## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by the Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive towards the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day under Mount Wilson group number, longitude, latitude, area of spot or group, and spot count are included respectively: number of groups, assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups, and total spot count.

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 1 | 12 55 | 8478 | −72 | 83 | −24 | 72 | 2,521 | 16 | F | Mt. Wilson. |
| | | 8480 | −63 | 92 | +15 | 68 | 12 | 1 | | |
| | | 8478 | −61 | 94 | −23 | 63 | 1,115 | 9 | | |
| | | 8476 | −31 | 124 | −5 | 31 | 36 | 1 | | |
| | | 8482 | −21 | 134 | −25 | 27 | 24 | 1 | | |
| | | 8475 | −6 | 149 | −40 | 35 | 121 | 8 | | |
| | | 8473 | −1 | 154 | +10 | 16 | 48 | 1 | | |
| | | 8473 | +2 | 157 | +13 | 19 | 242 | 12 | | |
| | | 8472 | +14 | 169 | −23 | 22 | 97 | 11 | | |
| | | 8472 | +21 | 176 | −22 | 26 | 291 | 10 | | |
| | | 8470 | +31 | 186 | +20 | 41 | 24 | 1 | | |
| | | 8470 | +40 | 195 | +14 | 46 | 218 | 4 | | |
| | | 8477 | +40 | 195 | +23 | 51 | 48 | 4 | | |
| | | 8466 | +48 | 203 | −10 | 48 | 552 | 2 | | |
| | | 8481 | +55 | 210 | +28 | 65 | 24 | 1 | | |
| | | 8463 | +64 | 219 | +20 | 70 | 218 | 1 | | |
| | | (12) | | (155) | (−6) | | 5,621 | 83 | | |
| 2 | 12 0 | 8483 | −74 | 68 | −13 | 74 | 24 | 1 | F | Do. |
| | | 8478 | −59 | 83 | −24 | 61 | 2,763 | 10 | | |
| | | 8480 | −50 | 92 | +15 | 56 | 12 | 1 | | |
| | | 8478 | −48 | 94 | −23 | 50 | 921 | 7 | | |
| | | 8479 | −39 | 103 | −8 | 39 | 36 | 1 | | |
| | | 8476 | −18 | 124 | −4 | 18 | 24 | 1 | | |
| | | 8482 | −7 | 135 | −26 | 22 | 145 | 10 | | |
| | | 8473 | +13 | 155 | +14 | 25 | 339 | 15 | | |
| | | 8472 | +26 | 168 | −25 | 31 | 97 | 12 | | |
| | | 8472 | +34 | 176 | −22 | 37 | 339 | 8 | | |
| | | 8470 | +53 | 195 | +15 | 58 | 170 | 1 | | |
| | | 8466 | +60 | 202 | −10 | 60 | 485 | 1 | | |
| | | 8463 | +78 | 220 | +19 | 80 | 145 | 1 | | |
| | | (11) | | (142) | (−6) | | 5,500 | 69 | | |
| 3 | 11 5 | 8483 | −60 | 69 | −14 | 60 | 61 | 1 | F | Do. |
| | | 8478 | −50 | 79 | −25 | 52 | 2,424 | 9 | | |
| | | 8478 | −40 | 89 | −23 | 43 | 1,115 | 12 | | |
| | | 8480 | −37 | 92 | +15 | 43 | 12 | 1 | | |
| | | 8478 | −35 | 94 | −23 | 38 | 921 | 6 | | |
| | | 8484 | +4 | 133 | −15 | 10 | 97 | 8 | | |
| | | 8482 | +6 | 135 | −26 | 20 | 170 | 12 | | |
| | | 8473 | +26 | 155 | +14 | 32 | 364 | 10 | | |
| | | 8472 | +40 | 169 | −25 | 43 | 48 | 6 | | |
| | | 8472 | +48 | 177 | −22 | 50 | 242 | 7 | | |
| | | 8470 | +67 | 196 | +15 | 71 | 121 | 1 | | |
| | | 8466 | +73 | 202 | −10 | 73 | 485 | 2 | | |
| | | (9) | | (129) | (−6) | | 6,060 | 75 | | |
| 4 | 11 10 | 8483 | −46 | 70 | −14 | 47 | 61 | 1 | F | Do. |
| | | 8478 | −37 | 79 | −25 | 41 | 2,763 | 8 | | |
| | | 8478 | −28 | 88 | −23 | 32 | 1,115 | 13 | | |
| | | 8478 | −22 | 94 | −22 | 27 | 970 | 3 | | |
| | | 8484 | +18 | 134 | −16 | 21 | 339 | 15 | | |
| | | 8482 | +19 | 135 | −26 | 27 | 194 | 6 | | |
| | | 8473 | +40 | 156 | +13 | 45 | 242 | 8 | | |
| | | 8472 | +61 | 177 | −20 | 62 | 218 | 1 | | |
| | | (6) | | (116) | (−6) | | 5,902 | 55 | | |
| 5 | 11 11 | 8486 | −70 | 33 | +16 | 74 | 97 | 1 | F | U. S. Naval. |
| | | 8485 | −53 | 50 | +12 | 58 | 109 | 7 | | |
| | | 8483 | −34 | 69 | −13 | 35 | 73 | 3 | | |
| | | 8478 | −26 | 77 | −25 | 32 | 2,763 | 6 | | |
| | | 8478 | −15 | 88 | −23 | 23 | 1,018 | 20 | | |
| | | 8478 | −8 | 95 | −23 | 18 | 970 | 2 | | |
| | | 8484 | +33 | 136 | −17 | 35 | 679 | 13 | | |
| | | 8482 | +34 | 137 | −26 | 38 | 109 | 3 | | |
| | | 8473 | +52 | 155 | +13 | 57 | 242 | 3 | | |
| | | 8472 | +73 | 176 | −19 | 73 | 194 | 1 | | |
| | | (8) | | (103) | (−6) | | 6,254 | 59 | | |
| 6 | 13 16 | 8489 | −60 | 29 | −17 | 61 | 24 | 2 | G | Do. |
| | | 8486 | −60 | 29 | +14 | 64 | 24 | 2 | | |
| | | 8486 | −55 | 34 | +14 | 59 | 73 | 2 | | |
| | | 8489 | −53 | 36 | −16 | 53 | 12 | 3 | | |
| | | 8485 | −40 | 49 | +11 | 44 | 12 | 3 | | |
| | | 8483 | −19 | 70 | −13 | 21 | 73 | 5 | | |
| | | 8478 | −12 | 77 | −25 | 22 | 2,666 | 5 | | |
| | | 8478 | −1 | 88 | −23 | 17 | 970 | 25 | | |
| | | 8478 | +6 | 95 | −23 | 18 | 1,067 | 5 | | |

See footnotes at end of table.

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947—Continued

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 6 | 13 16 | 8488 | +13 | 102 | +26 | 36 | 61 | 2 | G | U. S. Naval. |
| | | 8487 | +33 | 122 | −3 | 34 | 24 | 5 | | |
| | | 8484 | +47 | 136 | −17 | 48 | 970 | 15 | | |
| | | 8482 | +48 | 137 | −27 | 52 | 73 | 5 | | |
| | | 8473 | +66 | 155 | +13 | 70 | 145 | 2 | | |
| | | 8472 | +86 | 175 | −20 | 86 | 97 | 1 | | |
| | | (11) | | (89) | (−6) | | 6,291 | 82 | | |
| 7 | 11 52 | 8489 | −44 | 32 | −14 | 45 | 48 | 2 | VG | Do. |
| | | 8486 | −42 | 34 | +14 | 47 | 73 | 3 | | |
| | | 8485 | −26 | 50 | +11 | 31 | 12 | 2 | | |
| | | 8492 | −17 | 59 | +18 | 30 | 6 | 1 | | |
| | | 8483 | −7 | 69 | −13 | 11 | 61 | 1 | | |
| | | 8478 | +1 | 77 | −25 | 20 | 2,618 | 15 | | |
| | | 8478 | +12 | 88 | −23 | 21 | 921 | 30 | | |
| | | 8478 | +18 | 94 | −23 | 24 | 1,067 | 5 | | |
| | | 8490 | +18 | 94 | −5 | 18 | 48 | 3 | | |
| | | 8488 | +28 | 104 | +25 | 43 | 48 | 4 | | |
| | | 8491 | +32 | 108 | −13 | 32 | 12 | 5 | | |
| | | 8487 | +47 | 123 | −3 | 48 | 97 | 6 | | |
| | | 8482 | +58 | 134 | −27 | 61 | 73 | 2 | | |
| | | 8484 | +60 | 136 | −17 | 60 | 1,018 | 15 | | |
| | | 8482 | +65 | 141 | −27 | 67 | 12 | 2 | | |
| | | 8473 | +79 | 155 | +13 | 80 | 121 | 1 | | |
| | | (13) | | (76) | (−6) | | 6,235 | 97 | | |
| 8 | 10 48 | 8489 | −32 | 32 | −15 | 33 | 48 | 6 | F | Do. |
| | | 8486 | −26 | 35 | +15 | 36 | 61 | 1 | | |
| | | 8492 | −1 | 63 | +19 | 27 | 6 | 1 | | |
| | | 8483 | +6 | 70 | −13 | 9 | 61 | 2 | | |
| | | 8478 | +14 | 78 | −25 | 23 | 2,618 | 5 | | |
| | | 8478 | +22 | 86 | −23 | 27 | 582 | 17 | | |
| | | 8478 | +31 | 95 | −23 | 34 | 1,067 | 2 | | |
| | | 8490 | +31 | 95 | −5 | 31 | 121 | 4 | | |
| | | 8488 | +40 | 104 | +26 | 52 | 48 | 5 | | |
| | | 8491 | +44 | 108 | −13 | 45 | 12 | 2 | | |
| | | 8487 | +60 | 124 | −3 | 60 | 145 | 6 | | |
| | | 8484 | +72 | 136 | −17 | 72 | 970 | 5 | | |
| | | (10) | | (64) | (−6) | | 5,739 | 56 | | |
| 9 | 11 1 | 8496 | −88 | 322 | −17 | 88 | 97 | 1 | VG | Do. |
| | | 8495 | −35 | 15 | +11 | 39 | 12 | 1 | | |
| | | 8489 | −20 | 30 | −15 | 22 | 109 | 6 | | |
| | | 8486 | −16 | 34 | +15 | 27 | 61 | 1 | | |
| | | (*) | +3 | 53 | +11 | 17 | 12 | 6 | | |
| | | 8483 | +21 | 71 | −14 | 22 | 48 | 1 | | |
| | | 8478 | +25 | 75 | −25 | 30 | 2,909 | 8 | | |
| | | 8478 | +37 | 87 | −23 | 41 | 727 | 30 | | |
| | | 8493 | +40 | 90 | +17 | 47 | 24 | 2 | | |
| | | 8478 | +44 | 94 | −23 | 45 | 1,067 | 2 | | |
| | | 8490 | +45 | 95 | −5 | 45 | 230 | 2 | | |
| | | 8488 | +55 | 105 | +25 | 65 | 24 | 3 | | |
| | | 8487 | +72 | 122 | −3 | 72 | 194 | 2 | | |
| | | 8484 | +85 | 135 | −17 | 85 | 824 | 4 | | |
| | | (12) | | (50) | (−6) | | 6,338 | 69 | | |
| 10 | 11 42 | 8496 | −73 | 324 | −16 | 73 | 48 | 2 | F | Do. |
| | | 8495 | −21 | 16 | +11 | 27 | 48 | 6 | | |
| | | 8489 | −7 | 30 | −15 | 12 | 97 | 18 | | |
| | | 8486 | −3 | 34 | +15 | 22 | 61 | 1 | | |
| | | 8494 | +18 | 55 | +11 | 25 | 61 | 2 | | |
| | | 8483 | +34 | 71 | −14 | 35 | 24 | 1 | | |
| | | 8478 | +39 | 76 | −25 | 42 | 3,006 | 7 | | |
| | | 8478 | +51 | 88 | −23 | 53 | 970 | 16 | | |
| | | 8493 | +54 | 91 | +17 | 60 | 48 | 2 | | |
| | | 8490 | +57 | 94 | −5 | 57 | 61 | 3 | | |
| | | 8478 | +58 | 95 | −23 | 60 | 921 | 1 | | |
| | | 8490 | +62 | 99 | −8 | 62 | 145 | 1 | | |
| | | 8488 | +70 | 107 | +25 | 78 | 12 | 1 | | |
| | | 8491 | +77 | 114 | −12 | 77 | 48 | 1 | | |
| | | (11) | | (37) | (−6) | | 5,550 | 62 | | |
| 11 | 10 31 | 8496 | −60 | 324 | −16 | 61 | 97 | 2 | G | Do. |
| | | 8497 | −41 | 343 | +15 | 46 | 24 | 1 | | |
| | | 8495 | −8 | 16 | +11 | 19 | 24 | 4 | | |
| | | 8489 | +7 | 31 | −15 | 12 | 121 | 13 | | |
| | | 8486 | +10 | 34 | +15 | 23 | 48 | 1 | | |
| | | 8494 | +30 | 54 | +11 | 35 | 24 | 4 | | |
| | | 8483 | +46 | 70 | −14 | 47 | 24 | 1 | | |
| | | 8478 | +51 | 75 | −25 | 53 | 3,006 | 12 | | |
| | | 8478 | +63 | 87 | −24 | 65 | 727 | 10 | | |
| | | 8490 | +69 | 93 | −5 | 69 | 36 | 1 | | |
| | | 8478 | +70 | 94 | −24 | 70 | 824 | 1 | | |
| | | 8490 | +75 | 99 | −8 | 75 | 121 | 1 | | |
| | | (9) | | (24) | (−6) | | 5,076 | 51 | | |
| 12 | 10 46 | 8496 | −47 | 324 | −16 | 47 | 121 | 3 | G | Do. |
| | | 8495 | +8 | 19 | +10 | 18 | 12 | 1 | | |
| | | 8489 | +21 | 32 | −16 | 24 | 109 | 13 | | |
| | | 8486 | +23 | 34 | +15 | 32 | 48 | 1 | | |
| | | 8494 | +45 | 56 | +11 | 49 | 24 | 2 | | |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947—Continued

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 12 | 10 37 | 8483 | +60 | 71 | −15 | 60 | 24 | 1 | G | U. S. Naval. |
| | | 8483 | +60 | 71 | −18 | 61 | 24 | 1 | | |
| | | 8478 | +65 | 76 | −25 | 67 | 2,957 | 11 | | |
| | | 8478 | +76 | 87 | −25 | 76 | 727 | 8 | | |
| | | 8478 | +85 | 96 | −24 | 85 | 824 | 1 | | |
| | | (7) | | (11) | (−6) | | 4,870 | 42 | | |
| 13 | 10 33 | 8498 | −64 | 294 | +23 | 71 | 12 | 1 | F | Do. |
| | | 8496 | −43 | 315 | −15 | 44 | 12 | 1 | | |
| | | 8496 | −33 | 325 | −17 | 34 | 109 | 3 | | |
| | | 8499 | −15 | 343 | −9 | 16 | 24 | 2 | | |
| | | 8495 | +23 | 21 | +10 | 27 | 24 | 1 | | |
| | | 8489 | +35 | 33 | −16 | 37 | 97 | 6 | | |
| | | 8486 | +37 | 35 | +15 | 43 | 48 | 1 | | |
| | | 8494 | +57 | 55 | +11 | 61 | 145 | 3 | | |
| | | 8478 | +78 | 76 | −25 | 78 | 2,909 | 2 | | |
| | | (8) | | (358) | (−6) | | 3,380 | 20 | | |
| 14 | 11 11 | 8500 | −65 | 279 | −18 | 66 | 73 | 10 | F | Mt. Wilson. |
| | | 8498 | −49 | 295 | +22 | 57 | 12 | 1 | | |
| | | 8496 | −30 | 314 | −16 | 32 | 24 | 7 | | |
| | | 8496 | −20 | 324 | −16 | 23 | 145 | 14 | | |
| | | 8499 | −2 | 342 | −9 | 3 | 36 | 4 | | |
| | | 8495 | +37 | 21 | +10 | 41 | 24 | 1 | | |
| | | 8489 | +47 | 31 | −16 | 48 | 48 | 5 | | |
| | | 8486 | +51 | 35 | +15 | 56 | 48 | 1 | | |
| | | 8494 | +70 | 54 | +12 | 74 | 121 | 4 | | |
| | | (8) | | (344) | (−6) | | 531 | 47 | | |
| 15 | 10 37 | 8501 | −67 | 264 | +19 | 71 | 48 | 2 | F | U. S. Naval. |
| | | 8500 | −52 | 279 | −18 | 53 | 61 | 4 | | |
| | | 8496 | −17 | 314 | −17 | 21 | 24 | 5 | | |
| | | 8502 | −9 | 322 | +23 | 31 | 73 | 3 | | |
| | | 8496 | −8 | 323 | −17 | 14 | 97 | 7 | | |
| | | 8486 | +63 | 34 | +15 | 68 | 48 | 2 | | |
| | | (5) | | (331) | (−6) | | 351 | 23 | | |
| 16 | 15 55 | 8501 | −53 | 262 | +22 | 60 | 48 | 4 | F | Do. |
| | | 8501 | −50 | 265 | +20 | 57 | 73 | 3 | | |
| | | 8500 | −39 | 276 | −18 | 40 | 194 | 8 | | |
| | | 8496 | +4 | 319 | −17 | 13 | 36 | 2 | | |
| | | 8496 | +10 | 325 | −17 | 15 | 61 | 2 | | |
| | | 8503 | +41 | 356 | −12 | 41 | 12 | 1 | | |
| | | (4) | | (315) | (−6) | | 424 | 20 | | |
| 17 | 11 11 | 8501 | −43 | 262 | +21 | 51 | 48 | 9 | VG | Mt. Wilson. |
| | | 8501 | −38 | 267 | +19 | 45 | 73 | 10 | | |
| | | 8500 | −32 | 273 | −20 | 33 | 194 | 10 | | |
| | | 8500 | −27 | 278 | −19 | 30 | 194 | 21 | | |
| | | 8496 | +23 | 328 | −17 | 25 | 97 | 9 | | |
| | | 8499 | +43 | 348 | −12 | 43 | 48 | 7 | | |
| | | 8503 | +53 | 358 | −13 | 53 | 24 | 5 | | |
| | | (5) | | (305) | (−5) | | 678 | 71 | | |
| 18 | 11 6 | 8506 | −80 | 211 | +21 | 80 | 48 | 1 | F | U. S. Naval. |
| | | 8505 | −42 | 249 | +12 | 46 | 24 | 2 | | |
| | | 8501 | −30 | 261 | +22 | 40 | 24 | 1 | | |
| | | 8501 | −26 | 265 | +18 | 35 | 48 | 5 | | |
| | | 8500 | −20 | 271 | −19 | 24 | 242 | 4 | | |
| | | 8500 | −13 | 278 | −18 | 19 | 194 | 11 | | |
| | | 8496 | +33 | 324 | −17 | 35 | 48 | 2 | | |
| | | 8504 | +53 | 344 | −21 | 54 | 24 | 2 | | |
| | | 8499 | +56 | 347 | −11 | 57 | 24 | 3 | | |
| | | (7) | | (291) | (−5) | | 676 | 31 | | |
| 19 | 10 28 | 8508 | −88 | 191 | +24 | 88 | 48 | 1 | F | Do. |
| | | 8507 | −76 | 203 | −11 | 77 | 48 | 1 | | |
| | | 8506 | −66 | 213 | +20 | 70 | 48 | 1 | | |
| | | 8505 | −29 | 250 | +11 | 33 | 48 | 8 | | |
| | | 8501 | −17 | 262 | +22 | 32 | 24 | 9 | | |
| | | 8501 | −14 | 265 | +17 | 27 | 24 | 3 | | |
| | | 8500 | −7 | 272 | −19 | 15 | 242 | 7 | | |
| | | (*) | −4 | 275 | −26 | 22 | 24 | 5 | | |
| | | 8500 | −2 | 277 | −18 | 13 | 97 | 8 | | |
| | | 8500 | 0 | 279 | −18 | 13 | 145 | 7 | | |
| | | 8496 | +46 | 325 | −16 | 48 | 24 | 5 | | |
| | | 8499 | +63 | 342 | −11 | 63 | 73 | 1 | | |
| | | 8504 | +67 | 346 | −20 | 67 | 12 | 1 | | |
| | | 8499 | +67 | 346 | −10 | 67 | 24 | 5 | | |
| | | (10) | | (279) | (−5) | | 881 | 62 | | |
| 20 | 12 9 | 8500 | −76 | 188 | −24 | 77 | 12 | 1 | F | Mt. Wilson. |
| | | 8508 | −68 | 196 | +23 | 71 | 194 | 1 | | |
| | | 8507 | −63 | 201 | −12 | 63 | 48 | 1 | | |
| | | 8506 | −50 | 214 | +21 | 55 | 48 | 1 | | |
| | | 8501 | −3 | 261 | +16 | 20 | 48 | 6 | | |
| | | 8500 | +11 | 275 | −21 | 20 | 218 | 9 | | |
| | | 8499 | +80 | 344 | −12 | 80 | 97 | 1 | | |
| | | 8504 | +81 | 345 | −20 | 81 | 48 | 1 | | |
| | | (8) | | (264) | (−5) | | 713 | 21 | | |

See footnotes at end of table.

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947—Continued

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 22 | 11 48 | 8512 | −82 | 156 | −11 | 82 | 145 | 1 | F | U. S. Naval. |
| | | 8512 | −75 | 163 | −9 | 75 | 291 | 1 | | |
| | | 8511 | −65 | 173 | −20 | 65 | 61 | 1 | | |
| | | 8508 | −40 | 198 | +24 | 48 | 73 | 1 | | |
| | | 8506 | −26 | 212 | +22 | 37 | 97 | 2 | | |
| | | 8501 | +26 | 264 | +15 | 33 | 24 | 2 | | |
| | | 8501 | +31 | 269 | +15 | 36 | 24 | 1 | | |
| | | 8500 | +33 | 271 | −21 | 36 | 121 | 4 | | |
| | | 8500 | +41 | 279 | −19 | 42 | 97 | 1 | | |
| | | (6) | | (238) | (−5) | | 933 | 14 | | |
| 23 | 10 36 | 8513 | −78 | 148 | −17 | 79 | 291 | 5 | F | Do. |
| | | 8512 | −69 | 157 | −11 | 69 | 242 | 2 | | |
| | | 8512 | −63 | 163 | −10 | 63 | 436 | 2 | | |
| | | 8511 | −52 | 174 | −21 | 54 | 73 | 1 | | |
| | | 8510 | −45 | 181 | +25 | 53 | 48 | 1 | | |
| | | 8508 | −28 | 198 | +24 | 41 | 73 | 1 | | |
| | | 8507 | −23 | 203 | −11 | 24 | 6 | 1 | | |
| | | 8506 | −13 | 213 | +22 | 30 | 97 | 3 | | |
| | | 8505 | +26 | 252 | +11 | 31 | 73 | 2 | | |
| | | 8501 | +39 | 265 | +13 | 42 | 145 | 6 | | |
| | | 8500 | +45 | 271 | −21 | 47 | 73 | 2 | | |
| | | 8500 | +53 | 279 | −19 | 55 | 121 | 1 | | |
| | | (10) | | (226) | (−5) | | 1,678 | 27 | | |
| 24 | 11 2 | 8516 | −69 | 143 | −17 | 69 | 291 | 6 | F | Do. |
| | | 8513 | −58 | 154 | −18 | 59 | 218 | 1 | | |
| | | 8512 | −56 | 156 | −11 | 57 | 218 | 1 | | |
| | | 8512 | −50 | 162 | −10 | 51 | 485 | 2 | | |
| | | 8511 | −40 | 172 | −21 | 42 | 48 | 1 | | |
| | | 8510 | −33 | 179 | +24 | 44 | 194 | 11 | | |
| | | 8515 | −27 | 185 | +18 | 35 | 6 | 1 | | |
| | | 8508 | −16 | 196 | +22 | 31 | 48 | 1 | | |
| | | 8506 | +1 | 213 | +22 | 26 | 61 | 4 | | |
| | | 8514 | +40 | 252 | +12 | 44 | 194 | 11 | | |
| | | 8505 | +40 | 252 | +9 | 43 | 121 | 10 | | |
| | | 8501 | +51 | 263 | +12 | 52 | 24 | 5 | | |
| | | 8500 | +67 | 279 | −18 | 67 | 121 | 1 | | |
| | | (12) | | (212) | (−5) | | 2,029 | 55 | | |
| 25 | 13 22 | 8522 | −80 | 118 | −10 | 80 | 194 | 1 | F | Do. |
| | | 8522 | −77 | 121 | −13 | 77 | 24 | 1 | | |
| | | 8518 | −69 | 129 | −6 | 69 | 242 | 3 | | |
| | | 8517 | −65 | 133 | +33 | 72 | 97 | 4 | | |
| | | 8516 | −55 | 143 | −17 | 57 | 242 | 17 | | |
| | | 8513 | −48 | 150 | −17 | 50 | 339 | 4 | | |
| | | 8512 | −41 | 157 | −10 | 41 | 218 | 5 | | |
| | | 8512 | −33 | 165 | −10 | 34 | 485 | 2 | | |
| | | 8511 | −27 | 171 | −22 | 32 | 24 | 1 | | |
| | | 8521 | −20 | 178 | +11 | 27 | 291 | 12 | | |
| | | 8510 | −16 | 182 | +23 | 32 | 364 | 10 | | |
| | | 8508 | −1 | 197 | +23 | 28 | 48 | 1 | | |
| | | 8520 | −1 | 197 | +18 | 23 | 12 | 1 | | |
| | | 8506 | +12 | 210 | +17 | 25 | 36 | 2 | | |
| | | 8506 | +15 | 213 | +21 | 30 | 73 | 4 | | |
| | | 8514 | +51 | 249 | +13 | 54 | 145 | 3 | | |
| | | 8505 | +53 | 251 | +10 | 56 | 291 | 4 | | |
| | | 8514 | +57 | 255 | +11 | 60 | 121 | 3 | | |
| | | 8519 | +60 | 258 | −12 | 60 | 48 | 2 | | |
| | | 8500 | +80 | 278 | −19 | 80 | 97 | 1 | | |
| | | (16) | | (198) | (−5) | | 3,391 | 81 | | |
| 26 | 10 47 | 8522 | −68 | 118 | −10 | 68 | 145 | 1 | G | Do. |
| | | 8518 | −57 | 129 | −7 | 57 | 97 | 3 | | |
| | | 8517 | −51 | 135 | +32 | 60 | 48 | 2 | | |
| | | 8516 | −45 | 141 | −16 | 47 | 339 | 11 | | |
| | | 8516 | −40 | 146 | −15 | 42 | 97 | 8 | | |
| | | 8513 | −39 | 147 | −15 | 41 | 97 | 2 | | |
| | | 8513 | −34 | 152 | −17 | 36 | 194 | 1 | | |
| | | 8512 | −31 | 155 | −10 | 32 | 145 | 2 | | |
| | | 8512 | −23 | 163 | −9 | 24 | 388 | 4 | | |
| | | 8511 | −17 | 169 | −20 | 23 | 48 | 2 | | |
| | | 8521 | −10 | 176 | +11 | 19 | 97 | 6 | | |
| | | 8510 | −7 | 179 | +25 | 30 | 218 | 8 | | |
| | | 8521 | −5 | 181 | +11 | 17 | 242 | 3 | | |
| | | 8510 | −3 | 183 | +24 | 30 | 48 | 16 | | |
| | | 8515 | 0 | 186 | +18 | 23 | 24 | 3 | | |
| | | 8510 | +2 | 188 | +24 | 29 | 194 | 3 | | |
| | | 8508 | +11 | 197 | +23 | 30 | 48 | 1 | | |
| | | 8506 | +28 | 214 | +21 | 38 | 97 | 4 | | |
| | | 8514 | +64 | 250 | +13 | 66 | 145 | 2 | | |
| | | 8505 | +67 | 253 | +11 | 69 | 436 | 12 | | |
| | | 8523 | +69 | 255 | −22 | 70 | 48 | 1 | | |
| | | (15) | | (186) | (−5) | | 3,195 | 95 | | |
| 27 | 10 26 | 8527 | −88 | 85 | −23 | 88 | 97 | 1 | F | Do. |
| | | 8526 | −77 | 96 | −23 | 77 | 97 | 1 | | |
| | | 8525 | −69 | 104 | +21 | 72 | 12 | 1 | | |
| | | 8522 | −55 | 118 | −10 | 56 | 194 | 1 | | |
| | | 8518 | −42 | 131 | −6 | 42 | 145 | 3 | | |
| | | 8517 | −37 | 136 | +33 | 52 | 24 | 1 | | |
| | | 8516 | −31 | 142 | −16 | 33 | 194 | 7 | | |
| | | 8516 | −25 | 148 | −16 | 27 | 145 | 1 | | |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947—Continued

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 27 | 10 26 | 8513 | −19 | 154 | −16 | 22 | 170 | 1 | F | U. S. Naval. |
| | | 8512 | −17 | 156 | −10 | 18 | 145 | 3 | | |
| | | 8512 | −9 | 164 | −9 | 10 | 339 | 4 | | |
| | | 8511 | −1 | 172 | −21 | 16 | 48 | 1 | | |
| | | 8521 | +2 | 175 | +12 | 16 | 97 | 5 | | |
| | | 8510 | +7 | 180 | +25 | 31 | 121 | 6 | | |
| | | 8521 | +9 | 182 | +11 | 18 | 291 | 1 | | |
| | | 8515 | +13 | 186 | +19 | 27 | 48 | 3 | | |
| | | 8510 | +16 | 189 | +24 | 33 | 436 | 7 | | |
| | | 8508 | +24 | 197 | +24 | 38 | 48 | 1 | | |
| | | 8514 | +77 | 250 | +13 | 79 | 242 | 1 | | |
| | | 8505 | +80 | 253 | +11 | 80 | 145 | 2 | | |
| | | (16) | | (173) | (−5) | | 3,038 | 51 | | |
| 28 | 13 13 | 8527 | −88 | 70 | −23 | 88 | 97 | 1 | G | Do. |
| | | 8527 | −70 | 88 | −22 | 71 | 97 | 1 | | |
| | | 8526 | −62 | 96 | −23 | 63 | 73 | 1 | | |
| | | 8525 | −51 | 107 | +21 | 56 | 12 | 1 | | |
| | | 8522 | −41 | 117 | −10 | 42 | 194 | 1 | | |
| | | 8518 | −27 | 131 | −9 | 28 | 97 | 3 | | |
| | | 8516 | −25 | 133 | −15 | 26 | 73 | 2 | | |
| | | 8516 | −18 | 140 | −19 | 23 | 291 | 10 | | |
| | | 8513 | −7 | 151 | −17 | 16 | 242 | 4 | | |
| | | 8512 | −1 | 157 | −11 | 7 | 145 | 9 | | |
| | | 8512 | +7 | 165 | −10 | 10 | 388 | 2 | | |
| | | 8521 | +17 | 175 | +12 | 23 | 145 | 5 | | |
| | | 8510 | +20 | 178 | +25 | 34 | 73 | 2 | | |
| | | 8521 | +23 | 181 | +11 | 27 | 291 | 1 | | |
| | | 8515 | +29 | 187 | +18 | 36 | 145 | 5 | | |
| | | 8510 | +30 | 188 | +23 | 40 | 485 | 7 | | |
| | | 8508 | +39 | 197 | +23 | 47 | 48 | 1 | | |
| | | (12) | | (158) | (−4) | | 2,896 | 56 | | |
| 29 | 10 28 | 8527 | −78 | 68 | −25 | 79 | 970 | 7 | F | Do. |
| | | 8527 | −59 | 87 | −24 | 60 | 194 | 2 | | |
| | | 8526 | −49 | 97 | −24 | 51 | 73 | 2 | | |
| | | 8525 | −41 | 105 | +20 | 47 | 73 | 2 | | |
| | | 8522 | −28 | 118 | −10 | 29 | 194 | 1 | | |
| | | 8518 | −16 | 130 | −9 | 17 | 48 | 2 | | |
| | | 8516 | −15 | 131 | −14 | 19 | 145 | 4 | | |
| | | 8516 | −5 | 141 | −17 | 14 | 73 | 2 | | |
| | | 8516 | +1 | 147 | −16 | 12 | 97 | 3 | | |
| | | 8513 | +2 | 148 | −16 | 12 | 48 | 1 | | |
| | | 8513 | +8 | 154 | −17 | 16 | 194 | 1 | | |
| | | 8512 | +12 | 158 | −11 | 13 | 97 | 1 | | |
| | | 8512 | +18 | 164 | −10 | 20 | 388 | 3 | | |
| | | 8521 | +29 | 175 | +12 | 32 | 97 | 7 | | |
| | | 8510 | +32 | 178 | +25 | 43 | 97 | 2 | | |
| | | 8521 | +35 | 181 | +11 | 37 | 315 | 1 | | |
| | | 8528 | +41 | 187 | −10 | 41 | 24 | 3 | | |
| | | 8510 | +42 | 188 | +24 | 50 | 727 | 8 | | |
| | | 8515 | +43 | 189 | +18 | 48 | 194 | 5 | | |
| | | 8506 | +68 | 214 | +23 | 70 | 24 | 2 | | |
| | | (13) | | (146) | (−4) | | 4,072 | 57 | | |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1947—Continued

| Date | Eastern standard time | Mount Wilson group No. | Heliographic: Difference in longitude | Heliographic: Longitude | Heliographic: Latitude | Heliographic: Distance from center of disk | Area of spot or group | Spot count | Plate quality | Observatory |
|---|---|---|---|---|---|---|---|---|---|---|
| *1947* | *h m* | | ° | ° | ° | ° | | | | |
| April 30 | 10 23 | 8527 | −66 | 67 | −24 | 67 | 1,212 | 12 | F | U. S. Naval. |
| | | 8527 | −46 | 87 | −24 | 48 | 170 | 3 | | |
| | | 8527 | −43 | 90 | −19 | 46 | 24 | 3 | | |
| | | 8526 | −37 | 96 | −24 | 41 | 48 | 1 | | |
| | | 8525 | −29 | 104 | +22 | 38 | 194 | 10 | | |
| | | 8532 | −27 | 106 | −25 | 33 | 12 | 2 | | |
| | | 8531 | −21 | 112 | −21 | 27 | 97 | 12 | | |
| | | 8522 | −15 | 118 | −10 | 16 | 194 | 1 | | |
| | | 8530 | −7 | 126 | −17 | 15 | 48 | 2 | | |
| | | 8530 | −3 | 130 | −14 | 12 | 61 | 10 | | |
| | | 8516 | +15 | 148 | −17 | 20 | 61 | 8 | | |
| | | 8513 | +21 | 154 | −18 | 25 | 194 | 2 | | |
| | | 8512 | +23 | 156 | −11 | 24 | 48 | 6 | | |
| | | 8512 | +31 | 164 | −11 | 32 | 291 | 2 | | |
| | | 8521 | +46 | 179 | +11 | 47 | 267 | 5 | | |
| | | 8510 | +46 | 179 | +25 | 53 | 24 | 2 | | |
| | | 8510 | +56 | 189 | +24 | 60 | 727 | 7 | | |
| | | 8515 | +57 | 190 | +18 | 60 | 194 | 8 | | |
| | | (13) | | (133) | (−4) | | 3,866 | 96 | | |

Mean daily area for 29 days=3,523
Mean 10 g+s for 29 days=155.1

* Not numbered.
VG=very good; G=good; F=fair; P=poor.

## PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR APRIL 1947

[Dependent on observations at Zurich Observatory and its stations at Locarno and Arosa.]

| April 1947 | Relative numbers | April 1947 | Relative numbers | April 1947 | Relative numbers |
|---|---|---|---|---|---|
| 1 | 168 | 11 | 143 | 21 | 87 |
| 2 | 170 | 12 | 120 | 22 | 77 |
| 3 | 198 | 13 | 97 | 23 | 91 |
| 4 | 196 | 14 | 109 | 24 | 103 |
| 5 | 182 | 15 | 100 | 25 | 222 |
| 6 | 212 | 16 | 75 | 26 | 198 |
| 7 | 228 | 17 | 78 | 27 | 191 |
| 8 | 216 | 18 | 85 | 28 | 216 |
| 9 | 182 | 19 | 87 | 29 | 214 |
| 10 | 171 | 20 | 95 | 30 | 185 |

Mean 30 days=149.9