037

037

ALOUETTE 1

CRC N(H) DATA, SCALED POINTS
CRC N(H) DATA, N + HGT COEF

62-049A-01T
62-049A-01U

ALOUETTE-1

CRC N(H) DATA, SCALED POINTS, TAPE

62-049A-01T

This data set has been restored. There were originally 2 9-track, 1600 BPI tapes written in EBCDIC. There is one restored tape written in EBCDIC. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The tapes were created on a Modcomp computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

| DR# | DS# | DD# | FILES | TIME SPAN |
|---|---|---|---|---|
| DR03634 | DS03634 | D61708 | 1 | 09/29/62 - 12/31/63 |
| | | D61709 | 2 | 01/01/64 - 03/30/66 |

| REQ. AGENT | RAND NO. | ACQ. AGENT |
|---|---|---|
| DAD | V0241 | JEJ |

ALOUETTE 1

CRC N(H) DATA, SCALED POINTS
CRC N(H) DATA, N + HGT COEF

62-049A-01T
62-049A-01U

This data set catalog contains 3 magnetic tapes. The tapes description, and D and C numbers are on the following pages:

ALOUETTE 1

CRC N(H) DATA, SCALED POINTS

62-049A-01T

This data set, prepared from tapes created by the Communications Research Centre (CRC) in Ottawa, Canada, consists of electron density profiles for the ionosphere above the F2 maximum (topside ionosphere). This data set consists of 2 9-track, 1600 bpi, odd-parity, EBCDIC tapes , and are written on a MODCOMP IV computer. Records contain 1 logical record per physical record and are variable length with a maximum blocksize of 620 bytes. These tapes were created by merging tapes that contain similar data from data set 62-049A-01G, sorting the data by time and then regenerating the data back on tape. The data set includes about 4.3E4 profiles obtained primarily during the period 1962 to 1965. During the merging of this data, occurences of duplicate times were detected, each occurence was included in the merged data set as it represents a different profile. Profiles were not obtained for the complete time period, please check the documentation page entitled TIME SPANS FOR 62-049A-01T for desired time period.

The profiles were computed from digital values of frequency and virtual height that were scaled from the ionogram. Profile data consist of electron density and real height values for each point scaled from the ionogram. Telemetry stations are not identified, but satellite location, time of observation (Greenwich and local mean time), solar zenith angle at the satellite, magnetic dip and gyrofrequency at the satellite, total electron content down to the lowest topside reflection altitude, and other relevant information are listed for each profile. These profiles correspond to about 2% of the 2.E6 Alouette 1 ionograms observed. Data for most latitudes are included, but those data from longitudes near 80 deg W are more numerous than those from other longitudes.

| D# | C# | TIME SPAN |
|---|---|---|
| D-61708 | C-23845 | 09/29/62 - 12/31/63 |
| D-61709 | C-23846 | 01/01/64 - 03/30/66 |

## DATA FORMAT FOR 62-049A-01T

| CHARACTER POSTION | FORMAT | DESCRIPTION |
|---|---|---|
| 1 | Literal 4 | Represents description for TOPSIDE |
| 2 | Literal X | profile calculated from the |
| 3 | Literal T | X-wave. |
| 4- 6 | I3 | Dip angle |
| 7- 8 | I2 | Quality code |
| 9-11 | I3 | Year |
| 12-15 | I4 | Day of year |
| .16 | 1X | Blank |
| 17-20 | 2I2 | Hours and minutes |
| 21 | Literal / | Slash |
| 22-23 | I2 | Seconds |
| 24 | A1 | Observer Code |
| 25-31 | F7.2 | Ordinary wave frequency (in Mc/s) corresponding to highest number density computed for the ionogram. |
| 32-38 | F8.2 | HMAX |
| 39-49 | E11.3 | Total electron content (e/cm2) |
| 50 | 1X | Blank |
| 51-52 | I2 | N=number of pairs of data in profile |
| 53 | 1X | Blank |
| 54-57 | F4.2 | Gyrofrequency (MHz) |
| 58-64 | F7.1 | Longitude |
| 65-71 | F7.2 | Latitude |
| 72-74 | I3 | Solar zenith angle |
| 75-80 | 6X | Blanks |

Character positions 81 - end of the record consists of N (bytes 51-52) pairs of electron density profiles with a format of F5.2, F5.0. For a description of these profiles read enclosed documentation.

TIME SPANS FOR 62-049A-01T  D# = D-61708  C# = D-23845

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 62 | 272 | 19 | 41 | 22 | - | 62 | 277 | 2 | 26 | 42 | 1 | 453 |
| 62 | 278 | 13 | 33 | 17 | - | 62 | 279 | 2 | 0 | 56 | 454 | 103 |
| 62 | 280 | 13 | 44 | 22 | - | 62 | 282 | 1 | 32 | 59 | 557 | 237 |
| 62 | 285 | 13 | 34 | 51 | - | 62 | 286 | 14 | 4 | 25 | 794 | 68 |
| 62 | 287 | 23 | 55 | 38 | - | 62 | 288 | 14 | 3 | 14 | 862 | 197 |
| 62 | 290 | 1 | 34 | 23 | - | 62 | 294 | 0 | 44 | 27 | 1059 | 425 |
| 62 | 297 | 11 | 49 | 40 | - | 62 | 303 | 23 | 39 | 44 | 1484 | 589 |
| 62 | 305 | 11 | 48 | 18 | - | 62 | 307 | 0 | 17 | 12 | 2073 | 237 |
| 62 | 308 | 8 | 7 | 6 | - | 62 | 308 | 8 | 14 | 37 | 2310 | 26 |
| 62 | 309 | 10 | 38 | 14 | - | 62 | 309 | 22 | 38 | 33 | 2336 | 262 |
| 62 | 310 | 22 | 48 | 40 | - | 62 | 311 | 18 | 25 | 3 | 2598 | 130 |
| 62 | 312 | 22 | 7 | 36 | - | 62 | 314 | 4 | 16 | 51 | 2728 | 122 |
| 62 | 315 | 20 | 12 | 30 | - | 62 | 315 | 20 | 19 | 44 | 2850 | 25 |
| 62 | 316 | 20 | 53 | 42 | - | 62 | 317 | 21 | 49 | 36 | 2875 | 178 |
| 62 | 319 | 7 | 31 | 10 | - | 62 | 320 | 9 | 50 | 37 | 3053 | 249 |
| 62 | 322 | 19 | 0 | 0 | - | 62 | 325 | 8 | 55 | 28 | 3302 | 466 |
| 62 | 326 | 14 | 37 | 29 | - | 62 | 327 | 21 | 13 | 19 | 3768 | 250 |
| 62 | 330 | 7 | 53 | 46 | - | 62 | 330 | 19 | 52 | 41 | 4018 | 215 |
| 62 | 333 | 19 | 18 | 23 | - | 62 | 333 | 19 | 52 | 41 | 4233 | 96 |
| 62 | 335 | 7 | 31 | 12 | - | 62 | 335 | 8 | 5 | 43 | 4329 | 62 |
| 62 | 336 | 19 | 27 | 32 | - | 62 | 337 | 18 | 59 | 1 | 4391 | 331 |
| 62 | 339 | 6 | 27 | 15 | - | 62 | 339 | 7 | 6 | 58 | 4722 | 83 |
| 62 | 340 | 18 | 39 | 3 | - | 62 | 340 | 18 | 56 | 30 | 4805 | 55 |
| 62 | 342 | 4 | 39 | 25 | - | 62 | 342 | 4 | 48 | 37 | 4860 | 31 |
| 62 | 343 | 18 | 22 | 44 | - | 62 | 344 | 6 | 42 | 46 | 4891 | 254 |
| 62 | 346 | 9 | 37 | 19 | - | 62 | 346 | 9 | 43 | 49 | 5145 | 20 |
| 62 | 347 | 17 | 29 | 25 | - | 62 | 359 | 10 | 42 | 26 | 5165 | 1555 |
| 62 | 361 | 10 | 2 | 14 | - | 62 | 362 | 3 | 51 | 22 | 6720 | 125 |
| 62 | 363 | 14 | 59 | 33 | - | 62 | 363 | 15 | 49 | 3 | 6845 | 139 |
| 63 | 1 | 15 | 29 | 35 | - | 63 | 1 | 15 | 48 | 29 | 6984 | 58 |
| 63 | 4 | 2 | 9 | 8 | - | 63 | 4 | 16 | 3 | 53 | 7042 | 235 |
| 63 | 9 | 13 | 6 | 9 | - | 63 | 9 | 13 | 51 | 37 | 7277 | 132 |
| 63 | 12 | 2 | 0 | 15 | - | 63 | 12 | 2 | 39 | 20 | 7409 | 77 |
| 63 | 14 | 23 | 43 | 15 | - | 63 | 14 | 23 | 52 | 24 | 7486 | 32 |
| 63 | 17 | 1 | 37 | 12 | - | 63 | 18 | 14 | 13 | 23 | 7518 | 273 |
| 63 | 21 | 0 | 33 | 38 | - | 63 | 21 | 22 | 57 | 25 | 7791 | 60 |
| 63 | 23 | 22 | 17 | 27 | - | 63 | 24 | 1 | 20 | 8 | 7851 | 159 |
| 63 | 25 | 12 | 28 | 21 | - | 63 | 25 | 21 | 56 | 46 | 8010 | 189 |
| 63 | 27 | 21 | 16 | 41 | - | 63 | 27 | 21 | 25 | 30 | 8199 | 30 |
| 63 | 28 | 21 | 53 | 30 | - | 63 | 30 | 11 | 6 | 47 | 8229 | 170 |
| 63 | 32 | 2 | 40 | 16 | - | 63 | 32 | 21 | 39 | 12 | 8399 | 77 |
| 63 | 33 | 21 | 57 | 13 | - | 63 | 36 | 14 | 12 | 5 | 8476 | 230 |
| 63 | 38 | 21 | 32 | 3 | - | 63 | 39 | 11 | 28 | 46 | 8706 | 231 |
| 63 | 42 | 22 | 49 | 51 | - | 63 | 43 | 19 | 5 | 44 | 8937 | 36 |
| 63 | 46 | 9 | 43 | 33 | - | 63 | 48 | 18 | 41 | 41 | 8973 | 274 |
| 63 | 50 | 18 | 1 | 33 | - | 63 | 50 | 18 | 10 | 40 | 9247 | 25 |
| 63 | 53 | 20 | 30 | 16 | - | 63 | 55 | 17 | 43 | 53 | 9272 | 339 |
| 63 | 56 | 18 | 13 | 33 | - | 63 | 57 | 19 | 36 | 20 | 9611 | 201 |
| 63 | 59 | 18 | 22 | 8 | - | 63 | 59 | 18 | 30 | 3 | 9812 | 28 |
| 63 | 61 | 17 | 49 | 50 | - | 63 | 64 | 16 | 19 | 25 | 9840 | 249 |
| 63 | 65 | 16 | 47 | 15 | - | 63 | 66 | 7 | 11 | 9 | 10089 | 57 |

TIME SPANS FOR 62-049A-01T  D# = D-61708  C# = D-23845

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 63 | 69 | 8 | 14 | 21 | - | 63 | 70 | 19 | 9 | 2 | 10146 | 333 |
| 63 | 76 | 5 | 35 | 4 | - | 63 | 76 | 6 | 22 | 4 | 10479 | 137 |
| 63 | 80 | 16 | 11 | 1 | - | 63 | 80 | 16 | 52 | 11 | 10616 | 133 |
| 63 | 85 | 15 | 47 | 32 | - | 63 | 85 | 15 | 56 | 23 | 10749 | 31 |
| 63 | 88 | 4 | 13 | 12 | - | 63 | 88 | 4 | 54 | 19 | 10780 | 113 |
| 63 | 91 | 3 | 13 | 26 | - | 63 | 91 | 3 | 24 | 16 | 10893 | 33 |
| 63 | 93 | 2 | 26 | 32 | - | 63 | 93 | 2 | 35 | 4 | 10926 | 29 |
| 63 | 95 | 1 | 30 | 18 | - | 63 | 95 | 4 | 8 | 4 | 10955 | 181 |
| 63 | 97 | 14 | 28 | 14 | - | 63 | 98 | 13 | 21 | 18 | 11136 | 187 |
| 63 | 100 | 0 | 29 | 17 | - | 63 | 100 | 1 | 58 | 39 | 11323 | 174 |
| 63 | 103 | 1 | 17 | 13 | - | 63 | 103 | 1 | 24 | 53 | 11497 | 27 |
| 63 | 104 | 13 | 33 | 33 | - | 63 | 107 | 19 | 40 | 11 | 11524 | 524 |
| 63 | 109 | 21 | 54 | 17 | - | 63 | 110 | 12 | 29 | 48 | 12048 | 238 |
| 63 | 112 | 22 | 0 | 53 | - | 63 | 113 | 21 | 1 | 10 | 12286 | 50 |
| 63 | 115 | 22 | 7 | 21 | - | 63 | 115 | 22 | 16 | 30 | 12336 | 31 |
| 63 | 117 | 10 | 57 | 8 | - | 63 | 118 | 0 | 52 | 54 | 12367 | 262 |
| 63 | 119 | 10 | 38 | 14 | - | 63 | 125 | 19 | 42 | 45 | 12629 | 1076 |
| 63 | 126 | 20 | 10 | 16 | - | 63 | 128 | 19 | 48 | 45 | 13705 | 236 |
| 63 | 130 | 10 | 26 | 27 | - | 63 | 132 | 18 | 47 | 24 | 13941 | 240 |
| 63 | 134 | 20 | 46 | 26 | - | 63 | 135 | 7 | 47 | 26 | 14181 | 132 |
| 63 | 139 | 8 | 58 | 19 | - | 63 | 139 | 9 | 37 | 20 | 14313 | 114 |
| 63 | 140 | 18 | 20 | 16 | - | 63 | 141 | 19 | 8 | 24 | 14427 | 231 |
| 63 | 143 | 7 | 48 | 11 | - | 63 | 143 | 8 | 36 | 33 | 14658 | 134 |
| 63 | 144 | 17 | 19 | 16 | - | 63 | 144 | 17 | 28 | 6 | 14792 | 30 |
| 63 | 145 | 20 | 24 | 32 | - | 63 | 145 | 21 | 12 | 38 | 14822 | 140 |
| 63 | 147 | 17 | 25 | 51 | - | 63 | 150 | 7 | 41 | 27 | 14962 | 229 |
| 63 | 152 | 19 | 29 | 13 | - | 63 | 152 | 20 | 16 | 12 | 15191 | 137 |
| 63 | 155 | 17 | 48 | 41 | - | 63 | 157 | 6 | 45 | 56 | 15328 | 309 |
| 63 | 158 | 14 | 14 | 21 | - | 63 | 162 | 17 | 33 | 46 | 15637 | 508 |
| 63 | 164 | 11 | 10 | 25 | - | 63 | 165 | 6 | 28 | 51 | 16145 | 147 |
| 63 | 168 | 14 | 40 | 17 | - | 63 | 168 | 17 | 56 | 37 | 16292 | 183 |
| 63 | 170 | 11 | 7 | 12 | - | 63 | 171 | 4 | 56 | 42 | 16475 | 211 |
| 63 | 173 | 16 | 44 | 14 | - | 63 | 173 | 17 | 32 | 7 | 16686 | 124 |
| 63 | 175 | 10 | 42 | 28 | - | 63 | 175 | 14 | 43 | 34 | 16810 | 80 |
| 63 | 176 | 15 | 16 | 29 | - | 63 | 176 | 15 | 22 | 55 | 16890 | 15 |
| 63 | 178 | 3 | 13 | 46 | - | 63 | 178 | 4 | 1 | 37 | 16905 | 109 |
| 63 | 180 | 15 | 49 | 10 | - | 63 | 180 | 21 | 16 | 18 | 17014 | 175 |
| 63 | 182 | 15 | 15 | 8 | - | 63 | 182 | 16 | 5 | 59 | 17189 | 143 |
| 63 | 185 | 2 | 19 | 8 | - | 63 | 185 | 3 | 5 | 59 | 17332 | 132 |
| 63 | 186 | 14 | 16 | 52 | - | 63 | 186 | 14 | 25 | 38 | 17464 | 31 |
| 63 | 187 | 14 | 53 | 8 | - | 63 | 187 | 15 | 41 | 19 | 17495 | 152 |
| 63 | 190 | 13 | 26 | 15 | - | 63 | 193 | 14 | 9 | 40 | 17647 | 358 |
| 63 | 195 | 23 | 52 | 14 | - | 63 | 196 | 11 | 9 | 20 | 18005 | 63 |
| 63 | 198 | 7 | 26 | 13 | - | 63 | 199 | 1 | 16 | 6 | 18068 | 210 |
| 63 | 200 | 6 | 55 | 15 | - | 63 | 200 | 13 | 14 | 15 | 18278 | 195 |
| 63 | 201 | 22 | 24 | 8 | - | 63 | 205 | 9 | 44 | 9 | 18473 | 164 |
| 63 | 207 | 9 | 3 | 17 | - | 63 | 210 | 21 | 4 | 27 | 18637 | 296 |
| 63 | 212 | 5 | 36 | 17 | - | 63 | 212 | 23 | 26 | 10 | 18933 | 182 |
| 63 | 214 | 10 | 36 | 5 | - | 63 | 214 | 11 | 5 | 25 | 19115 | 95 |
| 63 | 217 | 10 | 39 | 10 | - | 63 | 218 | 20 | 46 | 29 | 19210 | 195 |
| 63 | 219 | 21 | 15 | 46 | - | 63 | 219 | 21 | 24 | 56 | 19405 | 32 |

TIME SPANS FOR 62-049A-01T  D# = D-61708  C# = D-23845

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 63 | 220 | 22 | 26 | 12 | - | 63 | 225 | 19 | 51 | 43 | 19437 | 544 |
| 63 | 226 | 20 | 47 | 11 | - | 63 | 227 | 10 | 41 | 38 | 19981 | 279 |
| 63 | 228 | 19 | 48 | 35 | - | 63 | 228 | 19 | 57 | 27 | 20260 | 30 |
| 63 | 230 | 19 | 19 | 6 | - | 63 | 231 | 18 | 19 | 30 | 20290 | 51 |
| 63 | 232 | 21 | 29 | 13 | - | 63 | 234 | 21 | 17 | 21 | 20341 | 316 |
| 63 | 237 | 9 | 12 | 13 | - | 63 | 237 | 9 | 23 | 22 | 20657 | 35 |
| 63 | 239 | 17 | 51 | 17 | - | 63 | 241 | 20 | 21 | 32 | 20692 | 363 |
| 63 | 245 | 16 | 20 | 15 | - | 63 | 245 | 16 | 29 | 23 | 21055 | 30 |
| 63 | 246 | 16 | 56 | 15 | - | 63 | 246 | 19 | 47 | 21 | 21085 | 58 |
| 63 | 248 | 18 | 46 | 52 | - | 63 | 250 | 7 | 24 | 38 | 21143 | 295 |
| 63 | 251 | 16 | 32 | 17 | - | 63 | 252 | 15 | 34 | 21 | 21438 | 63 |
| 63 | 255 | 0 | 54 | 11 | - | 63 | 278 | 15 | 15 | 7 | 21501 | 5120 |
| 63 | 285 | 13 | 39 | 18 | - | 63 | 285 | 14 | 19 | 52 | 26621 | 124 |
| 63 | 288 | 0 | 25 | 43 | - | 63 | 288 | 1 | 4 | 17 | 26745 | 100 |
| 63 | 292 | 11 | 22 | 18 | - | 63 | 292 | 13 | 26 | 23 | 26845 | 189 |
| 63 | 294 | 0 | 34 | 14 | - | 63 | 294 | 1 | 25 | 49 | 27034 | 121 |
| 63 | 295 | 12 | 58 | 45 | - | 63 | 306 | 11 | 25 | 18 | 27155 | 2116 |
| 63 | 307 | 11 | 55 | 30 | - | 63 | 309 | 11 | 31 | 19 | 29271 | 239 |
| 63 | 311 | 10 | 49 | 5 | - | 63 | 313 | 10 | 33 | 28 | 29510 | 158 |
| 63 | 314 | 11 | 0 | 30 | - | 63 | 316 | 10 | 40 | 5 | 29668 | 337 |
| 63 | 317 | 11 | 12 | 55 | - | 63 | 320 | 9 | 29 | 21 | 30005 | 92 |
| 63 | 321 | 10 | 5 | 36 | - | 63 | 325 | 9 | 13 | 11 | 30097 | 322 |
| 63 | 326 | 9 | 38 | 10 | - | 63 | 327 | 8 | 42 | 5 | 30419 | 45 |
| 63 | 328 | 9 | 10 | 28 | - | 63 | 332 | 8 | 15 | 13 | 30464 | 380 |
| 63 | 333 | 8 | 43 | 3 | - | 63 | 334 | 7 | 47 | 34 | 30844 | 55 |
| 63 | 335 | 8 | 14 | 25 | - | 63 | 337 | 7 | 54 | 33 | 30899 | 123 |
| 63 | 338 | 8 | 26 | 29 | - | 63 | 339 | 7 | 29 | 57 | 31022 | 241 |
| 63 | 340 | 7 | 48 | 10 | - | 63 | 341 | 6 | 52 | 19 | 31263 | 49 |
| 63 | 342 | 7 | 21 | 32 | - | 63 | 347 | 7 | 5 | 41 | 31312 | 421 |
| 63 | 350 | 5 | 14 | 6 | - | 63 | 352 | 5 | 3 | 24 | 31733 | 158 |
| 63 | 353 | 5 | 20 | 40 | - | 63 | 355 | 4 | 51 | 43 | 31891 | 172 |
| 63 | 356 | 5 | 29 | 44 | - | 63 | 360 | 4 | 33 | 39 | 32063 | 325 |
| 63 | 361 | 5 | 6 | 6 | - | 63 | 362 | 4 | 5 | 48 | 32388 | 11 |
| 63 | 363 | 4 | 34 | 40 | - | 63 | 364 | 3 | 27 | 5 | 32399 | 14 |
| 63 | 365 | 5 | 10 | 9 | - | 63 | 365 | 5 | 18 | 35 | 32413 | 14 |

TIME SPANS FOR 62-049A-01T  D# = D-61709  C# = C-23846

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 64 | 1 | 2 | 25 | 29 | - | 64 | 6 | 14 | 2 | 17 | 1 | 624 |
| 64 | 8 | 1 | 30 | 40 | - | 64 | 8 | 15 | 23 | 19 | 625 | 249 |
| 64 | 15 | 0 | 33 | 29 | - | 64 | 15 | 14 | 27 | 59 | 874 | 301 |
| 64 | 20 | 11 | 30 | 56 | - | 64 | 20 | 12 | 18 | 43 | 1175 | 120 |
| 64 | 24 | 12 | 16 | 25 | - | 64 | 24 | 13 | 3 | 19 | 1295 | 139 |
| 64 | 53 | 9 | 24 | 56 | - | 64 | 53 | 9 | 29 | 19 | 1434 | 15 |
| 64 | 90 | 1 | 40 | 50 | - | 64 | 90 | 1 | 49 | 1 | 1449 | 29 |
| 64 | 94 | 16 | 49 | 32 | - | 64 | 94 | 17 | 1 | 48 | 1478 | 42 |
| 64 | 100 | 17 | 5 | 37 | - | 64 | 100 | 17 | 22 | 16 | 1520 | 56 |
| 64 | 107 | 16 | 9 | 14 | - | 64 | 107 | 16 | 26 | 59 | 1576 | 59 |
| 64 | 116 | 1 | 1 | 13 | - | 64 | 116 | 1 | 12 | 22 | 1635 | 37 |
| 64 | 123 | 0 | 6 | 12 | - | 64 | 123 | 0 | 17 | 22 | 1672 | 37 |
| 64 | 124 | 20 | 3 | 46 | - | 64 | 124 | 20 | 15 | 47 | 1709 | 39 |
| 64 | 129 | 12 | 14 | 18 | - | 64 | 129 | 23 | 22 | 25 | 1748 | 92 |
| 64 | 134 | 11 | 48 | 14 | - | 64 | 134 | 11 | 57 | 20 | 1840 | 32 |
| 64 | 141 | 10 | 53 | 14 | - | 64 | 141 | 11 | 5 | 48 | 1872 | 40 |
| 64 | 162 | 6 | 22 | 4 | - | 64 | 162 | 19 | 6 | 57 | 1912 | 89 |
| 64 | 169 | 5 | 26 | 10 | - | 64 | 169 | 18 | 11 | 15 | 2001 | 86 |
| 64 | 176 | 15 | 32 | 22 | - | 64 | 176 | 15 | 39 | 39 | 2087 | 26 |
| 64 | 191 | 23 | 28 | 15 | - | 64 | 191 | 23 | 37 | 17 | 2113 | 32 |
| 64 | 193 | 0 | 4 | 15 | - | 64 | 193 | 0 | 13 | 16 | 2145 | 32 |
| 64 | 198 | 22 | 33 | 14 | - | 64 | 198 | 22 | 42 | 19 | 2177 | 32 |
| 64 | 200 | 23 | 48 | 32 | - | 64 | 200 | 23 | 57 | 19 | 2209 | 29 |
| 64 | 202 | 23 | 16 | 15 | - | 64 | 202 | 23 | 25 | 24 | 2238 | 32 |
| 64 | 204 | 22 | 45 | 15 | - | 64 | 204 | 22 | 54 | 22 | 2270 | 27 |
| 64 | 205 | 23 | 23 | 6 | - | 64 | 205 | 23 | 32 | 25 | 2297 | 30 |
| 64 | 207 | 22 | 51 | 15 | - | 64 | 207 | 23 | 0 | 22 | 2327 | 32 |
| 64 | 210 | 23 | 1 | 8 | - | 64 | 211 | 21 | 59 | 22 | 2359 | 60 |
| 64 | 213 | 21 | 20 | 43 | - | 64 | 213 | 21 | 28 | 1 | 2419 | 23 |
| 64 | 214 | 21 | 56 | 28 | - | 64 | 214 | 22 | 4 | 59 | 2442 | 22 |
| 64 | 216 | 21 | 25 | 23 | - | 64 | 216 | 21 | 34 | 21 | 2464 | 28 |
| 64 | 218 | 20 | 54 | 42 | - | 64 | 218 | 21 | 2 | 47 | 2492 | 24 |
| 64 | 220 | 20 | 24 | 51 | - | 64 | 220 | 20 | 30 | 8 | 2516 | 19 |
| 64 | 221 | 21 | 1 | 15 | - | 64 | 221 | 21 | 10 | 22 | 2535 | 26 |
| 64 | 223 | 20 | 30 | 15 | - | 64 | 223 | 20 | 39 | 21 | 2561 | 27 |
| 64 | 225 | 19 | 59 | 32 | - | 64 | 225 | 20 | 6 | 0 | 2588 | 23 |
| 64 | 226 | 20 | 37 | 15 | - | 64 | 226 | 20 | 42 | 15 | 2611 | 16 |
| 64 | 260 | 19 | 51 | 14 | - | 64 | 260 | 20 | 0 | 14 | 2627 | 32 |
| 64 | 272 | 18 | 30 | 31 | - | 64 | 272 | 18 | 43 | 38 | 2659 | 42 |
| 64 | 274 | 18 | 0 | 48 | - | 64 | 274 | 18 | 12 | 58 | 2701 | 41 |
| 64 | 279 | 17 | 36 | 11 | - | 64 | 279 | 17 | 45 | 12 | 2742 | 32 |
| 64 | 281 | 17 | 5 | 46 | - | 64 | 282 | 15 | 57 | 40 | 2774 | 51 |
| 64 | 300 | 23 | 59 | 28 | - | 64 | 301 | 12 | 6 | 30 | 2825 | 80 |
| 64 | 302 | 23 | 28 | 12 | - | 64 | 303 | 11 | 35 | 36 | 2905 | 73 |
| 64 | 306 | 11 | 26 | 26 | - | 64 | 306 | 11 | 38 | 18 | 2978 | 33 |
| 64 | 307 | 23 | 4 | 14 | - | 64 | 308 | 11 | 11 | 47 | 3011 | 66 |
| 64 | 309 | 11 | 39 | 27 | - | 64 | 310 | 10 | 40 | 13 | 3077 | 30 |
| 64 | 311 | 11 | 2 | 28 | - | 64 | 311 | 23 | 59 | 18 | 3107 | 71 |
| 64 | 313 | 10 | 35 | 4 | - | 64 | 315 | 10 | 16 | 56 | 3178 | 117 |
| 64 | 316 | 10 | 43 | 27 | - | 64 | 318 | 10 | 22 | 45 | 3295 | 109 |
| 64 | 319 | 10 | 58 | 54 | - | 64 | 335 | 19 | 37 | 14 | 3404 | 1322 |

TIME SPANS FOR 62-049A-01T  D# = D-61709  C# = C-23846

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 64 | 337 | 15 | 22 | 20 | - | 64 | 337 | 15 | 32 | 12 | 4726 | 29 |
| 64 | 338 | 15 | 55 | 42 | - | 64 | 343 | 6 | 30 | 56 | 4755 | 288 |
| 64 | 344 | 7 | 3 | 23 | - | 64 | 348 | 6 | 1 | 50 | 5043 | 309 |
| 64 | 349 | 6 | 34 | 11 | - | 64 | 353 | 5 | 45 | 48 | 5352 | 377 |
| 64 | 354 | 6 | 10 | 12 | - | 64 | 359 | 6 | 0 | 2 | 5729 | 453 |
| 64 | 361 | 5 | 15 | 11 | - | 65 | 1 | 3 | 45 | 5 | 6182 | 418 |
| 65 | 2 | 4 | 19 | 12 | - | 65 | 3 | 3 | 23 | 42 | 6600 | 80 |
| 65 | 4 | 11 | 18 | 9 | - | 65 | 26 | 11 | 6 | 25 | 6680 | 1231 |
| 65 | 27 | 11 | 29 | 1 | - | 65 | 28 | 23 | 58 | 38 | 7911 | 40 |
| 65 | 30 | 0 | 44 | 42 | - | 65 | 30 | 23 | 40 | 16 | 7951 | 53 |
| 65 | 32 | 0 | 10 | 47 | - | 65 | 35 | 0 | 28 | 5 | 8004 | 153 |
| 65 | 36 | 21 | 55 | 41 | - | 65 | 37 | 22 | 48 | 4 | 8157 | 72 |
| 65 | 38 | 23 | 14 | 12 | - | 65 | 40 | 9 | 13 | 19 | 8229 | 139 |
| 65 | 41 | 23 | 25 | 12 | - | 65 | 41 | 23 | 32 | 33 | 8368 | 23 |
| 65 | 43 | 20 | 59 | 50 | - | 65 | 44 | 21 | 50 | 52 | 8391 | 70 |
| 65 | 45 | 22 | 19 | 48 | - | 65 | 46 | 21 | 15 | 56 | 8461 | 62 |
| 65 | 72 | 17 | 34 | 14 | - | 65 | 72 | 17 | 43 | 14 | 8523 | 32 |
| 65 | 76 | 22 | 18 | 33 | - | 65 | 77 | 2 | 2 | 15 | 8555 | 120 |
| 65 | 78 | 16 | 5 | 53 | - | 65 | 78 | 16 | 14 | 11 | 8675 | 26 |
| 65 | 81 | 16 | 30 | 11 | - | 65 | 81 | 16 | 38 | 54 | 8701 | 31 |
| 65 | 83 | 17 | 47 | 7 | - | 65 | 89 | 18 | 11 | 24 | 8732 | 241 |
| 65 | 91 | 15 | 20 | 31 | - | 65 | 92 | 0 | 47 | 22 | 8973 | 120 |
| 65 | 93 | 3 | 12 | 11 | - | 65 | 96 | 1 | 50 | 0 | 9093 | 214 |
| 65 | 97 | 2 | 10 | 12 | - | 65 | 98 | 1 | 17 | 35 | 9307 | 98 |
| 65 | 99 | 1 | 49 | 17 | - | 65 | 102 | 15 | 45 | 12 | 9405 | 514 |
| 65 | 106 | 12 | 51 | 48 | - | 65 | 106 | 12 | 53 | 51 | 9919 | 8 |
| 65 | 108 | 0 | 50 | 16 | - | 65 | 108 | 0 | 52 | 18 | 9927 | 8 |
| 65 | 113 | 0 | 25 | 1 | - | 65 | 113 | 0 | 30 | 28 | 9935 | 16 |
| 65 | 114 | 23 | 49 | 9 | - | 65 | 116 | 13 | 50 | 27 | 9951 | 180 |
| 65 | 118 | 13 | 11 | 40 | - | 65 | 118 | 22 | 31 | 57 | 10131 | 59 |
| 65 | 119 | 23 | 3 | 32 | - | 65 | 120 | 11 | 3 | 34 | 10190 | 76 |
| 65 | 121 | 22 | 27 | 34 | - | 65 | 123 | 16 | 39 | 17 | 10266 | 239 |
| 65 | 125 | 12 | 23 | 12 | - | 65 | 125 | 12 | 32 | 18 | 10505 | 32 |
| 65 | 128 | 21 | 22 | 25 | - | 65 | 129 | 11 | 30 | 16 | 10537 | 64 |
| 65 | 135 | 20 | 27 | 33 | - | 65 | 135 | 21 | 6 | 10 | 10601 | 49 |
| 65 | 137 | 9 | 17 | 9 | - | 65 | 137 | 9 | 26 | 18 | 10650 | 32 |
| 65 | 141 | 8 | 15 | 14 | - | 65 | 141 | 8 | 16 | 7 | 10682 | 4 |
| 65 | 142 | 19 | 32 | 5 | - | 65 | 143 | 20 | 51 | 14 | 10686 | 168 |
| 65 | 147 | 7 | 56 | 16 | - | 65 | 147 | 19 | 20 | 53 | 10854 | 108 |
| 65 | 149 | 18 | 36 | 26 | - | 65 | 149 | 19 | 18 | 14 | 10962 | 64 |
| 65 | 165 | 18 | 10 | 55 | - | 65 | 165 | 18 | 21 | 11 | 11026 | 33 |
| 65 | 344 | 16 | 55 | 55 | - | 65 | 344 | 16 | 55 | 55 | 11059 | 1 |
| 65 | 347 | 17 | 1 | 5 | - | 65 | 347 | 17 | 2 | 49 | 11060 | 4 |
| 65 | 350 | 17 | 3 | 36 | - | 65 | 351 | 16 | 0 | 17 | 11064 | 7 |
| 65 | 354 | 16 | 2 | 20 | - | 65 | 356 | 15 | 32 | 3 | 11071 | 7 |
| 65 | 357 | 16 | 9 | 36 | - | 65 | 357 | 16 | 9 | 53 | 11078 | 2 |
| 66 | 75 | 18 | 4 | 14 | - | 66 | 75 | 18 | 17 | 40 | 11080 | 43 |
| 66 | 77 | 17 | 32 | 16 | - | 66 | 77 | 17 | 47 | 9 | 11123 | 47 |
| 66 | 84 | 16 | 37 | 18 | - | 66 | 84 | 16 | 51 | 13 | 11170 | 44 |
| 66 | 89 | 16 | 13 | 50 | - | 66 | 89 | 16 | 27 | 13 | 11214 | 44 |

```
$NOP
$NOP
$NOP ***** LIST OF DOUT1 ********
$EXE TPLIST BS

INPUT PARAMETERS ARE:  EC FL=1=1

 TAPE NO.   1              FILE NO.   1
 RECORD     1              LENGTH    260
4XT 72 0 62 272 1941/03X  03.88  294.0 043.122E11 18 1.01 -125.9 +51.57 54       01.031023.01.070994
.01.160935.01.250877.01.340824.01.430777.01.530736.01.620699.01.710666.01.810636.02.290529.02.78045
0.03.260382.03.460356.03.650331.03.750318.03.840303.03.870298.

 TAPE NO.   1              FILE NO.   1
 RECORD     32429          LENGTH    272
4XT-71 8 63 365 518/35K    2.70  233.9  10.794E11 19 1.00 -123.7 -65.04 85       0.411031. 0.45 956
. 0.46 856. 0.49 783. 0.52 720. 0.56 666. 0.65 582. 0.74 519. 0.84 475. 0.95 444. 1.05 418. 1.16 39
7. 1.26 380. 1.37 366. 1.47 354. 1.57 342. 1.68 331. 2.19 285. 2.69 241.

***** JOB DONE.
$WEOL PS
```

D-61708
9/29/62 - 12/31/63

```
$$
```

D-61709
1/1/64 - 3/30/66

```
$NOP
$NOP ******** DOUT=2 ********
$EXEC TPLIST BS

INPUT PARAMETERS ARE:  ED FL=1=1 1

 TAPE NO.   1                  FILE NO.   1
 RECORD   1 Year 1964 Day 1    LENGTH   260
4XT-62 6 64  1  225/11K   7.11  282.1 105.801E11 18 0.84  -81.2 -64.07 86       1.121032. 1.20 983
. 1.29 926. 1.38 879. 1.48 839. 1.96 698. 2.45 606. 2.94 542. 3.43 495. 3.93 462. 4.43 433. 4.92 40
7. 5.42 385. 5.92 362. 6.41 339. 6.91 309. 7.00 301. 7.10 288.

 TAPE NO.   1                  FILE NO.   1
 RECORD   11252 Year 1964 - Day 89   LENGTH   232
4XT 80 7 66  89 1627/13G   4.06  301.5  49.915E11 15 1.02   66.8  70.62 99       1.191052. 1.27 983
. 1.36 919. 1.45 863. 1.54 814. 1.63 771. 1.73 730. 1.82 696. 2.30 571. 2.78 481. 3.27 410. 3.76 34
6. 3.86 333. 3.95 321. 4.05 307.

***** JOB DONE.
$WEO LPS

$$
```

ALOUETTE-1

CRC N(H) DATA, N + HGT COEF, TAPE

62-049A-01U

This data set has been restored. There was originally 1 9-track, 1600 BPI tape written in EBCDIC. There is one restored tape written in EBCDIC. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The tape was created on a Modcomp computer. The DR and DS numbers along with the corresponding D number and the time span is as follows:

| DR# | DS# | DD# | FILES | TIME SPAN |
|---|---|---|---|---|
| DR03635 | DS03635 | D61710 | 1 | 11/19/62 - 12/16/71 |

ALOUETTE 1

CRC N(H) DATA, N + HGT COEF

62-049A-01U

This data set, prepared from tapes created by the Communications Research Centre (CRC) in Ottawa, Canada, consists of electron density profiles for the ionosphere above the F2 maximum (topside ionosphere). This data set consists of 1 9-track, 1600 bpi, odd-parity, EBCDIC tape, and is written on a MODCOMP IV computer. Records contain 1 logical record per physical record and are variable length with a maximum blocksize of 900 bytes. The tape was created by merging tapes which contain similar data from data set 62-049A-01G with data set 62-049A-01M, sorting the data by time, and regenerating the data back on tape. The data set includes about 2.7E4 profiles obtained primarily during the period 1963 to 1967. During the merging of this data, occurences of duplicate times were detected, each occurence was included in the merged data set as it represents a different profile. Profiles were not obtained for the complete time period, please check the documentation page entitled TIME SPANS FOR 62-049A-01U for desired time period.

The electron density profiles were computed from digital values of frequency and virtual height, which had in turn been scaled from the ionograms. Profiles were selected because of their scientific interest. Telemetry stations are not identified, but satellite location, time of observation, solar zenith angle at the satellite, magnetic dip at the satellite, total content down to the lowest altitude of topside ionospheric reflection, and other relevant information are listed for each profile. The format gives sequences of numbers for each point scaled from the ionogram. These sequences include electron density at the successive points, and the coefficient a2, b3, b4, b5, etc. from which geometric heights can be calculated, using formulas 40 and 41 in J. E. Jackson, Proceedings of the IEEE., p. 960, June 1969. These formulas can also be used to calculate interpolated density-height values. A CRC interpolation program (available at NSSDC) can be used with this data set. These data make up a a very small portion of the recorded Alouette 1 ionograms. Latitudinal coverage is widespread, but data at longitudes near 80 deg W are more numerous than others.

| D# | C# | TIME SPAN |
|---|---|---|
| D-61710 | C-23847 | 11/19/62 - 12/16/71 |

## DATA FORMAT FOR 62-049A-01U

| CHARACTER POSTION | FORMAT | DESCRIPTION |
|---|---|---|
| 1 | Literal 4 | Represents description for TOPSIDE |
| 2 | Literal X | profile calculated from the |
| 3 | Literal T | X-wave. |
| 4- 6 | I3 | Dip angle |
| 7- 8 | I2 | Quality code |
| 9-11 | I3 | Year |
| 12-15 | I4 | Day of year |
| 16 | 1X | Blank |
| 17-20 | 2I2 | Hours and minutes |
| 21 | Literal / | Slash |
| 22-23 | I2 | Seconds |
| 24-38 | 15X | Blanks |
| 32-38 | F8.2 | HMAX |
| 39-49 | E11.3 | Total electron content (e/cm2) |
| 50 | 1X | Blank |
| 51-52 | I2 | N=number of pairs of data in profile |
| 53 | 1X | Blank |
| 54-57 | F4.2 | Gyrofrequency (MHz) |
| 58-64 | F7.1 | Longitude |
| 65-71 | F7.2 | Latitude |
| 72-74 | I3 | Solar zenith angle |
| 75-80 | 6X | Blanks |

Character positions 81 - end of the record consists of N (bytes 51-52) pairs of electron density profiles with a format of F10.2, F10.2. For a description of these profiles read enclosed documentation.

TIME SPANS FOR 62-049A-01U  D# = D-61710  C# = C-23847

| START | | | | | | STOP | | | | | START RECORD | NUMBER RECORDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | | |
| 62 | 333 | 20 | 7 | 32 | - | 62 | 323 | 20 | 17 | 38 | 1 | 32 |
| 62 | 337 | 18 | 18 | 17 | - | 62 | 337 | 18 | 27 | 30 | 34 | 31 |
| 63 | 2 | 8 | 40 | 32 | - | 63 | 2 | 8 | 47 | 55 | 65 | 20 |
| 63 | 4 | 8 | 9 | 26 | - | 63 | 4 | 8 | 17 | 8 | 85 | 26 |
| 63 | 5 | 8 | 46 | 6 | - | 63 | 5 | 8 | 52 | 53 | 111 | 24 |
| 63 | 9 | 7 | 45 | 12 | - | 63 | 9 | 8 | 4 | 22 | 135 | 34 |
| 63 | 10 | 8 | 22 | 14 | - | 63 | 10 | 8 | 41 | 41 | 169 | 50 |
| 63 | 12 | 7 | 51 | 14 | - | 63 | 13 | 7 | 2 | 23 | 219 | 64 |
| 63 | 22 | 12 | 57 | 4 | - | 63 | 23 | 12 | 0 | 0 | 283 | 84 |
| 63 | 25 | 8 | 50 | 16 | - | 63 | 25 | 13 | 18 | 51 | 367 | 143 |
| 63 | 27 | 8 | 20 | 21 | - | 63 | 27 | 8 | 46 | 17 | 510 | 73 |
| 63 | 28 | 11 | 30 | 46 | - | 63 | 28 | 13 | 25 | 48 | 583 | 63 |
| 63 | 46 | 21 | 48 | 26 | - | 63 | 46 | 21 | 54 | 2 | 646 | 20 |
| 63 | 51 | 21 | 20 | 11 | - | 63 | 51 | 21 | 27 | 22 | 666 | 24 |
| 63 | 53 | 20 | 53 | 30 | - | 63 | 53 | 20 | 59 | 22 | 690 | 21 |
| 63 | 58 | 20 | 25 | 18 | - | 63 | 58 | 20 | 34 | 57 | 711 | 33 |
| 63 | 65 | 19 | 31 | 57 | - | 63 | 65 | 19 | 40 | 9 | 744 | 29 |
| 63 | 72 | 18 | 34 | 16 | - | 63 | 72 | 18 | 45 | 23 | 773 | 38 |
| 63 | 81 | 17 | 8 | 9 | - | 63 | 81 | 17 | 19 | 33 | 811 | 39 |
| 63 | 95 | 15 | 19 | 5 | - | 63 | 95 | 15 | 29 | 5 | 850 | 34 |
| 63 | 107 | 14 | 1 | 58 | - | 63 | 107 | 14 | 11 | 7 | 884 | 32 |
| 63 | 114 | 13 | 4 | 4 | - | 63 | 114 | 13 | 15 | 44 | 916 | 40 |
| 63 | 122 | 7 | 33 | 17 | - | 63 | 122 | 7 | 42 | 28 | 956 | 25 |
| 63 | 183 | 14 | 19 | 16 | - | 63 | 183 | 14 | 24 | 31 | 981 | 19 |
| 63 | 257 | 0 | 13 | 13 | - | 63 | 257 | 23 | 33 | 19 | 1000 | 693 |
| 63 | 266 | 23 | 24 | 15 | - | 63 | 268 | 23 | 11 | 30 | 1693 | 1239 |
| 63 | 270 | 15 | 9 | 40 | - | 63 | 270 | 17 | 10 | 52 | 2932 | 47 |
| 63 | 272 | 14 | 44 | 20 | - | 63 | 273 | 15 | 30 | 8 | 2979 | 83 |
| 63 | 291 | 0 | 33 | 39 | - | 63 | 291 | 0 | 47 | 37 | 3062 | 37 |
| 63 | 295 | 1 | 12 | 15 | - | 63 | 297 | 23 | 48 | 42 | 3099 | 2382 |
| 63 | 300 | 23 | 38 | 59 | - | 63 | 300 | 23 | 50 | 43 | 5481 | 34 |
| 63 | 303 | 4 | 41 | 17 | - | 63 | 303 | 23 | 56 | 47 | 5515 | 245 |
| 63 | 309 | 11 | 19 | 54 | - | 63 | 309 | 11 | 31 | 19 | 5760 | 38 |
| 63 | 325 | 19 | 57 | 39 | - | 63 | 325 | 20 | 12 | 46 | 5798 | 51 |
| 63 | 353 | 16 | 17 | 2 | - | 63 | 353 | 16 | 32 | 8 | 5849 | 51 |
| 64 | 9 | 23 | 11 | 9 | - | 64 | 10 | 1 | 10 | 27 | 5900 | 67 |
| 64 | 12 | 22 | 53 | 19 | - | 64 | 12 | 22 | 53 | 19 | 5967 | 1 |
| 64 | 14 | 21 | 0 | 10 | - | 64 | 15 | 21 | 49 | 59 | 5968 | 142 |
| 64 | 16 | 22 | 16 | 11 | - | 64 | 17 | 0 | 12 | 15 | 6110 | 35 |
| 64 | 20 | 21 | 15 | 2 | - | 64 | 20 | 23 | 9 | 37 | 6145 | 58 |
| 64 | 48 | 21 | 14 | 16 | - | 64 | 48 | 21 | 45 | 31 | 6203 | 96 |
| 64 | 87 | 15 | 43 | 0 | - | 64 | 87 | 15 | 53 | 15 | 6299 | 34 |
| 64 | 88 | 16 | 37 | 36 | - | 64 | 88 | 16 | 46 | 21 | 6333 | 31 |
| 64 | 91 | 1 | 7 | 8 | - | 64 | 93 | 23 | 39 | 18 | 6364 | 1650 |
| 64 | 137 | 9 | 8 | 56 | - | 64 | 137 | 9 | 16 | 12 | 8014 | 19 |
| 64 | 149 | 20 | 2 | 8 | - | 64 | 149 | 20 | 10 | 14 | 8033 | 24 |
| 64 | 153 | 7 | 43 | 47 | - | 64 | 154 | 6 | 39 | 58 | 8057 | 40 |
| 64 | 155 | 7 | 12 | 5 | - | 64 | 155 | 7 | 28 | 37 | 8097 | 24 |
| 64 | 158 | 7 | 20 | 25 | - | 64 | 158 | 7 | 33 | 50 | 8121 | 25 |
| 64 | 160 | 6 | 48 | 40 | - | 64 | 160 | 7 | 0 | 55 | 8146 | 28 |
| 64 | 247 | 23 | 55 | 15 | - | 64 | 248 | 0 | 3 | 59 | 8174 | 30 |

TIME SPANS FOR 62-049A-01U  D# = D-61710  C# = C-23847

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 64 | 284 | 19 | 8 | 42 | - | 64 | 284 | 19 | 18 | 25 | 8204 | 31 |
| 64 | 296 | 23 | 34 | 19 | - | 64 | 296 | 23 | 41 | 23 | 8235 | 22 |
| 64 | 327 | 16 | 1 | 20 | - | 64 | 329 | 22 | 49 | 37 | 8257 | 962 |
| 65 | 7 | 1 | 13 | 27 | - | 65 | 7 | 12 | 28 | 41 | 9219 | 53 |
| 65 | 11 | 11 | 19 | 5 | - | 65 | 11 | 11 | 27 | 30 | 9272 | 28 |
| 65 | 17 | 23 | 16 | 3 | - | 65 | 17 | 23 | 24 | 30 | 9300 | 29 |
| 65 | 19 | 9 | 14 | 16 | - | 65 | 19 | 22 | 54 | 16 | 9329 | 57 |
| 65 | 20 | 23 | 22 | 48 | - | 65 | 21 | 10 | 38 | 17 | 9386 | 48 |
| 65 | 23 | 23 | 31 | 42 | - | 65 | 24 | 8 | 59 | 50 | 9434 | 57 |
| 65 | 32 | 9 | 49 | 31 | - | 65 | 35 | 21 | 0 | 21 | 9491 | 438 |
| 65 | 37 | 9 | 24 | 13 | - | 65 | 40 | 20 | 39 | 38 | 9929 | 364 |
| 65 | 52 | 16 | 6 | 24 | - | 65 | 54 | 17 | 31 | 58 | 10293 | 116 |
| 65 | 60 | 0 | 3 | 30 | - | 65 | 60 | 8 | 4 | 49 | 10409 | 73 |
| 65 | 80 | 15 | 35 | 16 | - | 65 | 80 | 15 | 42 | 31 | 10482 | 26 |
| 65 | 92 | 2 | 45 | 55 | - | 65 | 93 | 15 | 24 | 35 | 10508 | 116 |
| 65 | 95 | 2 | 45 | 43 | - | 65 | 95 | 14 | 49 | 7 | 10624 | 62 |
| 65 | 100 | 19 | 38 | 16 | - | 65 | 100 | 23 | 31 | 59 | 10686 | 123 |
| 65 | 102 | 1 | 45 | 22 | - | 65 | 102 | 15 | 45 | 12 | 10809 | 107 |
| 65 | 104 | 15 | 1 | 23 | - | 65 | 105 | 0 | 21 | 29 | 10916 | 60 |
| 65 | 106 | 0 | 44 | 4 | - | 65 | 106 | 23 | 50 | 4 | 10976 | 698 |
| 65 | 108 | 0 | 9 | 24 | - | 65 | 110 | 0 | 0 | 30 | 11674 | 1541 |
| 65 | 113 | 11 | 51 | 26 | - | 65 | 113 | 11 | 58 | 10 | 13215 | 24 |
| 65 | 114 | 23 | 13 | 17 | - | 65 | 115 | 4 | 44 | 59 | 13239 | 94 |
| 65 | 116 | 12 | 3 | 33 | - | 65 | 116 | 13 | 54 | 16 | 13333 | 47 |
| 65 | 119 | 22 | 53 | 42 | - | 65 | 119 | 23 | 3 | 6 | 13380 | 33 |
| 65 | 121 | 8 | 8 | 34 | - | 65 | 150 | 19 | 34 | 53 | 13413 | 3551 |
| 65 | 164 | 1 | 19 | 24 | - | 65 | 164 | 19 | 29 | 14 | 16964 | 758 |
| 65 | 166 | 2 | 3 | 15 | - | 65 | 168 | 20 | 5 | 45 | 17722 | 1901 |
| 65 | 307 | 21 | 53 | 3 | - | 65 | 307 | 22 | 22 | 12 | 19623 | 94 |
| 65 | 308 | 22 | 32 | 15 | - | 65 | 309 | 21 | 55 | 25 | 19717 | 202 |
| 65 | 310 | 21 | 58 | 17 | - | 65 | 310 | 22 | 35 | 20 | 19919 | 121 |
| 65 | 334 | 19 | 21 | 16 | - | 65 | 336 | 17 | 21 | 2 | 20040 | 256 |
| 66 | 91 | 15 | 46 | 57 | - | 66 | 91 | 15 | 48 | 58 | 20296 | 8 |
| 66 | 96 | 15 | 23 | 1 | - | 66 | 96 | 15 | 23 | 53 | 20304 | 4 |
| 66 | 99 | 17 | 14 | 12 | - | 66 | 100 | 14 | 23 | 1 | 20308 | 20 |
| 66 | 121 | 15 | 8 | 29 | - | 66 | 126 | 12 | 56 | 49 | 20328 | 720 |
| 66 | 128 | 21 | 37 | 20 | - | 66 | 128 | 21 | 38 | 47 | 21048 | 6 |
| 66 | 130 | 21 | 6 | 28 | - | 66 | 130 | 21 | 7 | 57 | 21054 | 5 |
| 66 | 134 | 21 | 45 | 16 | - | 66 | 135 | 22 | 34 | 0 | 21059 | 102 |
| 66 | 138 | 20 | 41 | 9 | - | 66 | 138 | 20 | 55 | 45 | 21161 | 19 |
| 66 | 139 | 21 | 27 | 28 | - | 66 | 140 | 20 | 21 | 1 | 21180 | 104 |
| 66 | 141 | 20 | 52 | 17 | - | 66 | 143 | 9 | 28 | 53 | 21284 | 127 |
| 66 | 144 | 9 | 56 | 16 | - | 66 | 147 | 19 | 24 | 27 | 21411 | 894 |
| 66 | 148 | 19 | 53 | 46 | - | 66 | 148 | 20 | 5 | 29 | 22305 | 36 |
| 66 | 149 | 20 | 39 | 28 | - | 66 | 149 | 20 | 43 | 11 | 22341 | 14 |
| 66 | 152 | 13 | 21 | 5 | - | 66 | 152 | 13 | 34 | 11 | 22355 | 42 |
| 66 | 165 | 7 | 10 | 17 | - | 66 | 165 | 16 | 32 | 18 | 22397 | 75 |
| 66 | 167 | 1 | 33 | 6 | - | 66 | 167 | 1 | 34 | 15 | 22472 | 5 |
| 66 | 186 | 4 | 23 | 35 | - | 66 | 192 | 13 | 49 | 12 | 22477 | 1053 |
| 66 | 201 | 6 | 47 | 29 | - | 66 | 201 | 6 | 55 | 19 | 23530 | 28 |
| 66 | 215 | 18 | 57 | 4 | - | 66 | 215 | 19 | 4 | 20 | 23558 | 24 |

TIME SPANS FOR 62-049A-01U  D# = D-61710  C# = C-23847

| START | | | | | | STOP | | | | | START | NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YY | DDD | HH | MM | SS | - | YY | DDD | HH | MM | SS | RECORD | RECORDS |
| 66 | 218 | 11 | 9 | 4 | - | 66 | 218 | 11 | 14 | 1 | 23582 | 14 |
| 66 | 219 | 17 | 53 | 40 | - | 66 | 219 | 18 | 2 | 25 | 23596 | 14 |
| 66 | 222 | 10 | 5 | 10 | - | 66 | 222 | 10 | 8 | 22 | 23610 | 5 |
| 66 | 223 | 16 | 51 | 57 | - | 66 | 223 | 17 | 1 | 17 | 23615 | 23 |
| 66 | 224 | 22 | 43 | 5 | - | 66 | 224 | 22 | 47 | 27 | 23638 | 16 |
| 66 | 226 | 22 | 12 | 19 | - | 66 | 226 | 22 | 21 | 21 | 23654 | 31 |
| 66 | 231 | 21 | 47 | 16 | - | 66 | 231 | 22 | 0 | 13 | 23685 | 38 |
| 66 | 233 | 21 | 22 | 31 | - | 66 | 233 | 21 | 26 | 18 | 23723 | 13 |
| 66 | 246 | 1 | 18 | 19 | - | 66 | 247 | 19 | 33 | 31 | 23736 | 320 |
| 66 | 256 | 0 | 29 | 19 | - | 66 | 256 | 21 | 48 | 18 | 24056 | 379 |
| 66 | 277 | 3 | 12 | 8 | - | 66 | 277 | 3 | 25 | 22 | 24435 | 39 |
| 66 | 278 | 10 | 43 | 10 | - | 66 | 278 | 10 | 49 | 11 | 24474 | 21 |
| 66 | 281 | 2 | 10 | 6 | - | 66 | 281 | 2 | 16 | 8 | 24495 | 21 |
| 66 | 290 | 9 | 23 | 9 | - | 66 | 290 | 9 | 28 | 11 | 24516 | 17 |
| 66 | 294 | 8 | 21 | 13 | - | 66 | 294 | 8 | 27 | 1 | 24533 | 21 |
| 66 | 296 | 22 | 15 | 7 | - | 66 | 296 | 23 | 53 | 58 | 24554 | 27 |
| 66 | 331 | 19 | 18 | 47 | - | 66 | 331 | 19 | 27 | 25 | 24581 | 28 |
| 66 | 338 | 18 | 22 | 31 | - | 66 | 338 | 18 | 31 | 25 | 24609 | 32 |
| 66 | 344 | 20 | 15 | 12 | - | 66 | 345 | 17 | 35 | 26 | 24641 | 46 |
| 66 | 352 | 16 | 30 | 50 | - | 66 | 352 | 16 | 41 | 11 | 24687 | 34 |
| 67 | 4 | 3 | 43 | 15 | - | 67 | 4 | 23 | 24 | 58 | 24721 | 281 |
| 67 | 7 | 2 | 5 | 16 | - | 67 | 8 | 22 | 13 | 28 | 25002 | 694 |
| 67 | 12 | 1 | 26 | 19 | - | 67 | 15 | 21 | 18 | 32 | 25696 | 1050 |
| 67 | 34 | 3 | 19 | 18 | - | 67 | 34 | 19 | 0 | 22 | 26746 | 203 |
| 67 | 38 | 0 | 14 | 16 | - | 67 | 38 | 0 | 23 | 19 | 26949 | 31 |
| 67 | 42 | 6 | 22 | 18 | - | 67 | 43 | 7 | 9 | 22 | 26980 | 125 |
| 67 | 45 | 6 | 29 | 25 | - | 67 | 45 | 6 | 38 | 26 | 27105 | 32 |
| 67 | 48 | 9 | 6 | 19 | - | 67 | 50 | 6 | 21 | 12 | 27137 | 126 |
| 67 | 54 | 10 | 27 | 19 | - | 67 | 54 | 10 | 36 | 15 | 27263 | 32 |
| 67 | 101 | 18 | 20 | 22 | - | 67 | 101 | 18 | 29 | 15 | 27295 | 32 |
| 67 | 103 | 17 | 41 | 36 | - | 67 | 104 | 3 | 5 | 14 | 27327 | 49 |
| 67 | 193 | 0 | 1 | 6 | - | 67 | 193 | 0 | 7 | 2 | 27376 | 12 |
| 67 | 313 | 16 | 26 | 38 | - | 67 | 313 | 16 | 33 | 17 | 27388 | 24 |
| 67 | 321 | 16 | 6 | 37 | - | 67 | 321 | 16 | 10 | 57 | 27412 | 16 |
| 68 | 37 | 9 | 59 | 30 | - | 68 | 37 | 10 | 4 | 26 | 27428 | 18 |
| 68 | 87 | 15 | 50 | 36 | - | 68 | 87 | 15 | 53 | 11 | 27446 | 10 |
| 68 | 138 | 2 | 22 | 35 | - | 68 | 138 | 2 | 30 | 58 | 27456 | 27 |
| 68 | 193 | 21 | 46 | 29 | - | 68 | 193 | 21 | 55 | 24 | 27483 | 29 |
| 68 | 209 | 19 | 22 | 31 | - | 68 | 209 | 19 | 31 | 32 | 27512 | 32 |
| 71 | 350 | 22 | 14 | 29 | - | 71 | 350 | 22 | 21 | 28 | 27544 | 32 |

D-61710
11/19/62 -
12/16/71

```
$NOP
$NOP
$NOP ********** DOUT3
$EXEC TPLIST BS

INPUT PARAMETERS ARE:  ED FL=1=1 1

 TAPE NO.  1                  FILE NO.   1
 RECORD    1                  LENGTH   240
4XT 83 8 62 323 20 7/14                  49.457E11  8 1.07  -81.8  59.83 87        20222.69   1019.2
6  30204.35   -336.82  41725.66      3.05  66398.24      81.74  96627.70      42.13 147749.06      45.
85 194819.14     50.21 247471.70     22.53

 TAPE NO.  1                  FILE NO.   1
 RECORD    27557              LENGTH   160
4XT 84 8 71 350 2221/28                  9.582E11  41.283 -131.5  73.01 98        25203.76    563.6
3  36820.18   -205.16  50844.94   -211.92  55352.89  -4588.30

***** JOB DONE.
$WEO LPS
```

year 1962 Day 323

year 1971 Day 350

$$