

4  
Nov 69

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |            | LOCATION |            |                     |                           | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                           |                           |                             |                   | REMARKS  |  |  |
|---------------------------------------------------------------------------|-------------|-------|-------|------------|----------|------------|---------------------|---------------------------|------------------|----------------------|-------|------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|----------|--|--|
|                                                                           | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL<br>DISTANCE | MCMATH<br>PLAGE<br>REGION | CMP<br>DAY       |                      | COND. | TYPE | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |          |  |  |
|                                                                           |             |       |       |            | LAT.     | MER. DIST. |                     |                           |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
|                                                                           | 1969        |       |       |            |          |            |                     |                           |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
|                                                                           | NOV         |       |       |            |          |            |                     |                           |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
| GRP26266                                                                  | 01          | 0007  | 0049  | 0016       | N10      | W87        | .998                | 10385                     | 25.5             | 42                   | 1N    |      |              | .67                       |                           |                             |                   | 3 3 3 5  |  |  |
| CRON                                                                      | 01          | 0007  | 0030  | 0010       | N09      | W80        | .983                | 10385                     | 26.0             | 23                   | 1N    |      |              | .83                       | 2.60                      |                             |                   |          |  |  |
| CULG                                                                      | 01          | 0007  | 0049  | 0016       | N10      | W87        | .998                | 10385                     | 25.5             | 42                   | 1N    |      | 0016         | .67                       |                           |                             |                   |          |  |  |
| VORO                                                                      | 01          | 0012  | 0026  | 0016       | N04      | W87        | .998                | 10385                     | 25.5             | 14                   | 1F    |      | 0016         | .84                       | 5.60                      |                             | 57                | E        |  |  |
| GRP26271                                                                  | 01          | 1500  | 1519  | 1505       | N07      | W90        | 1.000               | 10385                     | 25.9             | 19                   | -N    |      |              | .73                       |                           |                             |                   | 4 4 4 7  |  |  |
| MEUD                                                                      | 01          | 1459  | 1504  |            | N08      | W90        | 1.000               | 10385                     | 25.9             | 50                   | -N    |      | 1502         | .52                       |                           |                             |                   |          |  |  |
| HTPR                                                                      | 01          | 1500  | 1520  | 1503       | N05      | W90        | 1.000               | 10385                     | 25.9             | 20                   | -N    |      | 1503         | .83                       |                           |                             |                   | A        |  |  |
| CAPE                                                                      | 01          | 1500  | 1520  | 1505       | N07      | W90        | 1.000               | 10385                     | 25.9             | 20                   | -N    |      | 1505         | .88                       |                           |                             |                   |          |  |  |
| CANR                                                                      | 01          | 1501  | 1518  | 1506       | N08      | W90        | 1.000               | 10385                     | 25.9             | 17                   | 1N    |      |              | .70                       | 2.80                      |                             |                   |          |  |  |
| 272 PALE                                                                  | 01          | 1738  | 1754  | 1741       | N11      | E85        | .995                | 10406                     | 8.1              | 16                   | --F   |      |              | .21                       |                           |                             |                   | 3        |  |  |
| GRP26273                                                                  | 01          | 2139  | 2200  | 2148       | S06      | W20        | .383                | 10394                     | 31.4             | 21                   | --F   |      |              | .52                       |                           |                             |                   | 2 2 1 5  |  |  |
| PALE                                                                      | 01          | 2139  | 2200  | 2148       | S05      | W21        | .391                | 10394                     | 31.3             | 21                   | -N    |      |              | .52                       |                           |                             |                   |          |  |  |
| BOUL                                                                      | 01          | 2145E | 2147D |            | S07      | W18        | .363                | 10394                     | 31.6             | 20                   | -F    |      |              |                           |                           |                             |                   |          |  |  |
| GRP26274                                                                  | 01          | 2319  | 2342  | 2326       | N22      | E03        | .306                | 10397                     | 2.2              | 23                   | -N    |      |              | 1.06                      |                           |                             |                   | 3 3 3 5  |  |  |
| SACP                                                                      | 01          | 2318  | 2341  | 2324       | N22      | E03        | .306                | 10397                     | 2.2              | 23                   | -N    |      |              | 1.11                      | 1.10                      |                             |                   | F        |  |  |
| CRON                                                                      | 01          | 2320  | 2345  | 2328       | N22      | E05        | .313                | 10397                     | 2.3              | 25                   | -F    |      |              | 1.55                      | 1.60                      |                             |                   |          |  |  |
| MITK                                                                      | 01          | 2323E | 2340  |            | N23      | E02        | .321                | 10397                     | 2.1              | 17D                  | -N    |      | 2323         | .52                       | .60                       |                             |                   | D        |  |  |
| GRP26275                                                                  | 02          | 0022  | 0049  | 0033       | N25      | E04        | .359                | 10397                     | 2.3              | 27                   | --F   |      |              | 1.60                      |                           |                             |                   | 2 2 2 4  |  |  |
| CULG                                                                      | 02          | 0008  | 0105  | 0031       | N26      | E05        | .378                | 10397                     | 2.4              | 57                   | 1N    |      | 0031         | 2.89                      | 3.08                      |                             |                   | RLS      |  |  |
| CRON                                                                      | 02          | 0015  | 0045  | 0016       | N25      | E01        | .354                | 10397                     | 2.1              | 30                   | -F    |      |              | 1.13                      | 1.20                      |                             |                   |          |  |  |
| MANI                                                                      | 02          | 0029  | 0053  | 0035       | N24      | E04        | .343                | 10397                     | 2.3              | 24                   | -F    | 2    | 0035         | .31                       | .32                       |                             |                   |          |  |  |
| GRP26277                                                                  | 02          | 0430  | 0456  | 0441       | S04      | W26        | .458                | 10394                     | 31.2             | 26                   | -F    |      |              | 1.19                      |                           |                             |                   | 2 2 2 5  |  |  |
| CULG                                                                      | 02          | 0424  | 0459  | 0442       | S03      | W27        | .469                | 10394                     | 31.2             | 35                   | 1N    |      | 0442         | 1.86                      | 2.07                      |                             |                   |          |  |  |
| MANI                                                                      | 02          | 0436  | 0452  | 0440       | S05      | W25        | .449                | 10394                     | 31.3             | 16                   | -F    | 2    | 0440         | .52                       | .58                       |                             |                   |          |  |  |
| GRP26278                                                                  | 02          | 0513  | 0533  | 0518       | N12      | E79        | .979                | 10406                     | 8.1              | 20                   | 1F    |      |              | 1.08                      |                           |                             |                   | 2 2 2 5  |  |  |
| CRON                                                                      | 02          | 0512  | 0530  | 0515       | N11      | E80        | .983                | 10406                     | 8.2              | 18                   | 1F    |      |              | 1.44                      | 4.20                      |                             |                   | H        |  |  |
| MITK                                                                      | 02          | 0514  | 0535  | 0520       | N13      | E77        | .972                | 10406                     | 8.0              | 21                   | 1N    |      | 0520         | .72                       |                           |                             |                   | EH       |  |  |
| 6 STATIONS REPORTING GROUP 26280. 6 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |            |          |            |                     |                           |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
| GRP26280                                                                  | 02          | 1102  | 1220  | 1138       | N16      | W90        | 1.000               | 10385                     | 26.7             | 78                   | 1B    |      |              | .97                       |                           |                             |                   | 4 3 1 11 |  |  |
| KODA                                                                      | 02          | 1028  | 1157D | 1139       | N22      | W90        | 1.000               | 10385                     | 26.7             | 89D                  | 3B    |      | 1139         |                           |                           | 4.96                        |                   | C        |  |  |
| CAPE                                                                      | 02          | 1102  | 1220  | 1137       | N13      | W90        | 1.000               | 10385                     | 26.7             | 78                   | -N    |      | 1137         | .97                       |                           |                             |                   | AK       |  |  |
| CAPE                                                                      | 02          | 1102  | 1220  | 1146       | N12      | W90        | 1.000               | 10385                     | 26.7             | 78                   | -N    |      | 1146         | .88                       |                           |                             |                   |          |  |  |
| CAPR                                                                      | 02          | 1103E | 1130D |            | N14      | W87        | .998                | 10385                     | 26.9             | 27D                  | 1N    |      | 1106         | .62                       |                           |                             |                   | AH       |  |  |
| HURB                                                                      | 02          | 1108E | 1201D |            | N15      | W90        | 1.000               | 10385                     | 26.7             | 53D                  | 1B    |      |              |                           |                           | 7.30                        |                   | A        |  |  |
| 26280                                                                     | 02          | 0939  | 1125  | 0939       | N15      | W90        | 1.000               | 10385                     | 26.7             | 106                  | *1F   |      |              | 1.07                      |                           |                             |                   | 2 1 1 14 |  |  |
| ABST                                                                      | 02          | 0939E | 1125D | 0939       | N15      | W90        | 1.000               | 10385                     | 26.7             | 106D                 | 1F    |      | 0939         | 1.07                      |                           |                             |                   | A        |  |  |
| MONT                                                                      | 02          | 0955  | 1008  | 0959       | N14      | W88        | .999                | 10385                     | 26.8             | 13                   | -N    |      | 0959         | 1.13                      |                           |                             |                   |          |  |  |
| GRP26286                                                                  | 02          | 1245  | 1310  | 1253       | N15      | E71        | .943                | 10406                     | 7.9              | 25                   | --F   |      |              | .67                       |                           |                             |                   | 3 3 2 9  |  |  |
| HTPR                                                                      | 02          | 1240  | 1308  | 1253       | N14      | E70        | .937                | 10406                     | 7.8              | 28                   | -F    |      | 1253         | .62                       |                           |                             |                   |          |  |  |
| HURB                                                                      | 02          | 1249  | 1305  |            | N14      | E72        | .948                | 10406                     | 7.9              | 16                   | 1F    |      |              |                           |                           | 2.20                        |                   |          |  |  |
| CAPS                                                                      | 02          | 1250E | 1317  |            | N16      | E70        | .937                | 10406                     | 7.8              | 27D                  | -N    | 3    | 1256         | .72                       |                           | 160                         |                   |          |  |  |
| 288 PALE                                                                  | 02          | 1749  | 1804  | 1752       | N17      | W07        | .249                | 10397                     | 2.2              | 15                   | --F   |      |              | .17                       |                           |                             |                   | 3        |  |  |
| GRP26291                                                                  | 03          | 0840  | 0849  | 0842       | N16      | E28        | .499                | 10403                     | 5.5              | 9                    | --B   |      |              | .56                       |                           |                             |                   | 3 3 3 11 |  |  |
| BUCA                                                                      | 03          | 0840  | 0849  | 0842       | N16      | E29        | .513                | 10403                     | 5.5              | 9                    | -B    |      | 0842         | .55                       | .60                       |                             |                   | CD       |  |  |
| CATA                                                                      | 03          | 0840  | 0847  | 0840       | N16      | E28        | .499                | 10403                     | 5.5              | 7                    | -B    |      | 0840         | .23                       | .27                       |                             | 380               |          |  |  |
| ABST                                                                      | 03          | 0840E | 0850D | 0843       | N15      | E28        | .494                | 10403                     | 5.5              | 100                  | -N    |      | 0843         | .90                       | 1.03                      |                             |                   | D        |  |  |
| GRP26292                                                                  | 03          | 0846  | 0914  | 0856       | N12      | E78        | .976                | 10406                     | 9.2              | 28                   | -N    |      |              | .41                       |                           |                             |                   | 7 7 4 12 |  |  |
| CANR                                                                      | 03          | 0845  | 0900D | 0853       | N10      | E85        | .995                | 10406                     | 9.7              | 15D                  | 1B    |      |              | 1.00                      | 3.30                      |                             |                   |          |  |  |
| CATA                                                                      | 03          | 0845  | 0920  | 0900       | N12      | E77        | .972                | 10406                     | 9.1              | 35                   | -B    |      | 0900         | .52                       |                           |                             | 224               |          |  |  |
| CRON                                                                      | 03          | 0845  | 0909D | 0851       | N10      | E80        | .983                | 10406                     | 9.4              | 24D                  | -N    |      |              | .41                       | 1.30                      |                             |                   |          |  |  |
| HTPR                                                                      | 03          | 0846E | 0917  |            | N11      | E85        | .995                | 10406                     | 9.7              | 31D                  | -N    |      | 0855         | .83                       |                           |                             |                   |          |  |  |
| CAPS                                                                      | 03          | 0846  | 0920  |            | N13      | E80        | .983                | 10406                     | 9.4              | 34                   | -N    |      | 0856         | .26                       |                           |                             | 180               | H        |  |  |
| BUCA                                                                      | 03          | 0849  | 0915D |            | N13      | E80        | .983                | 10406                     | 9.4              | 26D                  | -F    |      | 0859         | .43                       |                           |                             |                   | C        |  |  |
| HURB                                                                      | 03          | 0853E | 0904  |            | N12      | E72        | .949                | 10406                     | 8.8              | 110                  | 1N    |      |              |                           |                           | 2.00                        |                   |          |  |  |
| 295 PALE                                                                  | 03          | 1820  | 1919  | 1911       | S16      | W77        | .981                | 10400                     | 29.0             | 59                   | -N    |      |              | .41                       |                           |                             |                   | 3        |  |  |
| GRP26297                                                                  | 03          | 2112  | 2133  | 2116       | N19      | E83        | .990                | 10412                     | 10.1             | 21                   | -N    |      |              | .72                       |                           |                             |                   | 3 3 2 3  |  |  |
| CULG                                                                      | 03          | 2110E | 2145  | 2117       | N18      | E83        | .990                | 10412                     | 10.1             | 35D                  | 1N    |      | 2117         | 1.03                      |                           |                             |                   | RF       |  |  |
| SACP                                                                      | 03          | 2111  | 2124  | 2114       | N22      | E85        | .994                | 10412                     | 10.3             | 13                   | -N    |      |              | .40                       |                           |                             |                   | L        |  |  |
| BOUL                                                                      | 03          | 2115  | 2130  | 2117       | N18      | E80        | .982                | 10412                     | 9.9              | 15                   | -N    |      |              |                           |                           |                             |                   |          |  |  |
| GRP26299                                                                  | 03          | 2321  | 2338  | 2327       | S16      | W80        | .989                | 10400                     | 29.0             | 17                   | -N    |      |              | .77                       |                           |                             |                   | 2 2 2 3  |  |  |
| CULG                                                                      | 03          | 2321  | 2339  | 2327       | S15      | W80        | .989                | 10400                     | 29.0             | 18                   | 1N    |      | 2327         | .62                       |                           |                             |                   |          |  |  |
| SACP                                                                      | 03          | 2321  | 2336  | 2327       | S16      | W79        | .987                | 10400                     | 29.0             | 15                   | -N    |      |              | .92                       |                           |                             |                   |          |  |  |

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| OBSERVATORY | OBSERVED UT |       |       |               | LOCATION |               |                     |                             | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |          |  |  |
|-------------|-------------|-------|-------|---------------|----------|---------------|---------------------|-----------------------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|----------|--|--|
|             | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCARTHUR<br>PLAGE<br>REGION | CMP<br>DAY       |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |          |  |  |
|             |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                             |                  |                      |                    |              |                           |                           |                             |                   |         |          |  |  |
| 1969<br>NOV |             |       |       |               |          |               |                     |                             |                  |                      |                    |              |                           |                           |                             |                   |         |          |  |  |
| 300 VORO    | 04          | 0029  | 0041  | 0032          | S18      | W84           | .997                | 10400                       | 28.7             | 12                   | 1F                 | C            | 0032                      | .93                       | 4.50                        |                   | 62      | DJ 2     |  |  |
| GRP26303    | 04          | 0406  | 0426  | 0410          | N22      | E79           | .979                | 10412                       | 10.1             | 20                   | 1B                 |              |                           | 1.55                      |                             |                   |         | 1 1 1 5  |  |  |
| CRON        | 04          | 0406  | 0421  | 0410          | N22      | E80           | .982                | 10412                       | 10.2             | 15                   | 1B                 | C            |                           | 1.55                      | 4.50                        |                   |         | I        |  |  |
| CULG        | 04          | 0406  | 0426  | 0411          | N23      | E78           | .976                | 10412                       | 10.0             | 20                   | 1N                 | C            | 0411                      | 1.44                      |                             |                   |         |          |  |  |
| GRP26304    | 04          | 0412  | 0430  | 0414          | N08      | E89           | 1.000               | 10411                       | 10.9             | 18                   | 1N                 |              |                           | .83                       |                             |                   |         | 2 2 1 4  |  |  |
| CULG        | 04          | 0407  | 0435  | 0420          | N08      | E86           | .997                | 10411                       | 10.6             | 28                   | 1B                 | C            | 0420                      | .72                       |                             |                   |         | RT       |  |  |
| CRON        | 04          | 0410  | 0435  | 0414          | N07      | E90           | 1.000               | 10411                       | 10.9             | 25                   | 1B                 | C            |                           | .83                       | 3.20                        |                   |         | I        |  |  |
| SIBE        | 04          | 0413  | 0424  |               | N09      | E90           | 1.000               | 10411                       | 10.9             | 11                   | 1F                 | V            |                           |                           |                             |                   |         | H        |  |  |
| 306 CRON    | 04          | 0444  | 0510  | 0448          | N19      | E80           | .982                | 10412                       | 10.2             | 26                   | -N                 | C            |                           | .62                       | 1.80                        |                   |         | I 4      |  |  |
| 306 CULG    | 04          | 0436  | 0527  | 0504          | N21      | E80           | .982                | 10412                       | 10.2             | 51                   | *1N                | C            | 0504                      | 1.44                      |                             |                   |         | 4        |  |  |
| GRP26308    | 04          | 0812  | 0824  | 0816          | N09      | E87           | .998                | 10411                       | 10.9             | 12                   | -N                 |              |                           | .55                       |                             |                   |         | 3 3 3 9  |  |  |
| CRON        | 04          | 0811  | 0822  | 0815          | N07      | E90           | 1.000               | 10411                       | 11.1             | 11                   | -N                 | C            |                           | .31                       | 1.20                        |                   |         | I        |  |  |
| HTPR        | 04          | 0813  | 0825  | 0817          | N09      | E85           | .995                | 10411                       | 10.7             | 12                   | -B                 | C            | 0817                      | .62                       |                             |                   |         |          |  |  |
| CAPS        | 04          | 0815E | 0824D |               | N11      | E85           | .995                | 10411                       | 10.7             | 9D                   | -N                 | V            | 0818                      | .72                       |                             |                   | 160     |          |  |  |
| GRP26312    | 04          | 0939  | 0952  | 0941          | N08      | E87           | .998                | 10411                       | 10.9             | 13                   | -N                 |              |                           | .64                       |                             |                   |         | 4 3 3 10 |  |  |
| MONT        | 04          | 0938  | 0946  | 0941          | N08      | E87           | .998                | 10411                       | 10.9             | 8                    | -N                 | C            | 0941                      | .77                       |                             |                   |         |          |  |  |
| UCCL        | 04          | 0939  | 0944  | 0939          | N07      | E90           | 1.000               | 10411                       | 11.2             | 5                    | -B                 | C            | 0939                      | .52                       |                             |                   |         | AD       |  |  |
| ABST        | 04          | 0940  | 0950  | 0943          | N10      | E89           | 1.000               | 10411                       | 11.1             | 10                   | 1N                 | C            | 0943                      | .90                       |                             |                   |         | A        |  |  |
| HTPR        | 04          | 0940  | 1007  | 0942          | N08      | E85           | .995                | 10411                       | 10.8             | 27                   | -N                 | C            | 0942                      | .62                       |                             |                   |         |          |  |  |
| GRP26313    | 04          | 0945  | 1005  | 0958          | N08      | E84           | .994                | 10411                       | 10.7             | 20                   | -N                 |              |                           | .65                       |                             |                   |         | 3 3 2 9  |  |  |
| HTPR        | 04          | 0940  | 1007  | 1000          | N08      | E85           | .995                | 10411                       | 10.8             | 27                   | -N                 |              |                           |                           |                             |                   |         |          |  |  |
| MONT        | 04          | 0949  | 1002  | 0958          | N08      | E87           | .998                | 10411                       | 10.9             | 13                   | -N                 | C            | 0958                      | 1.13                      |                             |                   |         |          |  |  |
| CATA        | 04          | 0957E | 1005D | 0957          | N08      | E80           | .983                | 10411                       | 10.4             | 8D                   | -B                 |              | 0957                      | .17                       |                             |                   | 214     |          |  |  |
| GRP26317    | 04          | 1334  | 1355  | 1339          | N08      | E80           | .983                | 10411                       | 10.6             | 21                   | -N                 |              |                           | .47                       |                             |                   |         | 4 4 4 8  |  |  |
| CANR        | 04          | 1330E | 1405  | 1335U         | N06      | E85           | .996                | 10411                       | 10.9             | 35D                  | -N                 | C            |                           | .50                       | 1.70                        |                   |         | H        |  |  |
| ZURI        | 04          | 1332  | 1350  | 1338          | N08      | E79           | .980                | 10411                       | 10.5             | 18                   | -N                 | C            | 1338                      | .55                       |                             |                   |         |          |  |  |
| SACP        | 04          | 1335  | 1352  | 1341U         | N09      | E76           | .968                | 10411                       | 10.3             | 17                   | -N                 | C            |                           | .42                       | .96                         |                   |         | F        |  |  |
| HTPR        | 04          | 1338  | 1353  | 1340          | N10      | E81           | .986                | 10411                       | 10.6             | 15                   | -F                 | C            | 1340                      | .41                       |                             |                   |         |          |  |  |
| GRP26320    | 04          | 1514  | 1534  | 1517          | N24      | E73           | .955                | 10412                       | 10.1             | 20                   | 1B                 |              |                           | 1.11                      |                             |                   |         | 7 7 6 7  |  |  |
| HOUT        | 04          | 1513  | 1520  | 1515          | N23      | E71           | .945                | 10412                       | 10.0             | 7                    | 1B                 | C            |                           | 1.90                      | 4.80                        |                   |         | H        |  |  |
| SACP        | 04          | 1514  | 1546  | 1516          | N25      | E71           | .946                | 10412                       | 10.0             | 32                   | -B                 | C            |                           | .80                       | 1.58                        |                   |         | EF       |  |  |
| BOUL        | 04          | 1514  | 1544  | 1516          | N26      | E78           | .976                | 10412                       | 10.5             | 30                   | 1N                 | V            |                           |                           |                             |                   |         |          |  |  |
| ZURI        | 04          | 1514  | 1522D | 1516          | N24      | E71           | .945                | 10412                       | 10.0             | 8D                   | -B                 | C            | 1516                      | .69                       |                             |                   |         |          |  |  |
| HUAN        | 04          | 1514  | 1535  |               | N25      | E72           | .951                | 10412                       | 10.0             | 21                   | -F                 | 2            | C                         | 1516                      | .31                         |                   |         | E        |  |  |
| CANR        | 04          | 1515  | 1533  | 1518          | N24      | E73           | .955                | 10412                       | 10.1             | 18                   | 1B                 | C            |                           | 1.50                      | 3.80                        |                   |         |          |  |  |
| HTPR        | 04          | 1515  | 1538  | 1518          | N24      | E78           | .976                | 10412                       | 10.5             | 23                   | 1B                 | C            | 1518                      | 1.44                      |                             |                   |         |          |  |  |
| GRP26321    | 04          | 1554  | 1625  | 1559          | N08      | E79           | .980                | 10411                       | 10.6             | 31                   | --N                |              |                           | .32                       |                             |                   |         | 4 4 3 5  |  |  |
| BOUL        | 04          | 1552  | 1630  | 1557          | N07      | E73           | .955                | 10411                       | 10.1             | 38                   | -N                 | 2            | V                         |                           |                             |                   |         |          |  |  |
| HUAN        | 04          | 1552  | 1630  |               | N07      | E84           | .994                | 10411                       | 11.0             | 38                   | -F                 | 2            | C                         | 1556                      | .25                         |                   |         | D        |  |  |
| CANR        | 04          | 1555  | 1620  | 1601          | N08      | E80           | .983                | 10411                       | 10.7             | 25                   | -B                 | C            |                           | .40                       | 1.20                        |                   |         |          |  |  |
| SACP        | 04          | 1555  | 1618  | 1558          | N08      | E77           | .973                | 10411                       | 10.4             | 23                   | -B                 | C            |                           | .30                       | .72                         |                   |         | D        |  |  |
| GPP26325    | 04          | 2017  | 2040  | 2027          | N07      | E76           | .969                | 10411                       | 10.5             | 23                   | 1B                 |              |                           | 1.35                      |                             |                   |         | 6 6 5 6  |  |  |
| PALE        | 04          | 2012  | 2033  | 2025          | N08      | E76           | .969                | 10411                       | 10.5             | 21                   | 1B                 | C            |                           | .89                       |                             |                   |         |          |  |  |
| HUAN        | 04          | 2014E | 2036D | 2028          | N07      | E77           | .973                | 10411                       | 10.6             | 22D                  | -N                 | 2            | P                         | 2028                      | .50                         |                   |         | E        |  |  |
| CULG        | 04          | 2015  | 2048  | 2027          | N06      | E76           | .969                | 10411                       | 10.5             | 33                   | 1B                 | C            | 2027                      | 1.86                      |                             |                   |         |          |  |  |
| BOUL        | 04          | 2016E | 2039  | 2028          | N07      | E75           | .964                | 10411                       | 10.5             | 23D                  | 1B                 | V            |                           |                           |                             |                   |         |          |  |  |
| SACP        | 04          | 2018  | 2040  | 2026          | N07      | E74           | .960                | 10411                       | 10.4             | 22                   | 1B                 | C            |                           | 1.40                      | 2.98                        |                   |         | EF       |  |  |
| HOUT        | 04          | 2024  | 2045  | 2029          | N05      | E78           | .977                | 10411                       | 10.7             | 21                   | 2N                 | C            |                           | 2.10                      | 5.70                        |                   |         |          |  |  |
| GPP26326    | 04          | 2120  | 2210  | 2132          | N07      | E75           | .964                | 10411                       | 10.5             | 50                   | 1B                 |              |                           | 2.27                      |                             |                   |         | 6 6 5 6  |  |  |
| BOUL        | 04          | 2116  | 2204D | 2140          | N06      | E70           | .938                | 10411                       | 10.1             | 48D                  | 2N                 | 2            | S                         |                           |                             |                   |         |          |  |  |
| HUAN        | 04          | 2117  | 2130D | 2127          | N07      | E75           | .964                | 10411                       | 10.5             | 13D                  | -B                 | 2            | P                         | 2127                      | .75                         |                   |         | D        |  |  |
| CULG        | 04          | 2118  | 2225  | 2130          | N07      | E76           | .969                | 10411                       | 10.6             | 67                   | 2B                 | C            | 2130                      | 3.30                      |                             |                   |         | FR       |  |  |
| SACP        | 04          | 2123  | 2300  | 2129          | N08      | E75           | .964                | 10411                       | 10.5             | 97                   | 1B                 | C            |                           | 1.21                      | 2.64                        |                   |         | DH       |  |  |
| HOUT        | 04          | 2125  | 2200  | 2135          | N04      | E75           | .965                | 10411                       | 10.5             | 35                   | 3B                 | C            |                           | 5.80                      | 15.10                       |                   |         | H        |  |  |
| PALE        | 04          | 2128E | 2142  | 2129          | N09      | E76           | .968                | 10411                       | 10.6             | 14D                  | -B                 | C            |                           | .29                       |                             |                   |         |          |  |  |
| GRP26327    | 05          | 0332  | 0350  | 0336          | N07      | E76           | .969                | 10411                       | 10.8             | 18                   | 1B                 |              |                           | 7.16                      |                             |                   |         | 3 2 2 4  |  |  |
| MANI        | 05          | 0331  | 0415  | 0335          | N09      | E79           | .980                | 10411                       | 11.1             | 44                   | 1N                 | 3            |                           | 1.55                      | 3.90                        |                   |         |          |  |  |
| CRON        | 05          | 0332  | 0353  | 0335          | N05      | E78           | .977                | 10411                       | 11.0             | 21                   | 1B                 | C            |                           | 1.86                      | 5.00                        |                   |         | HI       |  |  |
| KODA        | 05          | 0335E | 0347  | 0336          | N08      | E74           | .959                | 10411                       | 10.7             | 12D                  | 2N                 | P            | 0340                      | 12.45                     | 12.40                       | 2.00              |         | CI       |  |  |
| 328 CRON    | 05          | 0509  | 0530  | 0516          | N23      | E65           | .910                | 10412                       | 10.1             | 21                   | -N                 | C            |                           | .72                       | 1.50                        |                   |         | 2        |  |  |
| 329 CRON    | 05          | 0539  | 0547  | 0544          | N05      | E70           | .938                | 10411                       | 10.5             | 8                    | -N                 | C            |                           | .52                       | 1.10                        |                   |         | I 3      |  |  |

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# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |            | LOCATION |            |                  |                    | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                     |                     |               | REMARKS     |          |  |  |
|---------------------------------------------------------------------------|-------------|-------|-------|------------|----------|------------|------------------|--------------------|------------------|----------------------|--------------------|--------------|---------------------|---------------------|---------------|-------------|----------|--|--|
|                                                                           | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCMAH PLAGE REGION | CMP DAY          |                      |                    | TIME UT      | MEAS. AREA Sq. Deg. | CORR. AREA Sq. Deg. | MAX. WIDTH Ha | MAX. INT. % |          |  |  |
|                                                                           |             |       |       |            | LAT.     | MER. DIST. |                  |                    |                  |                      |                    |              |                     |                     |               |             |          |  |  |
|                                                                           | 1969        |       |       |            |          |            |                  |                    |                  |                      |                    |              |                     |                     |               |             |          |  |  |
|                                                                           | NOV         |       |       |            |          |            |                  |                    |                  |                      |                    |              |                     |                     |               |             |          |  |  |
| GRP26332                                                                  | 05          | 0718  | 0741  | 0724       | N07      | E72        | .949             | 10411              | 10.7             | 23                   | -N                 |              | .62                 |                     |               |             | 4 4 4 8  |  |  |
| ABST                                                                      | 05          | 0713E | 0740  | 0722       | N07      | E72        | .949             | 10411              | 10.7             | 27D                  | 1F                 | C            | .90                 |                     |               | 55          | D        |  |  |
| CRON                                                                      | 05          | 0718  | 0739  | 0723       | N05      | E70        | .938             | 10411              | 10.6             | 21                   | -N                 | C            | .52                 | 1.10                |               |             | I        |  |  |
| CATA                                                                      | 05          | 0722  | 0735  | 0727       | N07      | E69        | .932             | 10411              | 10.5             | 13                   | -B                 |              | .52                 |                     |               | 206         |          |  |  |
| MANI                                                                      | 05          | 0725E | 0748  |            | N08      | E76        | .969             | 10411              | 11.0             | 23D                  | -F                 | 3            | .52                 | 1.22                |               |             |          |  |  |
| GRP26335                                                                  | 05          | 0811  | 0834  | 0818       | N25      | E65        | .911             | 10412              | 10.2             | 23                   | 1N                 |              | 1.04                |                     |               |             | 9 9 8 12 |  |  |
| CRON                                                                      | 05          | 0808  | 0830  | 0810       | N23      | E65        | .910             | 10412              | 10.2             | 22                   | -N                 | C            | .72                 | 1.50                |               |             |          |  |  |
| ISTA                                                                      | 05          | 0808  | 0836  | 0820       | N26      | E68        | .930             | 10412              | 10.4             | 28                   | 1N                 |              |                     |                     |               |             |          |  |  |
| BUCA                                                                      | 05          | 0810  | 0834  | 0820       | N26      | E61        | .885             | 10412              | 9.9              | 24                   | -B                 | C            | .88                 | 1.90                |               |             | C        |  |  |
| CATA                                                                      | 05          | 0810  | 0837  | 0822       | N24      | E64        | .904             | 10412              | 10.1             | 27                   | 1B                 |              | 1.04                | 2.47                |               | 288         | E        |  |  |
| ABST                                                                      | 05          | 0811  | 0830  | 0819       | N24      | E65        | .911             | 10412              | 10.2             | 19                   | 1N                 | C            | .819                | 1.79                |               | 61          | E        |  |  |
| CRIM                                                                      | 05          | 0813  | 0831  | 0817       | N26      | E62        | .892             | 10412              | 10.0             | 18                   | 1F                 | C            | .817                | .90                 |               |             | D        |  |  |
| UCCL                                                                      | 05          | 0814E | 0838  | 0821       | N22      | E69        | .934             | 10412              | 10.5             | 24D                  | 1N                 | P            | .821                | 1.29                |               |             | E        |  |  |
| CANR                                                                      | 05          | 0815  | 0833  | 0817U      | N26      | E64        | .906             | 10412              | 10.1             | 18                   | -N                 | C            | .90                 | 1.90                |               |             | E        |  |  |
| MANI                                                                      | 05          | 0816E | 0837  | 0819       | N25      | E68        | .930             | 10412              | 10.4             | 21D                  | -N                 | 3            | .83                 | 1.71                |               |             |          |  |  |
| GRP26337                                                                  | 05          | 0853  | 0908  | 0857       | N07      | E73        | .955             | 10411              | 10.8             | 15                   | -N                 |              | .67                 |                     |               |             | 3 3 3 10 |  |  |
| CANR                                                                      | 05          | 0852  | 0904D | 0856       | N09      | E74        | .959             | 10411              | 10.9             | 12D                  | -N                 | C            | .50                 | 1.30                |               |             |          |  |  |
| CRON                                                                      | 05          | 0852  | 0904  | 0854       | N05      | E75        | .965             | 10411              | 11.0             | 12                   | -N                 | C            | .52                 | 1.40                |               |             |          |  |  |
| ABST                                                                      | 05          | 0854  | 0915D | 0901       | N07      | E71        | .944             | 10411              | 10.7             | 21D                  | 1F                 | P            | .99                 |                     |               |             | F        |  |  |
| 338 UCCL                                                                  | 05          | 1005  | 1012  | 1007       | N07      | E80        | .984             | 10412              | 11.4             | 7                    | -N                 | C            | .77                 |                     |               |             | E 7      |  |  |
| GRP26339                                                                  | 05          | 1005  | 1029  | 1008       | N07      | E68        | .925             | 10411              | 10.5             | 24                   | -N                 |              | .56                 |                     |               |             | 5 5 5 7  |  |  |
| ABST                                                                      | 05          | 1004  | 1050  | 1007       | N07      | E70        | .938             | 10411              | 10.7             | 46                   | 1F                 | C            | .99                 |                     |               | 48          | E        |  |  |
| CAPS                                                                      | 05          | 1005  | 1013  |            | N08      | E67        | .918             | 10411              | 10.4             | 8                    | -N                 | 3            | .31                 |                     |               | 176         |          |  |  |
| UCCL                                                                      | 05          | 1005  | 1032D | 1007       | N04      | E70        | .939             | 10411              | 10.7             | 27D                  | -N                 | P            | .52                 |                     |               |             | D        |  |  |
| CATA                                                                      | 05          | 1005  | 1030  | 1010       | N09      | E67        | .918             | 10411              | 10.4             | 25                   | -B                 |              | .69                 |                     |               | 240         |          |  |  |
| MEUD                                                                      | 05          | 1006  | 1018  | 1007       | N08      | E68        | .925             | 10411              | 10.5             | 12                   | -F                 | C            | .31                 |                     |               |             | E        |  |  |
| 6 STATIONS REPORTING GROUP 26340. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |            |          |            |                  |                    |                  |                      |                    |              |                     |                     |               |             |          |  |  |
| GRP26340                                                                  | 05          | 1024  | 1103  | 1037       | N12      | E31        | .525             | 10406              | 7.8              | 39                   | 1N                 |              | 2.81                |                     |               |             | 6 6 6 7  |  |  |
| MEUD                                                                      | 05          | 1021  | 1055  | 1038       | N12      | E32        | .540             | 10406              | 7.8              | 34                   | 1N                 | C            | 1.86                | 2.10                |               | 316         | EL       |  |  |
| CATA                                                                      | 05          | 1025  | 1110  | 1040       | N12      | E32        | .540             | 10406              | 7.8              | 45                   | 1B                 |              | 1040                | 2.78                | 3.32          | 192         | F        |  |  |
| CAPS                                                                      | 05          | 1025  | 1105  |            | N10      | E31        | .520             | 10406              | 7.8              | 40                   | 1B                 | 3            | 1038                | 3.61                | 4.00          |             | H        |  |  |
| CANR                                                                      | 05          | 1026  | 1100  | 1033       | N11      | E32        | .537             | 10406              | 7.8              | 34                   | 1N                 | C            | 1.80                | 2.20                |               |             | L        |  |  |
| UCCL                                                                      | 05          | 1032E | 1039D |            | N11      | E30        | .508             | 10406              | 7.7              | 7D                   | 2N                 | P            | 1032                | 4.13                | 5.80          |             | E        |  |  |
| ABST                                                                      | 05          | 1032E | 1050D | 1036       | N13      | E31        | .529             | 10406              | 7.8              | 18D                  | 1N                 | P            | 1036                | 2.69                | 3.10          |             | E        |  |  |
| 340 ABST                                                                  | 05          | 1032E | 1050D | 1036       | N14      | E36        | .600             | 10406              | 8.1              | 18D                  | *-N                | P            | 1036                | 1.34                | 1.60          |             | D 7      |  |  |
| GRP26341                                                                  | 05          | 1111  | 1132  | 1115       | N07      | E66        | .912             | 10411              | 10.4             | 21                   | -N                 |              | .78                 |                     |               |             | 6 5 5 8  |  |  |
| ABST                                                                      | 05          | 1110  | 1140  | 1113       | N08      | E67        | .918             | 10411              | 10.5             | 30                   | 1N                 | C            | 1.79                | 4.10                |               | 61          | E        |  |  |
| UCCL                                                                      | 05          | 1111  | 1129  | 1111       | N07      | E80        | .984             | 10411              | 11.5             | 18                   | 1N                 | C            | 1.11                | 1.03                |               |             | E        |  |  |
| CANR                                                                      | 05          | 1111  | 1137  | 1114       | N05      | E66        | .912             | 10411              | 10.4             | 26                   | 1N                 | C            | 1.10                | 2.30                |               |             | H        |  |  |
| HUAN                                                                      | 05          | 1111E | 1133D |            | N07      | E67        | .919             | 10411              | 10.5             | 22D                  | -F                 | 2            | 1116                | .25                 |               |             | E        |  |  |
| MEUD                                                                      | 05          | 1111  | 1121  | 1112       | N07      | E67        | .919             | 10411              | 10.5             | 10                   | -F                 | C            | 1112                | .52                 |               |             |          |  |  |
| CATA                                                                      | 05          | 1112  | 1130  | 1120       | N07      | E65        | .904             | 10411              | 10.3             | 18                   | -B                 |              | .23                 | .55                 |               |             | D        |  |  |
| GRP26347                                                                  | 05          | 1750  | 1829  | 1800       | N25      | E60        | .876             | 10412              | 10.2             | 39                   | 1B                 |              | 2.55                |                     |               |             | 4 4 3 5  |  |  |
| BOUL                                                                      | 05          | 1750  | 1837  | 1800       | N27      | E62        | .894             | 10412              | 10.4             | 47                   | 2B                 |              |                     |                     |               |             |          |  |  |
| SACP                                                                      | 05          | 1750  | 1840  | 1801       | N25      | E59        | .869             | 10412              | 10.2             | 50                   | 1B                 | V            | 2.00                | 2.99                |               |             | EH       |  |  |
| HOUT                                                                      | 05          | 1800E | 1815  | 1800E      | N24      | E59        | .867             | 10412              | 10.2             | 15D                  | 2B                 | C            | 4.10                | 7.80                |               |             | H        |  |  |
| MCMA                                                                      | 05          | 1805E | 1825D |            | N25      | E61        | .884             | 10412              | 10.3             | 20D                  | 1B                 | C            | 1.55                | 3.50                |               |             | EH       |  |  |
| GRP26349                                                                  | 05          | 1900  | 1921  | 1907       | S19      | E10        | .423             | 10404              | 6.5              | 21                   | --F                |              | .46                 |                     |               |             | 2 2 2 4  |  |  |
| SACP                                                                      | 05          | 1900  | 1921  | 1907       | S18      | E10        | .408             | 10404              | 6.5              | 21                   | -F                 | C            | .51                 | .50                 |               |             |          |  |  |
| MCMA                                                                      | 05          | 1901E | 1917D |            | S19      | E10        | .423             | 10404              | 6.5              | 16D                  | -F                 | C            | .41                 | .50                 |               |             | E        |  |  |
| GRP26352                                                                  | 05          | 2107  | 2115  | 2108       | N19      | W26        | .492             | 10399              | 3.9              | 8                    | --F                |              | .10                 |                     |               |             | 2 2 1 4  |  |  |
| PALE                                                                      | 05          | 2106  | 2115D | 2108       | N19      | W26        | .492             | 10399              | 3.9              | 9D                   | -N                 | C            | .10                 |                     |               |             |          |  |  |
| BOUL                                                                      | 05          | 2107  | 2114  | 2108       | N19      | W25        | .480             | 10399              | 4.0              | 7                    | -F                 | V            |                     |                     |               |             |          |  |  |
| GRP26359                                                                  | 06          | 0157  | 0209  | 0200       | N21      | E58        | .855             | 10412              | 10.4             | 12                   | -N                 |              | .86                 |                     |               |             | 3 3 3 7  |  |  |
| CRON                                                                      | 06          | 0155  | 0208  | 0200       | N15      | E60        | .866             | 10412              | 10.6             | 13                   | -N                 | C            | .93                 | 1.70                |               |             |          |  |  |
| MANI                                                                      | 06          | 0158  | 0209  | 0200       | N24      | E59        | .868             | 10412              | 10.5             | 11                   | -N                 | 1            | .83                 | 1.26                |               |             |          |  |  |
| PALE                                                                      | 06          | 0200E | 0201D | 0201       | N25      | E56        | .845             | 10412              | 10.3             | 1D                   | -N                 | C            | .81                 |                     |               |             |          |  |  |
| GRP26360                                                                  | 06          | 0418  | 0440  | 0423       | N12      | E23        | .409             | 10406              | 7.9              | 22                   | -N                 |              | 1.03                |                     |               |             | 2 2 2 4  |  |  |
| MITK                                                                      | 06          | 0416  | 0441  | 0423       | N11      | E24        | .420             | 10406              | 8.0              | 25                   | -N                 | C            | .93                 | 1.00                |               |             | E        |  |  |
| CRON                                                                      | 06          | 0419  | 0438  | 0423       | N12      | E22        | .394             | 10406              | 7.8              | 19                   | -N                 | C            | 1.13                | 1.10                |               |             |          |  |  |
| GRP26366                                                                  | 06          | 1147  | 1221  | 1152       | N19      | E61        | .878             | 10412              | 11.1             | 34                   | --N                |              | .45                 |                     |               |             | 3 3 3 6  |  |  |
| CATA                                                                      | 06          | 1147  | 1205D | 1152       | N20      | E61        | .879             | 10412              | 11.1             | 18D                  | -B                 |              | .17                 | .37                 |               | 240         |          |  |  |
| CAPS                                                                      | 06          | 1150E | 1235D |            | N18      | E60        | .869             | 10412              | 11.0             | 45D                  | -N                 | 3            | 1154                | 1.03                | 2.00          | 160         |          |  |  |
| SANM                                                                      | 06          | 1154E | 1206  |            | N18      | E63        | .892             | 10412              | 11.2             | 12D                  | -F                 | 1            | 1158                | .15                 | .33           |             | D        |  |  |

SOLAR FLARES  
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| OBSERVATORY                                                               | OBSERVED UT |       |       |                 | LOCATION |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                     |                   | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|-------|-----------------|----------|---------------|---------------------|---------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|---------------------|-------------------|---------|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE   | APPROX.  |               | CENTRAL<br>DISTANCE | MCMATH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>Ha | MAX.<br>INT.<br>% |         |
|                                                                           |             |       |       |                 | LAT.     | MER.<br>DIST. |                     |                           |            |                  |                      |                    |              |                           |                           |                     |                   |         |
|                                                                           | 1969<br>NOV |       |       |                 |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                     |                   |         |
| GRP26368                                                                  | 06          | 1610  | 1622  | 1612            | N20      | E60           | .871                | 10412                     | 11.2       | 12               | --F                  |                    |              |                           | .31                       |                     |                   | 2 2 1 5 |
| MCMA                                                                      | 06          | 1610  | 1621  | 1612            | N19      | E60           | .870                | 10412                     | 11.2       | 11               | -F                   | C                  | 1612         |                           | .31                       | .60                 |                   | E       |
| BOUL                                                                      | 06          | 1610  | 1622  | 1612            | N20      | E60           | .871                | 10412                     | 11.2       | 12               | -F                   | V                  |              |                           |                           |                     |                   |         |
| GRP26369                                                                  | 06          | 1633  | 1647  | 1635            | N20      | E58           | .854                | 10412                     | 11.0       | 14               | -N                   |                    |              |                           | .61                       |                     |                   | 4 4 3 5 |
| MCMA                                                                      | 06          | 1632  | 1648  | 1635            | N20      | E58           | .854                | 10412                     | 11.0       | 16               | -N                   | C                  | 1635         |                           | .52                       | 1.00                |                   | EL      |
| BOUL                                                                      | 06          | 1633  | 1645  | 1635            | N21      | E58           | .855                | 10412                     | 11.0       | 12               | -N                   | V                  |              |                           |                           |                     |                   |         |
| CANR                                                                      | 06          | 1634  | 1647  | 1636            | N19      | E58           | .853                | 10412                     | 11.0       | 13               | -N                   | C                  |              |                           | .80                       | 1.40                |                   | F       |
| SACP                                                                      | 06          | 1634  | 1646  | 1635            | N20      | E58           | .854                | 10412                     | 11.0       | 12               | -N                   | C                  |              |                           | .51                       | .72                 |                   |         |
| 371 HOUT                                                                  | 06          | 1812E | 1835  | 1812E           | N26      | E33           | .624                | 10406                     | 9.2        | 23D              | 1N                   | C                  |              |                           | 2.10                      | 2.70                |                   | H 3     |
| GRP26373                                                                  | 06          | 2024  | 2043  | 2028            | N20      | E57           | .846                | 10412                     | 11.1       | 19               | --B                  |                    |              |                           | .50                       |                     |                   | 2 2 1 4 |
| BOUL                                                                      | 06          | 2024  | 2039  | 2029            | N21      | E57           | .847                | 10412                     | 11.1       | 15               | -N                   | V                  |              |                           |                           |                     |                   |         |
| PALE                                                                      | 06          | 2024  | 2046  | 2027            | N19      | E57           | .844                | 10412                     | 11.1       | 22               | -B                   | C                  |              |                           | .50                       |                     |                   |         |
| 4 STATIONS REPORTING GROUP 26374. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |                 |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                     |                   |         |
| GRP26374                                                                  | 06          | 2118  | 2142  | 2133            | N19      | E46           | .736                | 10412                     | 10.3       | 24               | -N                   |                    |              |                           | 1.10                      |                     |                   | 3 3 3 4 |
| SACP                                                                      | 06          | 2118  | 2148  | 2133            | N19      | E46           | .736                | 10412                     | 10.3       | 30               | -N                   | C                  |              |                           | .60                       | .73                 |                   |         |
| PALE                                                                      | 06          | 2118  | 2149  | 2134            | N19      | E48           | .757                | 10412                     | 10.5       | 31               | -R                   |                    |              |                           | .89                       |                     |                   |         |
| CULG                                                                      | 06          | 2123E | 2133D | 2132            | N20      | E46           | .738                | 10412                     | 10.3       | 10D              | 1N                   | P                  | 2132         |                           | 1.55                      | 2.10                |                   | FRL     |
| PALE                                                                      | 06          | 2128  | 2135  | 2131            | N20      | E43           | .705                | 10412                     | 10.1       | 7                | -N                   | C                  |              |                           | .25                       |                     |                   |         |
| 26374                                                                     | 06          | 2119  | 2144  | 2122            | N19      | E50           | .778                | 10412                     | 10.6       | 25               | *-F                  |                    |              |                           | .73                       |                     |                   | 2 2 1 5 |
| PALE                                                                      | 06          | 2118  | 2149  | 2122            | N19      | E48           | .757                | 10412                     | 10.5       | 31               | -N                   | C                  |              |                           | .73                       |                     |                   |         |
| BOUL                                                                      | 06          | 2119  | 2140  | 2122            | N18      | E47           | .744                | 10412                     | 10.4       | 21               | -F                   | V                  |              |                           |                           |                     |                   |         |
| PALE                                                                      | 06          | 2130  | 2147  | 2133            | N21      | E57           | .847                | 10412                     | 11.2       | 17               | -N                   | C                  |              |                           | .17                       |                     |                   |         |
| GRP26376                                                                  | 06          | 2321  | 2343  | 2324            | N13      | E09           | .220                | 10406                     | 7.6        | 22               | --B                  |                    |              |                           | .71                       |                     |                   | 2 2 2 5 |
| PALE                                                                      | 06          | 2320  | 2349  | 2324            | N13      | E08           | .209                | 10406                     | 7.6        | 29               | -N                   | C                  |              |                           | .40                       |                     |                   |         |
| VORO                                                                      | 06          | 2321  | 2336  | 2324            | N13      | E10           | .233                | 10406                     | 7.7        | 15               | -B                   | C                  | 2324         |                           | 1.02                      | 1.00                | 77                | E       |
| GRP26379                                                                  | 07          | 0322  | 0443  | 0345            | N14      | E11           | .257                | 10406                     | 8.0        | 81               | 1F                   |                    |              |                           | 6.19                      |                     |                   | 3 2 2 4 |
| CRON                                                                      | 07          | 0320  | 0500  | 0345            | N15      | E12           | .281                | 10406                     | 8.0        | 100              | 2N                   | C                  |              |                           | 8.25                      | 8.40                |                   | L       |
| MANI                                                                      | 07          | 0324  | 0426  |                 | N13      | E10           | .234                | 10406                     | 7.9        | 62               | 1F                   | 1                  | 0344         |                           | 4.13                      | 4.02                |                   |         |
| KODA                                                                      | 07          | 0421E | 0459  |                 | N11      | E12           | .241                | 10406                     | 8.1        | 38D              | 2N                   | P                  | 0427         |                           | 6.65                      | 6.65                | 1.24              | BI      |
| 381 ABST                                                                  | 07          | 0617  | 0625  | 0618            | N23      | W41           | .695                | 10399                     | 4.2        | 8                | --F                  | C                  | 0618         |                           | .90                       | 1.20                |                   | 49 D 3  |
| GRP26382                                                                  | 07          | 1353  | 1410  | 1400            | N19      | E48           | .758                | 10412                     | 11.2       | 17               | -N                   |                    |              |                           | .51                       |                     |                   | 2 2 1 2 |
| SACP                                                                      | 07          | 1353  | 1410  | 1400            | N19      | E45           | .725                | 10412                     | 11.0       | 17               | -N                   | C                  |              |                           | .51                       | .61                 |                   | F       |
| HURB                                                                      | 07          | 1359E | 1406D |                 | N19      | E51           | .788                | 10412                     | 11.4       | 7D               | 1N                   |                    |              |                           |                           |                     | 1.90              |         |
|                                                                           | 07          | 1617  | 1634  | NO FLARE PATROL |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                     |                   |         |
| 4 STATIONS REPORTING GROUP 26383. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |                 |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                     |                   |         |
| GRP26383                                                                  | 07          | 1800  | 1847  | 1831            | N27      | E32           | .621                | 10412                     | 10.2       | 47               | -N                   |                    |              |                           | 1.26                      |                     |                   | 3 3 2 4 |
| SACP                                                                      | 07          | 1800  | 1844  | 1836U           | N26      | E33           | .625                | 10412                     | 10.2       | 44               | -N                   | C                  |              |                           | .90                       | 1.00                |                   | FHI     |
| PALE                                                                      | 07          | 1804E | 1851D | 1828            | N29      | E31           | .626                | 10412                     | 10.1       | 47D              | -B                   |                    |              |                           | 1.62                      |                     |                   |         |
| PALE                                                                      | 07          | 1804E | 1851D | 1837            | N29      | E31           | .626                | 10412                     | 10.1       | 47D              | -R                   |                    |              |                           | 1.30                      |                     |                   |         |
| BOUL                                                                      | 07          | 1830E | 1846  | 1830            | N27      | E32           | .621                | 10412                     | 10.2       | 16D              | 1F                   | S                  |              |                           |                           |                     |                   |         |
| 26383                                                                     | 07          | 1804  | 1851  | 1807            | N28      | E32           | .628                | 10412                     | 10.2       | 47               | *2B                  |                    |              |                           | 6.27                      |                     |                   | 2 2 2 4 |
| PALE                                                                      | 07          | 1804E | 1851D | 1807            | N29      | E31           | .626                | 10412                     | 10.1       | 47D              | 3B                   | C                  |              |                           | 11.51                     |                     |                   |         |
| MCMA                                                                      | 07          | 1809E | 1820D |                 | N26      | E33           | .625                | 10412                     | 10.2       | 11D              | -B                   | P                  |              |                           | 1.03                      | 1.40                |                   | EH      |
| GRP26384                                                                  | 07          | 1849  | 1906  | 1854            | N20      | E44           | .717                | 10412                     | 11.1       | 17               | --N                  |                    |              |                           | .46                       |                     |                   | 2 2 1 4 |
| BOUL                                                                      | 07          | 1849E | 1910  | 1856            | N20      | E46           | .739                | 10412                     | 11.2       | 21D              | -N                   | V                  |              |                           |                           |                     |                   |         |
| PALE                                                                      | 07          | 1850E | 1902  | 1851            | N20      | E41           | .683                | 10412                     | 10.9       | 12D              | -N                   | V                  |              |                           | .46                       |                     |                   |         |
| GRP26385                                                                  | 07          | 2026  | 2047  | 2040            | S20      | E90           | 1.000               | 10424                     | 14.6       | 21               | -N                   |                    |              |                           |                           |                     |                   | 2 1 0 5 |
| BOUL                                                                      | 07          | 2026  | 2047  | 2040            | S20      | E90           | 1.000               | 10424                     | 14.6       | 21               | -N                   | V                  |              |                           |                           |                     |                   |         |
| PALE                                                                      | 07          | 2026  | 2046  | 2029            | S17      | E90           | 1.000               | 10424                     | 14.6       | 20               | -B                   | C                  |              |                           |                           |                     |                   |         |
| GRP26386                                                                  | 07          | 2307  | 2319  | 2310            | N25      | E30           | .585                | 10412                     | 10.2       | 12               | --N                  |                    |              |                           | .23                       |                     |                   | 2 2 2 5 |
| SACP                                                                      | 07          | 2305  | 2320  | 2310            | N25      | E30           | .585                | 10412                     | 10.2       | 15               | -N                   | C                  |              |                           | .30                       | .32                 |                   | H       |
| PALE                                                                      | 07          | 2309  | 2318  | 2310            | N25      | E30           | .585                | 10412                     | 10.2       | 9                | -N                   | C                  |              |                           | .15                       |                     |                   |         |
| GRP26387                                                                  | 08          | 0022  | 0046  | 0029            | N22      | E43           | .714                | 10412                     | 11.2       | 24               | --N                  |                    |              |                           | .63                       |                     |                   | 2 2 2 4 |
| VORO                                                                      | 08          | 0022  | 0046  | 0032            | N22      | E42           | .703                | 10412                     | 11.2       | 24               | -B                   | C                  | 0032         |                           | .93                       | 1.27                | 82                | EJ      |
| PALE                                                                      | 08          | 0026E | 0032D | 0026            | N21      | E44           | .721                | 10412                     | 11.3       | 6D               | -F                   | C                  |              |                           | .32                       |                     |                   |         |
| GRP26390                                                                  | 08          | 0209  | 0228  | 0209            | N23      | E33           | .606                | 10412                     | 10.6       | 19               | --B                  |                    |              |                           | .71                       |                     |                   | 2 2 2 4 |
| VORO                                                                      | 08          | 0207E | 0239  | 0207            | N23      | E32           | .595                | 10412                     | 10.5       | 32D              | -B                   | C                  | 0207         |                           | 1.02                      | 1.24                | 81                | D       |
| PALE                                                                      | 08          | 0210  | 0217  | 0210            | N23      | E33           | .606                | 10412                     | 10.6       | 7                | -N                   | C                  |              |                           | .40                       |                     |                   |         |
| GRP26391                                                                  | 08          | 1927  | 1936  | 1932            | N25      | E22           | .501                | 10412                     | 10.5       | 9                | --F                  |                    |              |                           | .33                       |                     |                   | 2 2 2 4 |
| SACP                                                                      | 08          | 1926  | 1935  | 1930            | N25      | E21           | .491                | 10412                     | 10.4       | 9                | -N                   | C                  |              |                           | .40                       | .42                 |                   |         |
| PALE                                                                      | 08          | 1927  | 1936  | 1933            | N25      | E22           | .501                | 10412                     | 10.5       | 9                | -F                   | C                  |              |                           | .25                       |                     |                   |         |

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Nov 69

# SOLAR FLARES

## Confirmed

### NOVEMBER 1969

| OBSERVATORY                  | OBSERVED UT |       |       |            | LOCATION     |            |                  |                   | DURATION MIN. | IM-POR-TANCE | OBS. COND. TYPE | MEASUREMENTS |                     |                     |               | REMARKS     |          |
|------------------------------|-------------|-------|-------|------------|--------------|------------|------------------|-------------------|---------------|--------------|-----------------|--------------|---------------------|---------------------|---------------|-------------|----------|
|                              | DATE        | START | END   | MAX. PHASE | APPROX. LAT. | MER. DIST. | CENTRAL DISTANCE | MCMA PLAGE REGION | CMP DAY       |              |                 | TIME UT      | MEAS. AREA Sq. Deg. | CORR. AREA Sq. Deg. | MAX. WIDTH Hg | MAX. INT. % |          |
| 1969 NOV                     |             |       |       |            |              |            |                  |                   |               |              |                 |              |                     |                     |               |             |          |
| GRP26393                     | 09          | 0850  | 0858  | 0851       | N21          | E13        | .367             | 10412             | 10.3          | 8            | --N             |              | .81                 |                     |               |             | 2 2 2 6  |
| CATA                         | 09          | 0850  | 0857  | 0850       | N20          | E12        | .345             | 10412             | 10.3          | 7            | -B              | 0850         | .63                 | .69                 |               |             | Z        |
| ABST                         | 09          | 0850  | 0858  | 0851       | N21          | E13        | .367             | 10412             | 10.3          | 8            | -F              | 0851         | .99                 | 1.10                |               |             | E        |
| GRP26399                     | 09          | 2133  | 2210  | 2140       | N11          | E11        | .228             | 10411             | 10.7          | 37           | --F             |              | .90                 |                     |               |             | 2 2 2 3  |
| PALE                         | 09          | 2132  | 2210  | 2144       | N11          | E11        | .228             | 10411             | 10.7          | 38           | -N              | C            | 1.24                |                     |               |             |          |
| HUAN                         | 09          | 2133  | 2203D | 2136       | N10          | E10        | .205             | 10411             | 10.6          | 30D          | -F              | 2 C          | 2136                | .55                 | .50           |             | E        |
| GRP26400                     | 10          | 0700  | 0708  | 0701       | N22          | W40        | .682             | 10418             | 7.3           | 8            | --B             |              | .54                 |                     |               |             | 2 2 2 6  |
| CATA                         | 10          | 0700  | 0705  | 0700       | N21          | W39        | .666             | 10418             | 7.4           | 5            | -B              | 0700         | .17                 | .23                 |               |             |          |
| ABST                         | 10          | 0700  | 0710  | 0701       | N22          | W40        | .682             | 10418             | 7.3           | 10           | -N              | C            | 0701                | .90                 | 1.20          |             | D        |
| GRP26406                     | 10          | 1646  | 1701  | 1650       | N23          | E04        | .341             | 10412             | 11.0          | 15           | --F             |              | 1.35                |                     |               |             | 4 4 3 4  |
| CANR                         | 10          | 1642  | 1658  | 1650       | N22          | E04        | .325             | 10412             | 11.0          | 16           | 1F              | C            | 2.00                | 2.20                |               |             | L        |
| SANM                         | 10          | 1646  | 1701  | 1649       | N24          | E05        | .360             | 10412             | 11.1          | 15           | -F              | 3 C          | .97                 | 1.04                |               |             | D        |
| SACP                         | 10          | 1647  | 1701  | 1650       | N24          | E02        | .353             | 10412             | 10.8          | 14           | -N              | C            | 1.08                | 1.08                |               |             | F        |
| BOUL                         | 10          | 1647  | 1655  | 1649       | N23          | E03        | .338             | 10412             | 10.9          | 8            | -F              | V            |                     |                     |               |             |          |
| BOUL                         | 10          | 1658  | 1705  | 1700       | N21          | E05        | .313             | 10412             | 11.1          | 7            | -F              | V            |                     |                     |               |             |          |
| GRP26407                     | 10          | 1720  | 1736  | 1724       | N13          | W39        | .639             | 10406             | 7.8           | 16           | --F             |              | .32                 |                     |               |             | 2 2 1 4  |
| BOUL                         | 10          | 1718  | 1737  | 1723       | N11          | W37        | .608             | 10406             | 7.9           | 19           | -F              | V            |                     |                     |               |             |          |
| SANM                         | 10          | 1722  | 1735  | 1725       | N14          | W40        | .654             | 10406             | 7.7           | 13           | -F              | 3 C          | .32                 | .42                 |               |             | E        |
| 408 SANM                     | 10          | 1721  | 1735  | 1723       | N23          | W45        | .739             | 10418             | 7.3           | 14           | --F             | 3 C          | .15                 | .22                 |               |             | E        |
| GRP26409                     | 11          | 0118  | 0128  | 0121       | N12          | W45        | .712             | 10406             | 7.7           | 10           | -N              |              | 1.29                |                     |               |             | 2 2 2 3  |
| CULG                         | 11          | 0110  | 0155  | 0120       | N12          | W44        | .700             | 10406             | 7.7           | 45           | 1N              | C            | 0120                | 1.86                | 2.52          |             |          |
| MITK                         | 11          | 0117  | 0127  | 0121       | N12          | W45        | .712             | 10406             | 7.7           | 10           | -N              | C            | 0121                | .72                 | 1.00          |             | E        |
| CRON                         | 11          | 0118  | 0128  | 0123       | N13          | W46        | .725             | 10406             | 7.6           | 10           | 1N              | C            | 1.55                | 2.20                |               |             |          |
| 11 2038 2107 NO FLARE PATROL |             |       |       |            |              |            |                  |                   |               |              |                 |              |                     |                     |               |             |          |
| 411 CRON                     | 12          | 0306  | 0400  | 0325       | N14          | W56        | .832             | 10406             | 7.9           | 54           | 1N              | C            | 2.17                | 3.80                |               |             | E        |
| 412 CRON                     | 12          | 0441  | 0450  | 0444       | N20          | W15        | .379             | 10412             | 11.1          | 9            | -N              | C            | .93                 | 1.00                |               |             |          |
| GRP26415                     | 12          | 1514  | 1551  | 1521       | N22          | W21        | .465             | 10412             | 11.1          | 37           | --F             |              | .84                 |                     |               |             | 3 2 2 5  |
| CANR                         | 12          | 1513  | 1550  | 1521       | N21          | W19        | .433             | 10412             | 11.2          | 37           | -F              | C            | 1.20                | 1.30                |               |             |          |
| SANM                         | 12          | 1514  | 1521D |            | N22          | W22        | .476             | 10412             | 11.0          | 7D           | -F              | 1 P          | 1521                | .48                 | .55           |             | E        |
| MCMA                         | 12          | 1533E | 1551D |            | N22          | W20        | .454             | 10412             | 11.1          | 18D          | -N              | C            | 1534                | .83                 | .90           |             | E        |
| GRP26416                     | 12          | 1630  | 1639  | 1632       | N14          | E55        | .822             | 10426             | 16.8          | 9            | -N              |              | .65                 |                     |               |             | 3 3 3 4  |
| SACP                         | 12          | 1630E | 1639  | 1632       | N15          | E54        | .814             | 10426             | 16.7          | 9D           | -N              | C            | .69                 | .94                 |               |             | HF       |
| MCMA                         | 12          | 1630E | 1637  | 1632       | N13          | E57        | .840             | 10426             | 17.0          | 7D           | -N              | C            | 1632                | .36                 | .70           |             | E        |
| CANR                         | 12          | 1631  | 1640  | 1633       | N15          | E55        | .823             | 10426             | 16.8          | 9            | -N              | C            | .90                 | 1.60                |               |             |          |
| 417 MCMA                     | 12          | 1755  | 1802  | 1757       | S18          | E28        | .571             | 10424             | 14.8          | 7            | --F             | C            | 1757                | .41                 | .50           |             | E        |
| 12 2224 2225 NO FLARE PATROL |             |       |       |            |              |            |                  |                   |               |              |                 |              |                     |                     |               |             |          |
| 12 2235 2240 NO FLARE PATROL |             |       |       |            |              |            |                  |                   |               |              |                 |              |                     |                     |               |             |          |
| 12 2252 2300 NO FLARE PATROL |             |       |       |            |              |            |                  |                   |               |              |                 |              |                     |                     |               |             |          |
| GRP26420                     | 13          | 0839  | 0914  | 0844       | S18          | E20        | .483             | 10424             | 14.9          | 35           | -N              |              | 1.96                |                     |               |             | 9 9 9 10 |
| CATA                         | 13          | 0837  | 0920  | 0842       | S18          | E19        | .473             | 10424             | 14.8          | 43           | -R              |              | 0842                | 1.16                | 1.26          |             |          |
| MONT                         | 13          | 0837  | 0914  | 0844       | S16          | E21        | .473             | 10424             | 14.9          | 37           | 1N              | C            | 0844                | 4.13                |               |             |          |
| HANI                         | 13          | 0838E | 0854D | 0842       | S17          | E22        | .494             | 10424             | 15.0          | 16D          | -N              | 3 C          | 0842                | 1.55                | 1.80          |             |          |
| CAPE                         | 13          | 0838  | 0915  | 0844       | S18          | E20        | .483             | 10424             | 14.9          | 37           | -N              | C            | 0844                | 1.31                | 1.50          |             |          |
| CANR                         | 13          | 0839  | 0850D | 0842       | S18          | E20        | .483             | 10424             | 14.9          | 11D          | -N              | C            |                     | 1.40                | 1.60          |             |          |
| CRON                         | 13          | 0839  | 0855  | 0844       | S18          | E20        | .483             | 10424             | 14.9          | 16           | -N              | C            |                     | 1.03                | 1.10          |             |          |
| CAPS                         | 13          | 0840E | 0910D |            | S17          | E19        | .462             | 10424             | 14.8          | 30D          | 1B              | 3 P          | 0842                | 2.06                | 2.20          |             |          |
| BUCA                         | 13          | 0840  | 0914  |            | S20          | E19        | .495             | 10424             | 14.8          | 34           | 1N              | C            | 0844                | 2.76                | 3.20          |             | 208      |
| ABST                         | 13          | 0845  | 0930  | 0852       | S17          | E21        | .483             | 10424             | 14.9          | 45           | 1N              | C            | 0852                | 2.25                | 2.50          |             | 68 E     |
| GRP26421                     | 13          | 0912  | 0933  | 0915       | N13          | E46        | .726             | 10426             | 16.8          | 21           | --B             |              | .66                 |                     |               |             | 3 3 3 9  |
| CATA                         | 13          | 0912E | 0925  | 0915       | N12          | E46        | .724             | 10426             | 16.8          | 13D          | -B              |              | 0915                | .40                 | .60           |             |          |
| BUCA                         | 13          | 0912  | 0940  |            | N12          | E48        | .747             | 10426             | 17.0          | 28           | -B              | C            | 0916                | .55                 | .80           |             | 339      |
| CAPS                         | 13          | 0914E | 0923D |            | N14          | E44        | .704             | 10426             | 16.7          | 9D           | -N              | 3 V          | 0916                | 1.03                | 1.40          |             | 165      |
| GRP26428                     | 13          | 1646  | 1721  | 1654       | N21          | W33        | .593             | 10412             | 11.2          | 35           | -N              |              | .89                 |                     |               |             | 5 4 4 5  |
| HUAN                         | 13          | 1646E | 1705D |            | N20          | W33        | .593             | 10412             | 11.2          | 19D          | -F              | 1 P          | 1646                | .31                 | .40           |             | E        |
| SACP                         | 13          | 1646  | 1717  | 1655       | N20          | W33        | .593             | 10412             | 11.2          | 31           | -N              | C            |                     | 1.50                | 1.62          |             | F        |
| CANR                         | 13          | 1653E | 1707D | 1653E      | N22          | W33        | .604             | 10412             | 11.2          | 14D          | -N              | C            |                     | .90                 | 1.10          |             |          |
| MCMA                         | 13          | 1655E | 1725  |            | N21          | W34        | .610             | 10412             | 11.2          | 30D          | -N              | P            | 1655                | .83                 | 1.10          |             | E        |
| SANM                         | 13          | 1708E | 1726D |            | N22          | W34        | .616             | 10412             | 11.2          | 18D          | -F              | 2 P          | 1708                | 1.29                | 1.61          |             | E        |

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |               | LOCATION |               |                     |                           | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                                 | REMARKS           |          |  |  |
|-------------|-------------|-------|-------|---------------|----------|---------------|---------------------|---------------------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|---------------------------------|-------------------|----------|--|--|
|             | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMATH<br>PLAGE<br>REGION | CMP<br>DAY       |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H <sub>g</sub> | MAX.<br>INT.<br>% |          |  |  |
|             |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                           |                  |                      |                    |              |                           |                           |                                 |                   |          |  |  |
| GRP26432    | 14          | 0914  | 0936  | 0915          | N14      | E33           | .565                | 10426                     | 16.9             | 22                   | -N                 |              | 1.09                      |                           |                                 |                   | 3 3 3 7  |  |  |
| HTPR        | 14          | 0913  | 0933  | 0915          | N14      | E31           | .538                | 10426                     | 16.7             | 20                   | -N                 | C 0915       | 1.34                      | 1.60                      |                                 |                   | H        |  |  |
| CAPE        | 14          | 0913  | 0935  | 0915          | N15      | E35           | .595                | 10426                     | 17.0             | 22                   | -N                 | C 0915       | .96                       | 1.20                      |                                 |                   | HV       |  |  |
| CATA        | 14          | 0915  | 0940  | 0915          | N14      | E34           | .578                | 10426                     | 16.9             | 25                   | -B                 | 0915         | .98                       | 1.22                      |                                 | 389               |          |  |  |
| GRP26434    | 14          | 1055  | 1132  | 1109          | N16      | W58           | .852                | 10412                     | 10.1             | 37                   | -N                 |              | 1.08                      |                           |                                 |                   | 4 3 3 7  |  |  |
| CATA        | 14          | 1032E | 1055  | 1035          | N16      | W58           | .852                | 10412                     | 10.1             | 23D                  | -B                 | 1035         | .40                       | .77                       |                                 | 269               |          |  |  |
| CATA        | 14          | 1050  | 1125  | 1105          | N15      | W56           | .833                | 10412                     | 10.3             | 35                   | -B                 | 1105         | .69                       | 1.28                      |                                 | 316               |          |  |  |
| HTPR        | 14          | 1100  | 1125  | 1113          | N17      | W58           | .853                | 10412                     | 10.1             | 25                   | -F                 | C 1113       | .31                       | .60                       |                                 |                   |          |  |  |
| ABST        | 14          | 1106E | 1145  | 1108          | N16      | W58           | .852                | 10412                     | 10.1             | 390                  | 1N                 | P 1108       | 2.25                      | 4.20                      |                                 |                   | EK       |  |  |
| SANM        | 14          | 1139E | 1519D |               | N17      | W58           | .853                | 10412                     | 10.1             | 2200                 | 1N                 | 1 P 1139     | 1.94                      | 3.88                      |                                 |                   | BT       |  |  |
| GRP26435    | 14          | 1614  | 1629  | 1617          | N06      | E90           | 1.000               | 10432                     | 21.4             | 15                   | -N                 |              | .40                       |                           |                                 |                   | 3 3 1 3  |  |  |
| MCMA        | 14          | 1614  | 1620D | 1616          | N05      | E90           | 1.000               | 10432                     | 21.4             | 6D                   | -N                 | C 1616       |                           |                           |                                 |                   | D        |  |  |
| BOUL        | 14          | 1614  | 1627  | 1617          | N06      | E89           | 1.000               | 10432                     | 21.4             | 13                   | -N                 | V            |                           |                           |                                 |                   |          |  |  |
| SACP        | 14          | 1614  | 1630  | 1617          | N06      | E90           | 1.000               | 10432                     | 21.4             | 16                   | -N                 | C            | .40                       |                           |                                 |                   |          |  |  |
| 436 BOUL    | 14          | 1817  | 1830  | 1819          | S17      | E02           | .343                | 10424                     | 14.9             | 13                   | -N                 | V            |                           |                           |                                 |                   | 4        |  |  |
| GRP26437    | 14          | 1858  | 1909  | 1902          | N08      | E89           | 1.000               | 10432                     | 21.5             | 11                   | --F                |              | .30                       |                           |                                 |                   | 2 2 1 3  |  |  |
| BOUL        | 14          | 1855  | 1909  | 1902          | N07      | E88           | .999                | 10432                     | 21.4             | 14                   | -N                 | V            |                           |                           |                                 |                   |          |  |  |
| SACP        | 14          | 1901  | 1908  | 1902          | N08      | E90           | 1.000               | 10432                     | 21.5             | 7                    | -F                 | C            | .30                       |                           |                                 |                   |          |  |  |
| GRP26438    | 15          | 0156  | 0205  | 0159          | N07      | E79           | .981                | 10432                     | 21.0             | 9                    | 1B                 |              | 1.34                      |                           |                                 |                   | 2 2 2 3  |  |  |
| MANI        | 15          | 0100  | 0206  | 0104          | N08      | E80           | .984                | 10432                     | 21.0             | 66                   | -F                 | 3 0104       | .21                       | .51                       |                                 |                   |          |  |  |
| CRON        | 15          | 0156  | 0204  | 0158          | N06      | E78           | .977                | 10432                     | 20.9             | 8                    | 1N                 | C            | 1.03                      | 3.00                      |                                 |                   | I        |  |  |
| MANI        | 15          | 0156E | 0211  | 0159          | N08      | E78           | .977                | 10432                     | 20.9             | 15D                  | 1B                 | 3 0159       | 1.65                      | 4.08                      |                                 |                   |          |  |  |
| 439 CRON    | 15          | 0550  | 0605  | 0557          | N05      | E72           | .950                | 10432                     | 20.6             | 15                   | 1N                 | C            | 1.55                      | 3.90                      |                                 |                   | I 3      |  |  |
| 451 SACP    | 15          | 1934  | 1955  | 1936          | N15      | E78           | .977                | 10432                     | 21.7             | 21                   | -N                 | C            | .40                       | .93                       |                                 |                   | 1        |  |  |
| 453 MANI    | 15          | 2330  | 2352  | 2335          | N16      | W68           | .928                | 10412                     | 10.9             | 22                   | --F                | 3 2335       | .83                       | 1.66                      |                                 |                   | 2        |  |  |
| GRP26454    | 16          | 0445  | 0459  | 0449          | N14      | E72           | .950                | 10432                     | 21.6             | 14                   | -F                 |              | .98                       |                           |                                 |                   | 2 2 2 5  |  |  |
| CRON        | 16          | 0445  | 0455  | 0449          | N13      | E72           | .950                | 10432                     | 21.6             | 10                   | 1N                 | C            | 1.03                      | 2.80                      |                                 |                   |          |  |  |
| MANI        | 16          | 0446E | 0502  |               | N14      | E71           | .945                | 10432                     | 21.5             | 16D                  | -F                 | 2 0449       | .93                       | 2.00                      |                                 |                   |          |  |  |
| GRP26455    | 16          | 0512  | 0523  | 0514          | N14      | E73           | .956                | 10432                     | 21.7             | 11                   | -N                 |              | .73                       |                           |                                 |                   | 2 2 2 4  |  |  |
| MANI        | 16          | 0512  | 0526  | 0514          | N14      | E71           | .945                | 10432                     | 21.5             | 14                   | -N                 | 3 0514       | .93                       | 2.00                      |                                 |                   |          |  |  |
| MITK        | 16          | 0512  | 0520  | 0514          | N14      | E75           | .965                | 10432                     | 21.8             | 8                    | -N                 | C 0514       | .52                       |                           |                                 |                   | D        |  |  |
| GRP26456    | 16          | 0731  | 0749  | 0741          | N17      | W89           | 1.000               | 10412                     | 9.6              | 18                   | -N                 |              | .86                       |                           |                                 |                   | 4 4 3 9  |  |  |
| HTPR        | 16          | 0725  | 0750  | 0742          | N16      | W85           | .995                | 10412                     | 9.9              | 25                   | -N                 | C 0742       | .72                       |                           |                                 |                   |          |  |  |
| ABST        | 16          | 0733  | 0751  | 0740          | N16      | W90           | 1.000               | 10412                     | 9.6              | 18                   | 1F                 | C 0740       | 1.35                      |                           |                                 |                   | FKH      |  |  |
| CRON        | 16          | 0735  | 0747  | 0741          | N16      | W90           | 1.000               | 10412                     | 9.6              | 12                   | -N                 | C            | .52                       | 2.00                      |                                 |                   | H        |  |  |
| CAPS        | 16          | 0745E | 0747  |               | N20      | W90           | 1.000               | 10412                     | 9.6              | 2D                   | -N                 | 1 S          |                           |                           |                                 |                   | B        |  |  |
| GRP26457    | 16          | 0851  | 0902  | 0855          | N13      | E07           | .214                | 10426                     | 16.9             | 11                   | --N                |              | .24                       |                           |                                 |                   | 3 3 2 11 |  |  |
| HTPR        | 16          | 0851  | 0903  | 0855          | N15      | E03           | .218                | 10426                     | 16.6             | 12                   | -F                 | C 0855       | .26                       | .30                       |                                 |                   |          |  |  |
| ONDR        | 16          | 0853E | 0859  |               | N11      | E10           | .223                | 10426                     | 17.1             | 6D                   | -N                 | V 0853       |                           |                           | 2.10                            |                   | CDH      |  |  |
| CATA        | 16          | 0855E | 0905D | 0855          | N14      | E09           | .248                | 10426                     | 17.0             | 10D                  | -B                 | 0855         | .29                       | .30                       |                                 | 233               | BD       |  |  |
| GRP26458    | 16          | 0953  | 1009  | 0956          | N18      | W88           | .999                | 10412                     | 9.8              | 16                   | 1N                 |              | .87                       |                           |                                 |                   | 7 7 7 11 |  |  |
| ABST        | 16          | 0953E | 1012  | 0956          | N18      | W90           | 1.000               | 10412                     | 9.7              | 19D                  | 1F                 | C 0956       | 1.26                      |                           |                                 |                   | DHK      |  |  |
| HTPR        | 16          | 0953  | 1010  | 0957          | N19      | W85           | .995                | 10412                     | 10.0             | 17                   | -N                 | C 0957       | .77                       |                           |                                 |                   |          |  |  |
| CRON        | 16          | 0953  | 0958  | 0955          | N18      | W90           | 1.000               | 10412                     | 9.7              | 5                    | -B                 | C            | .41                       | 1.60                      |                                 |                   | H        |  |  |
| CAPE        | 16          | 0953  | 1010  | 0957          | N20      | W85           | .995                | 10412                     | 10.0             | 17                   | -N                 | C 0957       | .87                       |                           |                                 |                   |          |  |  |
| CAPS        | 16          | 0954E | 1007D |               | N17      | W90           | 1.000               | 10412                     | 9.7              | 13D                  | 1N                 | 3 P 0956     | 1.03                      |                           |                                 | 190               |          |  |  |
| CANR        | 16          | 0954  | 1010  | 0957          | N18      | W90           | 1.000               | 10412                     | 9.7              | 16                   | 1R                 | C            | .90                       | 3.60                      |                                 |                   | H        |  |  |
| BUCA        | 16          | 0954  | 1015D | 0955          | N19      | W85           | .995                | 10412                     | 10.0             | 21D                  | 1N                 | C 0955       | .83                       |                           |                                 |                   | ADC      |  |  |
| 464 CANR    | 16          | 1710  | 1714  | 1712          | N22      | W85           | .995                | 10412                     | 10.3             | 4                    | -N                 | C            | .30                       | 1.00                      |                                 |                   | 3        |  |  |
| 465 HUAN    | 16          | 1733E | 1743D |               | N12      | E70           | .939                | 10432                     | 22.0             | 10D                  | 1F                 | 1 C          | .21                       |                           |                                 |                   | E 2      |  |  |
| GRP26466    | 16          | 1800  | 1822  | 1813          | N11      | E68           | .926                | 10432                     | 21.9             | 22                   | --F                |              | .28                       |                           |                                 |                   | 2 2 2 3  |  |  |
| PALE        | 16          | 1800  | 1830  | 1813          | N12      | E67           | .920                | 10432                     | 21.8             | 30                   | -F                 | C            | .25                       |                           |                                 |                   |          |  |  |
| MCMA        | 16          | 1810E | 1814  |               | N10      | E68           | .926                | 10432                     | 21.9             | 4D                   | -N                 | C 1811       | .31                       | .80                       |                                 |                   | D        |  |  |
| 467 PALE    | 16          | 1848  | 1900  | 1851          | N15      | E74           | .960                | 10432                     | 22.3             | 12                   | --F                | C            | .17                       |                           |                                 |                   | 3        |  |  |
| GRP26468    | 16          | 2141  | 2202  | 2144          | N08      | E62           | .882                | 10432                     | 21.6             | 21                   | -B                 |              | .65                       |                           |                                 |                   | 2 2 1 3  |  |  |
| BOUL        | 16          | 2140  | 2158  | 2144          | N08      | E60           | .865                | 10432                     | 21.4             | 18                   | -B                 | V            |                           |                           |                                 |                   |          |  |  |
| PALE        | 16          | 2141  | 2205  | 2143          | N08      | E64           | .898                | 10432                     | 21.7             | 24                   | -B                 | C            | .65                       |                           |                                 |                   |          |  |  |

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Nov 69

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |                 | LOCATION |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|-------------|-------------|-------|-------|-----------------|----------|---------------|---------------------|---------------------------|------------|------------------|----------------------|-------|------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|             | DATE        | START | END   | MAX. PHASE      | APPROX.  |               | CENTRAL<br>DISTANCE | MCARTH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      | COND. | TYPE | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|             |             |       |       |                 | LAT.     | MER.<br>DIST. |                     |                           |            |                  |                      |       |      |              |                           |                           |                             |                   |         |
|             | 1969<br>NOV |       |       |                 |          |               |                     |                           |            |                  |                      |       |      |              |                           |                           |                             |                   |         |
| GRP26469    | 16          | 2220  | 2244  | 2226            | N14      | E64           | .900                | 10432                     | 21.7       | 24               | 1N                   |       |      |              | 1.39                      |                           |                             | 4 3 2 4           |         |
| CULG        | 16          | 2220  | 2251  | 2226            | N15      | E65           | .907                | 10432                     | 21.8       | 31               | 1N                   |       | C    | 2226         | 1.65                      | 3.68                      |                             |                   |         |
| BOUL        | 16          | 2220  | 2230D | 2223            | N15      | E66           | .914                | 10432                     | 21.9       | 100              | -N                   |       | C    |              | .70                       | 1.50                      |                             |                   |         |
| MANI        | 16          | 2221E | 2237  | 2225            | N13      | E63           | .892                | 10432                     | 21.7       | 160              | -N                   | 1     |      | 2225         | 1.13                      | 2.20                      |                             |                   |         |
| BOUL        | 16          | 2223  | 2235D | 2226            | N14      | E64           | .900                | 10432                     | 21.7       | 120              | 1F                   |       | V    |              |                           |                           |                             |                   |         |
| PALE        | 16          | 2226  | 2240  | 2240            | N16      | E64           | .901                | 10432                     | 21.7       | 14               | 1N                   |       | C    |              | 1.38                      |                           |                             |                   |         |
| GRP26470    | 16          | 2318  | 2347  | 2325            | N14      | E64           | .900                | 10432                     | 21.8       | 29               | -N                   |       |      |              | .53                       |                           |                             | 2 2 2 5           |         |
| MANI        | 16          | 2318  | 2345  | 2328            | N13      | E64           | .899                | 10432                     | 21.8       | 27               | -N                   | 2     |      | 2328         | .41                       | .80                       |                             |                   |         |
| PALE        | 16          | 2321E | 2349D | 2321            | N15      | E64           | .900                | 10432                     | 21.8       | 280              | -N                   |       | C    |              | .65                       |                           |                             |                   |         |
| GRP26472    | 17          | 0236  | 0258  | 0246            | N14      | E61           | .877                | 10432                     | 21.7       | 22               | -N                   |       |      |              | 1.09                      |                           |                             | 4 4 4 6           |         |
| CULG        | 17          | 0230  | 0300  | 0247            | N13      | E60           | .868                | 10432                     | 21.6       | 30               | 1N                   |       | C    | 0247         | 1.44                      | 2.80                      |                             |                   |         |
| VORO        | 17          | 0242  | 0255  | 0245            | N16      | E61           | .878                | 10432                     | 21.7       | 13               | 1B                   |       | C    | 0245         | 1.57                      | 3.24                      | 83                          | EJ                |         |
| PALE        | 17          | 0243E | 0246D | 0246            | N14      | E60           | .868                | 10432                     | 21.6       | 30               | -N                   |       | C    |              | .71                       |                           |                             |                   |         |
| MANI        | 17          | 0249E | 0300  |                 | N12      | E62           | .884                | 10432                     | 21.8       | 110              | -N                   | 3     |      | 0251         | .62                       | 1.13                      |                             |                   |         |
| GRP26473    | 17          | 0636  | 0704  | 0646            | S21      | W52           | .830                | 10429                     | 13.4       | 28               | -N                   |       |      |              | .88                       |                           |                             | 2 2 2 4           |         |
| MANI        | 17          | 0635  | 0702  | 0642            | S20      | W52           | .827                | 10429                     | 13.4       | 27               | -N                   | 3     |      | 0642         | .83                       | 1.34                      |                             |                   |         |
| CAPE        | 17          | 0637  | 0705  | 0650            | S21      | W52           | .830                | 10429                     | 13.4       | 28               | -N                   |       | C    | 0650         | .92                       | 1.70                      |                             |                   |         |
| 476 CATA    | 17          | 1230E | 1300  | 1242            | N07      | E47           | .732                | 10432                     | 21.0       | 300              | --N                  |       |      | 1242         | .58                       | .85                       | 174                         | 2                 |         |
| GRP26477    | 17          | 1436  | 1609  | 1444            | N16      | E57           | .844                | 10432                     | 21.9       | 93               | --F                  |       |      |              | .25                       |                           |                             | 2 1 1 4           |         |
| HUAN        | 17          | 1436  | 1609  |                 | N16      | E57           | .844                | 10432                     | 21.9       | 93               | -F                   | 1     | P    | 1542         | .25                       | .40                       |                             | E                 |         |
| BOUL        | 17          | 1443  | 1450D | 1444            | N11      | E47           | .735                | 10432                     | 21.1       | 70               | -N                   |       | V    |              |                           |                           |                             |                   |         |
|             | 17          | 1558  | 1605  | NO FLARE PATROL |          |               |                     |                           |            |                  |                      |       |      |              |                           |                           |                             |                   |         |
| 479 HUAN    | 17          | 1704  | 1717D |                 | N13      | E55           | .823                | 10432                     | 21.8       | 130              | --N                  | 1     | C    | 1707         | .37                       | .70                       |                             | E 2               |         |
| 480 HUAN    | 17          | 1712  | 1728D |                 | N08      | E45           | .708                | 10432                     | 21.1       | 160              | --F                  | 1     | C    | 1722         | .17                       | .20                       |                             | E 2               |         |
| 481 PALE    | 17          | 1719  | 1731  | 1721            | S14      | E20           | .437                | 10437                     | 19.2       | 12               | --F                  |       | C    |              | .31                       |                           |                             | 2                 |         |
| GRP26482    | 17          | 1738  | 1749  | 1741            | N16      | W13           | .317                | 10426                     | 16.8       | 11               | --B                  |       |      |              | .54                       |                           |                             | 2 2 2 2           |         |
| HUAN        | 17          | 1737  | 1750D | 1740            | N16      | W13           | .317                | 10426                     | 16.8       | 130              | -N                   | 1     | C    | 1740         | .37                       | .40                       |                             | E                 |         |
| PALE        | 17          | 1739  | 1747  | 1742            | N16      | W13           | .317                | 10426                     | 16.8       | 8                | -B                   |       | C    |              | .71                       |                           |                             |                   |         |
| GRP26483    | 17          | 1743  | 1821  | 1747            | N11      | E49           | .758                | 10432                     | 21.4       | 38               | -B                   |       |      |              | 1.42                      |                           |                             | 2 2 2 2           |         |
| HUAN        | 17          | 1738  | 1747D |                 | N10      | E47           | .734                | 10432                     | 21.3       | 90               | -N                   | 1     | C    | 1739         | .21                       | .30                       |                             | D                 |         |
| PALE        | 17          | 1743  | 1821D | 1747            | N12      | E53           | .802                | 10432                     | 21.7       | 380              | 1B                   |       | C    |              | 2.13                      |                           |                             |                   |         |
| HUAN        | 17          | 1743  | 1811D |                 | N08      | E54           | .809                | 10432                     | 21.8       | 280              | -N                   | 1     | P    | 1744         | .50                       | .80                       |                             | E                 |         |
| PALE        | 17          | 1809  | 1821D | 1810            | N12      | E44           | .702                | 10432                     | 21.1       | 120              | -N                   |       | C    |              | .56                       |                           |                             |                   |         |
|             | 17          | 1821  | 1842  | NO FLARE PATROL |          |               |                     |                           |            |                  |                      |       |      |              |                           |                           |                             |                   |         |
| 484 PALE    | 17          | 1952  | 2000  | 1956            | N17      | E55           | .828                | 10432                     | 22.0       | 8                | --B                  |       | C    |              | .24                       |                           |                             | 3                 |         |
| 485 PALE    | 17          | 2044  | 2105D | 2100            | N10      | E42           | .674                | 10432                     | 21.0       | 210              | --N                  |       | C    |              | .56                       |                           |                             | 2                 |         |
| 486 CULG    | 17          | 2105  | 2125  | 2109            | S20      | W59           | .884                | 10429                     | 13.5       | 20               | 1N                   |       | C    | 2109         | 1.24                      | 2.52                      |                             | R 2               |         |
| 487 PALE    | 17          | 2135  | 2150  | 2139            | N17      | E54           | .818                | 10432                     | 21.9       | 15               | -N                   |       | C    |              | .63                       |                           |                             | 3                 |         |
| 488 CULG    | 17          | 2233  | 2250  | 2236            | N10      | E41           | .661                | 10432                     | 21.0       | 17               | 1F                   |       | C    | 2236         | 1.65                      | 2.08                      |                             | TI 4              |         |
| GRP26490    | 18          | 0045  | 0057  | 0046            | N10      | E40           | .648                | 10432                     | 21.0       | 12               | -B                   |       |      |              | 1.54                      |                           |                             | 3 3 3 4           |         |
| VORO        | 18          | 0044  | 0053  | 0045            | N10      | E40           | .648                | 10432                     | 21.0       | 9                | 1B                   |       | C    | 0045         | 1.94                      | 2.44                      | 93                          | EH                |         |
| MITK        | 18          | 0045  | 0103  | 0047            | N10      | E40           | .648                | 10432                     | 21.0       | 18               | -N                   |       | C    | 0047         | 1.13                      | 1.50                      |                             |                   |         |
| CRON        | 18          | 0045  | 0055  | 0047            | N09      | E39           | .634                | 10432                     | 21.0       | 10               | -B                   |       | C    |              | 1.55                      | 1.90                      |                             |                   |         |
| GRP26495    | 18          | 0950  | 1050  | 1011            | N15      | E45           | .720                | 10432                     | 21.8       | 60               | -N                   |       |      |              | 1.77                      |                           |                             | 4 2 2 7           |         |
| CATA        | 18          | 0950  | 1000D | 0952            | N01      | E47           | .731                | 10432                     | 21.9       | 100              | -B                   |       |      | 0952         | .52                       | .76                       | 263                         | T                 |         |
| HTPR        | 18          | 0953  | 1050  | 1012            | N15      | E46           | .732                | 10432                     | 21.9       | 57               | 1N                   |       | C    | 1012         | 2.37                      | 3.20                      |                             | E                 |         |
| ZURI        | 18          | 0954E | 1038D | 1010            | N15      | E44           | .709                | 10432                     | 21.7       | 440              | -N                   |       | P    | 1010         | 1.16                      | 1.60                      |                             |                   |         |
| LOCA        | 18          | 1034E | 1105D | 1034            | N13      | E45           | .716                | 10432                     | 21.8       | 310              | 1N                   |       | V    | 1034         | 1.68                      | 2.40                      |                             |                   |         |
| GRP26496    | 18          | 1053  | 1113  | 1059            | N15      | E45           | .720                | 10432                     | 21.8       | 20               | -B                   |       |      |              | 1.35                      |                           |                             | 2 2 2 7           |         |
| ZURI        | 18          | 1050E | 1100D | 1100            | N15      | E44           | .709                | 10432                     | 21.8       | 100              | 1N                   |       | P    | 1100         | 1.56                      | 2.20                      |                             |                   |         |
| HTPR        | 18          | 1055  | 1113  | 1058            | N14      | E45           | .718                | 10432                     | 21.8       | 18               | -B                   |       | C    | 1058         | 1.13                      | 1.50                      |                             |                   |         |

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |            |                  |                     |         | DURATION<br>MIN. | IMPORTANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                     |                     |                       |             | REMARKS |
|-------------|-------------|-------|-------|------------|----------|------------|------------------|---------------------|---------|------------------|------------|--------------------|--------------|---------------------|---------------------|-----------------------|-------------|---------|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCNATH PLAGE REGION | CMP DAY |                  |            |                    | TIME UT      | MEAS. AREA Sq. Deg. | CORR. AREA Sq. Deg. | MAX. WIDTH H $\alpha$ | MAX. INT. % |         |
|             |             |       |       |            | LAT.     | MER. DIST. |                  |                     |         |                  |            |                    |              |                     |                     |                       |             |         |
|             | 1969<br>NOV |       |       |            |          |            |                  |                     |         |                  |            |                    |              |                     |                     |                       |             |         |
| GRP26497    | 18          | 1119  | 1432  | 1334       | N13      | E42        | .680             | 10432               | 21.6    | 193              | 1B         |                    |              | 3.60                |                     |                       | 5 4 4 8     |         |
| HTPR        | 18          | 1119  | 1255  | 1143       | N14      | E45        | .718             | 10432               | 21.8    | 96               | 1N         | C                  | 1143         | 2.06                | 2.80                |                       | E           |         |
| ZURI        | 18          | 1204E | 1434D | 1334       | N13      | E41        | .668             | 10432               | 21.6    | 150D             | 1N         | P                  | 1334         | 3.57                | 4.80                |                       |             |         |
| ZURI        | 18          | 1204E | 1434D | 1350       | N13      | E41        | .668             | 10432               | 21.6    | 150D             | 2N         | P                  | 1350         | 4.41                | 5.90                |                       |             |         |
| ZURI        | 18          | 1204E | 1434D | 1222       | N15      | E44        | .709             | 10432               | 21.8    | 150D             | 1N         | P                  | 1222         | 1.76                | 2.50                |                       |             |         |
| ZURI        | 18          | 1204E | 1434D | 1302       | N13      | E41        | .668             | 10432               | 21.6    | 150D             | 1N         | P                  | 1302         | 2.31                | 3.10                |                       |             |         |
| ZURI        | 18          | 1204E | 1434D | 1242       | N15      | E44        | .709             | 10432               | 21.8    | 150D             | 1N         | P                  | 1242         | 2.52                | 3.60                |                       |             |         |
| ZURI        | 18          | 1204E | 1434D | 1420       | N13      | E41        | .668             | 10432               | 21.6    | 150D             | 1N         | P                  | 1420         | 3.16                | 4.20                |                       |             |         |
| HTPR        | 18          | 1250  | 1430  | 1333       | N13      | E44        | .704             | 10432               | 21.8    | 100              | 1B         | C                  | 1333         | 2.78                | 3.80                |                       | E           |         |
| MONI        | 18          | 1305E | 1350D | 1334       | N12      | E40        | .653             | 10432               | 21.5    | 45D              | 2B         | C                  | 1334         | 6.19                |                     |                       |             |         |
| CATA        | 18          | 1320E | 1420D | 1332       | S03      | E40        | .648             | 10432               | 21.6    | 60D              | -B         |                    | 1332         | 1.33                | 1.82                |                       |             |         |
| CAPP        | 18          | 1322E | 1340D |            | N13      | E41        | .668             | 10432               | 21.6    | 18D              | 1N         | C                  | 1336         | 1.86                | 2.52                |                       |             |         |
| GRP26499    | 18          | 1514  | 1544  | 1522       | N14      | E42        | .682             | 10432               | 21.8    | 30               | -N         |                    |              | 1.55                |                     |                       | 3 3 3 4     |         |
| CANR        | 18          | 1512  | 1543  | 1520U      | N14      | E42        | .682             | 10432               | 21.8    | 31               | 1N         | C                  |              | 1.90                | 2.70                |                       |             |         |
| SACP        | 18          | 1515  | 1550  | 1521       | N14      | E42        | .682             | 10432               | 21.8    | 35               | -B         | C                  |              | 1.40                | 1.62                |                       | FI          |         |
| HTPR        | 18          | 1515  | 1538  | 1524       | N14      | E42        | .682             | 10432               | 21.8    | 23               | -N         | C                  | 1524         | 1.34                | 1.80                |                       | E           |         |
| GRP26500    | 18          | 1635  | 1741  | 1654       | N14      | E40        | .658             | 10432               | 21.7    | 66               | 2B         |                    |              | 7.04                |                     |                       | 3 3 3 3     |         |
| SACP        | 18          | 1630  | 1756  | 1656       | N14      | E40        | .658             | 10432               | 21.7    | 86               | 2B         | C                  |              | 6.81                | 7.73                |                       | EFI         |         |
| BOUL        | 18          | 1636  | 1758  | 1701       | N14      | E40        | .658             | 10432               | 21.7    | 82               | 2B         | V                  |              |                     |                     |                       |             |         |
| BOUL        | 18          | 1638  | 1725  | 1653U      | N15      | E39        | .648             | 10432               | 21.6    | 47               | 2B         | C                  |              | 4.70                | 6.10                |                       |             |         |
| CANR        | 18          | 1640  | 1720D | 1654U      | N14      | E40        | .658             | 10432               | 21.7    | 40D              | 3B         | C                  |              | 9.60                | 13.00               |                       | E           |         |
| GRP26501    | 18          | 1829  | 1857  | 1839       | N17      | E41        | .679             | 10432               | 21.8    | 28               | -N         |                    |              | 1.21                |                     |                       | 2 2 1 2     |         |
| BOUL        | 18          | 1829  | 1859D | 1843       | N16      | E40        | .664             | 10432               | 21.8    | 30D              | -N         | V                  |              |                     |                     |                       |             |         |
| SACP        | 18          | 1829  | 1855  | 1834       | N17      | E41        | .679             | 10432               | 21.8    | 26               | -N         | C                  |              | 1.21                | 1.39                |                       |             |         |
| 502 BOUL    | 18          | 2009  | 2022D | 2010       | N14      | E41        | .670             | 10432               | 21.9    | 13D              | -N         | V                  |              |                     |                     |                       | 3           |         |
| GRP26506    | 18          | 2121  | 2150  | 2125       | N15      | E39        | .648             | 10432               | 21.8    | 29               | -B         |                    |              | 1.79                |                     |                       | 3 3 3 3     |         |
| BOUL        | 18          | 2117  | 2146  | 2123       | N15      | E39        | .648             | 10432               | 21.8    | 29               | -B         | V                  |              |                     |                     |                       |             |         |
| CULG        | 18          | 2118  | 2153  | 2125       | N14      | E39        | .645             | 10432               | 21.8    | 35               | 1N         | C                  | 2125         | 2.68                | 3.38                |                       |             |         |
| SACP        | 18          | 2122  | 2151  | 2125       | N16      | E40        | .664             | 10432               | 21.9    | 29               | -B         | C                  |              | 1.70                | 1.92                |                       | E           |         |
| BOUL        | 18          | 2122  | 2137  | 2124       | N16      | E39        | .652             | 10432               | 21.8    | 15               | -B         | C                  |              | 1.00                | 1.40                |                       | I           |         |
| GRP26507    | 18          | 2321  | 2359  | 2328       | N15      | E37        | .623             | 10432               | 21.7    | 38               | 1B         |                    |              | 2.36                |                     |                       | 3 2 2 3     |         |
| SACP        | 18          | 2319U | 2348D | 2327U      | N15      | E38        | .636             | 10432               | 21.8    | 29D              | 1N         | C                  |              | 2.13                | 2.38                |                       |             |         |
| CULG        | 18          | 2320  | 2358  | 2328       | N14      | E36        | .607             | 10432               | 21.7    | 38               | 1B         | C                  | 2328         | 2.58                | 3.25                |                       |             |         |
| CRON        | 18          | 2322  | 2350  | 2326       | N14      | E37        | .620             | 10432               | 21.7    | 28               | 1N         | C                  |              | 2.27                | 2.90                |                       | E           |         |
| MITK        | 18          | 2337  | 2359  |            | N15      | E38        | .636             | 10432               | 21.8    | 22               | 1N         | C                  | 2338         | 1.86                | 2.30                |                       | E           |         |
| 26507       | 18          | 2320  | 2358  | 2333       | N06      | E33        | .546             | 10432               | 21.4    | 38               | *1B        |                    |              | 3.71                |                     |                       | 2 1 1 3     |         |
| CULG        | 18          | 2320  | 2358  |            | N06      | E33        | .546             | 10432               | 21.4    | 38               | 1B         |                    | 2333         | 3.71                | 4.50                |                       | W           |         |
| MITK        | 18          | 2337E | 2357  |            | N08      | E33        | .549             | 10432               | 21.5    | 20D              | -F         | C                  | 2338         | .52                 | .60                 |                       | E           |         |
| 508 CULG    | 18          | 2341  | 2357  | 2346       | S14      | E87        | .999             | 10440               | 25.5    | 16               | 1N         | C                  | 2346         | .57                 |                     |                       | 4           |         |
| GRP26510    | 19          | 0144  | 0225  | 0149       | N14      | E34        | .581             | 10432               | 21.6    | 41               | -N         |                    |              | 1.17                |                     |                       | 3 3 3 4     |         |
| PALE        | 19          | 0140  | 0217  | 0146       | N14      | E35        | .594             | 10432               | 21.7    | 37               | -B         | C                  |              | .43                 |                     |                       |             |         |
| MITK        | 19          | 0145  | 0238  | 0150       | N13      | E35        | .591             | 10432               | 21.7    | 53               | -N         | C                  | 0150         | 1.44                | 1.80                |                       | E           |         |
| CRON        | 19          | 0147  | 0220  | 0150       | N13      | E36        | .604             | 10432               | 21.8    | 33               | -N         | C                  |              | 1.65                | 2.00                |                       | E           |         |
| CRON        | 19          | 0235  | 0325  | 0242       | N17      | E27        | .504             | 10432               | 21.1    | 50               | -N         | C                  |              | 1.55                | 1.70                |                       | EHL         |         |
| GRP26513    | 19          | 0333  | 0414  | 0337       | N18      | E26        | .498             | 10432               | 21.1    | 41               | -N         |                    |              | 2.32                |                     |                       | 2 2 2 4     |         |
| CULG        | 19          | 0331  | 0443  | 0339       | N17      | E23        | .453             | 10432               | 20.9    | 72               | 1N         | C                  | 0339         | 3.20                | 3.56                |                       | HL          |         |
| MITK        | 19          | 0334  | 0350  | 0335       | N19      | E27        | .518             | 10432               | 21.2    | 16               | -N         | C                  | 0335         | 1.44                | 1.70                |                       | E           |         |
| CRON        | 19          | 0416  | 0437  | 0423       | N17      | E27        | .504             | 10432               | 21.2    | 21               | 1N         | C                  |              | 1.86                | 2.10                |                       |             |         |
| GRP26514    | 19          | 0415  | 0447  | 0424       | N14      | E34        | .581             | 10432               | 21.7    | 32               | 1N         |                    |              | 2.71                |                     |                       | 3 3 3 4     |         |
| MITK        | 19          | 0413  | 0451  | 0423       | N14      | E35        | .594             | 10432               | 21.8    | 38               | 1N         | C                  | 0423         | 2.37                | 2.90                |                       | E           |         |
| CULG        | 19          | 0415  | 0436  | 0424       | N14      | E31        | .541             | 10432               | 21.5    | 21               | 1N         | C                  | 0424         | 3.71                | 4.32                |                       | LH          |         |
| CRON        | 19          | 0416  | 0435  | 0422       | N13      | E33        | .564             | 10432               | 21.7    | 19               | 1N         | C                  |              | 3.09                | 3.60                |                       | E           |         |
| MANI        | 19          | 0424E | 0453D |            | N13      | E34        | .577             | 10432               | 21.7    | 29D              | 1N         | 1                  | 0424         | 2.06                | 2.56                |                       |             |         |
| MITK        | 19          | 0439  | 0501  | 0445       | N16      | E36        | .615             | 10432               | 21.9    | 22               | -N         | C                  | 0445         | .52                 | .70                 |                       | E           |         |
| GRP26515    | 19          | 0530  | 0608  | 0539       | N14      | E33        | .568             | 10432               | 21.7    | 38               | 1B         |                    |              | 5.02                |                     |                       | 4 4 3 5     |         |
| TEL V       | 19          | 0500  | 0550  | 0540       | N14      | E34        | .581             | 10432               | 21.8    | 50               | 1N         |                    |              |                     |                     |                       |             |         |
| CULG        | 19          | 0528  | 0625  | 0539       | N14      | E32        | .554             | 10432               | 21.6    | 57               | 2N         | C                  | 0539         | 4.64                | 5.40                |                       | R           |         |
| MITK        | 19          | 0531  | 0630D | 0537       | N13      | E32        | .550             | 10432               | 21.6    | 59D              | 2B         | C                  | 0537         | 6.81                | 8.10                |                       | F           |         |
| CRON        | 19          | 0535  | 0605  | 0540U      | N12      | E32        | .546             | 10432               | 21.6    | 30               | 2B         | C                  |              | 6.19                | 7.20                |                       | E           |         |
| MANI        | 19          | 0537E | 0540D |            | N14      | E34        | .581             | 10432               | 21.8    | 30               | 1N         | 1                  | 0538         | 2.06                | 2.56                |                       |             |         |
| 26515       | 19          | 0457  | 0524  | 0501       | N15      | E35        | .598             | 10432               | 21.8    | 27               | *-N        |                    |              | 1.29                |                     |                       | 2 2 2 4     |         |
| MITK        | 19          | 0457  | 0510  | 0501       | N15      | E35        | .598             | 10432               | 21.8    | 13               | -N         | C                  | 0501         | 1.13                | 1.70                |                       | E           |         |
| MANI        | 19          | 0501E | 0537D |            | N14      | E34        | .581             | 10432               | 21.8    | 36D              | -N         | 2                  | 0501         | 1.44                | 1.79                |                       |             |         |
| 516 CULG    | 19          | 0544  | 0606  | 0555       | S22      | W84        | .997             | 10429               | 12.9    | 22               | 1N         | C                  | 0555         | .62                 |                     |                       | 3           |         |



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Nov 69

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |               | LOCATION |               |                     |                            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                           |                           |                     |                   | REMARKS |      |  |
|---------------------------------------------------------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|----------------------------|------------------|----------------------|-------|------|--------------|---------------------------|---------------------------|---------------------|-------------------|---------|------|--|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMTATH<br>FLAGE<br>REGION | CMP<br>DAY       |                      | COND. | TYPE | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>Ha | MAX.<br>INT.<br>% |         |      |  |
|                                                                           |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                            |                  |                      |       |      |              |                           |                           |                     |                   |         |      |  |
| 1969 NOV                                                                  |             |       |       |               |          |               |                     |                            |                  |                      |       |      |              |                           |                           |                     |                   |         |      |  |
| GRP26517                                                                  | 19          | 0704  | 0728  | 0708          | N07      | E30           | .504                | 10432                      | 21.5             | 24                   | 1B    |      |              | 4.68                      |                           |                     |                   | 5 5 3 6 |      |  |
| CULG                                                                      | 19          | 0658  | 0728  | 0707          | N07      | E29           | .489                | 10432                      | 21.5             | 30                   | 2B    |      | 0707         | 5.16                      | 5.52                      |                     |                   | HT      |      |  |
| ISTA                                                                      | 19          | 0659E | 0755  |               | N14      | E36           | .607                | 10432                      | 22.0             | 56D                  | -B    |      |              |                           |                           |                     |                   |         |      |  |
| TELV                                                                      | 19          | 0701  | 0725  | 0706          | N06      | E30           | .502                | 10432                      | 21.5             | 24                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| HTPR                                                                      | 19          | 0701E | 0724  |               | N06      | E30           | .502                | 10432                      | 21.5             | 23D                  | 1B    | C    | 0706         | 4.64                      | 5.20                      |                     |                   |         |      |  |
| CRON                                                                      | 19          | 0702  | 0715D | 0706          | N06      | E27           | .456                | 10432                      | 21.3             | 13D                  | 1B    | C    |              | 3.82                      | 4.30                      |                     |                   | L       |      |  |
| ISTA                                                                      | 19          | 0706  | 0735  | 0707          | N05      | E29           | .486                | 10432                      | 21.5             | 29                   | -B    |      |              |                           |                           |                     |                   |         |      |  |
| ABST                                                                      | 19          | 0709  | 0730  | 0711          | N08      | E29           | .491                | 10432                      | 21.5             | 21                   | 2N    | C    | 0711         | 4.23                      | 4.90                      |                     | 76                | E       |      |  |
| ISTA                                                                      | 19          | 0720E | 0735D |               | N13      | E35           | .591                | 10432                      | 21.9             | 15D                  | -N    |      |              |                           |                           |                     |                   |         |      |  |
| GRP26518                                                                  | 19          | 0810  | 0838  | 0817          | N13      | E33           | .564                | 10432                      | 21.8             | 28                   | 2B    |      |              | 4.49                      |                           |                     |                   | 5 5 3 6 |      |  |
| CANR                                                                      | 19          | 0802  | 0840  | 0817          | N12      | E32           | .546                | 10432                      | 21.7             | 38                   | 2B    | C    |              | 6.50                      | 7.80                      |                     |                   |         |      |  |
| TELV                                                                      | 19          | 0810  | 0838  | 0819          | N15      | E37           | .624                | 10432                      | 22.1             | 28                   | 2N    |      |              |                           |                           |                     |                   |         |      |  |
| CRON                                                                      | 19          | 0812  | 0830  | 0818          | N15      | E32           | .559                | 10432                      | 21.7             | 18                   | 2B    | C    |              | 5.16                      | 6.00                      |                     |                   | L       |      |  |
| ABST                                                                      | 19          | 0812  | 0843D | 0815          | N12      | E33           | .560                | 10432                      | 21.8             | 31D                  | 1B    | C    | 0815         | 1.80                      | 2.10                      |                     | 88                | FK      |      |  |
| ISTA                                                                      | 19          | 0813  | 0838D | 0814          | N15      | E37           | .624                | 10432                      | 22.1             | 25D                  | 2B    |      |              |                           |                           |                     |                   |         |      |  |
| TELV                                                                      | 19          | 0837  | 0855  | 0844          | N06      | E30           | .502                | 10432                      | 21.6             | 18                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| 6 STATIONS REPORTING GROUP 26519. 0 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                            |                  |                      |       |      |              |                           |                           |                     |                   |         |      |  |
| GRP26519                                                                  | 19          | 1055  | 1135  | 1111          | N13      | E31           | .537                | 10432                      | 21.8             | 40                   | 1N    |      |              | 2.93                      |                           |                     |                   | 3 3 2 4 |      |  |
| TELV                                                                      | 19          | 1045  | 1125  | 1115          | N15      | E37           | .624                | 10432                      | 22.2             | 40                   | 1N    |      |              |                           |                           |                     |                   |         |      |  |
| BUCA                                                                      | 19          | 1104  | 1149  | 1108          | N12      | E27           | .476                | 10432                      | 21.5             | 45                   | 1B    | C    | 1108         | 2.76                      | 3.10                      |                     |                   | CJ      |      |  |
| HERS                                                                      | 19          | 1107E | 1130  | 1110          | N12      | E28           | .490                | 10432                      | 21.6             | 23D                  | 1N    | P    | 1111         | 3.09                      | 3.60                      | 2.30                | 47                | E       |      |  |
| 26519                                                                     | 19          | 1127  | 1249  | 1129          | N12      | E27           | .476                | 10432                      | 21.5             | 82                   | *1N   |      |              | 3.61                      |                           |                     |                   | 3 1 1 5 |      |  |
| KIEV                                                                      | 19          | 1121  | 1151  | 1129          | N12      | E29           | .504                | 10432                      | 21.6             | 30                   | 1N    | C    | 1129         | 3.50                      | 4.10                      |                     | 75                | EI      |      |  |
| CAPS                                                                      | 19          | 1127E | 1249D |               | N12      | E27           | .476                | 10432                      | 21.5             | 82D                  | 1N    | 3    | P            | 1150                      | 3.61                      | 4.00                |                   | 182     |      |  |
| HUAN                                                                      | 19          | 1223E | 1255D |               | N11      | E28           | .486                | 10432                      | 21.6             | 32D                  | -F    | 2    | C            | 1252                      | .31                       | .30                 |                   |         | E    |  |
| GRP26522                                                                  | 19          | 1446  | 1613  | 1540          | N12      | E26           | .462                | 10432                      | 21.6             | 87                   | -N    |      |              | 1.71                      |                           |                     |                   | 3 3 2 5 |      |  |
| SANM                                                                      | 19          | 1446E | 1745D |               | N14      | E26           | .472                | 10432                      | 21.6             | 179D                 | -N    | 1    | P            | 1547                      | 2.91                      | 3.32                |                   |         |      |  |
| SANM                                                                      | 19          | 1446E | 1745D |               | N14      | E26           | .472                | 10432                      | 21.6             | 179D                 | -N    | 1    | P            | 1503                      | 1.29                      | 1.47                |                   |         | EITU |  |
| HUAN                                                                      | 19          | 1537  | 1620D |               | N12      | E26           | .462                | 10432                      | 21.6             | 43D                  | -F    | 2    | P            | 1539                      | .50                       | .50                 |                   |         | E    |  |
| BOUL                                                                      | 19          | 1537  | 1555  | 1540          | N13      | E25           | .453                | 10432                      | 21.5             | 18                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| BOUL                                                                      | 19          | 1545  | 1606  | 1553          | N07      | E28           | .474                | 10432                      | 21.8             | 21                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| GRP26525                                                                  | 19          | 1648  | 1702  | 1651          | N13      | E24           | .438                | 10432                      | 21.5             | 14                   | --F   |      |              | .32                       |                           |                     |                   | 2 2 1 5 |      |  |
| SANM                                                                      | 19          | 1643  | 1652  | 1646          | N14      | E18           | .362                | 10432                      | 21.0             | 9                    | -F    | 1    | C            | .32                       | .34                       |                     |                   | D       |      |  |
| SANM                                                                      | 19          | 1652  | 1657  | 1653          | N12      | E25           | .447                | 10432                      | 21.6             | 5                    | -F    | 1    | C            | .15                       | .18                       |                     |                   | D       |      |  |
| BOUL                                                                      | 19          | 1653  | 1707  | 1655          | N12      | E26           | .462                | 10432                      | 21.7             | 14                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| GRP26526                                                                  | 19          | 1714  | 1739  | 1720          | N13      | E26           | .467                | 10432                      | 21.7             | 25                   | -N    |      |              | 2.18                      |                           |                     |                   | 3 3 2 6 |      |  |
| SANM                                                                      | 19          | 1446E | 1745D |               | N14      | E26           | .472                | 10432                      | 21.6             | 179D                 | -N    | 1    | P            | 1730                      | 3.56                      | 4.06                |                   |         |      |  |
| BOUL                                                                      | 19          | 1714  | 1742  | 1717          | N12      | E26           | .462                | 10432                      | 21.7             | 28                   | -N    |      |              |                           |                           |                     |                   |         |      |  |
| SACP                                                                      | 19          | 1715  | 1731  | 1723          | N13      | E26           | .467                | 10432                      | 21.7             | 16                   | -N    |      |              | .79                       | .81                       |                     |                   | F       |      |  |
| GRP26527                                                                  | 19          | 1802  | 1819  | 1808          | N14      | E26           | .472                | 10432                      | 21.7             | 17                   | -N    |      |              | 1.22                      |                           |                     |                   | 4 4 3 4 |      |  |
| PALE                                                                      | 19          | 1759  | 1816  | 1806          | N13      | E25           | .453                | 10432                      | 21.6             | 17                   | -F    |      |              | .56                       |                           |                     |                   |         |      |  |
| HOUT                                                                      | 19          | 1801  | 1830  | 1811U         | N13      | E25           | .453                | 10432                      | 21.6             | 29                   | 1N    | C    |              | 2.40                      | 2.60                      |                     |                   |         |      |  |
| SACP                                                                      | 19          | 1804  | 1816  | 1808          | N13      | E26           | .467                | 10432                      | 21.7             | 12                   | -N    |      |              | .69                       | .71                       |                     |                   | F       |      |  |
| BOUL                                                                      | 19          | 1805  | 1812  | 1808          | N15      | E26           | .478                | 10432                      | 21.7             | 7                    | -N    |      |              |                           |                           |                     |                   |         |      |  |
| GRP26528                                                                  | 19          | 1851  | 1945  | 1858          | N13      | E25           | .453                | 10432                      | 21.7             | 54                   | -B    |      |              | 1.96                      |                           |                     |                   | 6 5 5 6 |      |  |
| HUAN                                                                      | 19          | 1712E | 1950D |               | N12      | E25           | .447                | 10432                      | 21.6             | 158D                 | -B    | 1    | P            | 1859                      | .75                       | .80                 |                   |         | E    |  |
| PALE                                                                      | 19          | 1830E | 2053D | 1858          | N14      | E25           | .458                | 10432                      | 21.6             | 143D                 | -N    |      |              | 1.05                      |                           |                     |                   |         |      |  |
| BOUL                                                                      | 19          | 1847  | 1945  | 1857          | N13      | E28           | .495                | 10432                      | 21.9             | 58                   | -B    |      |              |                           |                           |                     |                   |         |      |  |
| SACP                                                                      | 19          | 1852  | 1948  | 1858          | N13      | E25           | .453                | 10432                      | 21.7             | 56                   | 1B    | C    |              | 2.68                      | 2.74                      |                     |                   | EF      |      |  |
| HOUT                                                                      | 19          | 1853  | 1935  | 1858U         | N12      | E25           | .447                | 10432                      | 21.7             | 42                   | 1N    | C    |              | 3.50                      | 3.90                      |                     |                   | E       |      |  |
| BOUL                                                                      | 19          | 1853  | 1930  | 1857U         | N14      | E25           | .458                | 10432                      | 21.7             | 37                   | -B    |      |              | 1.80                      | 2.00                      |                     |                   | E       |      |  |
| CULG                                                                      | 19          | 1907E | 1951  |               | N14      | E26           | .472                | 10432                      | 21.7             | 44D                  | 1N    | P    | 1914         | 2.37                      | 2.65                      |                     |                   |         |      |  |
| 6 STATIONS REPORTING GROUP 26529. 0 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                            |                  |                      |       |      |              |                           |                           |                     |                   |         |      |  |
| GRP26529                                                                  | 19          | 2007  | 2046  | 2016          | N08      | E23           | .400                | 10432                      | 21.6             | 39                   | 1N    |      |              | 4.15                      |                           |                     |                   | 5 5 5 6 |      |  |
| BOUL                                                                      | 19          | 2003  | 2011  | 2005          | N10      | E32           | .540                | 10432                      | 22.2             | 8                    | -N    |      |              |                           |                           |                     |                   |         |      |  |
| PALE                                                                      | 19          | 2004  | 2052  | 2013          | N09      | E22           | .388                | 10432                      | 21.5             | 48                   | 1N    | C    |              | 2.23                      |                           |                     |                   |         |      |  |
| CULG                                                                      | 19          | 2005  | 2056  | 2016          | N08      | E21           | .369                | 10432                      | 21.4             | 51                   | 1N    | C    | 2016         | 4.43                      | 4.73                      |                     |                   |         |      |  |
| BOUL                                                                      | 19          | 2005  | 2039D | 2016          | N08      | E24           | .415                | 10432                      | 21.6             | 34D                  | 1N    | V    |              |                           |                           |                     |                   |         |      |  |
| SACP                                                                      | 19          | 2009  | 2046  | 2017          | N09      | E22           | .388                | 10432                      | 21.5             | 37                   | 1N    | C    |              | 3.08                      | 3.10                      |                     |                   | EF      |      |  |
| HOUT                                                                      | 19          | 2011  | 2037  | 2019U         | N07      | E22           | .381                | 10432                      | 21.5             | 26                   | 2N    | C    |              | 6.20                      | 6.80                      |                     |                   | EZ      |      |  |
| BOUL                                                                      | 19          | 2011  | 2019D | 2016U         | N08      | E22           | .384                | 10432                      | 21.5             | 8D                   | 2B    | C    |              | 4.80                      | 5.30                      |                     |                   | E       |      |  |
| 26529                                                                     | 19          | 2028  | 2052  | 2034          | N10      | E22           | .393                | 10432                      | 21.5             | 24                   | *-N   |      |              | .50                       |                           |                     |                   | 4 3 2 6 |      |  |
| PALE                                                                      | 19          | 1830E | 2053D | 2036          | N14      | E25           | .458                | 10432                      | 21.6             | 143D                 | -N    |      |              | .50                       |                           |                     |                   |         |      |  |
| SACP                                                                      | 19          | 1840  | 1846  | 1843          | N13      | E25           | .453                | 10432                      | 21.7             | 6                    | -N    |      |              | .50                       | .50                       |                     |                   | F       |      |  |
| HUAN                                                                      | 19          | 2016E | 2110D |               | N08      | E24           | .415                | 10432                      | 21.6             | 54D                  | -N    | 2    | P            | 2042                      | .50                       | .50                 |                   |         | E    |  |
| BOUL                                                                      | 19          | 2028  | 2033  | 2031          | N12      | E23           | .418                | 10432                      | 21.6             | 5                    | -N    |      |              |                           |                           |                     |                   |         |      |  |
| PALE                                                                      | 19          | 2053  | 2105D | 2053          | N09      | E14           | .266                | 10432                      | 20.9             | 12D                  | -F    |      |              | .19                       |                           |                     |                   |         |      |  |
| 534 PALE                                                                  | 20          | 0039  | 0054  | 0045          | N12      | E59           | .859                | 10441                      | 24.5             | 15                   | --F   |      |              | .32                       |                           |                     |                   | 3       |      |  |

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NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |               | LOCATION |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|---------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCARTH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|                                                                           |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                                                                           | 1969<br>NOV |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26535                                                                  | 20          | 0102  | 0126  | 0107          | N09      | E19           | .343                | 10432                     | 21.5       | 24               | -N                   |                    | .97          |                           |                           |                             | 2 2 2 3           |         |
| PALE                                                                      | 20          | 0101  | 0138  | 0106          | N07      | E17           | .302                | 10432                     | 21.3       | 37               | -N                   | C                  | .50          |                           |                           |                             |                   |         |
| CRON                                                                      | 20          | 0103  | 0120  | 0107U         | N07      | E17           | .302                | 10432                     | 21.3       | 17               | -N                   | C                  | 1.44         | 1.50                      |                           |                             |                   |         |
| PALE                                                                      | 20          | 0108  | 0131  | 0120          | N13      | E23           | .425                | 10432                     | 21.8       | 23               | -N                   |                    | .62          |                           |                           |                             |                   |         |
| PALE                                                                      | 20          | 0108  | 0131  | 0109          | N13      | E23           | .425                | 10432                     | 21.8       | 23               | -N                   | C                  | .50          |                           |                           |                             |                   |         |
| GRP26536                                                                  | 20          | 0144  | 0154  | 0148          | N12      | E57           | .841                | 10441                     | 24.3       | 10               | -N                   |                    | .56          |                           |                           |                             | 2 2 2 6           |         |
| PALE                                                                      | 20          | 0144  | 0156D | 0149          | N12      | E57           | .841                | 10441                     | 24.3       | 120              | -N                   | C                  | .19          |                           |                           |                             |                   |         |
| CRON                                                                      | 20          | 0144  | 0151  | 0147          | N12      | E57           | .841                | 10441                     | 24.3       | 7                | -N                   | C                  | .93          | 1.60                      |                           |                             |                   |         |
| GRP26537                                                                  | 20          | 0154  | 0227  | 0206          | N07      | E17           | .302                | 10432                     | 21.4       | 33               | -N                   |                    | 1.77         |                           |                           |                             | 2 2 2 4           |         |
| CRON                                                                      | 20          | 0150  | 0230  | 0208          | N07      | E17           | .302                | 10432                     | 21.4       | 40               | 1N                   | C                  | 3.09         | 3.20                      |                           |                             | E                 |         |
| PALE                                                                      | 20          | 0157  | 0223  | 0204          | N06      | E17           | .298                | 10432                     | 21.4       | 26               | -N                   | C                  | .45          |                           |                           |                             |                   |         |
| GRP26539                                                                  | 20          | 0240  | 0256  | 0248          | N12      | E21           | .390                | 10432                     | 21.7       | 16               | --F                  |                    | .96          |                           |                           |                             | 2 2 2 5           |         |
| PALE                                                                      | 20          | 0240  | 0255  | 0244          | N14      | E23           | .432                | 10432                     | 21.8       | 15               | -N                   | C                  | .37          |                           |                           |                             |                   |         |
| MANI                                                                      | 20          | 0242E | 0256D | 0244          | N14      | E22           | .418                | 10432                     | 21.8       | 14D              | -F 1                 | 0244               | 1.55         | 1.70                      |                           |                             |                   |         |
| MANI                                                                      | 20          | 0252E | 0256D |               | N07      | E17           | .302                | 10432                     | 21.4       | 40               | -N 2                 | 0252               | .72          | .76                       |                           |                             |                   |         |
| 541 CRON                                                                  | 20          | 0420  | 0432  | 0423          | N17      | E12           | .323                | 10432                     | 21.1       | 12               | -N                   | C                  | 1.34         | 1.30                      |                           |                             | 2                 |         |
| GRP26544                                                                  | 20          | 0726  | 0754  | 0728          | N18      | E10           | .318                | 10432                     | 21.1       | 28               | -F                   |                    | 2.09         |                           |                           |                             | 3 2 2 5           |         |
| CULG                                                                      | 20          | 0721  | 0750  | 0725          | N19      | E09           | .324                | 10432                     | 21.0       | 29               | 1N                   | C                  | 0725         | 2.37                      | 2.42                      |                             | HL                |         |
| CRON                                                                      | 20          | 0722  | 0750  | 0727U         | N17      | E09           | .295                | 10432                     | 21.0       | 28               | -N                   | C                  | 1.75         | 1.90                      |                           |                             | EL                |         |
| CRIM                                                                      | 20          | 0729  | 0757  | 0731          | N17      | E10           | .304                | 10432                     | 21.1       | 28               | -F                   | C                  | 0731         | 1.80                      | 1.90                      |                             | E                 |         |
| ISTA                                                                      | 20          | 0747  | 0800  | 0750          | N07      | E17           | .302                | 10432                     | 21.6       | 13               | -N                   |                    |              |                           |                           |                             |                   |         |
| GRP26545                                                                  | 20          | 0730  | 0740  | 0735          | N15      | E22           | .425                | 10432                     | 22.0       | 10               | --N                  |                    | .90          |                           |                           |                             | 2 2 1 5           |         |
| ISTA                                                                      | 20          | 0730  | 0739  | 0733          | N15      | E23           | .438                | 10432                     | 22.0       | 9                | -B                   |                    |              |                           |                           |                             |                   |         |
| CRIM                                                                      | 20          | 0733E | 0740D | 0736          | N14      | E20           | .390                | 10432                     | 21.8       | 7D               | -F                   | C                  | 0736         | .90                       | 1.00                      |                             | D                 |         |
| GRP26546                                                                  | 20          | 0804  | 0822  | 0811          | N13      | E19           | .369                | 10432                     | 21.8       | 18               | -N                   |                    | 2.32         |                           |                           |                             | 4 4 3 5           |         |
| CRIM                                                                      | 20          | 0759E | 0835D |               | N14      | E19           | .377                | 10432                     | 21.8       | 36D              | -F                   | C                  | 0813         | 1.80                      | 1.90                      |                             | E                 |         |
| ISTA                                                                      | 20          | 0803  | 0820  | 0810          | N14      | E20           | .390                | 10432                     | 21.8       | 17               | -N                   |                    |              |                           |                           |                             |                   |         |
| MONT                                                                      | 20          | 0805  | 0818  | 0813          | N14      | E20           | .390                | 10432                     | 21.8       | 13               | 1N                   | C                  | 0813         | 3.40                      |                           |                             |                   |         |
| CRON                                                                      | 20          | 0807  | 0816  | 0810          | N12      | E18           | .347                | 10432                     | 21.7       | 9                | -N                   | C                  | 1.75         | 1.90                      |                           |                             |                   |         |
| ISTA                                                                      | 20          | 0830  | 0838  | 0833          | N07      | E14           | .254                | 10432                     | 21.4       | 8                | -N                   |                    |              |                           |                           |                             |                   |         |
| 7 STATIONS REPORTING GROUP 26547. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26547                                                                  | 20          | 0936  | 1043  | 1003          | N07      | E12           | .222                | 10432                     | 21.3       | 67               | 2N                   |                    | 3.83         |                           |                           |                             | 5 4 3 6           |         |
| NERA                                                                      | 20          | 0934E | 1016D | 0953          | N10      | E12           | .245                | 10432                     | 21.3       | 42D              | 2B 3                 |                    |              |                           |                           |                             |                   |         |
| CAPE                                                                      | 20          | 0937  | 1045  | 1002          | N06      | E14           | .249                | 10432                     | 21.5       | 68               | -N                   | C                  | 1002         | 1.22                      | 1.30                      |                             |                   |         |
| UCCL                                                                      | 20          | 0953E | 1037D |               | N05      | E12           | .213                | 10432                     | 21.3       | 44D              | 2N                   | P                  | 0953         | 3.35                      | 3.40                      |                             | EI                |         |
| HERS                                                                      | 20          | 0954E | 1040  | 1003          | N07      | E10           | .191                | 10432                     | 21.2       | 46D              | 2N                   | P                  | 1014         | 6.91                      | 7.00                      | 2.30 80                     | F                 |         |
| CANR                                                                      | 20          | 1015E | 1035D | 1015E         | N07      | E14           | .254                | 10432                     | 21.5       | 20D              | 1B                   | C                  |              | 4.90                      | 5.10                      |                             | BE                |         |
| 26547                                                                     | 20          | 0936  | 1015  | 0942          | N09      | E12           | .237                | 10432                     | 21.3       | 39               | *1B                  |                    | 5.16         |                           |                           |                             | 2 2 1 4           |         |
| CRON                                                                      | 20          | 0935  | 1015D | 0942U         | N07      | E11           | .207                | 10432                     | 21.2       | 40D              | 2N                   | C                  |              | 5.16                      | 5.30                      |                             |                   |         |
| TELV                                                                      | 20          | 0937  | 0937D |               | N10      | E12           | .245                | 10432                     | 21.3       | 1B               |                      |                    |              |                           |                           |                             |                   |         |
| GRP26548                                                                  | 20          | 1218  | 1237  | 1223          | N08      | E10           | .199                | 10432                     | 21.3       | 19               | -N                   |                    | 1.47         |                           |                           |                             | 3 3 2 5           |         |
| BUCA                                                                      | 20          | 1218  | 1237  | 1220          | N07      | E09           | .176                | 10432                     | 21.2       | 19               | -N                   | C                  | 1220         | 2.21                      | 2.10                      |                             | CE                |         |
| TELV                                                                      | 20          | 1225E | 1225D | 1225          | N10      | E12           | .245                | 10432                     | 21.4       |                  | -N                   |                    |              |                           |                           |                             |                   |         |
| HTPR                                                                      | 20          | 1229E | 1236  |               | N07      | E09           | .176                | 10432                     | 21.2       | 7D               | -F                   | C                  | 1231         | .72                       | .70                       |                             | E                 |         |
| GRP26549                                                                  | 20          | 1236  | 1251  | 1240          | N13      | E50           | .773                | 10441                     | 24.3       | 15               | -N                   |                    | .91          |                           |                           |                             | 4 4 4 4           |         |
| BUCA                                                                      | 20          | 1234  | 1251  | 1236          | N12      | E50           | .771                | 10441                     | 24.3       | 17               | -B                   | C                  | 1236         | .88                       | 1.30                      |                             | CE                |         |
| SANM                                                                      | 20          | 1236  | 1257  | 1240          | N12      | E49           | .760                | 10441                     | 24.2       | 21               | -N                   | 1 C                | .65          | 1.00                      |                           |                             | E                 |         |
| HTPR                                                                      | 20          | 1237  | 1248  | 1241          | N15      | E50           | .776                | 10441                     | 24.3       | 11               | -N                   | C                  | 1241         | 1.24                      | 1.80                      |                             |                   |         |
| CAPE                                                                      | 20          | 1238  | 1246  | 1241          | N14      | E49           | .764                | 10441                     | 24.2       | 8                | -N                   | C                  | 1241         | .87                       | 1.40                      |                             |                   |         |
| 9 STATIONS REPORTING GROUP 26550. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26550                                                                  | 20          | 1317  | 1353  | 1323          | N13      | E17           | .341                | 10432                     | 21.8       | 36               | -B                   |                    | 1.37         |                           |                           |                             | 7 6 6 8           |         |
| SANM                                                                      | 20          | 1244  | 1544D |               | N13      | E16           | .328                | 10432                     | 21.7       | 180D             | -B 1                 | P                  | 1321         | 1.61                      | 1.70                      |                             | EIU               |         |
| HUAN                                                                      | 20          | 1308E | 1325D |               | N06      | E10           | .185                | 10432                     | 21.3       | 17D              | -F 1                 | P                  | 1308         | .14                       | .15                       |                             | D                 |         |
| MCHA                                                                      | 20          | 1316E | 1350  |               | N12      | E16           | .319                | 10432                     | 21.8       | 34D              | -N                   | C                  | 1322         | .83                       | .90                       |                             | EK                |         |
| LOCA                                                                      | 20          | 1317  | 1355  | 1321          | N14      | E18           | .363                | 10432                     | 21.9       | 38               | 1N                   | V                  | 1321         | 2.10                      | 2.30                      |                             |                   |         |
| CAPE                                                                      | 20          | 1318  | 1330  | 1322          | N13      | E16           | .328                | 10432                     | 21.8       | 12               | -N                   | C                  | 1322         | .96                       | 1.00                      |                             |                   |         |
| UCCL                                                                      | 20          | 1318  | 1331D | 1323          | N11      | E18           | .340                | 10432                     | 21.9       | 13D              | -B                   | P                  | 1323         | 1.03                      | 1.20                      |                             | EI                |         |
| CANR                                                                      | 20          | 1323E | 1328D | 1324E         | N13      | E17           | .341                | 10432                     | 21.8       | 5D               | -B                   | C                  |              | 1.70                      | 1.90                      |                             |                   |         |
| 26550                                                                     | 20          | 1328  | 1345  | 1337          | N15      | E18           | .372                | 10432                     | 21.9       | 17               | *-N                  |                    | 1.19         |                           |                           |                             | 3 2 2 8           |         |
| UCCL                                                                      | 20          | 1328E | 1346D | 1334          | N15      | E18           | .372                | 10432                     | 21.9       | 18D              | -N                   | P                  | 1334         | 1.03                      | 1.20                      |                             | EI                |         |
| HTPR                                                                      | 20          | 1330E | 1343  | 1339          | N15      | E15           | .334                | 10432                     | 21.7       | 13D              | -N                   | C                  | 1339         | 1.34                      | 1.30                      |                             | E                 |         |
| TELV                                                                      | 20          | 1330  | 1330D |               | N14      | E20           | .390                | 10432                     | 22.1       |                  | 1N                   |                    |              |                           |                           |                             |                   |         |

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Nov 69

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |               | LOCATION |               |                     |                         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                           |                           |                             |                   | REMARKS  |  |  |
|-------------|-------------|-------|-------|---------------|----------|---------------|---------------------|-------------------------|------------------|----------------------|-------|------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|----------|--|--|
|             | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMA<br>PLAGE<br>REGION | CMP<br>DAY       |                      | COND. | TYPE | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |          |  |  |
|             |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                         |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
|             | 1969<br>NOV |       |       |               |          |               |                     |                         |                  |                      |       |      |              |                           |                           |                             |                   |          |  |  |
| GRP26551    | 20          | 1410  | 1448  | 1420          | N10      | E15           | .289                | 10432                   | 21.7             | 38                   | -N    |      |              | 1.38                      |                           |                             |                   | 7 6 5 10 |  |  |
| SANM        | 20          | 1244  | 1544D |               | N10      | E15           | .289                | 10432                   | 21.7             | 1800                 | -N    | 1    | P            | 1420                      | 1.94                      | 2.00                        |                   |          |  |  |
| BUCA        | 20          | 1246  | 1300D | 1249          | N13      | E17           | .341                | 10432                   | 21.8             | 140                  | -B    |      | C            | 1249                      | 1.32                      | 1.30                        |                   | CE       |  |  |
| MCMA        | 20          | 1409  | 1503  | 1419          | N09      | E14           | .267                | 10432                   | 21.6             | 54                   | -N    |      | C            | 1419                      | .77                       | .80                         |                   | EF       |  |  |
| SACP        | 20          | 1409  | 1432  | 1420          | N09      | E14           | .267                | 10432                   | 21.6             | 23                   | -N    |      | C            |                           | 1.40                      | 1.38                        |                   | FI       |  |  |
| LOCA        | 20          | 1410  | 1448  | 1415          | N09      | E16           | .297                | 10432                   | 21.8             | 38                   | -N    |      | V            | 1415                      | 1.47                      | 1.60                        |                   |          |  |  |
| HTPR        | 20          | 1410  | 1447  | 1423          | N09      | E13           | .252                | 10432                   | 21.6             | 37                   | -N    |      | C            | 1423                      | 1.34                      | 1.30                        |                   | E        |  |  |
| BOUL        | 20          | 1421E | 1424D | 1423          | N12      | E15           | .305                | 10432                   | 21.7             | 30                   | -N    |      | S            |                           |                           |                             |                   |          |  |  |
| GRP26552    | 20          | 1455  | 1534  | 1508          | N07      | E10           | .191                | 10432                   | 21.4             | 39                   | -N    |      |              | 2.03                      |                           |                             |                   | 6 5 4 7  |  |  |
| SANM        | 20          | 1244  | 1544D |               | N08      | E15           | .275                | 10432                   | 21.7             | 1800                 | 1N    | 1    | P            | 1500                      | 4.21                      | 4.33                        |                   |          |  |  |
| BOUL        | 20          | 1449  | 1536  | 1508          | N07      | E08           | .161                | 10432                   | 21.2             | 47                   | -N    |      | V            |                           |                           |                             |                   |          |  |  |
| MCMA        | 20          | 1456  | 1535D |               | N06      | E08           | .153                | 10432                   | 21.2             | 390                  | -B    |      | C            | 1503                      | 1.03                      | 1.00                        |                   | E        |  |  |
| HTPR        | 20          | 1457  | 1533  | 1507          | N06      | E10           | .185                | 10432                   | 21.4             | 36                   | -B    |      | C            | 1507                      | 2.06                      | 2.00                        |                   | E        |  |  |
| SACP        | 20          | 1459  | 1521  | 1509          | N06      | E09           | .169                | 10432                   | 21.3             | 22                   | -N    |      | C            |                           | .80                       | .79                         |                   | F        |  |  |
| HUAN        | 20          | 1506E | 1522D |               | N05      | E09           | .163                | 10432                   | 21.3             | 160                  | -F    | 1    | P            | 1518                      | .06                       | .10                         |                   | E        |  |  |
| GRP26554    | 20          | 1531  | 1559  | 1537          | S13      | E59           | .870                | 10440                   | 25.1             | 28                   | -N    |      |              | .66                       |                           |                             |                   | 6 5 4 6  |  |  |
| SANM        | 20          | 1525E | 1544D | 1536          | S14      | E58           | .864                | 10440                   | 25.0             | 190                  | -N    | 1    | P            |                           | .65                       | 1.30                        |                   | F        |  |  |
| BOUL        | 20          | 1530  | 1605  | 1537          | S12      | E57           | .852                | 10440                   | 24.9             | 35                   | -B    |      | V            |                           |                           |                             |                   |          |  |  |
| MCMA        | 20          | 1530  | 1605  | 1539          | S13      | E60           | .878                | 10440                   | 25.1             | 35                   | -N    |      | C            | 1539                      | .57                       | 1.10                        |                   | E        |  |  |
| SACP        | 20          | 1531  | 1612  | 1554          | S12      | E60           | .877                | 10440                   | 25.1             | 41                   | -N    |      | C            |                           | .79                       | 1.20                        |                   | FL       |  |  |
| HTPR        | 20          | 1534  | 1546  | 1535          | S14      | E60           | .880                | 10440                   | 25.1             | 12                   | -N    |      | C            | 1535                      | .83                       | 1.60                        |                   | E        |  |  |
| HOUT        | 20          | 1534  | 1600  | 1539          | S13      | E61           | .886                | 10440                   | 25.2             | 26                   | -N    |      | C            |                           | .60                       | 1.20                        |                   | E        |  |  |
| GRP26555    | 20          | 1544  | 1612  | 1553          | N12      | E53           | .803                | 10441                   | 24.6             | 28                   | -B    |      |              | .77                       |                           |                             |                   | 2 2 1 5  |  |  |
| BOUL        | 20          | 1543  | 1607D | 1556          | N12      | E58           | .850                | 10441                   | 25.0             | 240                  | -B    |      | V            |                           |                           |                             |                   |          |  |  |
| MCMA        | 20          | 1544  | 1612  | 1549          | N12      | E48           | .749                | 10441                   | 24.3             | 28                   | -N    |      | C            | 1549                      | .77                       | 1.20                        |                   | E        |  |  |
| GRP26556    | 20          | 1546  | 1615  | 1602          | N09      | E09           | .194                | 10432                   | 21.3             | 29                   | -N    |      |              | 1.29                      |                           |                             |                   | 2 2 1 4  |  |  |
| MCMA        | 20          | 1546  | 1615D | 1557          | N06      | E08           | .153                | 10432                   | 21.3             | 290                  | -N    |      | C            | 1557                      | 1.29                      | 1.30                        |                   | E        |  |  |
| BOUL        | 20          | 1546  | 1602D | 1556          | N08      | E07           | .157                | 10432                   | 21.2             | 160                  | -N    |      | V            |                           |                           |                             |                   |          |  |  |
| BOUL        | 20          | 1552  | 1602  | 1558          | N15      | E13           | .310                | 10432                   | 21.6             | 10                   | -N    |      | V            |                           |                           |                             |                   |          |  |  |
| BOUL        | 20          | 1604E | 1614D | 1606          | N08      | E05           | .132                | 10432                   | 21.0             | 100                  | 1N    |      | V            |                           |                           |                             |                   |          |  |  |
| GRP26557    | 20          | 1620  | 1709  | 1625          | N07      | E08           | .161                | 10432                   | 21.3             | 49                   | 2B    |      |              | 4.99                      |                           |                             |                   | 5 5 4 5  |  |  |
| BOUL        | 20          | 1618  | 1713  | 1629          | N08      | E07           | .157                | 10432                   | 21.2             | 55                   | 2B    |      | V            |                           |                           |                             |                   |          |  |  |
| SACP        | 20          | 1619  | 1711  | 1622          | N06      | E07           | .138                | 10432                   | 21.2             | 52                   | 2B    |      | C            |                           | 5.98                      | 5.88                        |                   | EF       |  |  |
| HOUT        | 20          | 1620  | 1700  | 1624          | N07      | E08           | .161                | 10432                   | 21.3             | 40                   | 2B    |      | C            |                           | 6.90                      | 6.90                        |                   | E        |  |  |
| BOUL        | 20          | 1620  | 1655  | 1624U         | N08      | E08           | .170                | 10432                   | 21.3             | 35                   | 1B    |      | C            |                           | 4.80                      | 4.80                        |                   | E        |  |  |
| MCMA        | 20          | 1621E | 1735  | 1624          | N06      | E08           | .153                | 10432                   | 21.3             | 740                  | 2B    |      | C            | 1624                      | 5.05                      | 5.10                        |                   | E        |  |  |
| HUAN        | 20          | 1630E | 1648  |               | N05      | E05           | .099                | 10432                   | 21.1             | 180                  | 1B    | 1    | P            | 1630                      | 2.01                      | 2.00                        |                   | E        |  |  |
| BOUL        | 20          | 1644  | 1700  | 1649          | N15      | E13           | .310                | 10432                   | 21.7             | 16                   | -F    |      | V            |                           |                           |                             |                   |          |  |  |
| BOUL        | 20          | 1704  | 1710  | 1707          | N12      | E14           | .291                | 10432                   | 21.8             | 6                    | -N    |      | V            |                           |                           |                             |                   |          |  |  |
| GRP26558    | 20          | 1745  | 1756  | 1748          | N12      | E46           | .726                | 10441                   | 24.2             | 11                   | -N    |      |              | .85                       |                           |                             |                   | 4 4 3 5  |  |  |
| HOUT        | 20          | 1744  | 1755  | 1746          | N12      | E45           | .715                | 10441                   | 24.1             | 11                   | -B    |      | C            |                           | 1.20                      | 1.80                        |                   |          |  |  |
| HUAN        | 20          | 1744  | 1753  |               | N11      | E47           | .736                | 10441                   | 24.3             | 9                    | -F    | 1    | C            | 1747                      | .31                       | .50                         |                   | E        |  |  |
| BOUL        | 20          | 1745  | 1800  | 1750          | N11      | E47           | .736                | 10441                   | 24.3             | 15                   | -F    |      | V            |                           |                           |                             |                   |          |  |  |
| MCMA        | 20          | 1745  | 1755  | 1747          | N12      | E46           | .726                | 10441                   | 24.2             | 10                   | -N    |      | C            | 1747                      | 1.03                      | 1.60                        |                   | E        |  |  |
| GRP26559    | 20          | 1748  | 1759  | 1750          | N15      | E15           | .334                | 10432                   | 21.9             | 11                   | --F   |      |              | .26                       |                           |                             |                   | 3 3 2 5  |  |  |
| MCMA        | 20          | 1747  | 1757  | 1750          | N15      | E15           | .334                | 10432                   | 21.9             | 10                   | -N    |      | C            | 1750                      | .26                       | .30                         |                   | D        |  |  |
| HUAN        | 20          | 1747  | 1753  |               | N15      | E15           | .334                | 10432                   | 21.9             | 6                    | -F    | 1    | C            | 1750                      | .25                       | .30                         |                   | E        |  |  |
| BOUL        | 20          | 1749  | 1807  | 1750          | N15      | E15           | .334                | 10432                   | 21.9             | 18                   | -F    |      | V            |                           |                           |                             |                   |          |  |  |
| GRP26562    | 20          | 2043  | 2053  | 2045          | N13      | E13           | .288                | 10432                   | 21.8             | 10                   | --F   |      |              | .25                       |                           |                             |                   | 2 2 1 5  |  |  |
| BOUL        | 20          | 2043  | 2050  | 2045          | N13      | E13           | .288                | 10432                   | 21.8             | 7                    | -N    |      | V            |                           |                           |                             |                   |          |  |  |
| PALE        | 20          | 2043  | 2056  | 2045          | N13      | E13           | .288                | 10432                   | 21.8             | 13                   | -F    |      | C            |                           | .25                       |                             |                   |          |  |  |
| GRP26567    | 20          | 2309  | 2331  | 2317          | N09      | E12           | .237                | 10432                   | 21.9             | 22                   | --N   |      |              | .77                       |                           |                             |                   | 3 2 2 7  |  |  |
| PALE        | 20          | 2258  | 2319D | 2301          | N09      | E15           | .282                | 10432                   | 22.1             | 210                  | -F    |      | C            |                           | .19                       |                             |                   |          |  |  |
| SACP        | 20          | 2306  | 2331  | 2318          | N10      | E14           | .274                | 10432                   | 22.0             | 25                   | -N    |      | C            |                           | .70                       | .69                         |                   | F        |  |  |
| MANI        | 20          | 2311  | 2331  | 2316          | N11      | E14           | .282                | 10432                   | 22.0             | 20                   | -N    | 3    |              | 2316                      | .83                       | .86                         |                   |          |  |  |
| MANI        | 20          | 2316  | 2338  | 2324          | N06      | E06           | .123                | 10432                   | 21.4             | 22                   | -N    | 3    |              | 2324                      | .41                       | .42                         |                   |          |  |  |
| MANI        | 20          | 2329  | 2342  | 2332          | N08      | E11           | .214                | 10432                   | 21.8             | 13                   | -F    | 3    |              | 2332                      | .52                       | .53                         |                   |          |  |  |
| GRP26568    | 20          | 2355  | 0015  | 0003          | N13      | E10           | .252                | 10432                   | 21.7             | 20                   | --B   |      |              | .61                       |                           |                             |                   | 2 2 2 4  |  |  |
| MANI        | 20          | 2352  | 0018  | 0007          | N13      | E11           | .263                | 10432                   | 21.8             | 26                   | -N    | 3    |              | 0007                      | .93                       | .97                         |                   |          |  |  |
| VORO        | 20          | 2357  | 0011  | 2359          | N13      | E08           | .230                | 10432                   | 21.6             | 14                   | -B    |      | C            | 2359                      | .28                       | .28                         | 76                | EJ       |  |  |
| GRP26569    | 21          | 0106  | 0140  | 0112          | N13      | E10           | .254                | 10432                   | 21.8             | 34                   | -B    |      |              | 1.76                      |                           |                             |                   | 4 4 4 5  |  |  |
| CULG        | 21          | 0103  | 0204D | 0118          | N14      | E09           | .256                | 10432                   | 21.7             | 61D                  | 1F    |      | P            | 0118                      | 2.89                      | 2.80                        |                   |          |  |  |
| PALE        | 21          | 0105  | 0125D | 0108          | N13      | E10           | .254                | 10432                   | 21.8             | 200                  | -N    |      | C            |                           | .74                       |                             |                   |          |  |  |
| MANI        | 21          | 0105  | 0153  | 0115          | N12      | E11           | .254                | 10432                   | 21.9             | 48                   | 1B    | 3    |              | 0115                      | 2.17                      | 2.25                        |                   |          |  |  |
| VORO        | 21          | 0106  | 0132  | 0109          | N13      | E08           | .232                | 10432                   | 21.6             | 26                   | -B    |      | C            | 0109                      | 1.66                      | 1.69                        | 90                | EJ       |  |  |
| CRON        | 21          | 0106  | 0135  | 0114          | N13      | E09           | .243                | 10432                   | 21.7             | 29                   | 1N    |      | C            |                           | 2.48                      | 2.50                        |                   | E        |  |  |
| VORO        | 21          | 0141  | 0151  | 0142          | N13      | E09           | .243                | 10432                   | 21.7             | 10                   | -B    |      | C            | 0142                      | 1.11                      | 1.12                        | 86                | EJ       |  |  |

SOLAR FLARES  
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| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |               |                     |                         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             | REMARKS           |          |  |  |
|-------------|-------------|-------|-------|------------|----------|---------------|---------------------|-------------------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|----------|--|--|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMA<br>PLAGE<br>REGION | CMP<br>DAY       |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |          |  |  |
|             |             |       |       |            | LAT.     | MER.<br>DIST. |                     |                         |                  |                      |                    |              |                           |                           |                             |                   |          |  |  |
|             | 1969<br>NOV |       |       |            |          |               |                     |                         |                  |                      |                    |              |                           |                           |                             |                   |          |  |  |
| GRP26570    | 21          | 0208  | 0227  | 0212       | N13      | E09           | .243                | 10432                   | 21.8             | 19                   | -B                 |              | 1.76                      |                           |                             |                   | 4 4 4 5  |  |  |
| MANI        | 21          | 0206  | 0230  | 0214       | N12      | E11           | .254                | 10432                   | 21.9             | 24                   | -B                 | 1            | 0214                      | 1.44                      | 1.50                        |                   |          |  |  |
| VORO        | 21          | 0207  | 0223  | 0209       | N13      | E09           | .243                | 10432                   | 21.8             | 16                   | -B                 | C            | 0209                      | 1.57                      | 1.60                        | 89                | EJ       |  |  |
| CULG        | 21          | 0208  | 0222D | 0214       | N15      | E09           | .269                | 10432                   | 21.8             | 140                  | 1N                 | P            | 0214                      | 2.27                      | 2.20                        |                   | T        |  |  |
| MITK        | 21          | 0209  | 0212D | 0210       | N13      | E08           | .232                | 10432                   | 21.7             | 30                   | -B                 | P            | 0210                      | 1.75                      | 1.80                        |                   | E        |  |  |
| GRP26571    | 21          | 0255  | 0302  | 0257       | N08      | E02           | .108                | 10432                   | 21.3             | 7                    | --B                |              | .81                       |                           |                             |                   | 2 2 2 4  |  |  |
| MANI        | 21          | 0254  | 0304  | 0257       | N08      | E02           | .108                | 10432                   | 21.3             | 10                   | -N                 | 2            | 0257                      | .41                       | .41                         |                   |          |  |  |
| VORO        | 21          | 0256  | 0300  | 0256       | N08      | E01           | .103                | 10432                   | 21.2             | 4                    | -R                 | C            | 0256                      | 1.20                      | 1.18                        | 78                | D        |  |  |
| GRP26579    | 21          | 0646  | 0731  | 0655       | N07      | W01           | .086                | 10432                   | 21.2             | 45                   | -N                 |              | 1.60                      |                           |                             |                   | 4 4 3 6  |  |  |
| MANI        | 21          | 0643  | 0751  | 0651       | N08      | E00           | .102                | 10432                   | 21.3             | 68                   | -N                 | 3            | 0651                      | 1.03                      | 1.04                        |                   |          |  |  |
| ISTA        | 21          | 0645  | 0725  | 0654       | N07      | W02           | .091                | 10432                   | 21.1             | 40                   | -B                 |              |                           |                           |                             |                   |          |  |  |
| ABST        | 21          | 0647  | 0725  | 0653       | N06      | W02           | .076                | 10432                   | 21.1             | 38                   | 1N                 | C            | 0653                      | 2.43                      | 2.40                        |                   | FJ       |  |  |
| CRON        | 21          | 0649  | 0715  | 0651U      | N06      | W01           | .069                | 10432                   | 21.2             | 26                   | -N                 | C            |                           | 1.34                      | 1.30                        |                   | E        |  |  |
| CULG        | 21          | 0701E | 0724  |            | N07      | W02           | .091                | 10432                   | 21.1             | 230                  | 1N                 | P            | 0701                      | 2.17                      | 2.10                        |                   | T        |  |  |
| GRP26580    | 21          | 0737  | 0753  | 0744       | N13      | E07           | .223                | 10432                   | 21.8             | 16                   | -N                 |              | 1.35                      |                           |                             |                   | 3 3 2 7  |  |  |
| MANI        | 21          | 0736  | 0751  | 0743       | N12      | E08           | .219                | 10432                   | 21.9             | 15                   | -N                 | 3            | 0743                      | .72                       | .74                         |                   |          |  |  |
| ISTA        | 21          | 0738  | 0752  | 0743       | N13      | E07           | .223                | 10432                   | 21.8             | 14                   | -B                 |              |                           |                           |                             |                   |          |  |  |
| ABST        | 21          | 0739E | 0755  | 0746       | N14      | E06           | .229                | 10432                   | 21.8             | 160                  | 1N                 | C            | 0746                      | 1.98                      | 2.00                        |                   | FJ       |  |  |
| GRP26581    | 21          | 0826  | 0904  | 0836       | N13      | E02           | .191                | 10432                   | 21.5             | 38                   | -B                 |              | 2.07                      |                           |                             |                   | 9 8 7 11 |  |  |
| ABST        | 21          | 0823  | 0908  | 0833       | N14      | E03           | .212                | 10432                   | 21.6             | 45                   | 1B                 | C            | 0833                      | 3.42                      | 3.50                        | 88                | F        |  |  |
| MANI        | 21          | 0823  | 0835D | 0828       | N14      | E05           | .222                | 10432                   | 21.7             | 120                  | -N                 | 2            | 0828                      | 1.55                      | 1.59                        |                   |          |  |  |
| ONDR        | 21          | 0825E | 0906  |            | N11      | E01           | .155                | 10432                   | 21.4             | 410                  | 1B                 | V            | 0835                      |                           |                             | 3.40              | CHJ      |  |  |
| CAPE        | 21          | 0825  | 0905  | 0834       | N13      | E03           | .195                | 10432                   | 21.6             | 40                   | -N                 | C            | 0834                      | 1.40                      | 1.40                        |                   |          |  |  |
| TELV        | 21          | 0825  | 0825D |            | N11      | E01           | .155                | 10432                   | 21.4             |                      | -N                 |              |                           |                           |                             |                   |          |  |  |
| CRON        | 21          | 0830  | 0850  | 0840U      | N12      | E02           | .174                | 10432                   | 21.5             | 20                   | -N                 | C            |                           | 1.55                      | 1.50                        |                   | E        |  |  |
| CANR        | 21          | 0831  | 0857  | 0836U      | N14      | E03           | .212                | 10432                   | 21.6             | 26                   | -B                 | C            |                           | 1.70                      | 1.70                        |                   |          |  |  |
| BUCA        | 21          | 0836E | 0916  | 0839       | N13      | E03           | .195                | 10432                   | 21.6             | 400                  | 1B                 | P            | 0839                      | 2.76                      | 2.80                        |                   |          |  |  |
| ZURI        | 21          | 0840E | 0906  | 0842       | N13      | W01           | .189                | 10432                   | 21.3             | 260                  | 1B                 | P            | 0842                      | 2.10                      | 2.10                        |                   |          |  |  |
| GRP26582    | 21          | 0933  | 1000  | 0942       | N08      | E03           | .114                | 10432                   | 21.6             | 27                   | 1N                 |              | 2.95                      |                           |                             |                   | 8 7 6 9  |  |  |
| CANR        | 21          | 0931  | 1006  | 0945U      | N09      | E03           | .130                | 10432                   | 21.6             | 35                   | 1B                 | C            |                           | 3.20                      | 3.20                        |                   | BE       |  |  |
| ZURI        | 21          | 0932  | 0956  | 0936       | N08      | E01           | .103                | 10432                   | 21.5             | 24                   | 1B                 | C            | 0936                      | 3.99                      | 4.00                        |                   |          |  |  |
| CAPE        | 21          | 0933  | 1005  | 0938       | N08      | E04           | .123                | 10432                   | 21.7             | 32                   | -N                 | C            | 0938                      | 1.14                      | 1.20                        |                   |          |  |  |
| CRON        | 21          | 0934  | 1010  | 0939U      | N11      | E03           | .162                | 10432                   | 21.6             | 36                   | 1N                 | C            |                           | 3.30                      | 3.20                        |                   | E        |  |  |
| ONDR        | 21          | 0934E | 0957  |            | N05      | E05           | .100                | 10432                   | 21.8             | 230                  | 2N                 | V            | 0942                      |                           |                             | 2.90              | CFJ      |  |  |
| KIEV        | 21          | 0935  | 0950  | 0936       | N09      | E02           | .124                | 10432                   | 21.5             | 15                   | 1N                 | C            | 0936                      | 4.00                      | 4.20                        | 75                | EI       |  |  |
| HTRP        | 21          | 0943E | 0956  |            | N09      | E04           | .138                | 10432                   | 21.7             | 130                  | -N                 | C            | 0945                      | 2.06                      | 2.00                        |                   | E        |  |  |
| CATA        | 21          | 1000E | 1005D | 1000       | N05      | E05           | .100                | 10432                   | 21.8             | 50                   | -B                 |              | 1000                      | .75                       | .76                         | 339               | B        |  |  |
| GRP26585    | 21          | 1114  | 1132  | 1116       | N12      | E04           | .184                | 10432                   | 21.8             | 18                   | -N                 |              | 1.29                      |                           |                             |                   | 3 3 2 6  |  |  |
| ONDR        | 21          | 1113E | 1129  |            | N15      | E05           | .238                | 10432                   | 21.8             | 160                  | -F                 | V            | 1116                      |                           |                             | 1.70              | CJ       |  |  |
| ZURI        | 21          | 1114  | 1134  | 1116       | N14      | E03           | .212                | 10432                   | 21.7             | 20                   | -N                 | C            | 1116                      | 1.89                      | 1.90                        |                   |          |  |  |
| CATA        | 21          | 1115E | 1120D | 1115       | N12      | E08           | .219                | 10432                   | 22.1             | 50                   | -B                 |              | 1115                      | .69                       | .71                         | 398               |          |  |  |
| ZURI        | 21          | 1128  | 1200  | 1132       | N07      | W06           | .174                | 10432                   | 21.0             | 32                   | -F                 | C            | 1132                      | 1.99                      | 2.00                        |                   |          |  |  |
| GRP26587    | 21          | 1210  | 1233  | 1215       | N14      | E06           | .229                | 10432                   | 22.0             | 23                   | --N                |              | .93                       |                           |                             |                   | 3 3 3 10 |  |  |
| ZURI        | 21          | 1208  | 1229  | 1210       | N14      | E03           | .212                | 10432                   | 21.7             | 21                   | -N                 | C            | 1220                      | 1.05                      | 1.10                        |                   |          |  |  |
| BUCA        | 21          | 1211  | 1241  |            | N15      | E07           | .252                | 10432                   | 22.0             | 30                   | -F                 | C            | 1220                      | 1.10                      | 1.10                        |                   | C        |  |  |
| CATA        | 21          | 1220E | 1230D | 1220       | N12      | E07           | .209                | 10432                   | 22.0             | 100                  | -R                 |              | 1220                      | .63                       | .65                         | 302               |          |  |  |
| GRP26588    | 21          | 1543  | 1606  | 1550       | N13      | E31           | .538                | 10441                   | 24.0             | 23                   | --N                |              | .59                       |                           |                             |                   | 3 3 2 6  |  |  |
| HUAN        | 21          | 1522E | 1555D |            | N13      | E30           | .524                | 10441                   | 23.9             | 330                  | -F                 | 2            | 1546                      | .45                       | .50                         |                   | E        |  |  |
| MCMA        | 21          | 1540  | 1605  | 1545       | N12      | E33           | .561                | 10441                   | 24.1             | 25                   | -N                 | C            | 1545                      | .72                       | .80                         |                   | E        |  |  |
| BOUL        | 21          | 1545  | 1607  | 1555       | N13      | E30           | .524                | 10441                   | 23.9             | 22                   | -N                 | V            |                           |                           |                             |                   |          |  |  |
| GRP26591    | 21          | 1709  | 1733  | 1715       | N07      | W08           | .162                | 10432                   | 21.1             | 24                   | --N                |              | .35                       |                           |                             |                   | 3 3 2 6  |  |  |
| BOUL        | 21          | 1708  | 1730  | 1715       | N08      | W06           | .145                | 10432                   | 21.3             | 22                   | -N                 | V            |                           |                           |                             |                   |          |  |  |
| MCMA        | 21          | 1710  | 1728  | 1715       | N06      | W09           | .170                | 10432                   | 21.0             | 18                   | -F                 | C            | 1715                      | .41                       | .40                         |                   | E        |  |  |
| PALE        | 21          | 1711E | 1740  | 1714       | N07      | W08           | .162                | 10432                   | 21.1             | 290                  | -N                 | C            |                           | .23                       |                             |                   |          |  |  |
| GRP26592    | 21          | 1727  | 1738  | 1730       | N13      | W01           | .189                | 10432                   | 21.7             | 11                   | -N                 |              | 1.01                      |                           |                             |                   | 5 4 3 5  |  |  |
| BOUL        | 21          | 1715  | 1742D | 1730       | N13      | W03           | .195                | 10432                   | 21.5             | 270                  | -B                 | V            |                           |                           |                             |                   |          |  |  |
| BOUL        | 21          | 1726  | 1735  | 1729       | N13      | W01           | .189                | 10432                   | 21.7             | 9                    | -N                 | C            |                           | 2.00                      | 2.00                        |                   |          |  |  |
| SACP        | 21          | 1727  | 1733D | 1730U      | N13      | E00           | .188                | 10432                   | 21.7             | 60                   | -N                 | C            |                           | .60                       | .59                         |                   | F        |  |  |
| MCMA        | 21          | 1727  | 1740  | 1728       | N13      | E00           | .188                | 10432                   | 21.7             | 13                   | -N                 | C            | 1728                      | .52                       | .50                         |                   | E        |  |  |
| HOUT        | 21          | 1727  | 1739  | 1730       | N13      | W01           | .189                | 10432                   | 21.7             | 12                   | -N                 | C            |                           | 1.90                      | 1.90                        |                   | EI       |  |  |
| PALE        | 21          | 1742  | 1749D | 1747       | N08      | W01           | .103                | 10432                   | 21.7             | 70                   | -F                 | C            |                           | .15                       |                             |                   |          |  |  |
| GRP26593    | 21          | 1753  | 1803  | 1756       | N13      | W02           | .191                | 10432                   | 21.6             | 10                   | --N                |              | .46                       |                           |                             |                   | 3 3 2 4  |  |  |
| BOUL        | 21          | 1752  | 1803  | 1756       | N13      | W02           | .191                | 10432                   | 21.6             | 11                   | -N                 | V            |                           |                           |                             |                   |          |  |  |
| SACP        | 21          | 1753  | 1759D | 1757U      | N13      | W02           | .191                | 10432                   | 21.6             | 60                   | -N                 | C            |                           | .40                       | .39                         |                   | F        |  |  |
| MCMA        | 21          | 1754  | 1803  | 1756       | N13      | W02           | .191                | 10432                   | 21.6             | 9                    | -N                 | C            | 1756                      | .52                       | .50                         |                   | E        |  |  |

16  
Nov 69

# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |            | LOCATION |               |                     |                          | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                           |                           |                                 |                   | REMARKS |  |  |
|---------------------------------------------------------------------------|-------------|-------|-------|------------|----------|---------------|---------------------|--------------------------|------------------|----------------------|-------|------|--------------|---------------------------|---------------------------|---------------------------------|-------------------|---------|--|--|
|                                                                           | DATE        | START | END   | MAX. PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY       |                      | COND. | TYPE | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H <sub>g</sub> | MAX.<br>INT.<br>% |         |  |  |
|                                                                           |             |       |       |            | LAT.     | MER.<br>DIST. |                     |                          |                  |                      |       |      |              |                           |                           |                                 |                   |         |  |  |
|                                                                           | 1969<br>NOV |       |       |            |          |               |                     |                          |                  |                      |       |      |              |                           |                           |                                 |                   |         |  |  |
| GRP26594                                                                  | 21          | 1837  | 1916  | 1847       | N12      | W05           | .191                | 10432                    | 21.4             | 39                   | --F   |      |              | .37                       |                           |                                 |                   | 2 2 2 5 |  |  |
| PALE                                                                      | 21          | 1831  | 2053  | 1847       | N14      | W03           | .212                | 10432                    | 21.5             | 142                  | -F    | C    |              | .25                       |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 1831  | 2053  | 1926       | N14      | W03           | .212                | 10432                    | 21.5             | 142                  | -N    |      |              | .32                       |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 1831  | 2053  | 2035       | N14      | W03           | .212                | 10432                    | 21.5             | 142                  | -F    |      |              | .26                       |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 1831  | 2053  | 1905       | N14      | W03           | .212                | 10432                    | 21.5             | 142                  | -N    |      |              | .21                       |                           |                                 |                   |         |  |  |
| MCMA                                                                      | 21          | 1842  | 1910  | 1847       | N13      | W04           | .200                | 10432                    | 21.5             | 28                   | -F    | C    | 1847         | .41                       | .40                       |                                 |                   | E       |  |  |
| PALE                                                                      | 21          | 1909  | 1922  | 1910       | N11      | W10           | .230                | 10432                    | 21.0             | 13                   | -F    | C    |              | .08                       |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 1919  | 1926  | 1920       | N09      | E03           | .130                | 10432                    | 22.0             | 7                    | -F    | C    |              | .10                       |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 2026  | 2042  | 2030       | N10      | W02           | .141                | 10432                    | 21.7             | 16                   | -F    | C    |              | .46                       |                           |                                 |                   |         |  |  |
| GRP26595                                                                  | 21          | 1903  | 1912  | 1906       | N05      | W15           | .263                | 10432                    | 20.7             | 9                    | --F   |      |              | .38                       |                           |                                 |                   | 3 3 2 4 |  |  |
| PALE                                                                      | 21          | 1902  | 1915  | 1905       | N06      | W14           | .250                | 10432                    | 20.7             | 13                   | -F    | C    |              | .45                       |                           |                                 |                   |         |  |  |
| BOUL                                                                      | 21          | 1904  | 1912  | 1906       | N06      | W15           | .266                | 10432                    | 20.7             | 8                    | -N    | V    |              |                           |                           |                                 |                   |         |  |  |
| MCMA                                                                      | 21          | 1904  | 1910  | 1906       | N04      | W15           | .260                | 10432                    | 20.7             | 6                    | -F    | C    | 1906         | .31                       | .30                       |                                 |                   | D       |  |  |
| 596 PALE                                                                  | 21          | 2053  | 2106D | 2056       | N12      | E32           | .548                | 10441                    | 24.3             | 13D                  | --N   | C    |              | .38                       |                           |                                 |                   | 3       |  |  |
| 5 STATIONS REPORTING GROUP 26597. 0 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |            |          |               |                     |                          |                  |                      |       |      |              |                           |                           |                                 |                   |         |  |  |
| GRP26597                                                                  | 21          | 2120  | 2219  | 2135       | N08      | W03           | .114                | 10432                    | 21.7             | 59                   | 2B    |      |              | 8.00                      |                           |                                 |                   | 5 5 5 5 |  |  |
| PALE                                                                      | 21          | 2116  | 2218  | 2135       | N10      | W03           | .146                | 10432                    | 21.7             | 62                   | 2B    | C    |              | 6.68                      |                           |                                 |                   |         |  |  |
| CULG                                                                      | 21          | 2119  | 2218  | 2135       | N07      | W05           | .121                | 10432                    | 21.5             | 59                   | 2B    | C    | 2135         | 7.32                      | 7.10                      |                                 |                   | KTUW    |  |  |
| BOUL                                                                      | 21          | 2121  | 2148D | 2135       | N08      | W02           | .108                | 10432                    | 21.7             | 27D                  | 2B    | V    |              |                           |                           |                                 |                   |         |  |  |
| HOUT                                                                      | 21          | 2125  | 2220  | 2133       | N08      | W03           | .114                | 10432                    | 21.7             | 55                   | 2B    |      |              | 8.20                      | 8.20                      |                                 |                   | EIK     |  |  |
| HOUT                                                                      | 21          | 2125  | 2220  | 2143       | N08      | W03           | .114                | 10432                    | 21.7             | 55                   | 2B    |      |              |                           |                           |                                 |                   |         |  |  |
| SACP                                                                      | 21          | 2132E | 2149D | 2137U      | N09      | W04           | .138                | 10432                    | 21.6             | 17D                  | 2B    | C    |              | 10.08                     | 10.21                     |                                 |                   | EFI     |  |  |
| BOUL                                                                      | 21          | 2135E | 2150D | 2135E      | N04      | W02           | .047                | 10432                    | 21.7             | 15D                  | 2B    | C    |              | 7.70                      | 7.70                      |                                 |                   | E       |  |  |
| 26597                                                                     | 21          | 2118  | 2218  | 2146       | N10      | W04           | .153                | 10432                    | 21.6             | 60                   | *2B   |      |              | 9.95                      |                           |                                 |                   | 2 2 2 5 |  |  |
| PALE                                                                      | 21          | 2116  | 2218  | 2146       | N10      | W03           | .146                | 10432                    | 21.7             | 62                   | 2B    | C    |              | 11.55                     |                           |                                 |                   |         |  |  |
| PALE                                                                      | 21          | 2116  | 2128  | 2122       | N14      | W03           | .212                | 10432                    | 21.7             | 12                   | -N    | C    |              | .31                       |                           |                                 |                   |         |  |  |
| CULG                                                                      | 21          | 2119  | 2218  |            | N07      | W05           | .121                | 10432                    | 21.5             | 59                   | 2B    | C    | 2146         | 8.35                      | 8.10                      |                                 |                   |         |  |  |
| GRP26598                                                                  | 21          | 2306  | 2342  | 2311       | N06      | W10           | .185                | 10432                    | 21.2             | 36                   | 2B    |      |              | 5.81                      |                           |                                 |                   | 4 4 4 5 |  |  |
| VORO                                                                      | 21          | 2304  | 2332  | 2309       | N04      | W11           | .193                | 10432                    | 21.1             | 28                   | 2N    | C    | 2309         | 8.31                      | 8.35                      | 148                             |                   | EJ      |  |  |
| PALE                                                                      | 21          | 2305  | 2348  | 2311       | N07      | W10           | .192                | 10432                    | 21.2             | 43                   | 2B    | C    |              | 5.63                      |                           |                                 |                   |         |  |  |
| MANI                                                                      | 21          | 2306  | 2349  | 2313       | N07      | W10           | .192                | 10432                    | 21.2             | 43                   | 1B    | 3    | 2313         | 3.09                      | 3.15                      |                                 |                   |         |  |  |
| CRON                                                                      | 21          | 2307  | 2335  | 2310       | N07      | W11           | .208                | 10432                    | 21.1             | 28                   | 2N    | C    |              | 6.19                      | 6.00                      |                                 |                   | E       |  |  |
| CULG                                                                      | 21          | 2307  | 2346  | 2310       | N07      | W12           | .223                | 10432                    | 21.1             | 39                   | 1B    | C    | 2310         | 4.02                      | 3.90                      |                                 |                   | TV      |  |  |
| PALE                                                                      | 21          | 2324  | 2340  | 2331       | N07      | W03           | .099                | 10432                    | 21.8             | 16                   | -N    | C    |              | .68                       |                           |                                 |                   |         |  |  |
| GRP26601                                                                  | 22          | 0111  | 0123  | 0115       | N08      | W12           | .231                | 10432                    | 21.1             | 12                   | --B   |      |              | .73                       |                           |                                 |                   | 2 2 2 4 |  |  |
| VORO                                                                      | 22          | 0110  | 0117  | 0114       | N07      | W13           | .240                | 10432                    | 21.1             | 7                    | -B    | C    | 0114         | .93                       | .94                       | 77                              |                   | E       |  |  |
| MANI                                                                      | 22          | 0111  | 0129  | 0115       | N08      | W11           | .216                | 10432                    | 21.2             | 18                   | -N    | 3    | 0115         | .52                       | .53                       |                                 |                   |         |  |  |
| GRP26602                                                                  | 22          | 0204  | 0219  | 0205       | N07      | W12           | .224                | 10432                    | 21.2             | 15                   | --B   |      |              | .88                       |                           |                                 |                   | 2 2 2 4 |  |  |
| VORO                                                                      | 22          | 0203  | 0213  | 0203       | N06      | W12           | .218                | 10432                    | 21.2             | 10                   | -B    | C    | 0203         | .93                       | .94                       | 87                              |                   | E       |  |  |
| MANI                                                                      | 22          | 0205  | 0224  | 0207       | N08      | W11           | .216                | 10432                    | 21.3             | 19                   | -N    | 3    | 0207         | .83                       | .84                       |                                 |                   |         |  |  |
| GRP26604                                                                  | 22          | 0237  | 0245  | 0239       | N08      | W12           | .231                | 10432                    | 21.2             | 8                    | -N    |      |              | 1.55                      |                           |                                 |                   | 3 3 3 4 |  |  |
| VORO                                                                      | 22          | 0236  | 0243  | 0238       | N07      | W14           | .256                | 10432                    | 21.1             | 7                    | 1B    | C    | 0238         | 2.03                      | 2.06                      | 123                             |                   | D       |  |  |
| CRON                                                                      | 22          | 0237  | 0245  | 0240       | N07      | W12           | .224                | 10432                    | 21.2             | 8                    | -N    | C    |              | 1.34                      | 1.40                      |                                 |                   | I       |  |  |
| MANI                                                                      | 22          | 0237  | 0247  | 0240       | N09      | W11           | .224                | 10432                    | 21.3             | 10                   | -N    | 3    | 0240         | 1.29                      | 1.31                      |                                 |                   |         |  |  |
| GRP26605                                                                  | 22          | 0247  | 0302  | 0251       | N14      | W06           | .231                | 10432                    | 21.7             | 15                   | -F    |      |              | 1.73                      |                           |                                 |                   | 2 2 2 4 |  |  |
| MANI                                                                      | 22          | 0247  | 0259  | 0250       | N14      | W05           | .224                | 10432                    | 21.7             | 12                   | -F    | 3    | 0250         | 1.29                      | 1.33                      |                                 |                   |         |  |  |
| CRON                                                                      | 22          | 0247  | 0305  | 0252       | N14      | W07           | .239                | 10432                    | 21.6             | 18                   | 1N    | C    |              | 2.17                      | 2.20                      |                                 |                   | EI      |  |  |
| GRP26606                                                                  | 22          | 0308  | 0315  | 0310       | N05      | W16           | .280                | 10432                    | 20.9             | 7                    | -N    |      |              | 1.19                      |                           |                                 |                   | 2 2 2 4 |  |  |
| CRON                                                                      | 22          | 0307  | 0314  | 0310       | N04      | W18           | .310                | 10432                    | 20.8             | 7                    | -N    | C    |              | 1.34                      | 1.40                      |                                 |                   | I       |  |  |
| MANI                                                                      | 22          | 0308  | 0316  | 0310       | N05      | W14           | .247                | 10432                    | 21.1             | 8                    | -N    | 3    | 0310         | 1.03                      | 1.07                      |                                 |                   |         |  |  |
| GRP26607                                                                  | 22          | 0316  | 0329  | 0317       | N12      | W06           | .201                | 10432                    | 21.7             | 13                   | -N    |      |              | 1.58                      |                           |                                 |                   | 3 3 3 5 |  |  |
| MANI                                                                      | 22          | 0313  | 0325  | 0316       | N13      | W03           | .197                | 10432                    | 21.9             | 12                   | -F    | 3    | 0316         | 1.34                      | 1.34                      |                                 |                   |         |  |  |
| PALE                                                                      | 22          | 0317E | 0334D | 0317       | N14      | W03           | .214                | 10432                    | 21.9             | 17D                  | -N    |      |              | 1.13                      |                           |                                 |                   |         |  |  |
| CULG                                                                      | 22          | 0318  | 0327  |            | N13      | W08           | .234                | 10432                    | 21.9             | 9                    | 1N    | V    | 0320         | 2.27                      | 2.20                      |                                 |                   |         |  |  |
| PALE                                                                      | 22          | 0322  | 0334D | 0323       | N08      | W12           | .231                | 10432                    | 21.2             | 12D                  | -N    | V    |              | .26                       |                           |                                 |                   |         |  |  |
| 26607                                                                     | 22          | 0322  | 0356  | 0330       | N10      | W06           | .173                | 10432                    | 21.7             | 34                   | *1N   |      |              | 3.14                      |                           |                                 |                   | 4 4 4 5 |  |  |
| VORO                                                                      | 22          | 0316  | 0402  | 0336       | N12      | W07           | .210                | 10432                    | 21.6             | 46                   | 2N    | C    | 0336         | 5.91                      | 5.94                      | 93                              |                   | F       |  |  |
| MANI                                                                      | 22          | 0323  | 0354  | 0328       | N09      | W03           | .132                | 10432                    | 21.9             | 31                   | -N    | 3    | 0328         | 1.13                      | 1.14                      |                                 |                   |         |  |  |
| PALE                                                                      | 22          | 0324  | 0334D | 0327       | N08      | W06           | .147                | 10432                    | 21.7             | 10D                  | -N    | V    |              | 1.39                      |                           |                                 |                   |         |  |  |
| CRON                                                                      | 22          | 0324  | 0352  | 0331       | N08      | W06           | .147                | 10432                    | 21.7             | 28                   | 1N    | C    |              | 2.58                      | 2.50                      |                                 |                   | I       |  |  |
| CULG                                                                      | 22          | 0325E | 0414D |            | N11      | W08           | .208                | 10432                    | 21.5             | 49D                  | 1N    | P    | 0332         | 4.13                      | 4.00                      |                                 |                   | L       |  |  |
| CRON                                                                      | 22          | 0335  | 0405  | 0340       | N14      | W06           | .231                | 10432                    | 21.7             | 30                   | 1N    | C    |              | 2.58                      | 2.60                      |                                 |                   | IK      |  |  |
| 26607                                                                     | 22          | 0335  | 0405  | 0351       | N14      | W06           | .231                | 10432                    | 21.7             | 30                   | *1N   |      |              | .31                       |                           |                                 |                   | 2 1 1 4 |  |  |
| CRON                                                                      | 22          | 0335  | 0405  | 0351       | N14      | W06           | .231                | 10432                    | 21.7             | 30                   | 1N    |      |              |                           |                           |                                 |                   |         |  |  |
| MANI                                                                      | 22          | 0402  | 0415  | 0405       | N19      | W11           | .364                | 10432                    | 21.3             | 13                   | -F    | 3    | 0405         | .31                       | .33                       |                                 |                   |         |  |  |

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| OBSERVATORY                                                               | OBSERVED UT |       |       |               | LOCATION |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|---------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMATH<br>PLACE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|                                                                           |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                                                                           | 1969<br>NOV |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26608                                                                  | 22          | 0516  | 0535  | 0520          | N20      | W89           | 1.000               | 10426                     | 15.5       | 19               | 1F                   |                    |              |                           | 1.01                      |                             |                   | 2 2 2 5 |
| CULG                                                                      | 22          | 0516  | 0535  | 0519          | N20      | W85           | .996                | 10426                     | 15.8       | 19               | 1N                   | C                  | 0519         |                           | .52                       |                             | DHK               |         |
| ABST                                                                      | 22          | 0517E | 0532D | 0521          | N19      | W90           | 1.000               | 10426                     | 15.5       | 15D              | 1F                   | P                  | 0521         |                           | 1.18                      |                             |                   |         |
| CRON                                                                      | 22          | 0518  | 0523  | 0520          | N21      | W90           | 1.000               | 10426                     | 15.5       | 5                | -N                   | C                  |              |                           | .31                       | 1.20                        |                   |         |
| GRP26609                                                                  | 22          | 0558  | 0620  | 0606          | N20      | W86           | .997                | 10426                     | 15.8       | 22               | 1N                   |                    |              |                           | .57                       |                             | 2 1 1 6           |         |
| CULG                                                                      | 22          | 0558  | 0620  | 0606          | N20      | W86           | .997                | 10426                     | 15.8       | 22               | 1N                   | C                  | 0606         |                           | .57                       |                             | 73                |         |
| CRON                                                                      | 22          | 0605  | 0611  | 0607          | N21      | W90           | 1.000               | 10426                     | 15.5       | 6                | -N                   | C                  |              |                           | .31                       | 1.20                        |                   |         |
| GRP26612                                                                  | 22          | 0714  | 0746  | 0719          | N12      | W05           | .193                | 10432                     | 21.9       | 32               | -N                   |                    |              |                           | 1.90                      |                             | 4 4 3 8           |         |
| ABST                                                                      | 22          | 0709  | 0750D | 0717          | N10      | W03           | .148                | 10432                     | 22.1       | 41D              | 1N                   | C                  | 0717         |                           | 3.78                      | 3.80                        | FK                |         |
| ISTA                                                                      | 22          | 0710  | 0745  |               | N11      | W03           | .164                | 10432                     | 22.1       | 35               | -N                   |                    |              |                           |                           |                             |                   |         |
| ISTA                                                                      | 22          | 0716  | 0741  | 0719          | N13      | W10           | .255                | 10432                     | 21.6       | 25               | -N                   |                    |              |                           |                           |                             |                   |         |
| ISTA                                                                      | 22          | 0716  | 0741  | 0735          | N13      | W10           | .255                | 10432                     | 21.6       | 25               | -N                   |                    |              |                           |                           |                             |                   |         |
| MANI                                                                      | 22          | 0718  | 0730D | 0720          | N12      | W06           | .201                | 10432                     | 21.9       | 12D              | -F                   | 2                  | 0720         |                           | .77                       | .78                         | 246               |         |
| CATA                                                                      | 22          | 0720E | 0730  | 0720          | N16      | W06           | .262                | 10432                     | 21.9       | 10D              | -B                   |                    | 0720         |                           | .58                       | .60                         |                   |         |
| CATA                                                                      | 22          | 0720E | 0735D | 0720          | N09      | E01           | .123                | 10432                     | 22.4       | 15D              | -B                   |                    | 0720         |                           | .58                       | .58                         |                   |         |
| GRP26614                                                                  | 22          | 0829  | 0854  | 0834          | N07      | W15           | .271                | 10432                     | 21.2       | 25               | 1N                   |                    |              |                           | 3.05                      |                             | 7 7 7 8           |         |
| CANR                                                                      | 22          | 0828  | 0846  | 0834          | N05      | W16           | .280                | 10432                     | 21.2       | 18               | 2B                   |                    |              |                           | 5.10                      | 5.40                        | E                 |         |
| CAPE                                                                      | 22          | 0828  | 0900  | 0833          | N06      | W16           | .283                | 10432                     | 21.2       | 32               | -N                   | C                  | 0833         |                           | 1.31                      | 1.40                        |                   |         |
| MANI                                                                      | 22          | 0829  | 0854  | 0834          | N07      | W13           | .240                | 10432                     | 21.4       | 25               | -F                   | 3                  | 0834         |                           | 1.86                      | 1.91                        |                   |         |
| CATA                                                                      | 22          | 0830  | 0900  | 0832          | N11      | W14           | .285                | 10432                     | 21.3       | 30               | 1B                   |                    | 0832         |                           | 2.66                      | 2.76                        |                   |         |
| CRON                                                                      | 22          | 0830  | 0850  | 0833          | N05      | W15           | .263                | 10432                     | 21.2       | 20               | 1N                   | C                  |              |                           | 2.78                      | 2.90                        | BF                |         |
| ABST                                                                      | 22          | 0832E | 0854D | 0832          | N06      | W15           | .267                | 10432                     | 21.2       | 22D              | 1N                   | P                  | 0832         |                           | 4.04                      | 4.20                        |                   |         |
| ZURI                                                                      | 22          | 0837E | 0854  | 0837          | N06      | W16           | .283                | 10432                     | 21.2       | 17D              | 1B                   | P                  | 0837         |                           | 3.57                      | 3.70                        |                   |         |
| GRP26618                                                                  | 22          | 1207  | 1226  | 1209          | N09      | W15           | .283                | 10432                     | 21.4       | 19               | --N                  |                    |              |                           | .38                       |                             | 2 2 2 5           |         |
| ZURI                                                                      | 22          | 1134  | 1220  | 1146          | N13      | W09           | .244                | 10432                     | 21.8       | 46               | -F                   | C                  | 1146         |                           | 1.52                      | 1.50                        | 269               |         |
| CATA                                                                      | 22          | 1207E | 1230D | 1210          | N10      | W16           | .305                | 10432                     | 21.3       | 23D              | -B                   |                    | 1210         |                           | .23                       | .24                         |                   |         |
| ZURI                                                                      | 22          | 1207  | 1221  | 1208          | N04      | W17           | .294                | 10432                     | 21.2       | 14               | -F                   | C                  | 1208         |                           | .53                       | .50                         |                   |         |
| GRP26620                                                                  | 22          | 1304  | 1325  | 1312          | N15      | W13           | .313                | 10432                     | 21.6       | 21               | -N                   |                    |              |                           | 1.35                      |                             | 5 5 5 6           |         |
| CAPE                                                                      | 22          | 1258  | 1330  | 1313          | N15      | W13           | .313                | 10432                     | 21.6       | 32               | -F                   | C                  | 1313         |                           | 1.05                      | 1.10                        | E<br>D<br>BFIT    |         |
| CATA                                                                      | 22          | 1305E | 1315D | 1310          | N17      | W08           | .291                | 10432                     | 21.9       | 10D              | -B                   |                    | 1310         |                           | .87                       | .92                         |                   |         |
| CANR                                                                      | 22          | 1310  | 1320  | 1313U         | N13      | W13           | .291                | 10432                     | 21.6       | 10               | 1N                   | C                  |              |                           | 2.70                      | 2.80                        |                   |         |
| HUAN                                                                      | 22          | 1313E | 1318D |               | N14      | W14           | .314                | 10432                     | 21.5       | 5D               | -N                   | 1                  | P            | 1315                      | .17                       | .20                         |                   |         |
| SANM                                                                      | 22          | 1315E | 1636D |               | N14      | W15           | .326                | 10432                     | 21.4       | 201D             | 1N                   | 1                  | P            | 1315                      | 1.94                      | 2.05                        | 331               |         |
| 26621                                                                     | 22          | 1405  | 1421  | 1408          | N16      | W07           | .269                | 10432                     | 22.1       | 16               | --N                  |                    |              |                           | .72                       |                             | 3 3 3 5           |         |
| CATA                                                                      | 22          | 1405  | 1435D | 1407          | N16      | W08           | .276                | 10432                     | 22.0       | 30D              | -B                   |                    | 1407         |                           | .58                       | .61                         | F                 |         |
| ZURI                                                                      | 22          | 1405  | 1412  | 1408          | N16      | W06           | .262                | 10432                     | 22.1       | 7                | -N                   | C                  | 1408         |                           | 1.18                      | 1.20                        |                   |         |
| SACP                                                                      | 22          | 1410E | 1416  | 1410U         | N15      | W08           | .262                | 10432                     | 22.0       | 6D               | -N                   | C                  |              |                           | .41                       | .40                         |                   |         |
| 26621                                                                     | 22          | 1450  | 1620  | 1455          | N13      | W13           | .291                | 10432                     | 21.6       | 90               | --N                  |                    |              |                           | .62                       |                             | 3 3 3 5           |         |
| HUAN                                                                      | 22          | 1425E | 1619  |               | N12      | W16           | .321                | 10432                     | 21.4       | 114D             | -F                   | 1                  | C            | 1457                      | .33                       | .30                         | D<br>F<br>EK      |         |
| SACP                                                                      | 22          | 1450  | 1511  | 1455          | N13      | W12           | .278                | 10432                     | 21.7       | 21               | -N                   | C                  |              |                           | .70                       | .69                         |                   |         |
| MCMA                                                                      | 22          | 1455E | 1620  |               | N14      | W12           | .290                | 10432                     | 21.7       | 85D              | -N                   | C                  | 1457         |                           | .83                       | .90                         |                   |         |
| 5 STATIONS REPORTING GROUP 26625. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26625                                                                  | 22          | 1632  | 1716  | 1639          | N09      | W10           | .210                | 10432                     | 21.9       | 44               | 1N                   |                    |              |                           | 1.71                      |                             | 5 5 4 6           |         |
| CANR                                                                      | 22          | 1630  | 1653  | 1636U         | N09      | W10           | .210                | 10432                     | 21.9       | 23               | 1N                   | C                  |              |                           | 2.60                      | 2.60                        | E                 |         |
| BOUL                                                                      | 22          | 1632  | 1716D | 1638          | N10      | W06           | .173                | 10432                     | 22.2       | 44D              | 1N                   | V                  |              |                           |                           |                             |                   |         |
| MCMA                                                                      | 22          | 1632  | 1735  | 1639          | N08      | W11           | .216                | 10432                     | 21.9       | 63               | -N                   | C                  | 1639         |                           | 1.55                      | 1.50                        |                   |         |
| HUAN                                                                      | 22          | 1632E | 1700D |               | N10      | W06           | .173                | 10432                     | 22.2       | 28D              | -F                   | 1                  | P            | 1634                      | .17                       | .20                         |                   |         |
| SACP                                                                      | 22          | 1633  | 1715U | 1641          | N09      | W11           | .224                | 10432                     | 21.9       | 42D              | 1N                   | C                  |              |                           | 2.20                      | 2.16                        | FI<br>E           |         |
| HUAN                                                                      | 22          | 1637  | 1722D |               | N06      | W15           | .267                | 10432                     | 21.6       | 45D              | -N                   | 1                  | P            | 1642                      | .50                       | .50                         |                   |         |
| 26625                                                                     | 22          | 1639  | 1738  | 1653          | N13      | W17           | .343                | 10432                     | 21.4       | 59               | *-N                  |                    |              |                           | .85                       |                             | 3 3 2 5           |         |
| BOUL                                                                      | 22          | 1637  | 1735D | 1655          | N13      | W18           | .357                | 10432                     | 21.3       | 58D              | -N                   |                    | V            |                           |                           |                             | F<br>E            |         |
| SACP                                                                      | 22          | 1641  | 1738U | 1651          | N13      | W15           | .317                | 10432                     | 21.6       | 57D              | -N                   | C                  |              |                           | 1.20                      | 1.19                        |                   |         |
| HUAN                                                                      | 22          | 1651E | 1722D |               | N12      | W18           | .349                | 10432                     | 21.4       | 31D              | -N                   | 1                  | P            | 1653                      | .50                       | .50                         |                   |         |
| GRP26627                                                                  | 22          | 1821  | 1847  | 1825          | N08      | W16           | .293                | 10432                     | 21.6       | 26               | --F                  |                    |              |                           | .43                       |                             | 4 4 3 5           |         |
| BOUL                                                                      | 22          | 1820  | 1826D | 1822          | N08      | W15           | .277                | 10432                     | 21.6       | 6D               | -N                   |                    | V            |                           |                           |                             | E<br>E            |         |
| PALE                                                                      | 22          | 1822  | 1851  | 1825          | N10      | W15           | .291                | 10432                     | 21.6       | 29               | -N                   | C                  |              |                           | .62                       |                             |                   |         |
| HUAN                                                                      | 22          | 1824E | 1832D |               | N06      | W16           | .283                | 10432                     | 21.6       | 80               | -F                   | 1                  | C            | 1827                      | .25                       | .30                         |                   |         |
| MCMA                                                                      | 22          | 1826E | 1843  | 1829          | N06      | W16           | .283                | 10432                     | 21.6       | 17D              | -F                   | C                  | 1829         |                           | .41                       | .40                         |                   |         |
| 629 PALE                                                                  | 22          | 1933  | 1938  | 1934          | N11      | W23           | .415                | 10432                     | 21.1       | 5                | --B                  | C                  |              |                           | .10                       |                             | 3                 |         |
| 630 PALE                                                                  | 22          | 1935  | 1913  | 1903          | N13      | E17           | .343                | 10441                     | 24.1       |                  | --F                  | C                  |              |                           | .19                       |                             | 3                 |         |

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# SOLAR FLARES

## Confirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |               |                     |                           | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                     |                   | REMARKS |   |  |  |
|-------------|-------------|-------|-------|------------|----------|---------------|---------------------|---------------------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|---------------------|-------------------|---------|---|--|--|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCARTH<br>PLAGE<br>REGION | CMP<br>DAY       |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>Ha | MAX.<br>INT.<br>% |         |   |  |  |
|             |             |       |       |            | LAT.     | MER.<br>DIST. |                     |                           |                  |                      |                    |              |                           |                           |                     |                   |         |   |  |  |
|             | 1969        |       |       |            |          |               |                     |                           |                  |                      |                    |              |                           |                           |                     |                   |         |   |  |  |
|             | NOV         |       |       |            |          |               |                     |                           |                  |                      |                    |              |                           |                           |                     |                   |         |   |  |  |
| GRP26633    | 22          | 2117  | 2217  | 2131       | N10      | W14           | .276                | 10432                     | 21.8             | 60                   | 2B                 |              | 6.67                      |                           |                     |                   | 5 5 5 5 |   |  |  |
| SACP        | 22          | 2111U | 2200D | 2125U      | N10      | W12           | .248                | 10432                     | 22.0             | 49D                  | 2B                 |              | 7.66                      | 7.53                      |                     |                   | EFIJ    |   |  |  |
| CULG        | 22          | 2114  | 2233  | 2131       | N11      | W15           | .299                | 10432                     | 21.8             | 79                   | 2B                 | C            | 2131                      | 7.73                      | 7.50                |                   | ETU     |   |  |  |
| HOUT        | 22          | 2125  | 2215  | 2130U      | N09      | W15           | .283                | 10432                     | 21.8             | 50                   | 2B                 | C            |                           | 7.30                      | 7.70                |                   | E       |   |  |  |
| BOUL        | 22          | 2132E | 2204  |            | N10      | W13           | .262                | 10432                     | 21.9             | 32D                  | 2N                 | S            |                           |                           |                     |                   |         |   |  |  |
| PALE        | 22          | 2133E | 2133D | 2133       | N10      | W14           | .276                | 10432                     | 21.8             |                      | 1B                 | C            |                           | 3.47                      |                     |                   |         |   |  |  |
| BOUL        | 22          | 2135E | 2220  | 2135E      | N10      | W16           | .305                | 10432                     | 21.7             | 45D                  | 2N                 | C            |                           | 7.20                      | 7.60                |                   | E       |   |  |  |
| GRP26634    | 22          | 2319  | 2333  | 2322       | N14      | W19           | .379                | 10432                     | 21.5             | 14                   | 1B                 |              | 2.18                      |                           |                     |                   | 3 3 3 4 |   |  |  |
| MANI        | 22          | 2319  | 2334  | 2322       | N14      | W18           | .366                | 10432                     | 21.6             | 15                   | -N                 | 3            | 2322                      | 1.13                      | 1.17                |                   |         |   |  |  |
| VORO        | 22          | 2319  | 2331  | 2321       | N12      | W19           | .363                | 10432                     | 21.5             | 12                   | 1B                 | C            | 2321                      | 3.05                      | 3.33                | 158               | D       |   |  |  |
| CULG        | 22          | 2319  | 2335  | 2323       | N15      | W20           | .401                | 10432                     | 21.5             | 16                   | 1B                 | C            | 2323                      | 2.37                      | 2.53                |                   | D       |   |  |  |
| CRON        | 22          | 2319  | 2330  | 2322       | N15      | W18           | .374                | 10432                     | 21.6             | 11                   | 1N                 | C            |                           | 2.37                      | 2.50                |                   |         |   |  |  |
| GRP26635    | 23          | 0005  | 0019  | 0007       | N05      | W22           | .377                | 10432                     | 21.4             | 14                   | --N                |              | .89                       |                           |                     |                   | 3 3 3 4 |   |  |  |
| MANI        | 23          | 0004  | 0021  | 0007       | N05      | W22           | .377                | 10432                     | 21.4             | 17                   | -N                 | 2            | 0007                      | .41                       | .44                 |                   |         |   |  |  |
| CRON        | 23          | 0005  | 0020  | 0008       | N05      | W23           | .393                | 10432                     | 21.3             | 15                   | -N                 | C            |                           | 1.24                      | 1.30                |                   |         |   |  |  |
| MITK        | 23          | 0006  | 0015  | 0007       | N06      | W21           | .364                | 10432                     | 21.4             | 9                    | -F                 | C            | 0007                      | 1.03                      | 1.10                |                   | E       |   |  |  |
| GRP26636    | 23          | 0051  | 0120  | 0059       | N08      | W25           | .433                | 10432                     | 21.2             | 29                   | --F                |              | .54                       |                           |                     |                   | 2 2 2 5 |   |  |  |
| MANI        | 23          | 0051  | 0120  | 0059       | N08      | W25           | .433                | 10432                     | 21.2             | 29                   | -N                 | 2            | 0059                      | .52                       | .56                 |                   |         |   |  |  |
| PALE        | 23          | 0052E | 0109D | 0059       | N08      | W25           | .433                | 10432                     | 21.2             | 17D                  | -F                 | C            |                           | .56                       |                     |                   |         |   |  |  |
| GRP26638    | 23          | 0204  | 0227  | 0210       | S03      | E79           | .982                | 10445                     | 29.0             | 23                   | 1N                 |              | .57                       |                           |                     |                   | 1 1 1 4 |   |  |  |
| CULG        | 23          | 0204  | 0227  | 0210       | S04      | E78           | .979                | 10445                     | 28.9             | 23                   | 1N                 | C            | 0210                      | .57                       |                     |                   |         |   |  |  |
| CRON        | 23          | 0208  | 0217  | 0210       | S03      | E80           | .985                | 10445                     | 29.1             | 9                    | -N                 | C            |                           | .52                       | 1.50                |                   |         |   |  |  |
| GRP26639    | 23          | 0240  | 0305  | 0244       | N07      | W25           | .429                | 10432                     | 21.2             | 25                   | 1B                 |              | 2.58                      |                           |                     |                   | 2 2 2 4 |   |  |  |
| CULG        | 23          | 0240  | 0259  | 0244       | N08      | W28           | .478                | 10432                     | 21.0             | 19                   | 1B                 | C            | 0244                      | 2.78                      | 2.97                |                   |         |   |  |  |
| CRON        | 23          | 0240  | 0252  | 0243       | N07      | W25           | .429                | 10432                     | 21.2             | 12                   | 1N                 | C            |                           | 2.58                      | 2.80                |                   | I       |   |  |  |
| MANI        | 23          | 0244E | 0310D |            | N07      | W23           | .398                | 10432                     | 21.4             | 26D                  | 1B                 | 1            | 0244                      | 2.37                      | 2.58                |                   |         |   |  |  |
| 640 CRON    | 23          | 0425  | 0457  | 0434       | N10      | W21           | .381                | 10432                     | 21.6             | 32                   | 1N                 | C            |                           | 2.27                      | 2.40                |                   | EI 2    |   |  |  |
| GRP26641    | 23          | 0503  | 0615  | 0537       | N11      | W16           | .314                | 10432                     | 22.0             | 72                   | 1F                 |              | 3.20                      |                           |                     |                   | 2 2 2 5 |   |  |  |
| TACH        | 23          | 0503  | 0615  |            | N10      | W18           | .336                | 10432                     | 21.9             | 72                   | 2F                 | V            | 0505                      | 5.16                      | 5.50                | 2.50              | 84      |   |  |  |
| MANI        | 23          | 0519E | 0533  | 0522       | N15      | W15           | .338                | 10432                     | 22.1             | 14D                  | -N                 | 2            | 0522                      | .41                       | .44                 |                   | BE      |   |  |  |
| MANI        | 23          | 0534  | 0540D | 0537       | N10      | W12           | .249                | 10432                     | 22.3             | 6D                   | -N                 | 3            | 0537                      | 1.24                      | 1.27                |                   |         |   |  |  |
| GRP26643    | 23          | 0735  | 0823  | 0744       | N10      | W21           | .381                | 10432                     | 21.7             | 48                   | 1N                 |              | 5.20                      |                           |                     |                   | 5 5 4 6 |   |  |  |
| ISTA        | 23          | 0700  | 0800  | 0703       | N14      | W24           | .448                | 10432                     | 21.5             | 60                   | -N                 |              |                           |                           |                     |                   |         |   |  |  |
| ISTA        | 23          | 0720  | 0820  | 0740       | N09      | W20           | .360                | 10432                     | 21.8             | 60                   | 1B                 |              |                           |                           |                     |                   |         |   |  |  |
| CAPE        | 23          | 0733E | 0753D | 0750       | N10      | W20           | .366                | 10432                     | 21.8             | 20D                  | 1N                 | P            | 0750                      | 2.10                      | 2.20                |                   |         |   |  |  |
| CULG        | 23          | 0733  | 0813D | 0745       | N10      | W22           | .396                | 10432                     | 21.7             | 40D                  | 1N                 | P            | 0745                      | 4.33                      | 4.62                |                   | ZUT     |   |  |  |
| TACH        | 23          | 0735  | 0825  |            | N11      | W20           | .372                | 10432                     | 21.8             | 50                   | 2F                 | V            | 0746                      | 10.31                     | 11.10               | 2.40              | 72      |   |  |  |
| CRON        | 23          | 0735  | 0805  | 0743U      | N10      | W21           | .381                | 10432                     | 21.7             | 30                   | 1N                 | C            |                           | 2.78                      | 3.00                |                   | E       |   |  |  |
| ABST        | 23          | 0737  | 0808D | 0742       | N10      | W22           | .396                | 10432                     | 21.7             | 31D                  | 1F                 | C            | 0742                      | 4.05                      | 4.40                |                   | 71      |   |  |  |
| GRP26644    | 23          | 0958  | 1126  | 1022       | N15      | W19           | .389                | 10432                     | 22.0             | 88                   | 1B                 |              | 4.62                      |                           |                     |                   | 8 6 4 9 |   |  |  |
| CRON        | 23          | 0955  | 1040D | 1018       | N14      | W19           | .380                | 10432                     | 22.0             | 45D                  | 1B                 | C            |                           |                           |                     |                   |         |   |  |  |
| CRON        | 23          | 0955  | 1040D | 1004       | N14      | W19           | .380                | 10432                     | 22.0             | 45D                  | 1B                 | C            |                           | 3.40                      | 3.60                |                   | K       |   |  |  |
| CAPE        | 23          | 0958  | 1120  | 1020       | N15      | W20           | .402                | 10432                     | 21.9             | 82                   | -B                 | C            | 1020                      | 1.62                      | 1.80                |                   |         |   |  |  |
| TELV        | 23          | 0959  | 1125  | 1020       | N15      | W18           | .376                | 10432                     | 22.1             | 86                   | 1N                 |              |                           |                           |                     |                   |         |   |  |  |
| BUCA        | 23          | 0959  | 1135  | 1018       | N15      | W18           | .376                | 10432                     | 22.1             | 96                   | 2B                 | C            | 1018                      | 5.54                      | 5.90                |                   | CK      |   |  |  |
| UCCL        | 23          | 1002E | 1124D |            | N13      | W19           | .372                | 10432                     | 22.0             | 82D                  | 2B                 | P            | 1018                      | 7.73                      | 11.50               |                   | EIM     |   |  |  |
| ABST        | 23          | 1003E | 1121  | 1019       | N15      | W20           | .402                | 10432                     | 21.9             | 78D                  | 1B                 | C            | 1019                      | 3.60                      | 3.90                |                   | F       |   |  |  |
| CATA        | 23          | 1030E | 1040D | 1035       | N15      | W21           | .415                | 10432                     | 21.9             | 10D                  | 1B                 |              | 1035                      | 2.32                      | 2.56                | 90                | Z       |   |  |  |
| CAPS        | 23          | 1100E | 1128D |            | N11      | W22           | .401                | 10432                     | 21.8             | 28D                  | -B                 | 3            | 1103                      | 1.44                      | 1.50                | 200               |         |   |  |  |
| GRP26646    | 23          | 1220  | 1310  | 1243       | N09      | W25           | .436                | 10432                     | 21.6             | 50                   | 1N                 |              | 3.55                      |                           |                     |                   | 4 4 4 4 |   |  |  |
| SANM        | 23          | 1202E | 1600D |            | N12      | W25           | .450                | 10432                     | 21.6             | 238D                 | 1N                 | 1            | P                         | 1242                      | 2.91                | 3.20              |         |   |  |  |
| ZURI        | 23          | 1215  | 1246D | 1240       | N08      | W24           | .417                | 10432                     | 21.7             | 31D                  | 2N                 | P            | 1240                      | 7.78                      | 8.50                |                   |         |   |  |  |
| CAPE        | 23          | 1225  | 1310  | 1246       | N07      | W25           | .429                | 10432                     | 21.6             | 45                   | -F                 | C            | 1246                      | 1.22                      | 1.30                |                   |         |   |  |  |
| CAPS        | 23          | 1230E | 1305D |            | N08      | W26           | .448                | 10432                     | 21.6             | 35D                  | 1N                 | 3            | V                         | 1236                      | 2.27                | 2.40              | 170     |   |  |  |
| GRP26647    | 23          | 1521  | 1648  | 1544       | N10      | W24           | .426                | 10432                     | 21.8             | 87                   | 1N                 |              | 3.43                      |                           |                     |                   | 5 5 5 5 |   |  |  |
| SANM        | 23          | 1202E | 1600D |            | N12      | W25           | .450                | 10432                     | 21.6             | 238D                 | 1N                 | 1            | P                         | 1537                      | 3.24                | 3.57              |         |   |  |  |
| BOUL        | 23          | 1521  | 1630D | 1526       | N12      | W24           | .436                | 10432                     | 21.8             | 69D                  | 1N                 | V            |                           |                           |                     |                   |         |   |  |  |
| BOUL        | 23          | 1525  | 1625  | 1543U      | N07      | W24           | .414                | 10432                     | 21.8             | 60                   | 1N                 | C            |                           | 3.50                      | 3.90                |                   | E       |   |  |  |
| SACP        | 23          | 1526E | 1700U | 1545U      | N08      | W25           | .433                | 10432                     | 21.8             | 94D                  | 1N                 | C            |                           | 4.66                      | 4.73                |                   | FI      |   |  |  |
| HUAN        | 23          | 1530E | 1655D |            | N12      | W24           | .436                | 10432                     | 21.8             | 85D                  | -N                 | 1            | C                         | 1543                      | .75                 | .80               |         | E |  |  |
| HOUT        | 23          | 1535E | 1635  | 1545U      | N07      | W22           | .383                | 10432                     | 22.0             | 60D                  | 2N                 | C            |                           | 5.00                      | 5.50                |                   | E       |   |  |  |
| BOUL        | 23          | 1550E | 1640D | 1556       | N06      | W26           | .442                | 10432                     | 21.7             | 50D                  | 1F                 | V            |                           |                           |                     |                   |         |   |  |  |
| GRP26652    | 23          | 2237  | 2256  | 2239       | N14      | W30           | .530                | 10432                     | 21.7             | 19                   | --N                |              | .70                       |                           |                     |                   | 2 1 1 4 |   |  |  |
| SACP        | 23          | 2237  | 2256  | 2239       | N14      | W30           | .530                | 10432                     | 21.7             | 19                   | -N                 | C            |                           | .70                       | .73                 |                   | F       |   |  |  |
| PALE        | 23          | 2240  | 2257  | 2250       | N12      | W36           | .603                | 10432                     | 21.2             | 17                   | -N                 | C            |                           | .12                       |                     |                   |         |   |  |  |

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| OBSERVATORY                                                                | OBSERVED UT |       |       |               | LOCATION        |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|----------------------------------------------------------------------------|-------------|-------|-------|---------------|-----------------|---------------|---------------------|---------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|                                                                            | DATE        | START | END   | MAX.<br>PHASE | APPROX.         |               | CENTRAL<br>DISTANCE | MCMATH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|                                                                            |             |       |       |               | LAT.            | MER.<br>DIST. |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                                                                            | 1969<br>NOV |       |       |               |                 |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26656                                                                   | 24          | 0623  | 0655  | 0630          | N14             | W26           | .476                | 10432                     | 22.3       | 32               | 1N                   |                    |              | 4.02                      |                           |                             | 4 3 2 6           |         |
| CRON                                                                       | 24          | 0617  | 0640  | 0622          | N15             | W29           | .523                | 10432                     | 22.1       | 23               | -N                   | C                  |              | 1.65                      | 1.90                      |                             | EI                |         |
| TELV                                                                       | 24          | 0625  | 0720  | 0630          | N15             | W20           | .403                | 10432                     | 22.8       | 55               | -N                   |                    |              |                           |                           |                             |                   |         |
| TACH                                                                       | 24          | 0628  | 0645  | 0630          | N11             | W30           | .518                | 10432                     | 22.0       | 17               | 2F                   | V                  | 0630         | 6.39                      | 6.70                      | 2.20                        | 75                | Z       |
| MANI                                                                       | 24          | 0637E | 0701  |               | N17             | W29           | .535                | 10432                     | 22.1       | 24D              | -N                   | 2                  | 0638         | .93                       | 1.11                      |                             |                   |         |
| 11 STATIONS REPORTING GROUP 26657. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |                 |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26657                                                                   | 24          | 0917  | 1009  | 0922          | N15             | W31           | .549                | 10432                     | 22.1       | 52               | 2N                   |                    |              | 6.89                      |                           |                             | 11 9 6 12         |         |
| SIBE                                                                       | 24          | 0623E | 0948  |               | N15             | W31           | .549                | 10432                     | 21.9       | 205D             | 2F                   | V                  |              |                           |                           |                             | IE                |         |
| MANI                                                                       | 24          | 0711  | 0723  | 0715          | N12             | W30           | .522                | 10432                     | 22.0       | 12               | -N                   | 2                  | 0715         | .31                       | .38                       |                             |                   |         |
| CRON                                                                       | 24          | 0913  | 1000  | 0918          | N16             | W32           | .567                | 10432                     | 22.0       | 47               | 2B                   | C                  |              | 8.77                      | 10.60                     |                             | EIZ               |         |
| ABST                                                                       | 24          | 0914  | 1039  | 0919          | N16             | W32           | .567                | 10432                     | 22.0       | 85               | 2N                   | C                  | 0919         | 5.67                      | 6.90                      |                             | 70                | FJK     |
| BUCA                                                                       | 24          | 0914  | 1051  | 0920          | N15             | W32           | .562                | 10432                     | 22.0       | 97               | 2B                   | C                  | 0920         | 9.96                      | 12.00                     |                             |                   | CFK     |
| CATA                                                                       | 24          | 0920E | 0945D | 0920          | N16             | W31           | .555                | 10432                     | 22.1       | 25D              | 1B                   |                    | 0920         | 3.94                      | 4.70                      |                             |                   |         |
| HERS                                                                       | 24          | 0922E | 1015  | 0926          | N14             | W31           | .544                | 10432                     | 22.1       | 53D              | 2B                   | P                  | 0930         | 6.08                      | 7.30                      | 6.10                        | 120               | CI      |
| TELV                                                                       | 24          | 0922  | 0922D |               | N14             | W31           | .544                | 10432                     | 22.1       | 2N               |                      |                    |              |                           |                           |                             |                   |         |
| KODA                                                                       | 24          | 0931E | 0943D | 0931          | N15             | W30           | .536                | 10432                     | 22.1       | 12D              | 2B                   | P                  | 0942         | 6.92                      | 6.90                      | 3.28                        |                   | E       |
| NERA                                                                       | 24          | 0946E | 1005D |               | N16             | W30           | .542                | 10432                     | 22.2       | 19D              | 3N                   | 2                  |              |                           |                           |                             |                   |         |
| KIEV                                                                       | 24          | 1020  | 1025  | 1020          | N13             | W36           | .607                | 10432                     | 21.7       | 5                | 2N                   | C                  | 1020         | 5.00                      | 6.60                      |                             | 65                | EI      |
| 657 ABST                                                                   | 24          | 0917  | 0958  | 0918          | N10             | W30           | .514                | 10432                     | 22.1       | 41               | *1F                  | C                  | 0918         | 3.33                      | 3.80                      |                             | 55                | FJ 5    |
| GRP26658                                                                   | 24          | 1138  | 1215  | 1144          | N09             | W44           | .699                | 10432                     | 21.2       | 37               | 1N                   |                    |              | 2.70                      |                           |                             | 3 2 1 3           |         |
| NERA                                                                       | 24          | 1136E | 1207D | 1142          | N10             | W42           | .676                | 10432                     | 21.3       | 31D              | 2N                   | 2                  |              |                           |                           |                             |                   |         |
| ABST                                                                       | 24          | 1137E | 1215D | 1145          | N05             | W44           | .695                | 10432                     | 21.2       | 38D              | 1N                   | C                  | 1145         | 2.70                      | 3.70                      |                             | 78                | F       |
| ABST                                                                       | 24          | 1139  | 1215D | 1145          | N09             | W46           | .723                | 10432                     | 21.0       | 36D              | 1F                   | P                  | 1145         | 2.97                      | 4.40                      |                             | 65                | FJ      |
| LOCA                                                                       | 24          | 1150E | 1155D |               | N14             | W34           | .584                | 10432                     | 21.9       | 5D               | 2B                   | S                  |              |                           |                           |                             |                   |         |
|                                                                            | 24          | 1214  | 1245  |               | NO FLARE PATROL |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| 659 CATA                                                                   | 24          | 1245E | 1305D | 1250          | N07             | W40           | .645                | 10432                     | 21.5       | 20D              | 1B                   |                    | 1250         | 3.19                      | 4.16                      |                             | 251               | 1       |
|                                                                            | 24          | 1300  | 1330  |               | NO FLARE PATROL |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                                                                            | 24          | 1340  | 1348  |               | NO FLARE PATROL |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                                                                            | 24          | 1359  | 1400  |               | NO FLARE PATROL |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26661                                                                   | 24          | 1605  | 1616  | 1612          | N06             | W52           | .788                | 10432                     | 20.8       | 11               | --N                  |                    |              | .31                       |                           |                             | 2 2 1 4           |         |
| BOUL                                                                       | 24          | 1601  | 1616  | 1612          | N06             | W51           | .778                | 10432                     | 20.8       | 15               | -N                   | V                  |              |                           |                           |                             |                   |         |
| MCMA                                                                       | 24          | 1608  | 1616  | 1612          | N06             | W53           | .799                | 10432                     | 20.7       | 8                | -N                   | C                  | 1612         | .31                       | .60                       |                             |                   | E       |
| BOUL                                                                       | 24          | 1613  | 1644  | 1623          | N06             | W52           | .788                | 10432                     | 20.8       | 31               | -N                   | V                  |              |                           |                           |                             |                   |         |
| GRP26662                                                                   | 24          | 1647  | 1721  | 1657          | N08             | W41           | .660                | 10432                     | 21.6       | 34               | 1N                   |                    |              | 1.98                      |                           |                             | 3 3 3 3           |         |
| SACP                                                                       | 24          | 1646  | 1715U | 1659U         | N07             | W40           | .645                | 10432                     | 21.7       | 29D              | 1N                   | C                  |              | 2.19                      | 2.46                      |                             |                   | F       |
| BOUL                                                                       | 24          | 1647  | 1709  | 1655          | N10             | W42           | .676                | 10432                     | 21.5       | 22               | -N                   | V                  |              |                           |                           |                             |                   |         |
| MCMA                                                                       | 24          | 1648  | 1740  | 1658          | N08             | W41           | .660                | 10432                     | 21.6       | 52               | 1N                   | C                  | 1658         | 1.55                      | 2.10                      |                             |                   | F       |
| BOUL                                                                       | 24          | 1650  | 1708  | 1654          | N08             | W41           | .660                | 10432                     | 21.6       | 18               | 1N                   | C                  |              | 2.20                      | 3.00                      |                             |                   | E       |
| GRP26665                                                                   | 24          | 1814  | 1913  | 1825          | N10             | W34           | .570                | 10432                     | 22.2       | 59               | --N                  |                    |              | .30                       |                           |                             | 2 1 1 5           |         |
| SACP                                                                       | 24          | 1814  | 1913  | 1825          | N10             | W34           | .570                | 10432                     | 22.2       | 59               | -N                   | C                  |              | .30                       | .32                       |                             |                   | F       |
| MCMA                                                                       | 24          | 1842E | 1928  |               | N11             | W36           | .600                | 10432                     | 22.1       | 46D              | -N                   | P                  | 1842         | .52                       | .70                       |                             |                   | EK      |
| GPP26666                                                                   | 24          | 1909  | 1926  | 1910          | N16             | W41           | .679                | 10432                     | 21.7       | 17               | --N                  |                    |              | .61                       |                           |                             | 2 2 2 5           |         |
| SACP                                                                       | 24          | 1908  | 1923  | 1910          | N15             | W41           | .676                | 10432                     | 21.7       | 15               | -N                   | C                  |              | .60                       | .69                       |                             |                   | F       |
| MCMA                                                                       | 24          | 1909  | 1928  | 1910          | N17             | W41           | .683                | 10432                     | 21.7       | 19               | -N                   | C                  | 1910         | .62                       | .80                       |                             |                   | E       |
| 667 CULG                                                                   | 24          | 2159  | 2222  | 2203          | S15             | E90           | 1.000               | 10449                     | 1.7        | 23               | 1N                   | C                  | 2203         | .46                       |                           |                             |                   | 3       |
| GRP26673                                                                   | 25          | 0146  | 0156  | 0150          | N05             | W57           | .839                | 10432                     | 20.8       | 10               | 1N                   |                    |              | 1.27                      |                           |                             | 5 5 5 6           |         |
| VORO                                                                       | 25          | 0145  | 0152  | 0147          | N01             | W57           | .839                | 10432                     | 20.8       | 7                | 1B                   | C                  | 0147         | 1.20                      | 2.10                      |                             | 104               | EJ      |
| CULG                                                                       | 25          | 0145  | 0202  | 0150          | N04             | W57           | .838                | 10432                     | 20.8       | 17               | 1N                   | C                  | 0150         | 2.37                      | 4.14                      |                             |                   | H       |
| PALE                                                                       | 25          | 0146  | 0203  | 0153          | N12             | W55           | .824                | 10432                     | 20.9       | 17               | -N                   | C                  |              | .53                       |                           |                             |                   |         |
| MANI                                                                       | 25          | 0146  | 0156  | 0150          | N04             | W58           | .848                | 10432                     | 20.7       | 10               | -N                   | 2                  | 0150         | 1.03                      | 1.88                      |                             |                   |         |
| MITK                                                                       | 25          | 0147  | 0155  | 0149          | N04             | W57           | .838                | 10432                     | 20.8       | 8                | 1F                   | C                  | 0149         | 1.24                      | 2.20                      |                             |                   | E       |
| CRON                                                                       | 25          | 0147  | 0156  | 0149          | N06             | W58           | .848                | 10432                     | 20.7       | 9                | 1N                   | C                  |              | 1.55                      | 2.70                      |                             |                   | EL      |
| GRP26676                                                                   | 25          | 0216  | 0254  | 0225          | N13             | W16           | .334                | 10441                     | 23.9       | 38               | -N                   |                    |              | 1.33                      |                           |                             | 4 4 4 6           |         |
| PALE                                                                       | 25          | 0210  | 0255  | 0223          | N13             | W15           | .320                | 10441                     | 24.0       | 45               | -N                   | C                  |              | .26                       |                           |                             |                   |         |
| CRON                                                                       | 25          | 0215  | 0300  | 0221          | N14             | W17           | .356                | 10441                     | 23.8       | 45               | 1N                   | C                  |              | 2.17                      | 2.30                      |                             |                   |         |
| MITK                                                                       | 25          | 0219  | 0252  | 0224          | N14             | W15           | .330                | 10441                     | 24.0       | 33               | -N                   | C                  | 0224         | 1.65                      | 1.70                      |                             |                   | EH      |
| MANI                                                                       | 25          | 0221  | 0247  | 0233          | N11             | W17           | .330                | 10441                     | 23.8       | 26               | -F                   | 2                  | 0233         | 1.24                      | 1.30                      |                             |                   |         |
| GRP26677                                                                   | 25          | 0241  | 0311  | 0247          | N12             | W41           | .668                | 10432                     | 22.0       | 30               | -N                   |                    |              | 1.01                      |                           |                             | 3 3 3 6           |         |
| PALE                                                                       | 25          | 0228  | 0252  | 0234          | N14             | W48           | .755                | 10432                     | 21.5       | 24               | -N                   | C                  |              | .19                       |                           |                             |                   |         |
| PALE                                                                       | 25          | 0237  | 0309  | 0247          | N11             | W38           | .627                | 10432                     | 22.3       | 32               | -N                   | C                  |              | .25                       |                           |                             |                   |         |
| MITK                                                                       | 25          | 0241E | 0312D |               | N13             | W39           | .646                | 10432                     | 22.2       | 31D              | 1N                   | C                  | 0251         | 1.96                      | 2.50                      |                             |                   | E       |
| MANI                                                                       | 25          | 0244  | 0256D | 0246          | N12             | W40           | .656                | 10432                     | 22.1       | 12D              | -F                   | 2                  | 0246         | .83                       | 1.10                      |                             |                   |         |



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Nov 69

SOLAR FLARES  
Confirmed  
NOVEMBER 1969

| OBSERV-<br>ATORY | OBSERVED UT |       |       |               | LOCATION |               |                     |                          |            | DURA-<br>TION<br>—<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS    |                           |                           |                     |                   | REMARKS |  |  |  |
|------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|--------------------------|------------|----------------------------|----------------------|-------|------|-----------------|---------------------------|---------------------------|---------------------|-------------------|---------|--|--|--|
|                  | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY |                            |                      | COND. | TYPE | TIME<br>—<br>UT | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>Ha | MAX.<br>INT.<br>% |         |  |  |  |
|                  |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                          |            |                            |                      |       |      |                 |                           |                           |                     |                   |         |  |  |  |
|                  | 1969<br>NOV |       |       |               |          |               |                     |                          |            |                            |                      |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| GRP26679         | 25          | 0543  | 0624  | 0606          | S14      | E80           | .987                | 10449                    | 1.2        | 41                         | 1N                   |       |      |                 | .67                       |                           |                     |                   | 2 1 1 3 |  |  |  |
| CULG             | 25          | 0543  | 0624  | 0606          | S14      | E80           | .987                | 10449                    | 1.2        | 41                         | 1N                   |       |      | 0606            | .67                       |                           |                     |                   |         |  |  |  |
| CRON             | 25          | 0554  | 0645  | 0603          | S15      | E90           | 1.000               | 10449                    | 2.0        | 51                         | 1B                   |       |      |                 | .62                       | 2.40                      |                     |                   |         |  |  |  |
| GRP26680         | 25          | 0604  | 0610  | 0604          | N13      | W46           | .730                | 10432                    | 21.8       | 6                          | 1N                   |       |      |                 | 2.09                      |                           |                     |                   | 2 2 1 4 |  |  |  |
| TACH             | 25          | 0603  | 0610  | 0604          | N12      | W41           | .668                | 10432                    | 22.2       | 7                          | 1N                   |       |      | 0603            | 2.09                      | 2.90                      | 2.60                | 90                | D       |  |  |  |
| TELV             | 25          | 0605  | 06050 |               | N14      | W50           | .776                | 10432                    | 21.5       |                            | 1N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| GRP26685         | 25          | 0930  | 0959  | 0942          | N10      | W51           | .781                | 10432                    | 21.6       | 29                         | 1B                   |       |      |                 | 2.53                      |                           |                     |                   | 4 4 3 6 |  |  |  |
| CRON             | 25          | 0930  | 0950  | 0940U         | N10      | W51           | .781                | 10432                    | 21.6       | 20                         | 2B                   |       |      |                 | 3.51                      | 6.20                      |                     |                   |         |  |  |  |
| TELV             | 25          | 0930  | 1000  | 0945          | N10      | W50           | .770                | 10432                    | 21.6       | 30                         | 1N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| UCCL             | 25          | 0936E | 0959D |               | N11      | W52           | .793                | 10432                    | 21.5       | 23D                        | 1B                   |       |      | 0936            | 2.06                      |                           |                     |                   | EI      |  |  |  |
| CATA             | 25          | 0940E | 1005D | 0941          | N09      | W50           | .769                | 10432                    | 21.7       | 25D                        | 1B                   |       |      | 0941            | 2.02                      | 3.16                      |                     |                   |         |  |  |  |
| 686 KIEV         | 25          | 1052  | 1105  | 1054          | N09      | W45           | .712                | 10432                    | 22.1       | 13                         | 1N                   |       |      |                 | 2.00                      |                           |                     | 65                | EI 2    |  |  |  |
| GRP26687         | 25          | 1225  | 1246  | 1230          | N11      | W49           | .761                | 10432                    | 21.8       | 21                         | 1N                   |       |      |                 | 1.55                      |                           |                     |                   | 2 2 1 5 |  |  |  |
| TELV             | 25          | 1225  | 1245  | 1230          | N10      | W50           | .770                | 10432                    | 21.8       | 20                         | 1N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| UCCL             | 25          | 1231E | 1246D |               | N11      | W47           | .738                | 10432                    | 22.0       | 15D                        | 1N                   |       |      | 1231            | 1.55                      | 3.70                      |                     |                   | EI      |  |  |  |
| GRP26689         | 25          | 1508  | 1526  | 1511          | N12      | W46           | .728                | 10432                    | 22.2       | 18                         | -N                   |       |      |                 | 1.20                      |                           |                     |                   | 2 2 1 5 |  |  |  |
| SACP             | 25          | 1508  | 1529  | 1511          | N10      | W45           | .713                | 10432                    | 22.3       | 21                         | -N                   |       |      |                 | 1.20                      | 1.41                      |                     |                   |         |  |  |  |
| BOUL             | 25          | 1508  | 1523  | 1510          | N13      | W46           | .730                | 10432                    | 22.2       | 15                         | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| GRP26692         | 25          | 1712  | 1733  | 1722          | N11      | W47           | .738                | 10432                    | 22.2       | 21                         | --N                  |       |      |                 | .75                       |                           |                     |                   | 3 3 2 4 |  |  |  |
| BOUL             | 25          | 1708  | 1734D | 1719          | N12      | W44           | .705                | 10432                    | 22.4       | 26D                        | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| PALE             | 25          | 1712E | 1838D | 1725          | N11      | W49           | .761                | 10432                    | 22.0       | 86D                        | -N                   |       |      |                 | .71                       |                           |                     |                   |         |  |  |  |
| SACP             | 25          | 1716  | 1731  | 1721          | N10      | W48           | .748                | 10432                    | 22.1       | 15                         | -B                   |       |      |                 | .79                       | .97                       |                     |                   | E       |  |  |  |
| GRP26699         | 25          | 2220  | 2319  | 2229          | N07      | W57           | .839                | 10432                    | 21.7       | 59                         | 2N                   |       |      |                 | 4.11                      |                           |                     |                   | 4 3 3 5 |  |  |  |
| CULG             | 25          | 2219  | 2324  | 2230          | N09      | W58           | .849                | 10432                    | 21.6       | 65                         | 2N                   |       |      | 2230            | 4.74                      | 8.28                      |                     |                   | HLE     |  |  |  |
| SACP             | 25          | 2220  | 2314  | 2230          | N06      | W56           | .829                | 10432                    | 21.7       | 54                         | 2N                   |       |      |                 | 4.59                      | 6.39                      |                     |                   | E       |  |  |  |
| BOUL             | 25          | 2221  | 2228D | 2228          | N07      | W57           | .839                | 10432                    | 21.7       | 7D                         | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| BOUL             | 25          | 2222  | 2232D | 2228U         | N08      | W55           | .820                | 10432                    | 21.8       | 10D                        | 2N                   |       |      |                 | 3.00                      | 5.70                      |                     |                   | E       |  |  |  |
| PALE             | 25          | 2239E | 2340D | 2340          | N08      | W56           | .830                | 10432                    | 21.7       | 61D                        | 2N                   |       |      |                 | 3.03                      |                           |                     |                   |         |  |  |  |
| GRP26703         | 26          | 0503  | 0517  | 0506          | N17      | W56           | .840                | 10432                    | 22.0       | 14                         | 1B                   |       |      |                 | 2.06                      |                           |                     |                   | 2 2 2 6 |  |  |  |
| CULG             | 26          | 0501  | 0522  | 0506          | N18      | W56           | .842                | 10432                    | 22.0       | 21                         | 1B                   |       |      | 0506            | 1.75                      | 3.06                      |                     |                   |         |  |  |  |
| TACH             | 26          | 0505  | 0511  |               | N16      | W55           | .829                | 10432                    | 22.1       | 6                          | 1N                   |       |      | 0505            | 2.37                      | 4.20                      | 3.40                | 84                | D       |  |  |  |
| GRP26706         | 26          | 0816  | 0826  | 0820          | N10      | W65           | .907                | 10432                    | 21.5       | 10                         | -B                   |       |      |                 | .58                       |                           |                     |                   | 2 2 1 6 |  |  |  |
| TELV             | 26          | 0815  | 0827  |               | N05      | W70           | .939                | 10432                    | 21.1       | 12                         | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| CATA             | 26          | 0817  | 0825  | 0820          | N14      | W60           | .871                | 10432                    | 21.8       | 8                          | -B                   |       |      | 0820            | .58                       | 1.19                      |                     |                   |         |  |  |  |
| GRP26707         | 26          | 0852  | 0933  | 0902          | N15      | W67           | .923                | 10432                    | 21.3       | 41                         | 2N                   |       |      |                 | 3.49                      |                           |                     |                   | 5 4 3 7 |  |  |  |
| TELV             | 26          | 0845  | 0925  | 0900          | N07      | W75           | .966                | 10432                    | 20.7       | 40                         | 2N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| CRON             | 26          | 0849  | 0945  | 0902          | N17      | W68           | .931                | 10432                    | 21.3       | 56                         | 3B                   |       |      |                 | 5.98                      | 13.30                     |                     |                   |         |  |  |  |
| CAPE             | 26          | 0855  | 0920  | 0900          | N15      | W67           | .923                | 10432                    | 21.3       | 25                         | 2N                   |       |      | 0900            | 2.25                      | 5.90                      |                     |                   |         |  |  |  |
| KHAR             | 26          | 0900E | 0915D |               | N14      | W68           | .929                | 10432                    | 21.3       | 15D                        | 2F                   |       |      | 0900            |                           |                           | 2.80                |                   |         |  |  |  |
| ABST             | 26          | 0905E | 0933  | 0905          | N14      | W65           | .909                | 10432                    | 21.5       | 28D                        | 1F                   |       |      | 0905            | 2.25                      |                           |                     |                   | BF      |  |  |  |
| GRP26710         | 26          | 1429  | 1505  | 1438          | N14      | W69           | .935                | 10432                    | 21.4       | 36                         | -N                   |       |      |                 | 1.26                      |                           |                     |                   | 4 4 3 5 |  |  |  |
| SANM             | 26          | 1426  | 1457  | 1440          | N13      | W76           | .970                | 10432                    | 20.9       | 31                         | 1B                   |       |      |                 | 1.77                      | 3.48                      |                     |                   | E       |  |  |  |
| MCMA             | 26          | 1430E | 1457D | 1438          | N13      | W69           | .935                | 10432                    | 21.4       | 27D                        | -N                   |       |      | 1438            | .46                       | 1.30                      |                     |                   | E       |  |  |  |
| BOUL             | 26          | 1431  | 1520  | 1437          | N14      | W66           | .916                | 10432                    | 21.7       | 49                         | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| BOUL             | 26          | 1431  | 1435  | 1433          | N19      | W63           | .899                | 10432                    | 21.9       | 4                          | -F                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| CAPS             | 26          | 1435E | 1445D |               | N15      | W65           | .910                | 10432                    | 21.7       | 10D                        | 1N                   |       |      | 1442            | 1.55                      |                           | 198                 |                   |         |  |  |  |
| GRP26712         | 26          | 1550  | 1620  | 1558          | N14      | W65           | .909                | 10432                    | 21.8       | 30                         | --N                  |       |      |                 | .26                       |                           |                     |                   | 2 1 1 3 |  |  |  |
| BOUL             | 26          | 1550E | 1620  | 1558          | N14      | W65           | .909                | 10432                    | 21.8       | 30D                        | -N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| MCMA             | 26          | 1618  | 1642  | 1625          | N08      | W64           | .899                | 10432                    | 21.9       | 24                         | -F                   |       |      | 1625            | .26                       | .60                       |                     |                   | E       |  |  |  |
| 713 BOUL         | 26          | 1645E | 1650  | 1645          | N09      | W66           | .914                | 10432                    | 21.7       | 5D                         | --F                  |       |      |                 |                           |                           |                     |                   | 3       |  |  |  |
| GRP26714         | 26          | 1707  | 1724  | 1710          | N14      | W68           | .929                | 10432                    | 21.6       | 17                         | -N                   |       |      |                 | .45                       |                           |                     |                   | 4 4 3 4 |  |  |  |
| MCMA             | 26          | 1706  | 1723  |               | N13      | W70           | .941                | 10432                    | 21.5       | 17                         | -N                   |       |      | 1715            | .52                       | 1.50                      |                     |                   | E       |  |  |  |
| BOUL             | 26          | 1706  | 1726  | 1709          | N14      | W67           | .923                | 10432                    | 21.7       | 20                         | -B                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| SANM             | 26          | 1706  | 1725  | 1710          | N13      | W68           | .929                | 10432                    | 21.6       | 19                         | -N                   |       |      |                 | .48                       |                           |                     |                   | E       |  |  |  |
| PALE             | 26          | 1710  | 1723  | 1712          | N14      | W68           | .929                | 10432                    | 21.6       | 13                         | -N                   |       |      |                 | .36                       |                           |                     |                   |         |  |  |  |
| GRP26717         | 26          | 1844  | 1859  | 1851          | S16      | E53           | .821                | 10449                    | 30.8       | 15                         | -N                   |       |      |                 | .53                       |                           |                     |                   | 4 3 2 5 |  |  |  |
| BOUL             | 26          | 1843  | 1900  | 1851          | S16      | E53           | .821                | 10449                    | 30.8       | 17                         | 1N                   |       |      |                 |                           |                           |                     |                   |         |  |  |  |
| MCMA             | 26          | 1844  | 1857  | 1851          | S16      | E53           | .821                | 10449                    | 30.8       | 13                         | -N                   |       |      | 1851            | .41                       | .70                       |                     |                   | EH      |  |  |  |
| PALE             | 26          | 1845  | 1905  | 1853          | S15      | E53           | .819                | 10449                    | 30.8       | 20                         | 1N                   |       |      |                 | 2.33                      |                           |                     |                   |         |  |  |  |
| SANM             | 26          | 1846  | 1850D |               | S16      | E53           | .821                | 10449                    | 30.8       | 4D                         | -F                   |       |      | 1849            | .65                       | 1.13                      |                     |                   | E       |  |  |  |
| GRP26719         | 26          | 1937  | 1956  | 1941          | N15      | W69           | .936                | 10432                    | 21.6       | 19                         | -B                   |       |      |                 | .58                       |                           |                     |                   | 2 2 2 3 |  |  |  |
| CULG             | 26          | 1936  | 1958  | 1940          | N16      | W70           | .942                | 10432                    | 21.6       | 22                         | 1N                   |       |      | 1940            | .83                       |                           |                     |                   |         |  |  |  |
| PALE             | 26          | 1938  | 1953  | 1942          | N14      | W67           | .923                | 10432                    | 21.8       | 15                         | -B                   |       |      |                 | .32                       |                           |                     |                   |         |  |  |  |

SOLAR FLARES  
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| OBSERVATORY | OBSERVED UT |       |       |                 | LOCATION |               |                     |                          |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |  |
|-------------|-------------|-------|-------|-----------------|----------|---------------|---------------------|--------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|--|
|             | DATE        | START | END   | MAX.<br>PHASE   | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |  |
|             |             |       |       |                 | LAT.     | MER.<br>DIST. |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |  |
|             | 1969<br>NOV |       |       |                 |          |               |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |  |
| 720 PALE    | 26          | 2001  | 2007  | 2002            | N13      | W36           | .608                | 10441                    | 24.1       | 6                | --N                  | C                  |              |                           | .20                       |                             |                   | 3       |  |
| 721 PALE    | 26          | 2025  | 2046  | 2029            | N24      | W43           | .734                | 10450                    | 23.6       | 21               | --B                  | C                  |              |                           | .15                       |                             |                   | 2       |  |
| 722 CULG    | 26          | 2031  | 2055  | 2034            | N15      | W70           | .941                | 10432                    | 21.6       | 24               | 1F                   | C                  | 2034         |                           | .83                       |                             |                   | 2       |  |
| 723 PALE    | 26          | 2058  | 2115  | 2104            | N15      | E53           | .809                | 10447                    | 30.8       | 17               | --N                  | C                  |              |                           | .62                       |                             |                   | 2       |  |
| 724 PALE    | 26          | 2109  | 2119  | 2110            | N24      | W43           | .734                | 10450                    | 23.7       | 10               | --F                  | C                  |              |                           | .10                       |                             |                   | 2       |  |
| GRP26729    | 26          | 2256  | 2347  | 2317            | N08      | W75           | .966                | 10432                    | 21.3       | 51               | 1F                   |                    |              |                           | 1.15                      |                             |                   | 2 2 2 3 |  |
| PALE        | 26          | 2246  | 2351  | 2318            | N08      | W77           | .974                | 10432                    | 21.2       | 65               | 1F                   | C                  |              |                           | 1.27                      |                             |                   |         |  |
| MANI        | 26          | 2305  | 2342  | 2315            | N07      | W73           | .956                | 10432                    | 21.9       | 37               | 1F                   | 1                  | 2315         |                           | 1.03                      | 2.31                        |                   |         |  |
| GRP26729    | 27          | 0126  | 0148  | 0127            | N06      | W76           | .970                | 10432                    | 21.4       | 22               | --B                  |                    |              |                           | .15                       |                             |                   | 2 1 1 5 |  |
| PALE        | 27          | 0126  | 0148  | 0127            | N06      | W76           | .970                | 10432                    | 21.4       | 22               | --B                  | C                  |              |                           | .15                       |                             |                   |         |  |
| CULG        | 27          | 0145  | 0214  | 0155            | N13      | W79           | .982                | 10432                    | 21.1       | 29               | 2N                   | C                  | 0155         |                           | 2.27                      |                             |                   |         |  |
| GRP26730    | 27          | 0149  | 0230  | 0156            | N08      | W76           | .970                | 10432                    | 21.4       | 41               | 1F                   |                    |              |                           | 2.19                      |                             |                   | 4 4 4 6 |  |
| MANI        | 27          | 0143E | 0208D | 0156            | N11      | W75           | .966                | 10432                    | 21.4       | 25D              | 1F                   | 1                  | 0156         |                           | 1.86                      | 4.40                        |                   |         |  |
| MITK        | 27          | 0146E | 0226D |                 | N08      | W76           | .970                | 10432                    | 21.4       | 40D              | 2F                   | C                  | 0155         |                           | 2.78                      |                             |                   | F E     |  |
| CRON        | 27          | 0151  | 0230  | 0156            | N09      | W75           | .966                | 10432                    | 21.9       | 39               | 2N                   | C                  |              |                           | 3.61                      | 9.80                        |                   |         |  |
| PALE        | 27          | 0154  | 0156D | 0156            | N07      | W77           | .974                | 10432                    | 21.3       | 2D               | --N                  | V                  |              |                           | .52                       |                             |                   |         |  |
| MANI        | 27          | 0223E | 0225D |                 | N05      | W75           | .966                | 10432                    | 21.5       | 2D               | 1F                   | 1                  | 0224         |                           | 1.24                      | 2.88                        |                   |         |  |
| GRP26731    | 27          | 0151  | 0210  | 0155            | S16      | E49           | .782                | 10449                    | 30.8       | 19               | --B                  |                    |              |                           | .69                       |                             |                   | 4 4 4 6 |  |
| MANI        | 27          | 0150  | 0207  | 0154            | S16      | E48           | .771                | 10449                    | 30.7       | 17               | --N                  | 2                  | 0154         |                           | .72                       | 1.18                        |                   |         |  |
| MITK        | 27          | 0150E | 0216  |                 | S14      | E50           | .787                | 10449                    | 30.8       | 26D              | --B                  | C                  | 0155         |                           | .52                       | .80                         |                   | EH      |  |
| CRON        | 27          | 0152  | 0205  | 0156            | S17      | E50           | .794                | 10449                    | 30.8       | 13               | --B                  | C                  |              |                           | 1.03                      | 1.60                        |                   |         |  |
| PALE        | 27          | 0153  | 0211  | 0156            | S16      | E49           | .782                | 10449                    | 30.8       | 18               | --N                  | C                  |              |                           | .47                       |                             |                   |         |  |
| GRP26732    | 27          | 0322  | 0347  | 0329            | S15      | E46           | .747                | 10449                    | 30.6       | 25               | 1N                   |                    |              |                           | 1.55                      |                             |                   | 1 1 1 5 |  |
| CULG        | 27          | 0322  | 0347  | 0329            | S15      | E46           | .747                | 10449                    | 30.6       | 25               | 1N                   | C                  | 0329         |                           | 1.55                      | 2.25                        |                   | HR      |  |
| CRON        | 27          | 0325  | 0338  | 0329            | S16      | E47           | .761                | 10449                    | 30.7       | 13               | --B                  | C                  |              |                           | 1.03                      | 1.60                        |                   | H       |  |
| GRP26733    | 27          | 0559  | 0635  | 0622            | S16      | E46           | .751                | 10449                    | 30.7       | 36               | --N                  |                    |              |                           | 2.12                      |                             |                   | 2 2 2 3 |  |
| MANI        | 27          | 0550  | 0636  | 0621            | S15      | E46           | .747                | 10449                    | 30.7       | 46               | --F                  | 2                  | 0621         |                           | 1.65                      | 2.50                        |                   |         |  |
| CRON        | 27          | 0607  | 0633  | 0623            | S17      | E47           | .764                | 10449                    | 30.8       | 26               | --B                  | C                  |              |                           | 1.24                      | 1.80                        |                   |         |  |
| CULG        | 27          | 0611  | 0640D | 0623            | S15      | E45           | .737                | 10449                    | 30.6       | 29D              | 1B                   | P                  | 0623         |                           | 2.58                      | 3.42                        |                   | HR      |  |
| GRP26734    | 27          | 0900  | 0911  | 0907            | S13      | E45           | .730                | 10449                    | 30.8       | 11               | --N                  |                    |              |                           | 1.64                      |                             |                   | 3 2 2 6 |  |
| MONT        | 27          | 0855  | 0913  | 0907            | S13      | E47           | .752                | 10449                    | 30.9       | 18               | --N                  | C                  | 0907         |                           | 2.06                      |                             |                   | H       |  |
| CATA        | 27          | 0900  | 0950  | 0935            | S17      | E44           | .733                | 10449                    | 30.7       | 50               | --N                  |                    | 0935         |                           | .29                       | .42                         |                   | 155     |  |
| ZURI        | 27          | 0905  | 0909  | 0907            | S13      | E43           | .707                | 10449                    | 30.6       | 4                | --N                  | C                  | 0907         |                           | 1.22                      | 1.70                        |                   |         |  |
| GRP26735    | 27          | 0942  | 1029  | 1010            | S21      | E17           | .468                | 10446                    | 28.7       | 47               | --N                  |                    |              |                           | .50                       |                             |                   | 3 3 3 8 |  |
| CAPS        | 27          | 0942E | 1035D |                 | S21      | E15           | .451                | 10446                    | 28.5       | 53D              | --N                  | 2                  | P            | 1010                      |                           | .83                         | .90               | 175     |  |
| MONT        | 27          | 1004  | 1014  | 1007            | S21      | E18           | .477                | 10446                    | 28.8       | 10               | --F                  | C                  | 1007         |                           | .21                       |                             |                   | H       |  |
| CATA        | 27          | 1005E | 1037  | 1012            | S21      | E18           | .477                | 10446                    | 28.8       | 32D              | --B                  |                    |              | 1012                      |                           | .46                         | .52               | 237     |  |
| GRP26736    | 27          | 1030  | 1057  | 1038            | S14      | E43           | .711                | 10449                    | 30.7       | 27               | 1B                   |                    |              |                           | 2.22                      |                             |                   | 5 5 5 7 |  |
| CATA        | 27          | 1028E | 1100  | 1037            | S16      | E43           | .718                | 10449                    | 30.7       | 32D              | --B                  |                    |              | 1037                      |                           | 1.16                        | 1.67              | 398     |  |
| MONT        | 27          | 1029  | 1056  | 1040            | S13      | E46           | .741                | 10449                    | 30.9       | 27               | 1B                   | C                  | 1040         |                           | 4.54                      |                             |                   | Z H     |  |
| CAPS        | 27          | 1030E | 1055  |                 | S15      | E41           | .691                | 10449                    | 30.5       | 25D              | --B                  | 3                  | P            | 1035                      |                           | 1.13                        | 1.50              | 204     |  |
| ZURI        | 27          | 1031  | 1041D | 1033            | S14      | E42           | .699                | 10449                    | 30.6       | 10D              | 1N                   | P                  | 1033         |                           | 1.89                      | 2.70                        |                   |         |  |
| CANR        | 27          | 1043E | 1055  | 1043U           | S13      | E44           | .719                | 10449                    | 30.7       | 12D              | 1N                   | C                  |              |                           | 2.40                      | 3.40                        |                   |         |  |
| GRP26738    | 27          | 1107  | 1127  | 1112            | S17      | E42           | .711                | 10449                    | 30.6       | 20               | --B                  |                    |              |                           | .87                       |                             |                   | 2 1 1 6 |  |
| CATA        | 27          | 1107  | 1127  | 1112            | S17      | E42           | .711                | 10449                    | 30.6       | 20               | --B                  |                    |              | 1112                      |                           | .87                         | 1.23              | 237     |  |
| CANR        | 27          | 1126E | 1126D | 1126E           | S17      | E43           | .722                | 10449                    | 30.7       |                  | --N                  | C                  |              |                           | 1.20                      | 1.70                        |                   | Z H     |  |
| GRP26740    | 27          | 1306  | 1317  | 1314            | S15      | E42           | .703                | 10449                    | 30.7       | 11               | --N                  |                    |              |                           | 1.10                      |                             |                   | 3 3 3 6 |  |
| CAPS        | 27          | 1305  | 1317  |                 | S15      | E42           | .703                | 10449                    | 30.7       | 12               | --N                  | 3                  | V            | 1312                      |                           | 1.55                        | 2.00              | 185     |  |
| CATA        | 27          | 1305  | 1310D | 1305            | S15      | E43           | .714                | 10449                    | 30.8       | 5D               | --B                  |                    |              | 1305                      |                           | .63                         | .90               | 257     |  |
| MONT        | 27          | 1307  | 1316  | 1314            | S14      | E42           | .699                | 10449                    | 30.7       | 9                | --F                  | C                  | 1314         |                           | 1.13                      |                             |                   |         |  |
| 741 CANR    | 27          | 1307  | 1317  | 1309U           | S17      | W65           | .918                | 10451                    | 22.7       | 10               | --B                  | C                  |              |                           | 1.00                      | 1.40                        |                   | 5       |  |
|             | 27          | 1500  | 1512  | NO FLARE PATROL |          |               |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |  |
| 744 BOUL    | 27          | 1511  | 1523  | 1516            | N25      | E90           | 1.000               | 10456                    | 4.4        | 12               | --B                  | V                  |              |                           |                           |                             |                   | 2       |  |
|             | 27          | 1515  | 1535  | NO FLARE PATROL |          |               |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |  |
| GRP26745    | 27          | 1516  | 1543  | 1530            | S16      | E44           | .729                | 10449                    | 30.9       | 27               | --B                  |                    |              |                           | .88                       |                             |                   | 2 2 1 2 |  |
| BOUL        | 27          | 1516  | 1543  | 1530            | S15      | E46           | .747                | 10449                    | 1.1        | 27               | 1B                   | V                  |              |                           |                           |                             |                   |         |  |
| HUAN        | 27          | 1520E | 1537D |                 | S17      | E41           | .700                | 10449                    | 30.7       | 17D              | --B                  | 1                  | P            | 1527                      |                           | .88                         | 1.20              | E       |  |
| 746 BOUL    | 27          | 1541  | 1551  | 1543            | N25      | E90           | 1.000               | 10456                    | 4.4        | 10               | --N                  | V                  |              |                           |                           |                             |                   | 1       |  |

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# SOLAR FLARES Confirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |      |               | LOCATION |               |                     |                         |            |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS              |                           |                             |                   |         | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|------|---------------|----------|---------------|---------------------|-------------------------|------------|------------|------------------|----------------------|--------------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|---------|
|                                                                           | DATE        | START | END  | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMA<br>PLAGE<br>REGION | CMP<br>DAY | TIME<br>UT |                  |                      |                    | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |         |
|                                                                           |             |       |      |               | LAT.     | MER.<br>DIST. |                     |                         |            |            |                  |                      |                    |                           |                           |                             |                   |         |         |
|                                                                           | 1969        |       |      |               |          |               |                     |                         |            |            |                  |                      |                    |                           |                           |                             |                   |         |         |
|                                                                           | NOV         |       |      |               |          |               |                     |                         |            |            |                  |                      |                    |                           |                           |                             |                   |         |         |
| GRP26755                                                                  | 27          | 1849  | 1907 | 1851          | N17      | W82           | .990                | 10432                   | 21.6       | 18         | --B              |                      | .15                |                           |                           |                             |                   | 2 2 1 3 |         |
| PALE                                                                      | 27          | 1849  | 1914 | 1852          | N16      | W84           | .994                | 10432                   | 21.5       | 25         | --B              |                      | .15                |                           |                           |                             |                   |         |         |
| BOUL                                                                      | 27          | 1849  | 1900 | 1850          | N17      | W79           | .982                | 10432                   | 21.9       | 11         | --N              |                      |                    |                           |                           |                             |                   |         |         |
| 756 PALE                                                                  | 27          | 1858  | 1907 | 1901          | S13      | E39           | .660                | 10449                   | 30.7       | 9          | --N              |                      | .24                |                           |                           |                             |                   | 2       |         |
| GRP26757                                                                  | 27          | 1915  | 1929 | 1918          | S13      | E40           | .672                | 10449                   | 30.8       | 14         | --F              |                      | .24                |                           |                           |                             |                   | 2 2 1 3 |         |
| BOUL                                                                      | 27          | 1911  | 1927 | 1916          | S13      | E41           | .684                | 10449                   | 30.9       | 16         | --F              |                      |                    |                           |                           |                             |                   |         |         |
| PALE                                                                      | 27          | 1918  | 1931 | 1919          | S13      | E39           | .660                | 10449                   | 30.7       | 13         | --N              |                      | .24                |                           |                           |                             |                   |         |         |
| 3 STATIONS REPORTING GROUP 26758. 0 STATIONS OBSERVING AND NOT REPORTING. |             |       |      |               |          |               |                     |                         |            |            |                  |                      |                    |                           |                           |                             |                   |         |         |
| GRP26758                                                                  | 27          | 1928  | 2015 | 1933          | N18      | W83           | .992                | 10432                   | 21.6       | 47         | 2B               |                      | 2.24               |                           |                           |                             |                   | 3 3 3 3 |         |
| CULG                                                                      | 27          | 1926  | 2033 | 1933          | N20      | W80           | .985                | 10432                   | 21.8       | 67         | 3B               | 1933                 | 4.85               |                           |                           |                             | EFRV              |         |         |
| PALE                                                                      | 27          | 1928  | 2018 | 1935          | N17      | W85           | .996                | 10432                   | 21.4       | 50         | 2B               |                      | .78                |                           |                           |                             |                   |         |         |
| BOUL                                                                      | 27          | 1930  | 1955 | 1931          | N16      | W85           | .996                | 10432                   | 21.4       | 25         | 1B               |                      | 1.10               | 3.30                      |                           |                             |                   |         |         |
| 758 BOUL                                                                  | 27          | 1928  | 1956 | 1933          | N13      | W78           | .978                | 10432                   | 22.0       | 28         | *1B              |                      |                    |                           |                           |                             |                   | 3       |         |
| GRP26759                                                                  | 27          | 2100  | 2126 | 2111          | S15      | E38           | .656                | 10449                   | 30.7       | 26         | --N              |                      | 1.50               |                           |                           |                             |                   | 3 3 2 3 |         |
| CULG                                                                      | 27          | 2053  | 2128 | 2112          | S14      | E37           | .640                | 10449                   | 30.6       | 35         | 1N               | 2112                 | 1.96               | 2.56                      |                           |                             | HRT               |         |         |
| BOUL                                                                      | 27          | 2101  | 2116 | 2107          | S16      | E40           | .684                | 10449                   | 30.9       | 15         | --N              |                      |                    |                           |                           |                             |                   |         |         |
| PALE                                                                      | 27          | 2105  | 2124 | 2114          | S17      | E38           | .666                | 10449                   | 30.7       | 19         | --N              |                      | 1.03               |                           |                           |                             |                   |         |         |
| PALE                                                                      | 27          | 2105  | 2124 | 2108          | S17      | E38           | .666                | 10449                   | 30.7       | 19         | --N              |                      | .63                |                           |                           |                             |                   |         |         |
| BOUL                                                                      | 27          | 2108  | 2110 | 2111          | S15      | E39           | .668                | 10449                   | 30.8       | 30         | --N              |                      |                    |                           |                           |                             |                   |         |         |
| 761 PALE                                                                  | 27          | 2239  | 2252 | 2242          | S13      | E37           | .635                | 10449                   | 30.7       | 13         | --N              |                      | .39                |                           |                           |                             |                   | 2       |         |
| GRP26762                                                                  | 27          | 2303  | 2314 | 2305          | N14      | W81           | .987                | 10432                   | 21.9       | 11         | --F              |                      | .44                |                           |                           |                             |                   | 2 2 2 3 |         |
| PALE                                                                      | 27          | 2302  | 2309 | 2303          | N12      | W78           | .978                | 10432                   | 22.1       | 7          | --N              |                      | .21                |                           |                           |                             |                   |         |         |
| CULG                                                                      | 27          | 2303  | 2318 | 2307          | N12      | W80           | .985                | 10432                   | 22.0       | 15         | 1F               | 2307                 | .67                |                           |                           |                             |                   |         |         |
| PALE                                                                      | 27          | 2315  | 2336 | 2316          | N20      | W87           | .998                | 10432                   | 21.4       | 21         | --N              |                      | .21                |                           |                           |                             |                   |         |         |
| GRP26764                                                                  | 28          | 0023  | 0041 | 0027          | N15      | W86           | .997                | 10432                   | 21.6       | 18         | --B              |                      | .32                |                           |                           |                             |                   | 3 3 3 5 |         |
| PALE                                                                      | 28          | 0018  | 0039 | 0028          | N14      | W86           | .997                | 10432                   | 21.6       | 21         | --B              |                      | .37                |                           |                           |                             |                   |         |         |
| PALE                                                                      | 28          | 0018  | 0039 | 0020          | N14      | W86           | .997                | 10432                   | 21.6       | 21         | --R              |                      | .21                |                           |                           |                             |                   |         |         |
| MANI                                                                      | 28          | 0025  | 0049 | 0027          | N18      | W85           | .996                | 10432                   | 21.6       | 24         | --N              | 2                    | .31                | .88                       |                           |                             |                   |         |         |
| VORO                                                                      | 28          | 0025  | 0035 | 0026          | N13      | W87           | .998                | 10432                   | 21.5       | 10         | --B              |                      | .28                | 1.33                      |                           | 77                          | DJ                |         |         |
| GRP26770                                                                  | 28          | 0238  | 0250 | 0241          | S12      | E38           | .643                | 10449                   | 1.0        | 12         | --N              |                      | 1.31               |                           |                           |                             |                   | 5 5 5 6 |         |
| VORO                                                                      | 28          | 0238  | 0245 | 0241          | S11      | E38           | .639                | 10449                   | 1.0        | 7          | 1N               | 0241                 | 1.66               | 2.10                      |                           | 70                          | EJ                |         |         |
| MITK                                                                      | 28          | 0238  | 0255 | 0242          | S12      | E38           | .643                | 10449                   | 1.0        | 17         | --F              |                      | 1.13               | 1.50                      |                           |                             | H                 |         |         |
| CRON                                                                      | 28          | 0238  | 0246 | 0240          | S14      | E38           | .651                | 10449                   | 1.0        | 8          | --N              |                      | 1.13               | 1.30                      |                           |                             | H                 |         |         |
| MANI                                                                      | 28          | 0238  | 0247 | 0239          | S13      | E38           | .647                | 10449                   | 1.0        | 9          | --F              | 2                    | 1.55               | 2.03                      |                           |                             |                   |         |         |
| PALE                                                                      | 28          | 0243  | 0257 | 0243          | S12      | E37           | .630                | 10449                   | 30.9       | 140        | --B              |                      | 1.10               |                           |                           |                             |                   |         |         |
| GRP26774                                                                  | 28          | 0522  | 0539 | 0524          | N18      | W90           | 1.000               | 10432                   | 21.5       | 17         | 1B               |                      | .98                |                           |                           |                             |                   | 3 2 2 5 |         |
| MITK                                                                      | 28          | 0521  | 0532 | 0524          | N17      | W90           | 1.000               | 10432                   | 21.5       | 11         | 1B               | 0524                 | 1.03               |                           |                           |                             | D                 |         |         |
| CRON                                                                      | 28          | 0522  | 0545 | 0524          | N18      | W90           | 1.000               | 10432                   | 21.5       | 23         | 1B               |                      | .93                | 3.60                      |                           |                             | H                 |         |         |
| MANI                                                                      | 28          | 0535  | 0556 | 0540          | N17      | W90           | 1.000               | 10432                   | 21.5       | 21         | --N              | 2                    | .62                | 2.01                      |                           |                             |                   |         |         |
| 775 CULG                                                                  | 28          | 0616  | 0634 | 0624          | N11      | W87           | .998                | 10432                   | 21.7       | 180        | 1N               | 0626                 | .93                |                           |                           |                             |                   | 4       |         |
| 775 CRON                                                                  | 28          | 0622  | 0633 | 0624          | N10      | W90           | 1.000               | 10432                   | 21.5       | 11         | 1N               |                      | 1.03               | 4.00                      |                           |                             |                   | 4       |         |
| GRP26776                                                                  | 28          | 0632  | 0650 | 0642          | S14      | E31           | .564                | 10449                   | 30.6       | 18         | 1N               |                      | 3.46               |                           |                           |                             |                   | 3 3 3 5 |         |
| MANI                                                                      | 28          | 0631  | 0648 | 0640          | S16      | E32           | .588                | 10449                   | 30.7       | 170        | --N              | 2                    | .93                | 1.13                      |                           |                             |                   |         |         |
| CULG                                                                      | 28          | 0633  | 0659 | 0644          | S13      | E30           | .545                | 10449                   | 30.5       | 260        | 2B               | 0644                 | 5.57               | 6.48                      |                           |                             | HRT               |         |         |
| CRON                                                                      | 28          | 0633  | 0650 | 0642          | S15      | E31           | .570                | 10449                   | 30.6       | 17         | 1N               |                      | 2.58               | 3.00                      |                           |                             | H                 |         |         |
| ABST                                                                      | 28          | 0640  | 0649 | 0640          | S13      | E31           | .558                | 10449                   | 30.6       | 90         | 1N               | 0640                 | 3.87               | 4.60                      |                           |                             | BF                |         |         |
| 778 MONT                                                                  | 28          | 0924  | 0929 | 0925          | S13      | E32           | .571                | 10449                   | 30.8       | 5          | --N              |                      | 1.13               |                           |                           |                             |                   | 4       |         |
| GRP26780                                                                  | 28          | 1214  | 1231 | 1219          | S13      | W48           | .763                | 10440                   | 24.9       | 17         | --N              |                      | .74                |                           |                           |                             |                   | 3 3 3 4 |         |
| MONT                                                                      | 28          | 1213  | 1231 | 1217          | S14      | W49           | .776                | 10440                   | 24.8       | 18         | --N              |                      | 1.03               |                           |                           |                             |                   |         |         |
| CATA                                                                      | 28          | 1215  | 1230 | 1220          | S12      | W47           | .749                | 10440                   | 25.0       | 15         | --B              |                      | .58                | .88                       |                           | 240                         |                   |         |         |
| CAPS                                                                      | 28          | 1215  | 1220 | 1220          | S12      | W49           | .771                | 10440                   | 24.8       | 70         | --N              | 3                    | .62                | .90                       |                           | 172                         |                   |         |         |
| 782 CANR                                                                  | 28          | 1310  | 1319 | 1313          | N10      | W90           | 1.000               | 10432                   | 21.8       | 9          | --N              |                      | .50                | 2.00                      |                           |                             |                   | 3       |         |
| GRP26784                                                                  | 28          | 1334  | 1345 | 1337          | S13      | E31           | .558                | 10449                   | 30.9       | 11         | --N              |                      | .41                |                           |                           |                             |                   | 4 4 4 6 |         |
| CATA                                                                      | 28          | 1332  | 1340 | 1337          | S14      | E30           | .551                | 10449                   | 30.8       | 100        | --B              |                      | .29                | .35                       |                           | 229                         |                   |         |         |
| MCMA                                                                      | 28          | 1335  | 1344 | 1337          | S11      | E31           | .547                | 10449                   | 30.9       | 9          | --F              |                      | .31                | .40                       |                           |                             | EH                |         |         |
| LOCA                                                                      | 28          | 1335  | 1345 | 1337          | S10      | E30           | .529                | 10449                   | 30.8       | 10         | --N              |                      | .53                | .60                       |                           |                             | H                 |         |         |
| CAPS                                                                      | 28          | 1336  | 1343 | 1337          | S15      | E31           | .570                | 10449                   | 30.9       | 70         | --F              | 3                    | .52                | .60                       |                           | 155                         |                   |         |         |
| GRP26789                                                                  | 28          | 1524  | 1544 | 1526          | N10      | W90           | 1.000               | 10432                   | 21.9       | 20         | --N              |                      |                    |                           |                           |                             |                   | 2 1 0 5 |         |
| BOUL                                                                      | 28          | 1524  | 1544 | 1526          | N10      | W90           | 1.000               | 10432                   | 21.9       | 20         | --N              |                      |                    |                           |                           |                             |                   |         |         |
| MCMA                                                                      | 28          | 1540  | 1615 | 1551          | N13      | W90           | 1.000               | 10432                   | 21.9       | 35         | --N              |                      |                    |                           |                           |                             | Y                 |         |         |
| 790 BOUL                                                                  | 28          | 1803  | 1815 | 1804          | S14      | E01           | .264                | 10446                   | 28.8       | 120        | --F              |                      |                    |                           |                           |                             |                   | 2       |         |

# SOLAR FLARES

## Confirmed

### NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |            |                  |                    |         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                        |                        |                          |             | REMARKS |
|-------------|-------------|-------|-------|------------|----------|------------|------------------|--------------------|---------|------------------|----------------------|--------------------|--------------|------------------------|------------------------|--------------------------|-------------|---------|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCMAH PLAGE REGION | CMP DAY |                  |                      |                    | TIME<br>UT   | MEAS. AREA<br>Sq. Deg. | CORR. AREA<br>Sq. Deg. | MAX. WIDTH<br>H $\alpha$ | MAX. INT. % |         |
|             |             |       |       |            | LAT.     | MER. DIST. |                  |                    |         |                  |                      |                    |              |                        |                        |                          |             |         |
|             | 1969<br>NOV |       |       |            |          |            |                  |                    |         |                  |                      |                    |              |                        |                        |                          |             |         |
| GRP26791    | 28          | 2040  | 2118  | 2050       | S13      | W50        | .784             | 10440              | 25.1    | 38               | -N                   |                    |              | 1.40                   |                        |                          | 3 3 2 3     |         |
| CULG        | 28          | 2038  | 2118  | 2050       | S12      | W51        | .792             | 10440              | 25.0    | 40               | 1N                   | C                  | 2050         | 2.17                   | 3.57                   |                          |             |         |
| BOUL        | 28          | 2041  | 2100  | 2052       | S13      | W47        | .752             | 10440              | 25.3    | 190              | -N                   | V                  |              |                        |                        |                          |             |         |
| PALE        | 28          | 2041  | 2118  | 2047       | S14      | W53        | .816             | 10440              | 24.9    | 37               | -N                   | C                  |              | .63                    |                        |                          |             |         |
| GRP26794    | 28          | 2248  | 2320  | 2300       | S15      | E21        | .445             | 10449              | 30.5    | 32               | -B                   |                    |              | 2.57                   |                        |                          | 2 2 2 2     |         |
| CULG        | 28          | 2240  | 2316  | 2300       | S14      | E21        | .436             | 10449              | 30.5    | 36               | 1B                   | C                  | 2300         | 4.43                   | 4.73                   |                          | HRT         |         |
| PALE        | 28          | 2255  | 2323  | 2300       | S16      | E21        | .454             | 10449              | 30.5    | 28               | -N                   | C                  |              | .71                    |                        |                          |             |         |
| 796 PALE    | 29          | 0257  | 0315  | 0302       | N13      | E20        | .392             | 10448              | 30.6    | 18               | --F                  | C                  |              | .23                    |                        |                          | 3           |         |
| 797 MITK    | 29          | 0359  | 0418  | 0403       | N22      | E24        | .520             | 10447              | 1.0     | 19               | --F                  | C                  | 0403         | .72                    | .80                    |                          | E 3         |         |
| GRP26809    | 29          | 1629  | 1643  | 1631       | N23      | E19        | .479             | 10447              | 1.1     | 14               | --N                  |                    |              | .40                    |                        |                          | 2 2 1 5     |         |
| BOUL        | 29          | 1629E | 1646  | 1630       | N22      | E19        | .467             | 10447              | 1.1     | 170              | -N                   | V                  |              |                        |                        |                          |             |         |
| SACP        | 29          | 1629  | 1640  | 1631       | N23      | E19        | .479             | 10447              | 1.1     | 11               | -N                   | C                  |              | .40                    | .41                    |                          | F           |         |
| GRP26810    | 29          | 1806  | 1829  | 1814       | N23      | E17        | .460             | 10447              | 1.0     | 23               | --N                  |                    |              | .65                    |                        |                          | 4 4 3 4     |         |
| SACP        | 29          | 1803  | 1830  | 1812       | N22      | E16        | .439             | 10447              | 1.0     | 27               | -N                   | C                  |              | .99                    | 1.01                   |                          | F           |         |
| MCMA        | 29          | 1805  | 1830  | 1812       | N23      | E17        | .460             | 10447              | 1.0     | 25               | -N                   | C                  | 1812         | .52                    | .50                    |                          | E           |         |
| BOUL        | 29          | 1807  | 1829  | 1817       | N22      | E16        | .439             | 10447              | 1.0     | 22               | -N                   | V                  |              |                        |                        |                          |             |         |
| PALE        | 29          | 1810  | 1825  | 1814       | N23      | E17        | .460             | 10447              | 1.0     | 15               | -N                   | C                  |              | .43                    |                        |                          |             |         |
| GRP26812    | 29          | 1849  | 1902  | 1854       | S15      | E12        | .343             | 10449              | 30.7    | 13               | --N                  |                    |              | .55                    |                        |                          | 3 3 2 3     |         |
| SACP        | 29          | 1848  | 1901  | 1854       | S15      | E10        | .325             | 10449              | 30.5    | 13               | -N                   | C                  |              | .70                    | .69                    |                          | H           |         |
| PALE        | 29          | 1848  | 1906  | 1855       | S15      | E11        | .334             | 10449              | 30.6    | 18               | -N                   | C                  |              | .39                    |                        |                          |             |         |
| BOUL        | 29          | 1850  | 1900  | 1852       | S15      | E12        | .343             | 10449              | 30.7    | 10               | -F                   | V                  |              |                        |                        |                          |             |         |
| PALE        | 29          | 1859  | 1905  | 1901       | S13      | E16        | .363             | 10449              | 1.0     | 6                | -F                   | C                  |              | .15                    |                        |                          |             |         |
| GRP26814    | 29          | 1924  | 2007  | 1933       | N23      | E17        | .460             | 10447              | 1.1     | 43               | --N                  |                    |              | .58                    |                        |                          | 4 4 3 5     |         |
| SACP        | 29          | 1918  | 2009  | 1932       | N22      | E16        | .439             | 10447              | 1.0     | 51               | -N                   | C                  |              | .90                    | .91                    |                          | F           |         |
| BOUL        | 29          | 1920  | 2022  | 1931       | N22      | E16        | .439             | 10447              | 1.0     | 62               | -N                   | V                  |              |                        |                        |                          |             |         |
| MCMA        | 29          | 1924E | 19440 |            | N23      | E20        | .488             | 10447              | 1.3     | 200              | -N                   | C                  | 1932         | .57                    | .60                    |                          | E           |         |
| PALE        | 29          | 1932  | 1949  | 1936       | N24      | E15        | .455             | 10447              | 30.9    | 17               | -B                   | C                  |              | .28                    |                        |                          |             |         |
| GRP26816    | 29          | 2157  | 2209  | 2200       | N22      | E12        | .405             | 10447              | 30.8    | 12               | --N                  |                    |              | .22                    |                        |                          | 3 3 2 4     |         |
| BOUL        | 29          | 2155  | 2211  | 2200       | N22      | E12        | .405             | 10447              | 30.8    | 16               | -F                   | V                  |              |                        |                        |                          |             |         |
| PALE        | 29          | 2158  | 2207  | 2200       | N22      | E12        | .405             | 10447              | 30.8    | 9                | -N                   | C                  |              | .14                    |                        |                          |             |         |
| SACP        | 29          | 2159  | 2208  | 2201       | N22      | E12        | .405             | 10447              | 30.8    | 9                | -N                   | C                  |              | .30                    | .30                    |                          | F           |         |
| GRP26817    | 29          | 2257  | 2304  | 2259       | S18      | E52        | .815             | 10455              | 3.9     | 7                | --F                  |                    |              | .34                    |                        |                          | 2 2 2 4     |         |
| SACP        | 29          | 2256  | 2304  | 2259       | S18      | E51        | .806             | 10455              | 3.8     | 8                | -N                   | C                  |              | .40                    | .53                    |                          | F           |         |
| PALE        | 29          | 2257  | 2304  | 2259       | S17      | E53        | .822             | 10455              | 3.9     | 7                | -F                   | C                  |              | .28                    |                        |                          |             |         |
| 822 CULG    | 30          | 0527  | 0548  | 0531       | N13      | W85        | .996             | 10441              | 23.9    | 21               | 1N                   | C                  | 0531         | .83                    |                        |                          | 3           |         |
| GRP26827    | 30          | 1110  | 1135  | 1120       | S07      | W24        | .427             | 10445              | 28.7    | 25               | -N                   |                    |              | .63                    |                        |                          | 2 2 1 6     |         |
| CATA        | 30          | 1110  | 1135  | 1120       | S07      | W23        | .412             | 10445              | 28.7    | 25               | -B                   |                    | 1120         | .63                    | .70                    |                          | 355         |         |
| KHAR        | 30          | 1120E | 1135  |            | S06      | W24        | .422             | 10445              | 28.7    | 150              | 1F                   | V                  | 1120         |                        |                        | 2.40                     | DO          |         |
| 831 PALE    | 30          | 2356E | 23560 | 2356       | S14      | W01        | .260             | 10449              | 30.9    |                  | --F                  | C                  |              | .23                    |                        |                          | 3           |         |

In the importance column "--" signifies the subflare has been confirmed by the ESSA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity nor are these subflares included in the Flare Index below.

#### DAILY FLARE INDICES

| Date   | Flare Index | HR OBS | Date   | Flare Index | HR OBS | Date   | Flare Index | HR OBS |
|--------|-------------|--------|--------|-------------|--------|--------|-------------|--------|
| 691101 | 11.11       | 24.0   | 691113 | 24.46       | 24.0   | 691122 | 409.31      | 24.0   |
| 691102 | 18.60       | 24.0   | 691114 | 18.55       | 24.0   | 691123 | 502.05      | 24.0   |
| 691103 | 7.64        | 24.0   | 691115 | 23.00       | 24.0   | 691124 | 449.83      | 22.8   |
| 691104 | 73.38       | 24.0   | 691116 | 30.40       | 24.0   | 691125 | 212.98      | 24.0   |
| 691105 | 368.83      | 24.0   | 691117 | 45.71       | 23.5   | 691126 | 111.78      | 24.0   |
| 691106 | 41.13       | 24.0   | 691118 | 438.97      | 24.0   | 691127 | 165.25      | 23.5   |
| 691107 | 212.92      | 23.7   | 691119 | 636.27      | 24.0   | 691128 | 139.41      | 24.0   |
| 691111 | 8.90        | 23.5   | 691120 | 368.44      | 24.0   | 691130 | 5.73        | 24.0   |
| 691112 | 31.65       | 23.8   | 691121 | 654.47      | 24.0   |        |             |        |

When no Flare Index is given, it is 0 for that day.

24  
Nov 69

# SOLAR FLARES

## Unconfirmed

NOVEMBER 1969

| OBSERVATORY                      | OBSERVED UT |       |       |            | LOCATION |            |                  |                    |         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                        |                        |                          |             | REMARKS  |
|----------------------------------|-------------|-------|-------|------------|----------|------------|------------------|--------------------|---------|------------------|----------------------|--------------------|--------------|------------------------|------------------------|--------------------------|-------------|----------|
|                                  | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCMAH PLAGE REGION | CMP DAY |                  |                      |                    | TIME<br>UT   | MEAS. AREA<br>Sq. Deg. | CORR. AREA<br>Sq. Deg. | MAX. WIDTH<br>H $\alpha$ | MAX. INT. % |          |
|                                  |             |       |       |            | LAT.     | MER. DIST. |                  |                    |         |                  |                      |                    |              |                        |                        |                          |             |          |
|                                  | 1969        |       |       |            |          |            |                  |                    |         |                  |                      |                    |              |                        |                        |                          |             |          |
| 267 CATA                         | 01          | 1052  | 1100  | 1052       | S05      | W14        | .290             | 10394              | 31.4    | 8                | -B                   |                    | 1052         | .29                    | .30                    |                          | 229         | 9        |
| GRP26268<br>CAPF<br>HTPR         | 01          | 1207  | 1223  | 1211       | N19      | E33        | .579             | 10399              | 4.0     | 16               | -N                   |                    |              | .93                    |                        |                          |             |          |
|                                  | 01          | 1205E | 1215D |            | N18      | E32        | .561             | 10399              | 3.9     | 10D              | -N                   | P                  | 1206         | 1.03                   | 1.25                   |                          | 2 2 2 7     |          |
|                                  | 01          | 1208  | 1223  | 1211       | N20      | E33        | .584             | 10399              | 4.0     | 15               | -N                   | C                  | 1211         | .83                    | 1.00                   |                          |             |          |
| 269 CANR                         | 01          | 1300  | 1313  | 1304       | N13      | W90        | 1.000            | 10385              | 25.8    | 13               | -N                   | C                  |              | .50                    | 2.00                   |                          |             | 6        |
| 270 CANR                         | 01          | 1316  | 1325  | 1323       | N07      | W90        | 1.000            | 10385              | 25.8    | 9                | -N                   | C                  |              | .30                    | 1.20                   |                          |             | 6        |
| 276 MITK                         | 02          | 0425  | 0440  | 0433       | N08      | W90        | 1.000            | 10385              | 26.4    | 15               | 1N                   | C                  | 0433         | .83                    |                        |                          | D           | 5        |
| 279 ABST                         | 02          | 0654E | 0900D | 0705       | S13      | W43        | .720             | 10392              | 30.1    | 126D             | -F                   | P                  | 0705         | 1.07                   | 1.70                   |                          | D           | 7        |
| 281 KODA                         | 02          | 1011  | 1055  | 1022       | S13      | W43        | .720             | 10392              | 30.2    | 44               | 1F                   | P                  | 1028         | 2.32                   | 2.30                   | 1.84                     | E           | 9        |
| 282 MEUD                         | 02          | 1149E | 1150D |            | N13      | E70        | .937             | 10406              | 7.7     | 1D               | -F                   | C                  | 1149         | .21                    |                        |                          | D           | 10       |
| 283 MEUD                         | 02          | 1156E | 1203  |            | N13      | E70        | .937             | 10406              | 7.7     | 7D               | -F                   | C                  | 1157         | .26                    |                        |                          | D           | 10       |
| GRP26284<br>SANM<br>CAPS         | 02          | 1210  | 1225  | 1212       | N15      | E72        | .948             | 10406              | 7.9     | 15               | -F                   |                    |              | .18                    |                        |                          |             | 2 2 2 9  |
|                                  | 02          | 1210  | 1224  | 1212       | N14      | E72        | .948             | 10406              | 7.9     | 14               | -F                   | 2 C                |              | .15                    |                        |                          | E           |          |
|                                  | 02          | 1214E | 1225  |            | N15      | E71        | .943             | 10406              | 7.8     | 11D              | -N                   | 3 V                | 1217         | .21                    |                        | 160                      | D           |          |
| 285 CAPF                         | 02          | 1230E | 1250D |            | N14      | E87        | .998             | 10406              | 9.0     | 20D              | -N                   | P                  | 1234         | .41                    |                        |                          | AH          | 9        |
| 287 CATA                         | 02          | 1327E | 1335  | 1327       | N19      | W06        | .273             | 10397              | 2.1     | 8D               | -B                   |                    | 1327         | .29                    | .30                    | 209                      |             | 8        |
| 289 CROW                         | 03          | 0809  | 0823  | 0813       | N11      | E60        | .864             | 10406              | 7.8     | 14               | 1N                   | C                  |              | 1.13                   | 2.10                   |                          |             | 12       |
| 290 CATA                         | 03          | 0835  | 0847  | 0840       | S18      | E41        | .721             | 10404              | 6.4     | 12               | -B                   |                    | 0840         | .17                    | .25                    | 219                      |             | 10       |
| 293 CATA                         | 03          | 0927  | 0945  | 0937       | N12      | E60        | .864             | 10406              | 7.9     | 18               | -B                   |                    | 0937         | .29                    | .58                    | 246                      |             | 9        |
| 294 CAPS                         | 03          | 1117E | 1130D |            | N13      | E60        | .865             | 10406              | 8.0     | 13D              | -F                   | 4 V                | 1118         | .41                    |                        | 157                      |             | 6        |
| 296 PALE                         | 03          | 2031  | 2039D | 2034       | N21      | E03        | .293             | 10399              | 4.1     | 8D               | -N                   | C                  |              | .29                    |                        |                          |             | 4        |
| 298 BOUL                         | 03          | 2149  | 2155  | 2152       | N07      | E90        | 1.000            | 10411              | 10.7    | 6                | -N                   | V                  |              |                        |                        |                          |             | 3        |
| 301 CULG                         | 04          | 0230E | 0302D | 0242       | N08      | E88        | .999             | 10411              | 10.7    | 32D              | 1N                   | P                  | 0242         | .72                    |                        |                          |             | 7        |
| 302 CULG                         | 04          | 0343  | 0352  | 0348       | N22      | E78        | .976             | 10412              | 10.0    | 9                | 1F                   | C                  | 0348         | .93                    |                        |                          | J           | 5        |
| 305 CULG                         | 04          | 0420  | 0515  | 0424       | N12      | E48        | .744             | 10406              | 7.8     | 55               | 1F                   | C                  | 0424         | 2.27                   | 3.18                   |                          | FHLR        | 4        |
| 307 CAPS                         | 04          | 0728E | 0745D |            | N11      | E85        | .995             | 10411              | 10.7    | 17D              | -F                   | 4 V                | 0732         | .72                    |                        | 154                      |             | 8        |
| 309 HTPR                         | 04          | 0856  | 0911  | 0900       | N09      | E85        | .995             | 10411              | 10.7    | 15               | -F                   | C                  | 0900         | .62                    |                        |                          |             | 11       |
| GRP26310<br>MONT<br>HTPR         | 04          | 0857  | 0906  | 0901       | N23      | W16        | .414             | 10397              | 3.2     | 9                | -F                   |                    |              | .88                    |                        |                          |             | 2 2 2 10 |
|                                  | 04          | 0856  | 0905  | 0859       | N23      | W15        | .404             | 10397              | 3.2     | 9                | -N                   | C                  | 0859         | 1.13                   |                        |                          | H           |          |
|                                  | 04          | 0858  | 0907  | 0902       | N23      | W16        | .414             | 10397              | 3.2     | 9                | -F                   | C                  | 0902         | .62                    | .70                    |                          | E           |          |
| 311 HTPR                         | 04          | 0907  | 0927  | 0910       | S07      | E39        | .649             | 10405              | 7.3     | 20               | -F                   | C                  | 0910         | .52                    | .60                    |                          |             | 7        |
| 314 CANR                         | 04          | 1034  | 1047D | 1038       | N08      | E85        | .995             | 10411              | 10.8    | 13D              | -N                   | C                  |              | .50                    | 1.70                   |                          | HI          | 8        |
| 315 CANR                         | 04          | 1146  | 1154  | 1150       | N24      | E74        | .960             | 10412              | 10.0    | 8                | -N                   | C                  |              | .40                    | 1.00                   |                          | H           | 7        |
| 316 CANR                         | 04          | 1215  | 1250  | 1220       | N08      | E90        | 1.000            | 10411              | 11.3    | 35               | 1N                   | C                  |              | .60                    | 2.40                   |                          | HI          | 7        |
| 318 HTPR                         | 04          | 1349  | 1405  | 1356       | N25      | E80        | .982             | 10412              | 10.6    | 16               | -F                   | C                  | 1356         | .62                    |                        |                          |             | 8        |
| GRP26319<br>BOUL<br>CANR         | 04          | 1505  | 1525  | 1510       | N08      | E77        | .973             | 10411              | 10.4    | 20               | 1F                   |                    |              | .60                    |                        |                          |             | 2 1 1 7  |
|                                  | 04          | 1505  | 1525  | 1510       | N08      | E77        | .973             | 10411              | 10.4    | 20               | 1F                   | V                  |              |                        |                        |                          |             |          |
|                                  | 04          | 1525  | 1534  | 1529       | N07      | E85        | .995             | 10411              | 11.0    | 9                | -F                   | C                  |              | .60                    | 2.00                   |                          | H           |          |
| 322 PALE                         | 04          | 1731E | 1740  | 1731       | N08      | E75        | .964             | 10411              | 10.4    | 9D               | -N                   | C                  |              | .12                    |                        |                          |             | 5        |
| 323 PALE                         | 04          | 1936  | 1944  | 1940       | N07      | E17        | .295             | 10403              | 6.1     | 8                | -F                   | C                  |              | .06                    |                        |                          |             | 5        |
| GRP26324<br>HUAN<br>BOUL<br>BOUL | 04          | 1938  | 2016  | 1940       | N07      | E73        | .955             | 10411              | 10.3    | 38               | -F                   |                    |              | .35                    |                        |                          |             | 2 2 1 6  |
|                                  | 04          | 1938E | 2010D |            | N07      | E72        | .949             | 10411              | 10.2    | 32D              | -F                   | 2 P                | 1942         | .35                    |                        |                          | E           |          |
|                                  | 04          | 1938  | 1950  | 1940       | N07      | E72        | .949             | 10411              | 10.2    | 12               | -F                   | V                  |              |                        |                        |                          |             |          |
|                                  | 04          | 2005  | 2016D | 2007       | N07      | E75        | .964             | 10411              | 10.5    | 11D              | -F                   | V                  |              |                        |                        |                          |             |          |
| 330 ISTA                         | 05          | 0654E | 0710  |            | N17      | E83        | .991             | 10412              | 11.5    | 16D              | 1N                   |                    |              |                        |                        |                          |             | 7        |

SOLAR FLARES  
Unconfirmed

NOVEMBER 1969

| OBSERVATORY              | OBSERVED UT |       |       |               | LOCATION |               |                     |                          |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|--------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|--------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|                          | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|                          |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|                          | 1969<br>NOV |       |       |               |          |               |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| 331 ISTA                 | 05          | 0657  | 0710  | 0658          | N07      | E74           | .960                | 10411                    | 10.8       | 13               | -N                   |                    |              |                           |                           |                             | 7                 |         |
| GRP26333<br>CRON<br>CATA | 05          | 0743  | 0752  | 0747          | N11      | E34           | .565                | 10406                    | 7.9        | 9                | -B                   |                    |              | .86                       |                           |                             | 2 2 2 9           |         |
|                          | 05          | 0741  | 0752  | 0747          | N11      | E34           | .565                | 10406                    | 7.9        | 11               | -N                   | C                  |              | 1.13                      | 1.30                      |                             |                   |         |
|                          | 05          | 0745  | 0752  | 0747          | N11      | E33           | .551                | 10406                    | 7.8        | 7                | -B                   |                    | 0747         | .58                       | .70                       |                             | 240               |         |
| 334 ISTA                 | 05          | 0801E | 0805  | 0801          | N07      | E74           | .960                | 10411                    | 10.9       | 40               | -N                   |                    |              |                           |                           |                             | 8                 |         |
| GRP26336<br>UCCU<br>ISTA | 05          | 0814  | 0818  | (0814)        | N19      | E82           | .988                | 10412                    | 11.5       | 4                | -F                   |                    |              | .52                       |                           |                             | 2 2 1 10          |         |
|                          | 05          | 0814E | 0816  |               | N19      | E80           | .982                | 10412                    | 11.3       | 20               | -N                   | P                  | 0814         | .52                       |                           |                             | D                 |         |
|                          | 05          | 0814  | 0819  |               | N18      | E84           | .993                | 10412                    | 11.6       | 5                | -F                   |                    |              |                           |                           |                             |                   |         |
| GRP26342<br>CANR<br>CAPS | 05          | 1123  | 1157  | 1127          | N19      | E65           | .907                | 10412                    | 10.3       | 34               | 1N                   |                    |              | 1.00                      |                           |                             | 2 1 1 8           |         |
|                          | 05          | 1123  | 1157  | 1127          | N19      | E65           | .907                | 10412                    | 10.3       | 34               | 1N                   | C                  |              | 1.00                      | 2.10                      |                             | E                 |         |
|                          | 05          | 1144E | 1215D |               | N18      | E65           | .906                | 10412                    | 10.4       | 310              | -F                   | 3 V                | 1145         | .72                       |                           |                             | 158               |         |
| 343 CANR                 | 05          | 1242  | 1250  | 1246          | N26      | E64           | .906                | 10412                    | 10.3       | 8                | -N                   | C                  |              | .70                       | 1.50                      |                             | H 7               |         |
| 344 MCMA                 | 05          | 1442  | 1447  | 1444          | N08      | E74           | .959                | 10411                    | 11.2       | 5                | -N                   | C                  | 1444         | .21                       | .80                       |                             | D 5               |         |
| 345 BOUL                 | 05          | 1512  | 1515  | 1513          | N08      | E68           | .925                | 10411                    | 10.7       | 3                | -F                   | V                  |              |                           |                           |                             | 7                 |         |
| 346 BOUL                 | 05          | 1534  | 1538  | 1535          | N10      | E70           | .937                | 10411                    | 10.9       | 4                | -F                   | V                  |              |                           |                           |                             | 6                 |         |
| 348 BOUL                 | 05          | 1837  | 1855  | 1839          | N22      | W35           | .621                | 10397                    | 3.2        | 18               | -F                   | V                  |              |                           |                           |                             | 4                 |         |
| 350 PALE                 | 05          | 1901E | 1921  | 1902          | N17      | E10           | .281                | 10403                    | 6.5        | 200              | -F                   | C                  |              | .32                       |                           |                             | 4                 |         |
| 351 PALE                 | 05          | 1932  | 1957  | 1933          | N12      | E25           | .438                | 10406                    | 7.7        | 25               | -F                   | C                  |              | .21                       |                           |                             | 5                 |         |
| 353 BOUL                 | 05          | 2126  | 2140D | 2130          | N08      | W82           | .989                | 10407                    | 30.7       | 140              | -F                   | V                  |              |                           |                           |                             | 4                 |         |
| 354 MANI                 | 06          | 0017  | 0022D |               | N24      | E60           | .875                | 10412                    | 10.5       | 50               | -F                   | 1                  | 0022         | .52                       | .79                       |                             | 5                 |         |
| 355 PALE                 | 06          | 0017E | 0023D | 0023U         | N13      | E20           | .371                | 10406                    | 7.5        | 60               | -B                   | C                  |              | .50                       |                           |                             | 5                 |         |
| 356 VORO                 | 06          | 0106  | 0111  | 0108          | N16      | W09           | .259                | 10403                    | 5.4        | 5                | -B                   | C                  | 0108         | .84                       | .85                       |                             | 67 DJ 5           |         |
| 357 MANI                 | 06          | 0124  | 0134  | 0126          | N21      | W40           | .675                | 10397                    | 3.1        | 10               | -F                   | 2                  | 0126         | .36                       | .49                       |                             | 6                 |         |
| 358 MANI                 | 06          | 0127  | 0137  | 0131          | N10      | E22           | .385                | 10406                    | 7.7        | 10               | -F                   | 2                  | 0131         | .46                       | .50                       |                             | 7                 |         |
| 361 MONT                 | 06          | 0828  | 0843  | 0831          | S19      | W90           | 1.000               | 10392                    | 30.6       | 15               | -N                   | C                  | 0831         | .41                       |                           |                             | 7                 |         |
| 362 CATA                 | 06          | 0900  | 0920  | 0902          | N11      | E19           | .344                | 10406                    | 7.8        | 20               | -N                   |                    | 0902         | .52                       | .55                       |                             | 182 9             |         |
| GRP26363<br>CATA<br>CAPS | 06          | 0941  | 0954  | 0945          | N20      | W32           | .575                | 10399                    | 4.0        | 13               | -B                   |                    |              | .71                       |                           |                             | 2 2 2 9           |         |
|                          | 06          | 0940  | 0955  | 0945          | N19      | W34           | .594                | 10399                    | 3.9        | 15               | -B                   |                    | 0945         | .58                       | .72                       |                             | 218               |         |
|                          | 06          | 0941  | 0952  |               | N20      | W30           | .550                | 10399                    | 4.2        | 11               | -N                   | 3 V                | 0943         | .83                       | 1.20                      |                             | 160               |         |
| 364 CATA                 | 06          | 1000  | 1015  | 1000          | N20      | E63           | .894                | 10412                    | 11.1       | 15               | -B                   |                    | 1000         | .34                       | .76                       |                             | 263 Z 8           |         |
| 365 CAPS                 | 06          | 1045E | 1052D |               | N26      | E54           | .831                | 10412                    | 10.5       | 70               | -N                   | 3 V                | 1048         | .52                       | .90                       |                             | 160 8             |         |
| GRP26367<br>SANM<br>CATA | 06          | 1335  | 1418  | 1347          | S18      | W03           | .376                | 10404                    | 6.3        | 43               | -F                   |                    |              | .51                       |                           |                             | 2 2 2 9           |         |
|                          | 06          | 1335  | 1418  | 1347          | S17      | W03           | .360                | 10404                    | 6.3        | 43               | -F                   | 2 C                |              | .32                       | .34                       |                             | E                 |         |
|                          | 06          | 1340E | 1410D | 1347          | S18      | W02           | .374                | 10404                    | 6.4        | 300              | -N                   |                    | 1347         | .69                       | .75                       |                             | 174               |         |
| 370 BOUL                 | 06          | 1708  | 1713  | 1709          | N21      | W46           | .741                | 10397                    | 3.3        | 5                | -N                   | V                  |              |                           |                           |                             | 4                 |         |
| 372 SANM                 | 06          | 1836E | 2005  |               | S05      | E06           | .186                | 10405                    | 7.2        | 890              | -F                   | 2 P                | 1836         | .48                       | .49                       |                             | E 5               |         |
| 375 VORO                 | 06          | 2302  | 2316  | 2305          | S06      | E04           | .185                | 10405                    | 7.3        | 14               | -B                   | C                  | 2305         | .93                       | .92                       |                             | 77 DJ 5           |         |
| 377 VORO                 | 07          | 0032  | 0051  | 0034          | S07      | E02           | .190                | 10405                    | 7.2        | 19               | -B                   | C                  | 0034         | .93                       | .90                       |                             | 73 DJ 5           |         |
| 378 PALE                 | 07          | 0147  | 0154  | 0148          | N20      | E55           | .828                | 10412                    | 11.2       | 7                | -B                   | C                  |              | .25                       |                           |                             | 5                 |         |
| 380 ABST                 | 07          | 0601E | 0610  | 0602          | N19      | E52           | .798                | 10412                    | 11.2       | 90               | -N                   | P                  | 0602         | .90                       | 1.50                      |                             | D 3               |         |
| 388 PALE                 | 08          | 0055  | 0115D | 0110          | N23      | E33           | .606                | 10412                    | 10.5       | 200              | -F                   | C                  |              | .25                       |                           |                             | 4                 |         |
| 389 PALE                 | 08          | 0136  | 0145D | 0139          | N23      | E33           | .606                | 10412                    | 10.5       | 90               | -F                   | C                  |              | .17                       |                           |                             | 4                 |         |
| GRP26392<br>BOUL<br>PALE | 08          | 2127  | 2132  | 2128          | N25      | E21           | .491                | 10412                    | 10.5       | 5                | -F                   |                    |              | .32                       |                           |                             | 2 2 1 6           |         |
|                          | 08          | 2125  | 2131  | 2127          | N25      | E20           | .481                | 10412                    | 10.4       | 6                | -F                   | V                  |              |                           |                           |                             |                   |         |
|                          | 08          | 2128  | 2132D | 2129          | N25      | E21           | .491                | 10412                    | 10.5       | 40               | -F                   | C                  |              | .32                       |                           |                             |                   |         |
| 394 CATA                 | 09          | 0855  | 0905  | 0855          | N26      | E12           | .426                | 10412                    | 10.3       | 10               | -B                   |                    | 0855         | .46                       | .52                       |                             | 229 5             |         |

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Nov 69

# SOLAR FLARES

## Unconfirmed

NOVEMBER 1969

| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |            |                  |                    |         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                        |                        |                          |             | REMARKS |  |
|-------------|-------------|-------|-------|------------|----------|------------|------------------|--------------------|---------|------------------|----------------------|-------|------|--------------|------------------------|------------------------|--------------------------|-------------|---------|--|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCMAH PLAGE REGION | CMP DAY |                  |                      | COND. | TYPE | TIME<br>UT   | MEAS. AREA<br>Sq. Deg. | CORR. AREA<br>Sq. Deg. | MAX. WIDTH<br>H $\alpha$ | MAX. INT. % |         |  |
|             |             |       |       |            | LAT.     | MER. DIST. |                  |                    |         |                  |                      |       |      |              |                        |                        |                          |             |         |  |
|             | 1969<br>NOV |       |       |            |          |            |                  |                    |         |                  |                      |       |      |              |                        |                        |                          |             |         |  |
| 395 HERS    | 09          | 1103E | 1108  | 1103U      | N21      | W26        | .511             | 10418              | 7.5     | 5D               | -N                   | P     | 1104 | 1.19         | 1.40                   |                        |                          | EH          | 6       |  |
| 396 ABST    | 09          | 1131E | 1158D | 1137       | N23      | W27        | .538             | 10418              | 7.5     | 27D              | -F                   | P     | 1137 | 1.43         | 1.60                   |                        |                          | EK          | 4       |  |
| 397 PALE    | 09          | 1735  | 1747  | 1740       | S00      | E10        | .184             | 10411              | 10.5    | 12               | -F                   | C     |      | .21          |                        |                        |                          |             | 4       |  |
| 398 PALE    | 09          | 1812  | 1850  | 1831       | N27      | E14        | .454             | 10412              | 10.8    | 38               | -F                   | C     |      | .12          |                        |                        |                          |             | 4       |  |
| 401 CATA    | 10          | 0740  | 0755D | 0750       | N21      | E08        | .329             | 10412              | 10.9    | 15D              | -N                   |       | 0750 | .34          | .37                    |                        | 200                      |             | 7       |  |
| GRP26402    | 10          | 0932  | 1115  | 0943       | N22      | W06        | .333             | 10412              | 9.9     | 103              | -F                   |       |      | .72          |                        |                        |                          | 2 1 1       | 9       |  |
| HTPR        | 10          | 0932  | 1115  | 0943       | N22      | W04        | .325             | 10412              | 10.1    | 103              | -F                   | C     | 0943 | .72          | .70                    |                        |                          |             |         |  |
| HURB        | 10          | 1053E | 1102  |            | N21      | W07        | .323             | 10412              | 9.9     | 9D               | -F                   |       |      |              |                        | 2.00                   |                          |             |         |  |
| 403 SANM    | 10          | 1340  | 1349  | 1344       | N24      | E05        | .360             | 10412              | 10.9    | 9                | -F                   | 2 C   |      | .15          | .16                    |                        |                          | E           | 4       |  |
| 404 HTPR    | 10          | 1440  | 1500  |            | N23      | W05        | .344             | 10412              | 10.2    | 20               | -F                   | C     | 1447 | .52          | .60                    |                        |                          | H           | 5       |  |
| 405 BOUL    | 10          | 1530E | 1535  | 1531       | N21      | W10        | .343             | 10412              | 9.9     | 5D               | -F                   | V     |      |              |                        |                        |                          |             | 5       |  |
| 410 ISTA    | 11          | 0741  | 0810  | 0757       | S18      | E46        | .767             | 10424              | 14.8    | 29               | -N                   |       |      |              |                        |                        |                          |             | 6       |  |
| 413 ISTA    | 12          | 0740  | 0751  | 0742       | S01      | E52        | .790             | 10425              | 16.2    | 11               | -F                   |       |      |              |                        |                        |                          |             | 5       |  |
| 414 HERS    | 12          | 1251E | 1305  | 1251U      | N21      | W69        | .935             | 10418              | 7.4     | 14D              | 1N                   | S     | 1252 | 1.49         | 4.00                   |                        |                          | D           | 8       |  |
| 418 BOUL    | 12          | 2005  | 2024  | 2009       | N20      | W25        | .494             | 10412              | 11.0    | 19               | -F                   | S     |      |              |                        |                        |                          |             | 4       |  |
| 419 BOUL    | 12          | 2206  | 2211  | 2206       | N08      | W75        | .965             | 10406              | 7.3     | 5                | -F                   | V     |      |              |                        |                        |                          |             | 3       |  |
| 422 CAPS    | 13          | 1010E | 1015D |            | N08      | W39        | .631             | 10411              | 10.5    | 5D               | -F                   | 3 V   | 1012 | .52          | .70                    |                        | 150                      |             | 8       |  |
| GRP26423    | 13          | 1030  | 1040  | 1030       | N08      | W40        | .644             | 10411              | 10.4    | 10               | -B                   |       |      | .55          |                        |                        |                          | 2 2 2       | 8       |  |
| CAPS        | 13          | 1029E | 1038D |            | N08      | W39        | .631             | 10411              | 10.5    | 9D               | -B                   | 3 V   | 1031 | .52          | .70                    |                        | 216                      |             |         |  |
| CATA        | 13          | 1030  | 1040  | 1030       | N08      | W41        | .657             | 10411              | 10.4    | 10               | -B                   |       | 1030 | .58          | .77                    |                        | 331                      |             |         |  |
| 424 CATA    | 13          | 1100  | 1125  | 1105       | N18      | W44        | .714             | 10412              | 10.2    | 25               | -B                   |       | 1105 | .58          | .82                    |                        | 276                      |             | 8       |  |
| 425 ABST    | 13          | 1130E | 1144  | 1132       | N17      | W44        | .711             | 10412              | 10.2    | 14D              | -F                   | P     | 1132 | 1.34         | 1.80                   |                        |                          | E           | 8       |  |
| 426 CATA    | 13          | 1155  | 1315  | 1200       | N18      | W45        | .725             | 10412              | 10.1    | 80               | -B                   |       | 1200 | .52          | .75                    |                        | 209                      |             | 7       |  |
| GRP26427    | 13          | 1316  | 1334  | (1320)     | N17      | W45        | .723             | 10412              | 10.2    | 18               | -F                   |       |      | .97          |                        |                        |                          | 2 1 1       | 6       |  |
| SANM        | 13          | 1316E | 1334  |            | N17      | W45        | .723             | 10412              | 10.2    | 18D              | -F                   | 2 P   | 1320 | .97          | 1.42                   |                        |                          | E           |         |  |
| CATA        | 13          | 1330  | 1435D | 1335       | N18      | W45        | .725             | 10412              | 10.2    | 65D              | -B                   |       | 1335 | .69          | 1.02                   |                        | 209                      |             |         |  |
| 429 SANM    | 13          | 1708E | 1720  |            | N15      | E43        | .695             | 10426              | 16.9    | 12D              | -F                   | 2 P   | 1713 | .15          | .21                    |                        |                          | E           | 6       |  |
| 430 MANI    | 14          | 0414  | 0423  | 0417       | N14      | W56        | .832             | 10412              | 10.0    | 9                | -F                   | 2     | 0417 | .31          | .52                    |                        |                          |             | 3       |  |
| 431 CULG    | 14          | 0729  | 0749  | 0736       | N14      | W87        | .998             | 10406              | 7.8     | 20               | 1F                   | C     | 0736 | .62          |                        |                        |                          |             | 5       |  |
| GRP26433    | 14          | 0940  | 1005  | 0950       | N03      | E90        | 1.000            | 10432              | 21.2    | 25               | -N                   |       |      | .78          |                        |                        |                          | 2 2 2       | 8       |  |
| CATA        | 14          | 0940  | 1005  | 0950       | N03      | E90        | 1.000            | 10432              | 21.2    | 25               | -N                   |       | 0950 | .52          |                        |                        | 174                      |             |         |  |
| UCCL        | 14          | 0944E | 1004  |            | N03      | E90        | 1.000            | 10432              | 21.2    | 20D              | 1N                   | P     | 0951 | 1.03         |                        |                        |                          | AD          |         |  |
| 440 ABST    | 15          | 0838E | 0848D | 0848       | N16      | W72        | .951             | 10412              | 10.0    | 10D              | 1F                   | P     | 0848 | .90          |                        |                        |                          | E           | 10      |  |
| 441 CATA    | 15          | 1055  | 1100  | 1055       | N09      | E74        | .960             | 10432              | 21.0    | 5                | -N                   |       | 1055 | .29          |                        |                        | 170                      |             | 5       |  |
| 442 SANM    | 15          | 1130E | 1219  |            | N25      | W70        | .944             | 10412              | 10.2    | 49D              | 1N                   | 2 P   | 1203 | .80          |                        |                        |                          | E           | 4       |  |
| 443 MONT    | 15          | 1138  | 1147  | 1139       | N14      | E82        | .989             | 10432              | 21.6    | 9                | -N                   | C     | 1139 | 1.55         |                        |                        |                          |             | 4       |  |
| 444 CATA    | 15          | 1225  | 1300  | 1240       | N18      | W72        | .951             | 10412              | 10.1    | 35               | -B                   |       | 1240 | .52          |                        |                        | 324                      |             | 4       |  |
| 445 HUAN    | 15          | 1338E | 1348D |            | N18      | W85        | .995             | 10412              | 9.2     | 10D              | -F                   | 1 C   | 1340 | .35          |                        |                        |                          | E           | 4       |  |
| 446 BOUL    | 15          | 1414  | 1424D | 1417       | N18      | W76        | .969             | 10412              | 9.9     | 10D              | -N                   | V     |      |              |                        |                        |                          |             | 8       |  |
| 447 CATA    | 15          | 1415E | 1425D | 1415       | N16      | E18        | .375             | 10426              | 16.9    | 10D              | -N                   |       | 1415 | .40          | .44                    |                        | 191                      |             | 6       |  |
| 448 SACP    | 15          | 1433  | 1443  | 1435       | N10      | E79        | .981             | 10432              | 21.5    | 10               | -F                   | C     |      | .30          |                        |                        |                          |             | 8       |  |
| GRP26449    | 15          | 1435  | 1504  | 1435       | N14      | E16        | .331             | 10426              | 16.8    | 29               | -F                   |       |      | .43          |                        |                        |                          | 2 2 2       | 8       |  |
| CATA        | 15          | 1435  | 1450D | 1435       | N14      | E16        | .331             | 10426              | 16.8    | 15D              | -N                   |       | 1435 | .58          | .61                    |                        | 200                      |             |         |  |
| HUAN        | 15          | 1436E | 1504D |            | N13      | E15        | .308             | 10426              | 16.7    | 28D              | -F                   | 1 C   | 1441 | .37          | .40                    |                        |                          | E           |         |  |
| 450 BOUL    | 15          | 1834  | 1859  | 1836       | N13      | W80        | .984             | 10412              | 9.8     | 25               | -N                   | V     |      |              |                        |                        |                          |             | 3       |  |

# SOLAR FLARES

## Unconfirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |               | LOCATION |               |                     |                          |            | DURATION<br>—<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS    |                           |                           |                                 |                   | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|--------------------------|------------|-----------------------|----------------------|-------|------|-----------------|---------------------------|---------------------------|---------------------------------|-------------------|---------|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY |                       |                      | COND. | TYPE | TIME<br>—<br>UT | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H <sub>g</sub> | MAX.<br>INT.<br>% |         |
|                                                                           |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                          |            |                       |                      |       |      |                 |                           |                           |                                 |                   |         |
|                                                                           | 1969<br>NOV |       |       |               |          |               |                     |                          |            |                       |                      |       |      |                 |                           |                           |                                 |                   |         |
| 452 BOUL                                                                  | 15          | 2059  | 2110  | 2100          | N13      | W81           | .987                | 10412                    | 9.8        | 11                    | -N                   |       | V    |                 |                           |                           |                                 | 2                 |         |
| GRP26459                                                                  | 16          | 1111  | 1145  | 1118          | N14      | E75           | .965                | 10432                    | 22.1       | 34                    | 1F                   |       |      |                 | 1.80                      |                           |                                 | 2 1 1 7           |         |
| ABST                                                                      | 16          | 1111E | 1145  | 1118          | N14      | E75           | .965                | 10432                    | 22.1       | 340                   | 1F                   |       | C    | 1118            | 1.80                      |                           |                                 | EK                |         |
| CAPS                                                                      | 16          | 1136E | 11500 |               | N14      | E70           | .939                | 10432                    | 21.7       | 140                   | 1F                   | 3     | V    | 1142            | 1.55                      |                           | 145                             |                   |         |
| 460 CAPS                                                                  | 16          | 1136E | 11480 |               | S19      | W41           | .717                | 10429                    | 13.4       | 120                   | -F                   | 3     | V    | 1144            | .52                       | .70                       | 156                             | 7                 |         |
| 461 CAPS                                                                  | 16          | 1210E | 12370 |               | S15      | E90           | 1.000               | 10439                    | 23.3       | 270                   | 1N                   | 3     | P    |                 |                           |                           |                                 | 6                 |         |
| 462 CATA                                                                  | 16          | 1415E | 14300 | 1422          | S19      | W43           | .738                | 10429                    | 13.4       | 150                   | -N                   |       |      | 1422            | .34                       | .51                       | 191                             | 5                 |         |
| 463 HUAN                                                                  | 16          | 1505  | 15380 |               | N13      | E69           | .933                | 10432                    | 21.8       | 330                   | -F                   | 1     | C    | 1508            | .17                       |                           |                                 | D 5               |         |
| 471 VORO                                                                  | 16          | 2322  | 2340  | 2333          | S26      | W46           | .798                | 10429                    | 13.5       | 18                    | -B                   |       | C    | 2333            | .19                       | .30                       | 72                              | D 5               |         |
| GRP26474                                                                  | 17          | 0703  | 0755  | 0707          | N15      | E61           | .877                | 10432                    | 21.9       | 52                    | 1F                   |       |      |                 | 1.80                      |                           |                                 | 2 1 1 6           |         |
| ABST                                                                      | 17          | 0703E | 0755  | 0707          | N15      | E61           | .877                | 10432                    | 21.9       | 520                   | 1F                   |       | C    | 0707            | 1.80                      | 3.50                      |                                 | F                 |         |
| CATA                                                                      | 17          | 0740  | 0745  | 0740          | N09      | E50           | .767                | 10432                    | 21.1       | 5                     | -B                   |       |      | 0740            | .17                       | .28                       | 206                             |                   |         |
| 475 CATA                                                                  | 17          | 0950  | 10050 | 0957          | S21      | W53           | .839                | 10429                    | 13.4       | 150                   | -P                   |       |      | 0957            | .14                       | .26                       | 254                             | 5                 |         |
| 478 BOUL                                                                  | 17          | 1515  | 15250 | 1519          | N14      | E41           | .670                | 10432                    | 20.7       | 100                   | -N                   |       | V    |                 |                           |                           |                                 | 3                 |         |
| 489 MANI                                                                  | 17          | 2334E | 2349  |               | N12      | E57           | .841                | 10432                    | 22.3       | 150                   | -F                   | 2     |      | 2334            | .83                       | 1.45                      |                                 | 6                 |         |
| 491 MANI                                                                  | 18          | 0626  | 06440 |               | N17      | E48           | .758                | 10432                    | 21.9       | 180                   | -F                   | 1     |      | 0630            | .62                       | .95                       |                                 | 3                 |         |
| 3 STATIONS REPORTING GROUP 26492. 2 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                          |            |                       |                      |       |      |                 |                           |                           |                                 |                   |         |
| GRP26492                                                                  | 18          | 0707  | 0733  | 0712          | N14      | E46           | .729                | 10432                    | 21.7       | 26                    | -B                   |       |      |                 | .62                       |                           |                                 | 2 2 1 5           |         |
| ISTA                                                                      | 18          | 0707  | 0733  | 0712          | N13      | E46           | .728                | 10432                    | 21.7       | 26                    | -B                   |       |      |                 |                           |                           |                                 |                   |         |
| MANI                                                                      | 18          | 0712E | 07140 |               | N14      | E45           | .718                | 10432                    | 21.7       | 20                    | -N                   | 1     |      | 0714            | .62                       | .87                       |                                 |                   |         |
| 492 CATA                                                                  | 18          | 0715E | 0735  | 0717          | S01      | E45           | .709                | 10432                    | 21.7       | 200                   | *-B                  |       |      | 0717            | .58                       | .82                       | 298                             | BE 5              |         |
| 493 HTPR                                                                  | 18          | 0854  | 0915  | 0854          | N13      | E45           | .716                | 10432                    | 21.7       | 21                    | -N                   |       | C    | 0854            | .72                       | 1.00                      |                                 | 5                 |         |
| 494 CATA                                                                  | 18          | 0907  | 0920  | 0910          | S02      | E35           | .578                | 10432                    | 21.0       | 13                    | -B                   |       |      | 0910            | .63                       | .78                       | 246                             | 8                 |         |
| 498 SACP                                                                  | 18          | 1441  | 1501  | 1445          | N11      | E47           | .736                | 10432                    | 22.1       | 20                    | -N                   |       | C    |                 | .30                       | .37                       |                                 | 5                 |         |
| 503 BOUL                                                                  | 18          | 2045E | 2053  | 2045          | S12      | E80           | .987                | 10440                    | 24.9       | 80                    | -F                   |       | V    |                 |                           |                           |                                 | 3                 |         |
| 504 BOUL                                                                  | 18          | 2055  | 21150 | 2058          | N14      | E39           | .645                | 10432                    | 21.8       | 200                   | -N                   |       | V    |                 |                           |                           |                                 | 3                 |         |
| 505 BOUL                                                                  | 18          | 2102  | 2112  | 2108          | S12      | E80           | .987                | 10440                    | 24.9       | 10                    | -N                   |       | V    |                 |                           |                           |                                 | 3                 |         |
| 509 MANI                                                                  | 19          | 0121E | 01330 |               | N13      | E35           | .591                | 10432                    | 21.7       | 120                   | -N                   | 2     |      | 0125            | 1.55                      | 1.92                      |                                 | 5                 |         |
| 511 CULG                                                                  | 19          | 0211  | 0231  | 0218          | S21      | W80           | .989                | 10429                    | 13.1       | 20                    | 1F                   |       | C    | 0218            | .67                       |                           |                                 | 4                 |         |
| 512 CULG                                                                  | 19          | 0302  | 0326  | 0306          | S16      | E51           | .805                | 10439                    | 23.0       | 24                    | 1F                   |       | C    | 0306            | 1.55                      | 2.55                      |                                 | HGF 5             |         |
| 520 TELV                                                                  | 19          | 1328  | 1400  |               | N16      | E30           | .537                | 10432                    | 21.8       | 32                    | -N                   |       |      |                 |                           |                           |                                 | 5                 |         |
| 521 LOCA                                                                  | 19          | 1412  | 1440  | 1417          | N13      | E30           | .523                | 10432                    | 21.8       | 28                    | 1N                   |       | V    | 1417            | 1.89                      | 2.20                      |                                 | 4                 |         |
| 523 SANM                                                                  | 19          | 1458  | 1506  | 1501          | N11      | E63           | .891                | 10441                    | 24.3       | 8                     | -F                   | 1     | C    |                 | .15                       | .34                       |                                 | D 5               |         |
| 524 SANM                                                                  | 19          | 1535  | 1541  | 1537          | S15      | E67           | .931                | 10440                    | 24.7       | 6                     | -F                   | 1     | C    |                 | .15                       |                           |                                 | D 5               |         |
| 530 HOUT                                                                  | 19          | 2115  | 2200  | 2124          | S12      | E19           | .403                | 10438                    | 21.3       | 45                    | -F                   |       | C    |                 | 1.20                      | 1.30                      |                                 | 4                 |         |
| GRP26531                                                                  | 19          | 2315  | 2334  | 2318          | N15      | E25           | .465                | 10432                    | 21.8       | 19                    | -N                   |       |      |                 | 1.38                      |                           |                                 | 2 2 2 5           |         |
| SACP                                                                      | 19          | 2314  | 2325  | 2317          | N15      | E24           | .451                | 10432                    | 21.8       | 11                    | -N                   |       | C    |                 | 1.31                      | 1.33                      |                                 | F                 |         |
| MITK                                                                      | 19          | 2315  | 23420 | 2319          | N14      | E25           | .458                | 10432                    | 21.8       | 270                   | -N                   |       | P    | 2319            | 1.44                      | 1.60                      |                                 | D                 |         |
| 532 PALE                                                                  | 20          | 0005E | 0012  | 0005          | N15      | E15           | .334                | 10432                    | 21.1       | 70                    | -F                   |       | C    |                 | .29                       |                           |                                 | 4                 |         |
| 533 PALE                                                                  | 20          | 0036  | 0051  | 0037          | N08      | E12           | .229                | 10432                    | 20.9       | 15                    | -F                   |       | C    |                 | .22                       |                           |                                 | 4                 |         |
| 538 PALE                                                                  | 20          | 0216  | 0234  | 0218          | N13      | E57           | .842                | 10441                    | 24.4       | 18                    | -F                   |       | C    |                 | .25                       |                           |                                 | 4                 |         |
| 540 PALE                                                                  | 20          | 0327  | 03350 | 0333          | N13      | E23           | .425                | 10432                    | 21.9       | 80                    | -F                   |       | C    |                 | .29                       |                           |                                 | 4                 |         |
| 542 MANI                                                                  | 20          | 0436E | 04460 |               | N14      | E22           | .418                | 10432                    | 21.8       | 100                   | -N                   | 1     |      | 0436            | .83                       | .90                       |                                 | 3                 |         |
| 543 ISTA                                                                  | 20          | 0630E | 0645  |               | N12      | E18           | .347                | 10432                    | 21.6       | 150                   | -N                   |       |      |                 |                           |                           |                                 | 4                 |         |



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# SOLAR FLARES

## Unconfirmed

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| OBSERVATORY                                                               | OBSERVED UT |       |       |               | LOCATION |               |                     |                            |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                                 |                   | REMARKS            |
|---------------------------------------------------------------------------|-------------|-------|-------|---------------|----------|---------------|---------------------|----------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|---------------------------------|-------------------|--------------------|
|                                                                           | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMA<br>TH PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H <sub>a</sub> | MAX.<br>INT.<br>% |                    |
|                                                                           |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                            |            |                  |                      |                    |              |                           |                           |                                 |                   |                    |
|                                                                           | 1969<br>NOV |       |       |               |          |               |                     |                            |            |                  |                      |                    |              |                           |                           |                                 |                   |                    |
| GRP26553<br>MCMA<br>SANM                                                  | 20          | 1517  | 1540  | (1523)        | N12      | E48           | .749                | 10441                      | 24.2       | 23               | -F                   |                    |              | .61                       |                           |                                 |                   | 2 2 2 6<br>EK<br>F |
|                                                                           | 20          | 1517  | 1536  |               | N12      | E48           | .749                | 10441                      | 24.2       | 19               | -F                   | C                  | 1518         | .41                       | .60                       |                                 |                   |                    |
|                                                                           | 20          | 1525E | 1544D |               | N11      | E47           | .736                | 10441                      | 24.2       | 19D              | -F                   | 1                  | P 1527       | .80                       | 1.18                      |                                 |                   |                    |
| 560 BOUL                                                                  | 20          | 1812  | 1822  | 1818          | N15      | E13           | .310                | 10432                      | 21.7       | 10               | -N                   |                    | V            |                           |                           |                                 |                   | 3                  |
| 561 BOUL                                                                  | 20          | 1851  | 1907  | 1855          | S13      | E53           | .817                | 10440                      | 24.8       | 16               | -N                   |                    | V            |                           |                           |                                 |                   | 3                  |
| 563 BOUL                                                                  | 20          | 2128  | 2138D | 2136          | N13      | E12           | .276                | 10432                      | 21.8       | 10D              | -F                   |                    | V            |                           |                           |                                 |                   | 4                  |
| GRP26564<br>PALE<br>BOUL                                                  | 20          | 2156  | 2208  | 2159          | N14      | E13           | .299                | 10432                      | 21.9       | 12               | -F                   |                    |              | .19                       |                           |                                 |                   | 2 2 1 6            |
|                                                                           | 20          | 2154  | 2208  | 2158          | N14      | E13           | .299                | 10432                      | 21.9       | 14               | -F                   | C                  |              | .19                       |                           |                                 |                   |                    |
|                                                                           | 20          | 2158  | 2204D | 2159          | N13      | E12           | .276                | 10432                      | 21.8       | 6D               | -N                   |                    | V            |                           |                           |                                 |                   |                    |
| 565 SACP                                                                  | 20          | 2217  | 2225  | 2220          | N12      | E21           | .390                | 10432                      | 22.5       | 8                | -N                   |                    | C            | .30                       | .30                       |                                 |                   | H 4                |
| 566 PALE                                                                  | 20          | 2229  | 2239  | 2233          | N08      | W02           | .106                | 10432                      | 20.8       | 10               | -N                   |                    | C            | .15                       |                           |                                 |                   | 7                  |
| 572 CULG                                                                  | 21          | 0255  | 0315  | 0259          | S16      | E55           | .841                | 10440                      | 25.2       | 20               | 1F                   |                    | C 0259       | 2.06                      | 3.60                      |                                 |                   | RL 4               |
| 573 MANI                                                                  | 21          | 0358  | 0419  | 0402          | N12      | E44           | .703                | 10441                      | 24.5       | 21               | -F                   | 1                  | 0402         | .62                       | .82                       |                                 |                   | 4                  |
| 574 MANI                                                                  | 21          | 0416  | 0425  | 0418          | N15      | E11           | .289                | 10432                      | 22.0       | 9                | -N                   | 1                  | 0418         | .31                       | .32                       |                                 |                   | 4                  |
| GRP26575<br>MANI<br>MANI                                                  | 21          | 0444  | 0522  | 0452          | N11      | E12           | .256                | 10432                      | 22.1       | 38               | -N                   |                    |              | .72                       |                           |                                 |                   | 1 1 1 3            |
|                                                                           | 21          | 0444  | 0522  | 0452          | N12      | E10           | .241                | 10432                      | 21.9       | 38               | -N                   | 3                  | 0452         | .72                       | .74                       |                                 |                   |                    |
|                                                                           | 21          | 0449  | 0503  | 0453          | N10      | E14           | .275                | 10432                      | 22.3       | 14               | -N                   | 2                  | 0453         | .31                       | .32                       |                                 |                   |                    |
| 576 MANI                                                                  | 21          | 0514  | 0522  | 0517          | N02      | W01           | .018                | 10432                      | 21.1       | 8                | -F                   |                    | 0517         | 1.03                      | 1.03                      |                                 |                   | 3                  |
| 577 MANI                                                                  | 21          | 0527  | 0538  | 0529          | N10      | E10           | .219                | 10432                      | 22.0       | 11               | -N                   | 2                  | 0529         | .31                       | .32                       |                                 |                   | 3                  |
| 578 MANI                                                                  | 21          | 0600  | 0614  | 0601          | N12      | E42           | .679                | 10441                      | 24.4       | 14               | -F                   | 4                  | 0601         | .83                       | 1.08                      |                                 |                   | 4                  |
| 583 ZURI                                                                  | 21          | 1016  | 1020  | 1018          | S13      | W33           | .589                | 10437                      | 19.0       | 4                | -F                   |                    | C 1018       | .63                       | .80                       |                                 |                   | 7                  |
| GRP26584<br>BUCA<br>ZURI                                                  | 21          | 1049  | 1126  | 1058          | N14      | E05           | .222                | 10432                      | 21.8       | 37               | -B                   |                    |              | 1.14                      |                           |                                 |                   | 2 2 2 6<br>C       |
|                                                                           | 21          | 1048  | 1148  | 1100          | N14      | E06           | .229                | 10432                      | 21.9       | 60               | -N                   |                    | C 1100       | 1.32                      | 1.30                      |                                 |                   |                    |
|                                                                           | 21          | 1050  | 1104  | 1056          | N14      | E03           | .212                | 10432                      | 21.7       | 14               | -B                   |                    | C 1056       | .95                       | 1.00                      |                                 |                   |                    |
| 586 CAPS                                                                  | 21          | 1155E | 1205D |               | N22      | W75           | .967                | 10426                      | 15.9       | 10D              | -F                   | 2                  | V 1200       | .62                       |                           |                                 | 145               | 8                  |
| 589 BOUL                                                                  | 21          | 1614  | 1645D | 1618          | N08      | W06           | .145                | 10432                      | 21.2       | 31D              | -F                   |                    | V            |                           |                           |                                 |                   | 5                  |
| GRP26590<br>MCMA<br>BOUL                                                  | 21          | 1707  | 1722  | 1710          | N09      | E05           | .147                | 10432                      | 22.1       | 15               | -F                   |                    |              | .52                       |                           |                                 |                   | 2 2 1 6<br>EH      |
|                                                                           | 21          | 1707  | 1724  | 1710          | N10      | E05           | .161                | 10432                      | 22.1       | 17               | -F                   |                    | C 1710       | .52                       | .50                       |                                 |                   |                    |
|                                                                           | 21          | 1707  | 1720  | 1709          | N08      | E04           | .123                | 10432                      | 22.0       | 13               | -N                   |                    | V            |                           |                           |                                 |                   |                    |
| 599 PALE                                                                  | 22          | 0009  | 0011D | 0010          | N13      | W02           | .193                | 10432                      | 21.9       | 2D               | -N                   |                    | V            | .21                       |                           |                                 |                   | 5                  |
| 600 PALE                                                                  | 22          | 0043  | 0108D | 0044          | N05      | W13           | .230                | 10432                      | 21.1       | 25D              | -B                   |                    | C            | .50                       |                           |                                 |                   | 5                  |
| 603 CULG                                                                  | 22          | 0214  | 0239D | 0221          | N20      | W87           | .998                | 10426                      | 15.6       | 25D              | 1F                   |                    | P 0221       | .62                       |                           |                                 |                   | 4                  |
| GRP26610<br>MANI<br>ISTA<br>ISTA                                          | 22          | 0624  | 0641  | 0630          | N10      | W13           | .262                | 10432                      | 21.3       | 17               | -F                   |                    |              | 1.03                      |                           |                                 |                   | 2 2 1 7            |
|                                                                           | 22          | 0624  | 0639  | 0627          | N08      | W14           | .262                | 10432                      | 21.2       | 15               | -F                   | 3                  | 0627         | 1.03                      | 1.08                      |                                 |                   |                    |
|                                                                           | 22          | 0624  | 0644  |               | N08      | W15           | .277                | 10432                      | 21.1       | 20               | -N                   |                    |              |                           |                           |                                 |                   |                    |
|                                                                           | 22          | 0630  | 0643  | 0632          | N14      | W10           | .268                | 10432                      | 21.5       | 13               | -F                   |                    |              |                           |                           |                                 |                   |                    |
| 611 CULG                                                                  | 22          | 0649  | 0709  | 0655          | N20      | W86           | .997                | 10426                      | 15.8       | 20               | 1N                   |                    | C 0655       | .62                       |                           |                                 |                   | 7                  |
| 613 CATA                                                                  | 22          | 0820  | 0825  | 0822          | N06      | E23           | .395                | 10441                      | 24.1       | 5                | -B                   |                    | 0822         | .29                       | .31                       |                                 | 269               | 5                  |
| 615 ZURI                                                                  | 22          | 0913  | 1000  | 0928          | N08      | W08           | .173                | 10432                      | 21.8       | 47               | -F                   |                    | C 0928       | .75                       | .80                       |                                 |                   | 6                  |
| 616 ZURI                                                                  | 22          | 0920  | 0950  | 0933          | N13      | W12           | .278                | 10432                      | 21.5       | 30               | -N                   |                    | C 0933       | 1.89                      | 1.90                      |                                 |                   | 6                  |
| 617 ZURI                                                                  | 22          | 1025  | 1104  | 1027          | N09      | W08           | .184                | 10432                      | 21.8       | 39               | -F                   |                    | C 1027       | .89                       | .90                       |                                 |                   | 5                  |
| 619 ZURI                                                                  | 22          | 1214  | 1215  | 1215          | N13      | E19           | .371                | 10441                      | 23.9       | 1                | -N                   |                    | C 1215       | .53                       | .60                       |                                 |                   | 6                  |
| 7 STATIONS REPORTING GROUP 26621. 1 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |               |          |               |                     |                            |            |                  |                      |                    |              |                           |                           |                                 |                   |                    |
| GRP26621<br>SANM<br>HUAN<br>BOUL<br>HUAN                                  | 22          | 1315  | 1535  | 1507          | N13      | W14           | .304                | 10432                      | 21.5       | 140              | -N                   |                    |              | 1.62                      |                           |                                 |                   | 3 3 2 6<br>D<br>D  |
|                                                                           | 22          | 1315E | 1636D |               | N14      | W15           | .326                | 10432                      | 21.4       | 201D             | 1N                   | 1                  | P 1514       | 2.90                      | 3.05                      |                                 |                   |                    |
|                                                                           | 22          | 1450E | 1530D |               | N13      | W14           | .304                | 10432                      | 21.6       | 40D              | -F                   | 1                  | C 1505       | .25                       | .30                       |                                 |                   |                    |
|                                                                           | 22          | 1458E | 1535  | 1507          | N13      | W12           | .278                | 10432                      | 21.7       | 37D              | -N                   |                    | S            |                           |                           |                                 |                   |                    |
|                                                                           | 22          | 1512E | 1530D |               | N09      | W18           | .329                | 10432                      | 21.3       | 18D              | -F                   | 1                  | C 1515       | .33                       | .30                       |                                 |                   |                    |

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## Unconfirmed

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| OBSERVATORY | OBSERVED UT |       |       |            | LOCATION |               |                     |                          |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|-------------|-------------|-------|-------|------------|----------|---------------|---------------------|--------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|             | DATE        | START | END   | MAX. PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMAH<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|             |             |       |       |            | LAT.     | MER.<br>DIST. |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|             | 1969<br>NOV |       |       |            |          |               |                     |                          |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| GRP26622    | 22          | 1603  | 1614  | 1605       | N07      | W18           | .319                | 10432                    | 21.3       | 11               | -F                   |                    |              | .89                       |                           |                             |                   | 2 2 1 6 |
| BOUL        | 22          | 1603  | 1613  | 1604       | N08      | W17           | .308                | 10432                    | 21.4       | 10               | -F                   | V                  |              |                           |                           |                             |                   |         |
| SACP        | 22          | 1603  | 1614  | 1605       | N06      | W19           | .332                | 10432                    | 21.2       | 11               | -N                   | C                  |              | .89                       | .89                       |                             |                   | F       |
| 623 BOUL    | 22          | 1610E | 1630  | 1615       | N16      | W90           | 1.000               | 10426                    | 15.9       | 20D              | -F                   | V                  |              |                           |                           |                             |                   | 6       |
| GRP26624    | 22          | 1623  | 1637  | 1626       | S02      | E84           | .995                | 10445                    | 29.0       | 14               | -N                   |                    |              | .30                       |                           |                             |                   | 2 2 1 6 |
| SACP        | 22          | 1622  | 1634  | 1626       | S01      | E82           | .990                | 10445                    | 28.8       | 12               | -N                   | C                  |              | .30                       |                           |                             |                   |         |
| BOUL        | 22          | 1624  | 1640  | 1626       | S03      | E86           | .998                | 10445                    | 29.1       | 16               | -N                   | V                  |              |                           |                           |                             |                   |         |
| 626 PALE    | 22          | 1755E | 1807D | 1756       | N13      | W11           | .266                | 10432                    | 21.9       | 12D              | -N                   | V                  |              | .31                       |                           |                             |                   | 6       |
| 628 CULG    | 22          | 1914E | 1941  |            | N14      | E18           | .366                | 10441                    | 24.2       | 27D              | 1N                   | P                  | 1924         | 2.99                      | 3.04                      |                             |                   | 4       |
| 631 PALE    | 22          | 1955  | 2020  | 1956       | N13      | W15           | .317                | 10432                    | 21.7       | 25               | -N                   | C                  |              | .40                       |                           |                             |                   | 5       |
| 632 PALE    | 22          | 2010  | 2021  | 2011       | N03      | W22           | .375                | 10432                    | 21.2       | 11               | -N                   | V                  |              | .21                       |                           |                             |                   | 4       |
| 637 MANI    | 23          | 0125  | 0138  | 0129       | N15      | W18           | .376                | 10432                    | 21.7       | 13               | -N                   | 3                  | 0129         | 1.03                      | 1.08                      |                             |                   | 5       |
| 642 ISTA    | 23          | 0620  | 0650  |            | N10      | W21           | .381                | 10432                    | 21.7       | 30               | -N                   |                    |              |                           |                           |                             |                   | 6       |
| GRP26645    | 23          | 1153  | 1208  | (1155)     | N11      | W25           | .445                | 10432                    | 21.6       | 15               | -B                   |                    |              | 2.10                      |                           |                             |                   | 3 2 2 6 |
| ZURI        | 23          | 1143  | 1208  | 1148       | N06      | W24           | .411                | 10432                    | 21.7       | 25               | -N                   | C                  | 1148         | .53                       | .60                       |                             |                   |         |
| ZURI        | 23          | 1148  | 1150  | 1148       | N15      | W25           | .468                | 10432                    | 21.6       | 2                | -B                   | C                  | 1148         | 1.72                      | 1.90                      |                             |                   |         |
| SANM        | 23          | 1202E | 1600D |            | N12      | W25           | .450                | 10432                    | 21.6       | 238D             | 1N                   | 1                  | P            | 1202                      | 1.94                      | 2.14                        |                   | BK      |
| CAPS        | 23          | 1408  | 1427  |            | N12      | W23           | .422                | 10432                    | 21.9       | 19               | -N                   | 1                  | V            | 1419                      | .83                       | .90                         | 190               |         |
| 648 BOUL    | 23          | 1617  | 1633D | 1622       | N05      | W39           | .630                | 10432                    | 20.8       | 16D              | -N                   | S                  |              |                           |                           |                             |                   | 4       |
| 649 PALE    | 23          | 1750E | 1812D | 1751       | N07      | W45           | .709                | 10433                    | 20.4       | 22D              | -F                   | C                  |              | .31                       |                           |                             |                   | 4       |
| 650 PALE    | 23          | 1751  | 1916  | 1817       | N11      | W35           | .586                | 10432                    | 21.1       | 85               | -F                   | C                  |              | .19                       |                           |                             |                   | 4       |
| 651 PALE    | 23          | 1909  | 1929  | 1920       | N17      | W40           | .670                | 10432                    | 20.8       | 20               | -N                   | C                  |              | .50                       |                           |                             |                   | 5       |
| 653 PALE    | 23          | 2239  | 2306  | 2244       | N09      | W48           | .746                | 10433                    | 20.3       | 27               | -N                   | C                  |              | .62                       |                           |                             |                   | 4       |
| 654 MANI    | 23          | 2335  | 2352  | 2340       | N11      | W21           | .387                | 10432                    | 22.4       | 17               | -N                   | 2                  | 2340         | .31                       | .32                       |                             |                   | 4       |
| 655 CULG    | 24          | 0600  | 0626D | 0614       | S16      | E56           | .849                | 10446                    | 28.5       | 26D              | 1N                   | P                  | 0614         | 1.34                      | 2.30                      |                             |                   | 4       |
| 660 BOUL    | 24          | 1503  | 1526  | 1515       | N06      | W52           | .788                | 10432                    | 20.7       | 23               | -N                   | V                  |              |                           |                           |                             |                   | 4       |
| 663 BOUL    | 24          | 1745  | 1752D | 1749       | S14      | E87           | .999                | 10449                    | 1.3        | 7D               | -N                   | V                  |              |                           |                           |                             |                   | 5       |
| 664 BOUL    | 24          | 1748  | 1752D | 1750       | N10      | W46           | .725                | 10432                    | 21.3       | 4D               | -N                   | V                  |              |                           |                           |                             |                   | 5       |
| 668 SACP    | 24          | 2238  | 2257  | 2245       | N08      | W46           | .722                | 10432                    | 21.5       | 19               | -N                   | C                  |              | .90                       | 1.08                      |                             |                   | F       |
| 669 CULG    | 24          | 2241  | 2257  | 2246       | N07      | E72           | .951                | 10448                    | 30.3       | 16               | 1F                   | C                  | 2246         | 1.24                      |                           |                             |                   | 3       |
| 670 PALE    | 25          | 0031  | 0118  | 0042       | N11      | W38           | .627                | 10432                    | 22.2       | 47               | -N                   | C                  |              | .62                       |                           |                             |                   | 7       |
| 671 MITK    | 25          | 0037  | 0040  | 0038       | N13      | W13           | .295                | 10441                    | 24.1       | 3                | -F                   | C                  | 0038         | .62                       | .60                       |                             |                   | D       |
| 672 PALE    | 25          | 0055  | 0100D | 0058       | N13      | W46           | .730                | 10432                    | 21.6       | 5D               | -F                   | C                  |              | .28                       |                           |                             |                   | 6       |
| 674 PALE    | 25          | 0153  | 0224  | 0209       | N10      | W40           | .651                | 10432                    | 22.1       | 31               | -N                   | C                  |              | .80                       |                           |                             |                   | 6       |
| 675 CULG    | 25          | 0158  | 0233  | 0208       | S15      | E80           | .987                | 10449                    | 1.1        | 35               | 1F                   | C                  | 0208         | .93                       |                           |                             |                   | A       |
| 678 PALE    | 25          | 0324E | 0332D | 0329       | N16      | W46           | .737                | 10432                    | 21.7       | 8D               | -N                   | C                  |              | .15                       |                           |                             |                   | 4       |
| 681 TACH    | 25          | 0613  | 0622  | 0614       | N11      | W08           | .212                | 10441                    | 24.7       | 9                | 1N                   | V                  | 0613         | 3.10                      | 3.20                      | 2.00                        | 72                | E       |
| 682 CULG    | 25          | 0643  | 0652D | 0649       | S14      | E79           | .984                | 10449                    | 1.2        | 9D               | 1N                   | P                  | 0649         | .62                       |                           |                             |                   | 2       |
| 683 CULG    | 25          | 0750  | 0806  | 0751       | S14      | E79           | .984                | 10449                    | 1.3        | 16               | 1N                   | C                  | 0751         | .62                       |                           |                             |                   | V       |
| 684 ISTA    | 25          | 0802  | 0810  |            | N14      | W26           | .477                | 10441                    | 23.4       | 8                | -F                   |                    |              |                           |                           |                             |                   | 5       |
| GRP26688    | 25          | 1358  | 1415  | 1400       | N12      | W48           | .751                | 10432                    | 22.0       | 17               | -B                   |                    |              | .58                       |                           |                             |                   | 2 2 1 8 |
| CATA        | 25          | 1355  | 1410D | 1400       | N13      | W46           | .730                | 10432                    | 22.1       | 15D              | -B                   |                    | 1400         | .58                       | .85                       |                             | 389               |         |
| TELV        | 25          | 1400  | 1415  |            | N10      | W50           | .770                | 10432                    | 21.8       | 15               | -N                   |                    |              |                           |                           |                             |                   |         |
| 690 BOUL    | 25          | 1553  | 1615  | 1556       | N09      | W59           | .858                | 10432                    | 21.2       | 22               | -F                   | V                  |              |                           |                           |                             |                   | 4       |
| 691 BOUL    | 25          | 1626  | 1642  | 1632       | N09      | W49           | .758                | 10432                    | 22.0       | 16               | -N                   | V                  |              |                           |                           |                             |                   | 5       |

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# SOLAR FLARES

## Unconfirmed

NOVEMBER 1969

| OBSERVATORY                                                               | OBSERVED UT |       |       |            | LOCATION |            |                  |                    |         | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.  |      | MEASUREMENTS |                     |                     |               |             | REMARKS |
|---------------------------------------------------------------------------|-------------|-------|-------|------------|----------|------------|------------------|--------------------|---------|------------------|----------------------|-------|------|--------------|---------------------|---------------------|---------------|-------------|---------|
|                                                                           | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL DISTANCE | MCMAH PLAGE REGION | CMP DAY |                  |                      | COND. | TYPE | TIME UT      | MEAS. AREA Sq. Deg. | CORR. AREA Sq. Deg. | MAX. WIDTH Hg | MAX. INT. % |         |
|                                                                           |             |       |       |            | LAT.     | MER. DIST. |                  |                    |         |                  |                      |       |      |              |                     |                     |               |             |         |
|                                                                           | 1969        |       |       |            |          |            |                  |                    |         |                  |                      |       |      |              |                     |                     |               |             |         |
|                                                                           | NOV         |       |       |            |          |            |                  |                    |         |                  |                      |       |      |              |                     |                     |               |             |         |
| 693 PALE                                                                  | 25          | 1844  | 1901D | 1850       | N12      | W25        | .452             | 10441              | 23.9    | 17D              | -F                   | C     |      | .25          |                     |                     |               | 5           |         |
| GRP26694 PALE BOUL                                                        | 25          | 1920  | 2001  | 1942       | N19      | W50        | .787             | 10432              | 22.1    | 41               | -N                   |       |      | .74          |                     |                     |               | 2 1 1 6     |         |
|                                                                           | 25          | 1920  | 2001D | 1942       | N19      | W50        | .787             | 10432              | 22.1    | 41D              | -N                   | C     |      | .74          |                     |                     |               |             |         |
|                                                                           | 25          | 1923  | 1950D | 1932       | N14      | W59        | .862             | 10432              | 21.4    | 27D              | -F                   | V     |      |              |                     |                     |               |             |         |
| 695 PALE                                                                  | 25          | 2035  | 2045D | 2039       | N12      | W22        | .409             | 10441              | 24.2    | 10D              | -F                   | C     |      | .12          |                     |                     |               | 5           |         |
| 696 BOUL                                                                  | 25          | 2111  | 2116  | 2113       | N10      | W21        | .382             | 10441              | 24.3    | 5                | -F                   | V     |      |              |                     |                     |               | 5           |         |
| 697 SACP                                                                  | 25          | 2116  | 2125  | 2120       | N13      | W56        | .834             | 10432              | 21.7    | 9                | -N                   | C     |      | .69          | .98                 |                     |               | 6           |         |
| 698 BOUL                                                                  | 25          | 2132  | 2148  | 2137       | N19      | W51        | .797             | 10432              | 22.1    | 16               | -F                   | V     |      |              |                     |                     |               | 5           |         |
| 700 CULG                                                                  | 25          | 2231  | 2310  | 2242       | S13      | E80        | .987             | 10449              | 1.9     | 39               | 1N                   | C     | 2242 | .62          |                     |                     |               | 4           |         |
| 701 MITK                                                                  | 25          | 2351  | 2358  |            | N15      | W28        | .510             | 10441              | 23.9    | 7                | -F                   | C     | 2356 | .72          | .80                 |                     |               | E 5         |         |
| 702 MANI                                                                  | 26          | 0410E | 0429D |            | N12      | W28        | .495             | 10441              | 24.1    | 19D              | -F                   | 1     | 0411 | .83          | .96                 |                     |               | 5           |         |
| 704 MANI                                                                  | 26          | 0534E | 0550D |            | N14      | W61        | .879             | 10432              | 21.7    | 16D              | -F                   | 1     | 0536 | .72          | 1.36                |                     |               | 5           |         |
| 705 TELV                                                                  | 26          | 0750  | 0805  |            | N10      | W70        | .940             | 10432              | 21.1    | 15               | -N                   |       |      |              |                     |                     |               | 6           |         |
| GRP26708 CAPS CATA                                                        | 26          | 0950  | 0958  | 0950       | N14      | W61        | .879             | 10432              | 21.8    | 8                | -B                   |       |      | .41          |                     |                     |               | 2 2 2 7     |         |
|                                                                           | 26          | 0950E | 0958D |            | N15      | W60        | .872             | 10432              | 21.9    | 8D               | -N                   | 2     | 0955 | .52          |                     |                     | 190           |             |         |
|                                                                           | 26          | 0950  | 0955D | 0950       | N13      | W61        | .878             | 10432              | 21.8    | 5D               | -B                   |       | 0950 | .29          | .62                 |                     | 214           |             |         |
| 709 TELV                                                                  | 26          | 0950  | 1010  | 0954       | N07      | W75        | .966             | 10432              | 20.8    | 20               | -N                   |       |      |              |                     |                     |               | 6           |         |
| 711 BOUL                                                                  | 26          | 1458E | 1518  | 1458       | S17      | W85        | .997             | 10435              | 20.2    | 20D              | -N                   | V     |      |              |                     |                     |               | 3           |         |
| 715 PALE                                                                  | 26          | 1757  | 1804  | 1759       | N16      | W63        | .896             | 10432              | 22.0    | 7                | -N                   | C     |      | .43          |                     |                     |               | 4           |         |
| 716 BOUL                                                                  | 26          | 1812  | 1819  | 1814       | S13      | E67        | .927             | 10449              | 1.8     | 7                | -F                   | V     |      |              |                     |                     |               | 5           |         |
| 718 CULG                                                                  | 26          | 1914E | 1933  | 1919       | S15      | E53        | .819             | 10449              | 30.8    | 19D              | 1N                   | P     | 1919 | 1.55         | 2.55                |                     |               | 4           |         |
| 726 PALE                                                                  | 26          | 2335  | 2358D | 2338       | N16      | E51        | .791             | 10447              | 30.8    | 23D              | -N                   | C     |      | .36          |                     |                     |               | 4           |         |
| 727 SACP                                                                  | 26          | 2335  | 2346  | 2344       | S15      | E51        | .799             | 10449              | 30.8    | 11               | -N                   | C     |      | .32          | .42                 |                     |               | HL 5        |         |
| 728 CRON                                                                  | 27          | 0030  | 0047  | 0036       | S17      | E50        | .794             | 10449              | 30.8    | 17               | -N                   | C     |      | .93          | 1.40                |                     |               | H 4         |         |
| 737 CATA                                                                  | 27          | 1105  | 1120  | 1107       | S21      | E17        | .468             | 10446              | 28.7    | 15               | -B                   |       | 1107 | .52          | .58                 |                     | 240           | 6           |         |
| 739 CATA                                                                  | 27          | 1145  | 1205D | 1147       | S17      | E43        | .722             | 10449              | 30.7    | 20D              | -N                   |       | 1147 | .58          | .83                 |                     | 186           | 4           |         |
| 742 SANM                                                                  | 27          | 1427  | 1432  | 1429       | S16      | E41        | .696             | 10449              | 30.7    | 5                | -F                   | 1     | C    | .48          | .68                 |                     |               | E 4         |         |
| 743 SANM                                                                  | 27          | 1439  | 1445  | 1442       | S14      | E41        | .688             | 10449              | 30.7    | 6                | -F                   | 1     | C    | .15          | .21                 |                     |               | D 5         |         |
| 747 BOUL                                                                  | 27          | 1605  | 1610  | 1606       | N14      | W79        | .982             | 10432              | 21.7    | 5                | -N                   | V     |      |              |                     |                     |               | 2           |         |
| 748 BOUL                                                                  | 27          | 1719  | 1730  | 1721       | N13      | E42        | .684             | 10447              | 30.9    | 11               | -N                   | V     |      |              |                     |                     |               | 3           |         |
| 749 PALE                                                                  | 27          | 1723  | 1728  | 1725       | S13      | E42        | .696             | 10449              | 30.9    | 5                | -N                   | V     |      | .10          |                     |                     |               | 4           |         |
| GRP26750 PALE PALE                                                        | 27          | 1734  | 1742  | 1739       | N12      | W77        | .974             | 10432              | 22.0    | 8                | -B                   |       |      | .21          |                     |                     |               | 1 1 1 3     |         |
|                                                                           | 27          | 1734  | 1738  | 1735       | N13      | W77        | .974             | 10432              | 22.0    | 4                | -F                   | V     |      | .10          |                     |                     |               |             |         |
|                                                                           | 27          | 1738  | 1742  | 1739       | N11      | W78        | .978             | 10432              | 21.9    | 4                | -B                   | V     |      | .21          |                     |                     |               |             |         |
| 751 PALE                                                                  | 27          | 1750E | 1801  | 1752       | N12      | W49        | .763             | 10441              | 24.1    | 11D              | -N                   | V     |      | .21          |                     |                     |               | 3           |         |
| GRP26752 BOUL BOUL                                                        | 27          | 1816  | 1828  | 1818       | S16      | E45        | .740             | 10449              | 1.1     | 12               | -N                   |       |      |              |                     |                     |               | 1 1 0 3     |         |
|                                                                           | 27          | 1816  | 1826  | 1818       | S17      | E46        | .754             | 10449              | 1.2     | 10               | -N                   | V     |      |              |                     |                     |               |             |         |
|                                                                           | 27          | 1821  | 1828  | 1823       | S16      | E44        | .729             | 10449              | 1.1     | 7                | -F                   | V     |      |              |                     |                     |               |             |         |
| 753 PALE                                                                  | 27          | 1828E | 1840  | 1830       | N12      | W85        | .996             | 10432              | 21.4    | 12D              | -F                   | V     |      | .31          |                     |                     |               | 3           |         |
| 1 STATIONS REPORTING GROUP 26754. 2 STATIONS OBSERVING AND NOT REPORTING. |             |       |       |            |          |            |                  |                    |         |                  |                      |       |      |              |                     |                     |               |             |         |
| 754 PALE                                                                  | 27          | 1831E | 1846  | 1834       | S14      | E42        | .699             | 10449              | 30.9    | 15D              | -N                   | V     |      | .12          |                     |                     |               | 3           |         |
| 754 PALE                                                                  | 27          | 1831E | 1846  | 1843       | S14      | E42        | .699             | 10449              | 30.9    | 15D              | *-N                  |       |      | .80          |                     |                     |               | 3           |         |
| GRP26760 CULG PALE                                                        | 27          | 2205  | 2222  | 2208       | N07      | W89        | 1.000            | 10432              | 21.2    | 17               | 1N                   |       |      | .52          |                     |                     |               | 2 1 1 3     |         |
|                                                                           | 27          | 2205  | 2222  | 2208       | N07      | W89        | 1.000            | 10432              | 21.2    | 17               | 1N                   | C     | 2208 | .52          |                     |                     |               |             |         |
|                                                                           | 27          | 2221  | 2234  | 2222       | N17      | W85        | .996             | 10432              | 21.6    | 13               | -B                   | C     |      | .23          |                     |                     |               |             |         |

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| OBSERVATORY | OBSERVED UT |       |       |               | LOCATION |               |                     |                           |            | DURATION<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS |                           |                           |                             |                   | REMARKS |
|-------------|-------------|-------|-------|---------------|----------|---------------|---------------------|---------------------------|------------|------------------|----------------------|--------------------|--------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|             | DATE        | START | END   | MAX.<br>PHASE | APPROX.  |               | CENTRAL<br>DISTANCE | MCMTPL<br>PLAGE<br>REGION | CMP<br>DAY |                  |                      |                    | TIME<br>UT   | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|             |             |       |       |               | LAT.     | MER.<br>DIST. |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
|             | 1969<br>NOV |       |       |               |          |               |                     |                           |            |                  |                      |                    |              |                           |                           |                             |                   |         |
| 763 PALE    | 27          | 2326  | 2341  | 2327          | S18      | E75           | .971                | 10455                     | 3.6        | 15               | -N                   | V                  |              | .31                       |                           |                             |                   | 3       |
| 765 MANI    | 28          | 0037  | 0053  | 0041          | S17      | E36           | .642                | 10449                     | 30.7       | 16               | -F                   | 2                  | 0041         | .93                       | 1.21                      |                             |                   | 4       |
| 766 MANI    | 28          | 0102  | 0119  | 0106          | N18      | W85           | .996                | 10432                     | 21.7       | 17               | -N                   | 2                  | 0106         | .31                       | .88                       |                             |                   | 5       |
| GRP26767    | 28          | 0151  | 0212  | 0157          | S16      | E36           | .637                | 10449                     | 30.8       | 21               | -F                   |                    |              | .38                       |                           |                             |                   | 2 2 2 7 |
| MANI        | 28          | 0151  | 0216  | 0156          | S17      | E34           | .618                | 10449                     | 30.6       | 25               | -F                   | 2                  | 0156         | .57                       | .72                       |                             |                   |         |
| PALE        | 28          | 0155E | 0208  | 0157          | S15      | E37           | .644                | 10449                     | 30.9       | 130              | -N                   | V                  |              | .19                       |                           |                             |                   |         |
| 768 VORO    | 28          | 0152  | 0210  | 0155          | N14      | E36           | .613                | 10448                     | 30.8       | 18               | -B                   | C                  | 0155         | .74                       | .93                       |                             | 79                | E 6     |
| GRP26769    | 28          | 0208  | 0237  | 0224          | N21      | W80           | .985                | 10432                     | 22.1       | 29               | 1N                   |                    |              | .62                       |                           |                             |                   | 2 1 1 7 |
| CULG        | 28          | 0208  | 0237  | 0224          | N21      | W80           | .985                | 10432                     | 22.1       | 29               | 1N                   | C                  | 0224         | .62                       |                           |                             |                   |         |
| PALE        | 28          | 0224  | 0236  | 0226          | N10      | W90           | 1.000               | 10432                     | 21.4       | 12               | -B                   | C                  |              |                           |                           |                             |                   |         |
| GRP26771    | 28          | 0245  | 0316  | 0248          | N17      | W87           | .998                | 10432                     | 21.6       | 31               | -B                   |                    |              | .37                       |                           |                             |                   | 2 2 2 6 |
| MANI        | 28          | 0244  | 0316  | 0248          | N18      | W86           | .997                | 10432                     | 21.7       | 32               | -N                   | 2                  | 0248         | .52                       | 1.50                      |                             |                   |         |
| PALE        | 28          | 0245  | 0253D | 0247          | N15      | W88           | .999                | 10432                     | 21.5       | 80               | -B                   | C                  |              | .21                       |                           |                             |                   |         |
| 772 MANI    | 28          | 0356  | 0408  | 0404          | N18      | W88           | .999                | 10432                     | 21.6       | 12               | -N                   | 2                  | 0404         | .36                       | 1.20                      |                             |                   | 4       |
| 773 MANI    | 28          | 0445  | 0512  | 0453          | N18      | W89           | 1.000               | 10432                     | 21.5       | 27               | -N                   | 2                  | 0453         | .31                       | .99                       |                             |                   | 4       |
| 777 MANI    | 28          | 0714E | 0716D |               | S13      | E36           | .622                | 10449                     | 1.0        | 20               | -F                   | 1                  | 0715         | .21                       | .26                       |                             |                   | 8       |
| 779 CATA    | 28          | 1000E | 1015  | 1000          | S14      | E32           | .576                | 10449                     | 30.8       | 150              | -B                   |                    | 1000         | .52                       | .63                       |                             | 295               | 6       |
| 781 CANR    | 28          | 1246  | 1251  | 1247U         | N22      | E85           | .996                | 10460                     | 4.9        | 5                | -B                   | C                  |              | .60                       | 2.00                      |                             |                   | 5       |
| 783 CATA    | 28          | 1320E | 1325  | 1320          | S21      | E44           | .748                | 10449                     | 1.9        | 50               | -B                   |                    | 1320         | .52                       | .76                       |                             | 295               | 6       |
| 785 BOUL    | 28          | 1437  | 1507  | 1438          | S13      | W48           | .763                | 10440                     | 25.0       | 30               | -F                   | V                  |              |                           |                           |                             |                   | 5       |
| 786 BOUL    | 28          | 1450E | 1510  |               | N22      | W40           | .696                | 10453                     | 25.6       | 200              | -F                   | V                  |              |                           |                           |                             |                   | 5       |
| 787 BOUL    | 28          | 1510  | 1525  | 1512          | N22      | E76           | .973                | 10456                     | 4.3        | 15               | -N                   | V                  |              |                           |                           |                             |                   | 4       |
| 788 BOUL    | 28          | 1520E | 1535D | 1522          | S02      | E04           | .090                | 10445                     | 28.9       | 150              | -N                   | V                  |              |                           |                           |                             |                   | 5       |
| 792 BOUL    | 28          | 2048  | 2058  | 2052          | S13      | E32           | .571                | 10449                     | 1.3        | 10               | -N                   | V                  |              |                           |                           |                             |                   | 3       |
| 793 PALE    | 28          | 2159  | 2205  | 2201          | N10      | W90           | 1.000               | 10432                     | 22.2       | 6                | -B                   | C                  |              |                           |                           |                             |                   | 3       |
| 795 VORO    | 29          | 0109  | 0120  | 0110          | N23      | E25           | .539                | 10447                     | 30.9       | 11               | -B                   | C                  | 0110         | 1.11                      | 1.29                      |                             | 74                | EJ 4    |
| GRP26798    | 29          | 0640  | 0720  |               | N21      | E22           | .488                | 10447                     | 30.9       | 40               | -F                   |                    |              |                           |                           |                             |                   | 1 1 0 5 |
| TEHR        | 29          | 0640  | 0720  |               | N22      | E24           | .520                | 10447                     | 1.1        | 40               | -F                   |                    |              |                           |                           |                             |                   |         |
| TEHR        | 29          | 0645  | 0710  |               | N20      | E21           | .467                | 10447                     | 30.9       | 25               | -F                   |                    |              |                           |                           |                             |                   |         |
| 799 TEHR    | 29          | 0640  | 0655  |               | N18      | E58           | .860                | 10456                     | 3.6        | 15               | -F                   |                    |              |                           |                           |                             |                   | 5       |
| 800 CULG    | 29          | 0745  | 0818D | 0808          | N28      | W44           | .765                | 10453                     | 26.0       | 330              | 1N                   | P                  | 0808         | 1.55                      | 2.40                      |                             | G                 | 7       |
| 801 TEHR    | 29          | 0745  | 0815  |               | N21      | E22           | .488                | 10447                     | 1.0        | 30               | -F                   |                    |              |                           |                           |                             |                   | 7       |
| 802 TEHR    | 29          | 0755  | 0815  |               | N21      | E22           | .488                | 10447                     | 1.0        | 20               | -F                   |                    |              |                           |                           |                             |                   | 8       |
| 803 TEHR    | 29          | 0800  | 0800D |               | N16      | E54           | .821                | 10456                     | 3.4        |                  | 1F                   |                    |              |                           |                           |                             |                   | 8       |
| 804 TEHR    | 29          | 0810  | 0810D |               | N21      | E22           | .488                | 10447                     | 1.0        |                  | -F                   |                    |              |                           |                           |                             |                   | 8       |
| 805 TEHR    | 29          | 0845  | 0900  |               | N13      | E16           | .338                | 10448                     | 30.6       | 15               | -F                   |                    |              |                           |                           |                             |                   | 6       |
| 806 TEHR    | 29          | 0850  | 0900  |               | N22      | E24           | .520                | 10447                     | 1.2        | 10               | -F                   |                    |              |                           |                           |                             |                   | 7       |
| 807 CAPE    | 29          | 1048  | 1120  | 1055          | N17      | W90           | 1.000               | 10432                     | 22.7       | 32               | 1N                   | C                  | 1055         | 1.30                      |                           |                             | A                 | 5       |
| 808 BOUL    | 29          | 1525  | 1540  | 1526          | N21      | E17           | .436                | 10447                     | 30.9       | 15               | -F                   | V                  |              |                           |                           |                             |                   | 4       |
| 811 BOUL    | 29          | 1831  | 1848  | 1836          | N22      | E14           | .421                | 10447                     | 30.8       | 17               | -F                   | V                  |              |                           |                           |                             |                   | 4       |
| 813 PALE    | 29          | 1912  | 1917  | 1913          | N24      | E15           | .455                | 10447                     | 30.9       | 5                | -N                   | C                  |              | .08                       |                           |                             |                   | 4       |
| 815 PALE    | 29          | 2104  | 2111  | 2105          | S16      | E25           | .501                | 10449                     | 1.8        | 7                | -N                   | C                  |              | .09                       |                           |                             |                   | 4       |
| 818 VORO    | 30          | 0019  | 0027  | 0021          | S15      | W17           | .395                | 10446                     | 28.7       | 8                | -B                   | C                  | 0021         | 1.11                      | 1.18                      |                             | 79                | EJ 3    |
| 819 PALE    | 30          | 0225  | 0232D | 0227          | N23      | E13           | .428                | 10447                     | 1.1        | 70               | -F                   | C                  |              | .11                       |                           |                             |                   | 4       |

# SOLAR FLARES

## Unconfirmed

NOVEMBER 1969

| OBSERVATORY              | OBSERVED UT |       |       |            | LOCATION |            |                     |                           |            | DURATION<br>—<br>MIN. | IM-<br>POR-<br>TANCE | OBS.<br>COND. TYPE | MEASUREMENTS    |                           |                           |                             |                   | REMARKS |
|--------------------------|-------------|-------|-------|------------|----------|------------|---------------------|---------------------------|------------|-----------------------|----------------------|--------------------|-----------------|---------------------------|---------------------------|-----------------------------|-------------------|---------|
|                          | DATE        | START | END   | MAX. PHASE | APPROX.  |            | CENTRAL<br>DISTANCE | MCMATH<br>PLAGE<br>REGION | CMP<br>DAY |                       |                      |                    | TIME<br>—<br>UT | MEAS.<br>AREA<br>Sq. Deg. | CORR.<br>AREA<br>Sq. Deg. | MAX.<br>WIDTH<br>H $\alpha$ | MAX.<br>INT.<br>% |         |
|                          |             |       |       |            | LAT.     | MER. DIST. |                     |                           |            |                       |                      |                    |                 |                           |                           |                             |                   |         |
|                          | 1969<br>NOV |       |       |            |          |            |                     |                           |            |                       |                      |                    |                 |                           |                           |                             |                   |         |
| 820 PALE                 | 30          | 0312E | 0318D | 0312       | S13      | W18        | .386                | 10446                     | 28.8       | 6D                    | -F                   | C                  |                 | .37                       |                           |                             | 5                 |         |
| 821 PALE                 | 30          | 0313  | 0318D | 0315       | N13      | E08        | .248                | 10448                     | 30.7       | 5D                    | -N                   | C                  |                 | .20                       |                           |                             | 5                 |         |
| 823 TEHR                 | 30          | 0645  | 0653  |            | S08      | E12        | .259                | 10449                     | 1.2        | 8                     | 1F                   |                    |                 |                           |                           |                             | 4                 |         |
| 824 TEHR                 | 30          | 0650  | 0705  |            | S17      | E17        | .417                | 10449                     | 1.6        | 15                    | -F                   |                    |                 |                           |                           |                             | 5                 |         |
| GRP26825<br>ISTA<br>TEHR | 30          | 0716  | 0738  |            | N21      | E05        | .351                | 10447                     | 30.7       | 22                    | -F                   |                    |                 |                           |                           |                             | 2 2 0 7           |         |
|                          | 30          | 0716  | 0738  |            | N20      | E05        | .335                | 10447                     | 30.7       | 22                    | -F                   |                    |                 |                           |                           |                             |                   |         |
|                          | 30          | 0720  | 0720D |            | N21      | E05        | .351                | 10447                     | 30.7       |                       | -F                   |                    |                 |                           |                           |                             |                   |         |
| 826 CATA                 | 30          | 0900  | 0920  | 0902       | S16      | E17        | .405                | 10449                     | 1.6        | 20                    | -B                   |                    | 0902            | .69                       | .76                       | 234                         | 9                 |         |
| 828 SANM                 | 30          | 1617  | 1636  | 1620       | N27      | E50        | .814                | 10456                     | 4.4        | 19                    | -F                   | 1 C                |                 | .15                       | .25                       |                             | E 5               |         |
| 829 BOUL                 | 30          | 1700  | 1727  | 1710       | N23      | E02        | .375                | 10447                     | 30.9       | 27                    | -N                   | V                  |                 |                           |                           |                             | 5                 |         |
| 830 SACP                 | 30          | 2316  | 2330  | 2320       | N13      | W06        | .231                | 10448                     | 30.5       | 14                    | -N                   | C                  |                 | .40                       | .39                       |                             | F 4               |         |

Note:

A line of explanation has been added before each flare event having more than one maxima. The total number of stations reporting some part of the event is given. The number of stations observing at the time of the principal maximum but not reporting the event is given in the second statement. Care should be exercised in utilizing the numbers in the remarks column. The first number is the number of stations reporting the individual maximum, and not the total number of stations reporting some part of the flare event. The last number is the number of stations reporting at the time of the individual maximum and not necessarily the total number of stations observing during the flare event. GRP numbers may appear several times in order to indicate secondary maxima. An asterisk beside an importance indicates a secondary maximum. The word "GRP" has also been omitted to aid in pointing to this condition.

When it is impossible to determine the time of Maximum Phase from the individual reports the time of Area Measurements is used. This time appears in parentheses. For Flares reported by only one station the last 3 digits of the group number appear to the left of the station code.

"Remarks":

A = Eruptive prominence, base at  $>90^\circ$ .  
 B = Probably the end of a more important flare.  
 C = Invisible 10 minutes before.  
 D = Brilliant point.  
 E = Two or more brilliant points.  
 F = Several eruptive centers.  
 G = No spots visible in the neighborhood.  
 H = Flare with high velocity dark surge.  
 I = Very extensive active region.  
 J = Plage with flare shows marked intensity variations.  
 K = Several intensity maxima.  
 L = Filaments show effects of sudden activation.  
 M = White-light flare.

N = Continuous spectrum shows effects of polarization.  
 O = Observations have been made in the calcium II lines H or K.  
 P = Flare shows helium  $D_3$  in emission.  
 Q = Flare shows the Balmer continuum in emission.  
 R = Marked asymmetry in  $H\alpha$  line.  
 S = Brightening follows disappearance of filament (same position).  
 T = Region active all day.  
 U = Close and somewhat parallel bright filaments (H or Y shape).  
 V = Occurrence of an explosive phase.  
 W = Great increase in area after time of maximum intensity.  
 X = Unusually wide  $H\alpha$  emission.  
 Y = Onset of a system of loop-type prominences.  
 Z = Major sunspot umbra covered by flare.