | * | * | REC | 22. LENGTH | 132 |

|     |     |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
|-----|-----|------|----|------|------|-------|--|---|--|---|--|---|---|---|---|---|---|-----|-----|--------|-----|
| RES | 335 | 12   | 01 | 1940 | 1955 | 2186  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 23, | LENGTH | 132 |
| **  | STA | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 335 | 12   | 01 | 2134 | 2149 | 2186  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 24, | LENGTH | 132 |
| **  | STA | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| BUR | 335 | 12   | 01 | 2250 | 2259 | 1125  |  | * |  | 4 |  | O | * | P | 2 | * | * | REC | 25, | LENGTH | 132 |
| **  |     |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 335 | 12   | 01 | 2326 | 2341 | 2187  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 26, | LENGTH | 132 |
| **  | RKT | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| LAU | 336 | 12   | 02 | 0005 | 0018 | 0670  |  | * |  | 1 |  | B | * | P | 2 | * | * | REC | 27, | LENGTH | 132 |
|     | FFI |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| WNK | 336 | 12   | 02 | 0110 | 0119 | 1299  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 28, | LENGTH | 132 |
| **  | RKT | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| RES | 336 | 12   | 02 | 0118 | 0129 | 2187  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 29, | LENGTH | 132 |
| **  | RKT | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| ULA | 336 | 12   | 02 | 0128 | 0135 | 2840  |  | * |  | 2 |  | B | * | P | 2 | * | * | REC | 30, | LENGTH | 132 |
| **  | RKT | SPEC |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| ADL | 336 | 12   | 02 | 0206 | 0221 | 2050  |  | * |  | 2 |  |   | * | P | 2 | * | * | REC | 31, | LENGTH | 132 |
|     | A1  |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| KSH | 336 | 12   | 02 | 0331 | 0340 | 0213  |  | * |  | 2 |  |   | * | P | 2 | * | * | REC | 32, | LENGTH | 132 |
|     |     |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| DAR | 336 | 12   | 02 | 0343 | 0352 | 0570  |  | * |  | 1 |  |   | * | P | 2 | * | * | REC | 33, | LENGTH | 132 |
|     |     |      |    |      |      |       |  |   |  |   |  |   |   |   |   |   |   |     |     |        |     |
| OTT | 336 | 12   | 02 | 0451 | 0505 | 2766A |  | * |  | 1 |  |   | * | P | 2 | * | * | REC | 34, | LENGTH | 132 |