TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram-calories per square centimeter]

| Date | Washington, D. C. | Madison, Wis. | Lincoln, Nebr. | East Lansing, Mich. | New York, N. Y. | Fresno, Calif. | Fairbanks, Alaska | Columbia, Mo. | Boston, Mass. | Nashville, Tenn. | Twin Falls, Idaho | La Jolla, Calif. | Riverside, Calif. | Blue Hill, Mass. | Portland, Maine | Ithaca, N. Y. | Newport, R. I. | State College, Pa. | Put-in-Bay, Ohio | East Wareham, Mass. | Davis, Calif. | Tooele, Utah | Boulder, Colo. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* | *cal.* |
| Feb. 26 | 30 | 440 | 412 | 90 | 23 | 443 | 90 | 164 | 54 | 60 | 398 | 442 | 518 | 75 | 94 | 38 | 71 | 51 | 32 | 100 | 407 | 547 | 474 |
| Feb. 27 | 182 | 367 | 214 | 264 | 245 | 168 | 21 | 191 | 215 | 56 | 383 | 169 | 154 | 227 | 303 | 97 | 186 | 267 | 292 | 194 | 412 | 476 | 440 |
| Feb. 28 | 33 | 364 | 270 | 138 | 100 | 413 | 54 | 354 | 353 | 117 | 383 | 270 | 90 | 383 | 407 | 260 | ------ | 90 | 101 | 337 | 453 | 384 | 406 |
| Mar. 1 | 434 | 356 | 256 | 328 | 384 | 397 | 56 | 252 | 360 | 342 | 328 | 401 | 328 | 413 | 420 | 397 | 394 | 412 | 417 | 401 | 230 | 451 | 220 |
| Mar. 2 | 173 | 131 | 22 | 29 | 137 | 443 | 70 | 46 | 166 | 136 | 159 | 192 | 496 | 133 | 95 | 92 | ------ | 124 | 48 | 130 | 458 | 296 | 60 |
| Mar. 3 | 59 | 459 | 399 | 222 | 89 | 129 | 100 | 297 | 158 | 52 | 192 | 217 | 227 | 142 | 70 | 150 | ------ | 176 | 191 | 125 | 143 | 211 | 389 |
| Mar. 4 | 226 | 362 | 280 | 364 | 357 | 438 | 115 | 274 | 402 | 199 | 286 | 148 | 74 | 413 | 444 | ------ | ------ | 474 | 417 | 374 | 363 | 258 | 282 |
| **Mean** | **162** | **354** | **265** | **205** | **191** | **348** | **72** | **225** | **244** | **137** | **304** | **263** | **269** | **255** | **262** | **172** | ------ | **228** | **214** | **237** | **352** | **375** | **325** |
| **Departure** | **−115** | **+82** | **−41** | **−11** | **−68** | **−5** | **−55** | **−31** | **+16** | **−103** | **+16** | **−121** | **−76** | **−35** | ------ | **−55** | ------ | **−7** | **−23** | **−41** | **+28** | ------ | ------ |
| Mar. 5 | 58 | 100 | 221 | 260 | 176 | 441 | 95 | 58 | 359 | 184 | 440 | 389 | 535 | 402 | 401 | 342 | 366 | 160 | 329 | 411 | 419 | 500 | 142 |
| Mar. 6 | 85 | 257 | 254 | 38 | 38 | 477 | 98 | 157 | 50 | 226 | 317 | 430 | 517 | 54 | 92 | 31 | 30 | 76 | 42 | 42 | 379 | 275 | 370 |
| Mar. 7 | 157 | 481 | 426 | 411 | 220 | 484 | 138 | 472 | 139 | 64 | 381 | 470 | 530 | 141 | 434 | 377 | 141 | 123 | 441 | 138 | 452 | 543 | 467 |
| Mar. 8 | 442 | 285 | 433 | 211 | 414 | 485 | 132 | 485 | 356 | 405 | 325 | 484 | 530 | 422 | 458 | 421 | 420 | 481 | 364 | 448 | 450 | 509 | 466 |
| Mar. 9 | 363 | 416 | 399 | 186 | 394 | 471 | 84 | 400 | 345 | 440 | 416 | 481 | 522 | 439 | 462 | 245 | 424 | 363 | 306 | 408 | 483 | 559 | 448 |
| Mar. 10 | 319 | 495 | 370 | 194 | 119 | 448 | 74 | 474 | 185 | 395 | 382 | 444 | 512 | 232 | 325 | 68 | 251 | 169 | 253 | ------ | 424 | 549 | 467 |
| Mar. 11 | 432 | 91 | 505 | 249 | 418 | 461 | 40 | 120 | 338 | 413 | 357 | 390 | 491 | 346 | 438 | ------ | 337 | 470 | 403 | ------ | 402 | 561 | 436 |
| **Mean** | **265** | **304** | **373** | **221** | **254** | **467** | **94** | **310** | **253** | **304** | **374** | **441** | **519** | **291** | **373** | **247** | **281** | **263** | **305** | **289** | **430** | **499** | **400** |
| **Departure** | **−45** | **+6** | **+46** | **−12** | **−20** | **+67** | **−50** | **+4** | **+7** | **+34** | **+27** | **+18** | **+105** | **−6** | ------ | **−12** | **−18** | **−2** | **+43** | **+8** | **+68** | ------ | ------ |
| Mar. 12 | 292 | 506 | 457 | 396 | 146 | 442 | 231 | 512 | 127 | 45 | 292 | 183 | 403 | 167 | 210 | 419 | 254 | 137 | 416 | 232 | 278 | 599 | 457 |
| Mar. 13 | 493 | 458 | 444 | 386 | 448 | 231 | 237 | 500 | 430 | 360 | 320 | 305 | 156 | 412 | 465 | 426 | 459 | 463 | 486 | 474 | 477 | 274 | 239 |
| Mar. 14 | 410 | 290 | 125 | 346 | 340 | 155 | 148 | 392 | 402 | 331 | 154 | 183 | 166 | 422 | 439 | 308 | 427 | 434 | 416 | 426 | 122 | 232 | 356 |
| Mar. 15 | 354 | 126 | 312 | 189 | 117 | 387 | 222 | 482 | 350 | 112 | 380 | 201 | 367 | 344 | 392 | 26 | 198 | 357 | 260 | 254 | 427 | 247 | 183 |
| Mar. 16 | 427 | 433 | 255 | 350 | 248 | 174 | 257 | 421 | 166 | 368 | 340 | 348 | 368 | 147 | 145 | 328 | 160 | 395 | 443 | 156 | 89 | 623 | 505 |
| Mar. 17 | 319 | 423 | 511 | 260 | 256 | 443 | 247 | 554 | 311 | 180 | 159 | 205 | 149 | 333 | 336 | 174 | 368 | 232 | 286 | 318 | 303 | 194 | 338 |
| Mar. 18 | 354 | 424 | 377 | 385 | 384 | 553 | 257 | 257 | 456 | 405 | 346 | 528 | 542 | 430 | 485 | 458 | 423 | 448 | 486 | 411 | 527 | 422 | 346 |
| **Mean** | **378** | **380** | **354** | **330** | **277** | **341** | **228** | **445** | **320** | **257** | **284** | **279** | **307** | **321** | **353** | **306** | **327** | **352** | **399** | **324** | **318** | **370** | **346** |
| **Departure** | **+58** | **+65** | **+9** | **+65** | **−2** | **−62** | **+31** | **+111** | **+61** | **−42** | **−47** | **−106** | **−77** | **+27** | ------ | **+72** | **+30** | **+64** | **+97** | **+35** | **−82** | ------ | ------ |
| Mar. 19 | 415 | 242 | 133 | 137 | 174 | 504 | 264 | 76 | 153 | 287 | 452 | 517 | 563 | 173 | 135 | 87 | 226 | 176 | 308 | 203 | 338 | 653 | 540 |
| Mar. 20 | 348 | 239 | 530 | 34 | 303 | 225 | 279 | 60 | 341 | 238 | 224 | 533 | 586 | 318 | 180 | 58 | 331 | 289 | 58 | 331 | 110 | 588 | 508 |
| Mar. 21 | 196 | 568 | 531 | 427 | 29 | 123 | 266 | 550 | 15 | 54 | 403 | 358 | 184 | 26 | 47 | 21 | 33 | 59 | 240 | 28 | 553 | 601 | 511 |
| Mar. 22 | 58 | 513 | 443 | 435 | 45 | 73 | 285 | 539 | 67 | 527 | 321 | 297 | 149 | 75 | 91 | 46 | 59 | 111 | 528 | 92 | 91 | 569 | 238 |
| Mar. 23 | 507 | 456 | 495 | 365 | 427 | 524 | 206 | 513 | 168 | 365 | 100 | 527 | 456 | 150 | 234 | 328 | 235 | 371 | 462 | 171 | 556 | 266 | 506 |
| Mar. 24 | 444 | 266 | 286 | 368 | 530 | 534 | 302 | 319 | 473 | 306 | 452 | 551 | 606 | 478 | 510 | 509 | 504 | 545 | 426 | 492 | 486 | 617 | 319 |
| Mar. 25 | 474 | 179 | 443 | 289 | 460 | 167 | 349 | 170 | 489 | 306 | 441 | 531 | 584 | 506 | 538 | 513 | 500 | 533 | 470 | 519 | 84 | 642 | 562 |
| **Mean** | **349** | **352** | **409** | **294** | **281** | **307** | **279** | **318** | **244** | **298** | **342** | **473** | **447** | **247** | **248** | **223** | **270** | **298** | **356** | **262** | **317** | **562** | **455** |
| **Departure** | **+7** | **+18** | **+30** | **−4** | **−58** | **−139** | **+58** | **−7** | **−46** | **−31** | **−57** | **+21** | **+45** | **−122** | ------ | **−77** | **−127** | **−27** | **+17** | **−59** | **−141** | ------ | ------ |
| Mar. 26 | 477 | 430 | 540 | 231 | 416 | 339 | 295 | 583 | 472 | 462 | 89 | 550 | 467 | 478 | 476 | 432 | 503 | 510 | 215 | 497 | 459 | 298 | 557 |
| Mar. 27 | 518 | 533 | 538 | 437 | 328 | 475 | 314 | 580 | 373 | 543 | 104 | 557 | 629 | 383 | 423 | 247 | 362 | 418 | 491 | 394 | 400 | 384 | 582 |
| Mar. 28 | 521 | 572 | 570 | 407 | 398 | 487 | 231 | 525 | 438 | 497 | 312 | 527 | 538 | 457 | 491 | 489 | 477 | 535 | 522 | 480 | 518 | 591 | 367 |
| Mar. 29 | 450 | 417 | 509 | 61 | 425 | 449 | 283 | 355 | 456 | 327 | 367 | 539 | 578 | 465 | 499 | 377 | 472 | 436 | 154 | 459 | 621 | 649 | 437 |
| Mar. 30 | 469 | 369 | 524 | 315 | 504 | 580 | 229 | 208 | 499 | 376 | 519 | 554 | 625 | 461 | 492 | 541 | 491 | 547 | 327 | 455 | 618 | 671 | 551 |
| Mar. 31 | 410 | 562 | 551 | 265 | 218 | 585 | 271 | 585 | 97 | 370 | 340 | 572 | 606 | 103 | 106 | 209 | 155 | 350 | 283 | 99 | 617 | 650 | 465 |
| Apr. 1 | 552 | 561 | 550 | 352 | 511 | 631 | 292 | ------ | 527 | 108 | 411 | 121 | 489 | 532 | 568 | 421 | 526 | 548 | 399 | 528 | 650 | 343 | 58 |
| **Mean** | **485** | **483** | **540** | **295** | **400** | **506** | **281** | **423** | **409** | **383** | **306** | **488** | **562** | **412** | **436** | **388** | **427** | **478** | **342** | **416** | **555** | **512** | **431** |
| **Departure** | **+131** | **+127** | **+161** | **−22** | **+71** | **+35** | **−5** | **+20** | **+61** | **+8** | **−63** | **−3** | **+149** | **+29** | ------ | **+92** | **+54** | **+116** | **−21** | **+40** | **+40** | ------ | ------ |

**Accumulated Departures on Apr. 1, 1945**

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **+252** | **+2,660** | **−1,589** | **−966** | **−175** | **+14** | **−875** | **+105** | **+1,127** | **−2,303** | **−2,541** | **−2,184** | **+2,044** | **−1,022** | ------ | **+511** | **−1,365** | **+3,129** | **+994** | **−21** | **−588** | ------ | ------ |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1945

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. HELLWEG, U. S. N. (Ret.) 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 toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spot 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1945* | *h m* | | ° | ° | ° | ° | | | | |
| March 1 | 10 34 | 7725 | +4 | 124 | −14 | 8 | 24 | 3 | F | U. S. Naval. |
| | | 7725 | +9 | 129 | −16 | 12 | 24 | 2 | | |
| | | 7725 | +13 | 133 | −17 | 17 | 61 | 3 | | |
| | | | | (120) | (−7) | | 109 | 8 | | |

See footnotes at end of table.

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1945—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 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1945* | *h m* | | ° | ° | ° | ° | | | | |
| 2 | 12 14 | 7729 | −83 | 23 | −15 | 83 | 679 | 1 | P | U. S. Naval. |
| | | 7725 | +17 | 123 | −18 | 21 | 24 | 1 | | |
| | | 7725 | +25 | 131 | −15 | 26 | 12 | 1 | | |
| | | 7725 | +27 | 133 | −17 | 29 | 73 | 3 | | |
| | | | | (106) | (−7) | | 788 | 6 | | |
| 4 | 13 52 | 7729 | −54 | 25 | −15 | 54 | 533 | 1 | F | Do. |
| | | (*) | −37 | 42 | −14 | 37 | 6 | 2 | | |
| | | 7728 | +57 | 136 | −17 | 57 | 36 | 1 | | |
| | | 7727 | +64 | 143 | −28 | 65 | 36 | 1 | | |
| | | | | (79) | (−7) | | 611 | 5 | | |
| 5 | 12 45 | 7729 | −42 | 24 | −15 | 42 | 533 | 1 | † | Mt. Wilson. |
| | | 7728 | +70 | 136 | −17 | 71 | 24 | 1 | | |
| | | 7727 | +77 | 143 | −28 | 77 | 12 | 1 | | |
| | | | | (66) | (−7) | | 569 | 3 | | |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1495—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 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1945* | *h m* | | ° | ° | ° | ° | | | | |
| 6 | 13 42 | 7729 | −30 | 22 | −15 | 31 | 36 | 1 | G | U.S. Naval. |
| | | 7729 | −28 | 24 | −15 | 29 | 533 | 1 | | |
| | | 7728 | +85 | 137 | −17 | 85 | 12 | 1 | | |
| | | | | (52) | (−7) | | 581 | 3 | | |
| 7 | 10 32 | 7729 | −16 | 25 | −15 | 17 | 461 | 1 | G | Do. |
| | | | | (41) | (−7) | | 461 | 1 | | |
| 8 | 10 19 | 7729 | −9 | 19 | −18 | 15 | 12 | 1 | F | Do. |
| | | 7729 | −3 | 25 | −15 | 9 | 461 | 1 | | |
| | | | | (28) | (−7) | | 473 | 2 | | |
| 9 | 10 34 | 7729 | +5 | 19 | −18 | 12 | 24 | 5 | G | Do. |
| | | 7729 | +8 | 22 | −16 | 12 | 12 | 2 | | |
| | | 7729 | +11 | 25 | −15 | 13 | 436 | 1 | | |
| | | 7730 | +18 | 32 | −20 | 22 | 24 | 8 | | |
| | | | | (14) | (−7) | | 496 | 16 | | |
| 10 | 10 41 | 7729 | +23 | 24 | −14 | 23 | 412 | 1 | G | Do. |
| | | 7730 | +29 | 30 | −19 | 32 | 24 | 2 | | |
| | | 7730 | +32 | 33 | −20 | 33 | 48 | 1 | | |
| | | | | (1) | (−7) | | 484 | 4 | | |
| 11 | 10 27 | 7729 | +37 | 25 | −14 | 37 | 412 | 3 | F | Do. |
| | | 7730 | +43 | 31 | −18 | 44 | 12 | 2 | | |
| | | 7730 | +48 | 36 | −19 | 48 | 61 | 1 | | |
| | | | | (348) | (−7) | | 485 | 6 | | |
| 12 | 10 31 | 7729 | +49 | 24 | −14 | 49 | 412 | 4 | G | Do. |
| | | 7730 | +57 | 32 | −18 | 57 | 6 | 2 | | |
| | | 7730 | +61 | 36 | −18 | 61 | 48 | 1 | | |
| | | | | (335) | (−7) | | 466 | 7 | | |
| 13 | 10 29 | 7729 | +59 | 21 | −16 | 59 | 12 | 3 | G | Do. |
| | | 7729 | +63 | 25 | −14 | 63 | 364 | 4 | | |
| | | 7730 | +74 | 36 | −19 | 75 | 6 | 1 | | |
| | | | | (322) | (−7) | | 382 | 8 | | |
| 14 | 10 35 | 7729 | +76 | 25 | −15 | 77 | 364 | 3 | F | Do. |
| | | | | (309) | (−7) | | 364 | 3 | | |
| 15 | 10 58 | | | No | spots | | | | F | Do. |
| 16 | 10 27 | 7731 | −65 | 217 | +26 | 71 | 6 | 2 | G | Do. |
| | | | | (282) | (−7) | | 6 | 2 | | |
| 17 | 10 56 | 7731 | −51 | 218 | +26 | 59 | 12 | 6 | G | Do. |
| | | | | (269) | (−7) | | 12 | 6 | | |
| 18 | 10 3 | 7731 | −40 | 216 | +27 | 52 | 12 | 1 | F | Mt. Wilson. |
| | | 7731 | −37 | 219 | +26 | 49 | 12 | 2 | | |
| | | | | (256) | (−7) | | 24 | 3 | | |
| 19 | 10 32 | 7731 | −23 | 220 | +26 | 40 | 16 | 9 | G | Do. |
| | | | | (243) | (−7) | | 16 | 9 | | |
| 20 | 10 20 | 7731 | −8 | 222 | +24 | 32 | 48 | 10 | G | U. S. Naval |
| | | | | (230) | (−7) | | 48 | 10 | | |
| 21 | 14 4 | 7732 | −87 | 127 | −30 | 87 | 242 | 2 | G | Do. |
| | | 7732 | −81 | 133 | −29 | 81 | 485 | 1 | | |
| | | | | (214) | (−7) | | 727 | 3 | | |
| 23 | 10 36 | 7732 | −65 | 125 | −32 | 67 | 218 | 9 | G | Do. |
| | | 7732 | −59 | 131 | −30 | 60 | 485 | 3 | | |
| | | | | (190) | (−7) | | 703 | 12 | | |
| 24 | 10 24 | 7732 | −52 | 125 | −32 | 54 | 218 | 6 | VG | Do. |
| | | 7732 | −50 | 127 | −31 | 53 | 48 | 9 | | |
| | | 7732 | −47 | 130 | −31 | 50 | 485 | 1 | | |
| | | | | (177) | (−7) | | 751 | 16 | | |
| 25 | 11 19 | 7732 | −39 | 124 | −32 | 43 | 145 | 5 | F | Do. |
| | | 7732 | −36 | 127 | −31 | 41 | 97 | 6 | | |
| | | 7732 | −33 | 130 | −31 | 38 | 485 | 1 | | |
| | | | | (163) | (−7) | | 727 | 12 | | |

## POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MARCH 1945—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 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1945* | *h m* | | ° | ° | ° | ° | | | | |
| 26 | 10 39 | 7733 | −73 | 77 | −21 | 74 | 24 | 1 | F | U.S. Naval. |
| | | 7732 | −26 | 124 | −32 | 34 | 242 | 14 | | |
| | | 7732 | −21 | 129 | −31 | 31 | 436 | 1 | | |
| | | (*) | +70 | 220 | +20 | 75 | 12 | 4 | | |
| | | | | (150) | (−7) | | 714 | 20 | | |
| 27 | 10 26 | 7733 | −64 | 73 | −20 | 64 | 73 | 5 | G | Do. |
| | | 7733 | −59 | 78 | −21 | 59 | 121 | 9 | | |
| | | 7732 | −12 | 125 | −32 | 27 | 242 | 6 | | |
| | | 7732 | − 8 | 129 | −31 | 26 | 412 | 2 | | |
| | | | | (137) | (−7) | | 848 | 22 | | |
| 28 | 10 32 | 7734 | −66 | 58 | +35 | 74 | 24 | 1 | F | Do. |
| | | 7733 | −50 | 74 | −20 | 50 | 218 | 3 | | |
| | | 7733 | −46 | 78 | −21 | 46 | 242 | 5 | | |
| | | 7732 | +1 | 125 | −32 | 25 | 194 | 6 | | |
| | | 7732 | +5 | 129 | −31 | 24 | 412 | 2 | | |
| | | | | (124) | (−7) | | 1090 | 17 | | |
| 29 | 10 43 | 7734 | −52 | 59 | +35 | 65 | 48 | 1 | VG | Do. |
| | | 7733 | −38 | 73 | −20 | 40 | 339 | 12 | | |
| | | 7733 | −35 | 76 | −22 | 36 | 73 | 9 | | |
| | | 7733 | −32 | 79 | −22 | 33 | 388 | 6 | | |
| | | 7732 | +15 | 126 | −33 | 29 | 97 | 15 | | |
| | | 7732 | +18 | 129 | −31 | 30 | 388 | 1 | | |
| | | | | (111) | (−7) | | 1333 | 44 | | |
| 30 | 10 20 | 7734 | −39 | 59 | +34 | 55 | 48 | 1 | G | Do. |
| | | 7733 | −25 | 73 | −21 | 28 | 388 | 18 | | |
| | | 7733 | −19 | 79 | −22 | 23 | 485 | 9 | | |
| | | 7732 | +27 | 125 | −33 | 36 | 727 | 2 | | |
| | | 7732 | +30 | 128 | −31 | 37 | 436 | 1 | | |
| | | | | (98) | (−7) | | 2084 | 31 | | |
| 31 | 10 44 | 7734 | −25 | 59 | +34 | 47 | 48 | 1 | F | Do. |
| | | 7733 | −12 | 72 | −21 | 18 | 436 | 13 | | |
| | | 7733 | −6 | 78 | −22 | 16 | 509 | 7 | | |
| | | 7732 | +41 | 125 | −33 | 46 | 48 | 5 | | |
| | | 7732 | +43 | 127 | −31 | 47 | 461 | 2 | | |
| | | | | (84) | (−7) | | 1502 | 28 | | |

Mean daily area for 29 days=581

* Not numbered.
† Data from Mount Wilson charts.
VG=very good; G=good; F=fair; P=poor.

## PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR FEBRUARY 1945

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland.]

| Date | Relative numbers | Date | Relative numbers | Date | Relative numbers |
|---|---|---|---|---|---|
| 1 | 0 | 11 | 0 | 21 | 7 |
| 2 | 8 | 12 | 0 | 22 | 7 |
| 3 | 18 | 13 | *d*16 | 23 | *d*11 |
| 4 | 23 | 14 | 10 | 24 | 12 |
| 5 | *19 | 15 | 14 | 25 | 19 |
| 6 | *9 | 16 | 14 | 26 | *21 |
| 7 | *9 | 17 | 15 | 27 | 16 |
| 8 | 9 | 18 | **a*12 | 28 | *a*16 |
| 9 | 14 | 19 | 29 | | |
| 10 | 0 | 20 | 18 | | |

Mean, 28 days=12.4

* Observed at Arosa or Locarno.
*a* Passage of an average sized group through the central meridian.
*b* Passage of a large group through the central meridian.
*c* New formation of a group developing into a middle sized or large center of activity; E, on the eastern part of the Sun's disc; W, on the western part; M, in the central circle zone.
*d* Entrance of a large or average sized center of activity on the east limb.