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PUBLICATIONS OF THE EARTH PHYSICS BRANCH

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VOLUME 43 - NO. 6

record of observations at fort churchill magnetic observatory 1969

G. JANSEN VAN BEEK and H. R. RENY

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DEPARTMENT OF ENERGY, MINES AND RESOURCES

OTTAWA, CANADA 1972

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Contents

- 373 Introduction
- 373 Magnetic equipment
- 373 Absolute observations and baseline values
- 374 Magnetic reductions
- 374 Summary of annual mean values
- 374 Reports of Fort Churchill magnetic observatory

Tables

- 1–36 Mean hourly value for each hour of the day, and the mean daily value for each day of the month for 1969, for the north component of horizontal intensity (X), the east component of horizontal intensity (Y), and vertical intensity (Z).
- 37–45 Summary by month, season and year of mean hourly values of X, Y, Z for all days and for the international quiet and disturbed days for 1969.
- 46–69 Hourly ranges in 10-gamma units in X and Y for 1969.

record of observations at fort churchill magnetic observatory 1969

G. JANSEN VAN BEEK and H. R. RENY

Geographic Coordinates 58.8°N; 94.1°W
Geomagnetic Coordinates 68.8°N*; 322.5°E*

Officer-in-charge: R.N. Peterson 1969.0–1970.0

4 γ /°C in X and -2 γ /°C in Y and Z. The scale value of the Ruska temperature trace is 1.3°C/mm.

Scale values were checked using the Helmholtz coils supplied. In December 1969, the standard moving coil galvanometer in the Ruska sensitivity calibration box was replaced by a digital ammeter. Adopted scale values for 1969 are listed with the adopted baseline values.

Introduction

Photographic recording of magnetic field variations at Fort Churchill began in July 1957. The station was operated by the Defence Research Northern Laboratory (DRNL), Defence Research Board of Canada, in support of the Fort Churchill Rocket Program. Until 1965, there were no facilities for regular absolute observations, but the Division of Geomagnetism, Dominion Observatory, determined the scale values and baselines of the records as frequently as possible, and prepared tabulations of mean hourly values and hourly ranges for the publication listed in the bibliography.

A non-magnetic building for absolute observations was constructed in November 1964, but it was not until June 1965 that a complete set of absolute instruments could be provided. In July 1965, the operation of the Churchill Research Range, including the magnetic observatory, was taken over by the National Research Council of Canada, with funds for the magnetic observatory provided by the Dominion Observatory (now Earth Physics Branch, Department of Energy, Mines and Resources). A description of the location, buildings, and equipment will be found in the 1964-65 Fort Churchill report.

Magnetic equipment

Photographic variometers. A set of standard-run Ruska variometers record the geographic components X (north), Y (east) and Z (vertical) of the earth's magnetic field. The time scale of the

Ruska magnetograms is 20 mm/hr. Inaccuracies were experienced in the placement of time marks provided by the Ruska clock from January to the end of April 1969. However, the times noted at the beginning and end of each Ruska magnetogram are accurate. Beginning on the first of May 1969, the Ruska drive clock was replaced by a synchronous motor with power supplied by a 12 V D.C. to 110 V 60 Hz inverter. Time marks were supplied once per hour by a crystal controlled clock with a nominal accuracy of ± 2 secs.

Parallax determinations were made in December 1969. Parallax corrections in minutes to be added to time read on the magnetograms are 0.9 minute in X and less than 0.1 minute in Y and Z.

Thermostatically controlled electric heaters maintain the temperature in the Ruska variometer room constant to $\pm 1^\circ\text{C}$ and temperature corrections to the measured values were normally unnecessary. Temperature corrections are to be used with the formula $A_0 = A - \alpha(T - T_0)$,

where A_0 = the component value at the normal variometer room temperature,

A = the uncorrected component value,

α = temperature coefficient,

T = instantaneous temperature in $^\circ\text{C}$,

and T_0 = normal temperature in $^\circ\text{C}$.

The variometer room temperature is noted on each magnetogram. A temperature check performed in December 1969, showed α to have the values of

Standby variometer and storm recorder. Continuous traces of X, Y and Z on a strip-chart recorder were provided by a three-component electrical magnetometer in 1969. Full-scale chart sensitivity is 2000 gammas normally with automatic switching to half sensitivity at times of large magnetic disturbances. The chart is operated at 20 mm/hr. Chart values are used to interpolate for missing intervals on the Ruska magnetograms. The chart also provides a continuous visual indication of magnetic field conditions.

Absolute instruments. A portable electrical magnetometer of the saturable core type (fluxgate) is used for the determination of declination (D) and inclination (I). A proton precession magnetometer is the absolute standard for the total field intensity (F). On May 22, the Barringer field-type proton precession magnetometer ($\pm 10\gamma$) was replaced by a new instrument designed and developed by the magnetic laboratory of the Division of Geomagnetism (new accuracy is $\pm 1\gamma$).

Absolute observations and baseline values

Absolute observations of declination, inclination, and total intensity were made several times per month during magnetically quiet periods. The method of calculating the Ruska X, Y and Z baseline values from the observations of D, I and F is given in detail in the 1964-65 Fort

*Assuming the position of the geomagnetic pole is 78.3°N, 69.0°W (Finch and Leaton, 1957).

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

Fort Churchill 1969

X Baselines γ

X Scale Values γ /mm

| Adopted | | | Observed | | Adopted | | Observed | | |
|---------|---------------------------------------|--------------|--------------------------------------|---------------------------------|---------|--|----------------------|---------------|---------------|
| Jan. | linear decrease 1(0000)-31(2400) | 7051 to 7047 | 7051 7050 7047 7044 7040 | Jan. 16 28 29 30 31 | Jan. | 7.75 | 7.65 7.74 | Jan. 1 9 | |
| Feb. | linear increase 1(0000)-28(2400) | 7047 to 7059 | 7056 7056 7052 7054 | Feb. 14 17 18 19 | Feb. | 7.75 | | | |
| Mar. | linear decrease 1(0000)-31(2400) | 7059 to 7030 | 7060 7033 | Mar. 3 26 | Mar. | 7.75 | 7.77 | Mar. 3 | |
| Apr. | linear increase 1(0000)-30(2400) | 7030 to 7060 | 7054 | Apr. 21 | Apr. | 7.74 | 7.56 | Apr. 21 | |
| May | 1(0000)-23(2100) 23(2200)-31(2400) | 7060 7100 | 7099 | May 28 | May | 7.72 | 7.91 | May 21 | |
| June | linear increase 1(0000)-30(2400) | 7100 to 7104 | 7105 7104 | June 11 27 | June | 7.71 | | | |
| July | linear decrease 1(0000)-31(2400) | 7104 to 7093 | 7096 7094 7093 | July 19 23 29 | July | 7.70 | 7.69 | July 29 | |
| Aug. | linear increase 1(0000)-31(2400) | 7093 to 7109 | 7096 7111 7111 | Aug. 15 29 30 | Aug. | 1(0000)-15(2400) linear increase 16(0000)-31(2400) | 7.69 7.69 to 7.86 | 7.69 7.81 | Aug. 15 29 |
| Sept. | linear decrease 1(0000)-30(2400) | 7109 to 7100 | 7105 | Sept. 2 | Sept. | linear decrease 1(0000)-30(2400) | 7.86 to 7.76 | 7.86 7.74 | Sept. 2 21 |
| Oct. | linear decrease 1(0000)-31(2400) | 7100 to 7091 | 7095 | Oct. 17 | Oct. | 7.77 | 7.79 7.76 | Oct. 16 30 | |
| Nov. | linear decrease 1(0000)-30(2400) | 7091 to 7082 | 7084 7097 | Nov. 5 6 | Nov. | 7.79 | | | |
| Dec. | linear decrease 1(0000)-31(2400) | 7082 to 7073 | 7082 7085 | Dec. 2 18 | Dec. | 1(0000)-8(2400) linear decrease 9(0000)-31(2400) | 7.81 7.81 to 7.74 | 7.83 7.82 | Dec. 2 18 |

Fort Churchill 1969

Y Baselines γ Y Scale Values γ/mm

| Adopted | | | Observed | | Adopted | | | Observed | |
|---------|---|--------------------------|---------------------------------|---------------------------------|---------|--|----------------------|----------------------|---------------------|
| Jan. | linear decrease 1(0000)-31(2400) | 349 to 347 | 346 332 356 356 353 | Jan. 16 28 29 30 31 | Jan. | linear decrease 1(0000)-9(2400) thereafter | 7.76 to 7.67 7.67 | 7.84 7.79 7.66 | Jan. 1 7 9 |
| Feb. | linear decrease 1(0000)-24(1900) | 347 to 345 | 331 342 342 335 | Feb. 14 17 18 19 | Feb. | 7.67 | | | |
| | no record 24(1900)-26(2045) thereafter | 265 | | | | | | | |
| Mar. | linear decrease 1(0000)-31(2400) | 265 to 260 | 267 256 | Mar. 3 26 | Mar. | 7.67 | | 7.65 | Mar. 3 |
| Apr. | 1(0000)-10(2400) linear increase 11(0000)-30(2400) | 259 259 to 268 | 259 | Apr. 21 | Apr. | 1(0000)-21(2400) linear increase 22(0000)-30(2400) | 7.67 7.67 to 7.72 | 7.67 | Apr. 21 |
| May | linear increase 1(0000)-31(2400) | 268 to 282 | 282 | May 28 | May | linear increase 1(0000)-14(2400) thereafter | 7.72 to 7.81 7.81 | 7.87 | May 2 |
| June | linear increase 1(0000)-7(2400) thereafter | 282 to 285 285 | 288 283 | June 11 27 | June | 7.81 | | | |
| July | 1(0000)-31(2400) | 285 | 287 283 288 | July 19 23 29 | July | 7.81 | | 7.78 | July 29 |
| Aug. | 1(0000)-31(2400) | 285 | 286 281 287 | Aug. 15 29 30 | Aug. | 7.81 | | 7.78 7.67 7.69 | Aug. 15 29 30 |
| Sept. | linear increase 1(0000)-30(2400) | 285 to 304 | 284 | Sept. 2 | Sept. | 7.81 | | 7.83 7.80 | Sept. 2 22 |
| Oct. | linear increase 1(0000)-7(2400) linear decrease 8(0000)-31(2400) | 304 to 309 309 to 304 | 315 | Oct. 17 | Oct. | 7.81 | | 7.80 7.83 | Oct. 16 30 |
| Nov. | linear decrease 1(0000)-30(2400) | 304 to 298 | 298 297 | Nov. 5 6 | Nov. | 7.81 | | | |
| Dec. | linear decrease 1(0000)-31(2400) | 298 to 293 | 299 295 | Dec. 2 18 | Dec. | 7.81 | | 7.83 7.77 | Dec. 2 18 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

Fort Churchill 1969

Z Baselines γ

Z Scale Values γ/mm

| Adopted | | | Observed | | Adopted | | Observed | | |
|---------|---|--|---|---------------------------------|---------|---|------------------------------|---------------------|---------------|
| Jan. | linear decrease 1(0000)–27(2400) thereafter | 60557 to 60548 60548 | 60548 60533 60565 60544 60545 | Jan. 16 28 29 30 31 | Jan. | 8.58 | 8.6 8.57 | Jan. 1 9 | |
| Feb. | | 60548 | 60546 60555 60550 60544 | Feb. 14 17 18 19 | Feb. | 8.56 | | | |
| Mar. | | 60548 | 60546 | Mar. 3 | Mar. | 8.56 to 8.45 | 8.56 | Mar. 3 | |
| Apr. | | 60548 | 60552 | Apr. 22 | Apr. | 8.45 to 8.33 | 8.35 | Apr. 21 | |
| May | 1(0000)–21(1500) linear increase 21(1600)–31(2400) | 60548 60500 to 60505 | 60499 60505 | May 21 28 | May | linear decrease 1(0000)–21(2400) linear increase 22(0000)–31(2400) | 8.33 to 8.25 8.25 to 8.29 | 8.25 | May 21 |
| June | linear increase | 60505 to 60531 | 60514 60527 | June 11 27 | June | 8.29 to 8.44 | | | |
| July | linear increase 1(0000)–18(2400) linear decrease 19(0000)–31(2400) | 60531 to 60547 60547 to 60540 | 60547 60549 60539 60543 | July 19 21 23 28 | July | 8.44 to 8.59 | 8.59 | July 29 | |
| Aug. | linear increase 1(0000)–17(2400) linear decrease 18(0000)–31(2400) | 60540 to 60575 60575 to 60557 | 60573 60564 60559 | Aug. 15 29 30 | Aug. | 8.59 to 8.65 | 8.69 8.55 8.57 | Aug. 15 29 30 | |
| Sept. | linear decrease 1(0000)–13(2400) linear increase 14(0000)–19(2400) linear decrease 20(0000)–30(2400) | 60557 to 60508 60508 to 60528 60528 to 60518 | 60547 60516 | Sept. 2 26 | Sept. | linear increase 1(0000)–22(2400) linear decrease 23(0000)–30(2400) | 8.65 to 8.70 8.70 to 8.63 | 8.65 8.69 | Sept. 2 22 |
| Oct. | linear decrease 1(0000)–15(2400) 16(0000)–31(2400) | 60518 to 60513 60513 to 60504 | 60512 | Oct. 17 | Oct. | linear decrease 1(0000)–18(2400) linear increase 19(0000)–31(2400) | 8.63 to 8.51 8.51 to 8.55 | 8.51 8.53 | Oct. 16 30 |
| Nov. | linear decrease 1(0000)–30(2400) | 60504 to 60487 | 60508 60503 | Nov. 5 6 | Nov. | linear increase 1(0000)–30(2400) | 8.55 to 8.65 | | |
| Dec. | linear decrease 1(0000)–31(2400) | 60487 to 60469 | 60482 60478 | Dec. 2 18 | Dec. | linear increase 1(0000)–14(2400) linear decrease 15(0000)–31(2400) | 8.65 to 8.70 8.70 to 8.42 | 8.69 8.68 | Dec. 2 18 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

| TABLE 1 FORT CHURCHILL | | X = 6500 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | | | | | | | | | | | JANUARY 1969 | | |
|------------------------|----|--|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|----------|------|
| HOUR | UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
| DAY | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 477 | 470 | 446 | 450 | 443 | 435 | 381 | 319 | 377 | 384 | 249 | 404 | 435 | 384 | 338 | 412 | 427 | 423 | 427 | 439 | 474 | 466 | 470 | 458 | 416 |
| 2 | | 458 | 454 | 450 | 415 | 435 | 481 | 466 | 458 | 458 | 477 | 466 | 423 | 435 | 466 | 454 | 439 | 431 | 435 | 435 | 439 | 439 | 443 | 443 | 446 | 448 |
| 3 | Q | 450 | 446 | 443 | 443 | 446 | 446 | 450 | 450 | 454 | 450 | 450 | 450 | 450 | 439 | 439 | 439 | 435 | 439 | 439 | 446 | 446 | 443 | 446 | 443 | 445 |
| 4 | | 446 | 446 | 450 | 450 | 454 | 439 | 443 | 435 | 412 | 412 | 384 | 353 | 373 | 435 | 443 | 450 | 446 | 450 | 450 | 450 | 450 | 454 | 458 | 454 | 435 |
| 5 | | 454 | 454 | 450 | 443 | 419 | 474 | 462 | 462 | 454 | 450 | 450 | 446 | 443 | 443 | 443 | 443 | 443 | 443 | 443 | 446 | 450 | 450 | 454 | 454 | 449 |
| 6 | Q | 454 | 458 | 458 | 454 | 462 | 454 | 443 | 435 | 439 | 435 | 439 | 435 | 435 | 439 | 443 | 439 | 439 | 435 | 435 | 439 | 443 | 450 | 450 | 454 | 444 |
| 7 | | 454 | 458 | 454 | 458 | 474 | 474 | 470 | 443 | 357 | 330 | 334 | 350 | 202 | 322 | 431 | 458 | 454 | 446 | 443 | 458 | 481 | 501 | 466 | 466 | 424 |
| 8 | | 488 | 473 | 480 | 476 | 442 | 488 | 457 | 442 | 287 | 403 | 480 | 449 | 453 | 438 | 438 | 442 | 449 | 449 | 449 | 453 | 480 | 480 | 492 | 504 | 454 |
| 9 | | 504 | 515 | 496 | 507 | 504 | 496 | 476 | 469 | 461 | 457 | 449 | 445 | 442 | 434 | 434 | 445 | 445 | 438 | 449 | 457 | 465 | 461 | 476 | 476 | 467 |
| 10 | Q | 473 | 473 | 461 | 457 | 473 | 473 | 480 | 457 | 434 | 469 | 442 | 426 | 364 | 403 | 449 | 442 | 434 | 430 | 442 | 453 | 442 | 465 | 473 | 473 | 449 |
| 11 | | 469 | 465 | 469 | 469 | 473 | 473 | 457 | 434 | 411 | 465 | 457 | 449 | 445 | 426 | 430 | 449 | 449 | 449 | 449 | 445 | 473 | 473 | 480 | 476 | 456 |
| 12 | | 488 | 473 | 469 | 469 | 469 | 457 | 418 | 430 | 449 | 453 | 290 | 294 | 318 | 349 | 306 | 352 | 380 | 383 | 422 | 442 | 449 | 457 | 457 | 457 | 414 |
| 13 | Q | 465 | 461 | 457 | 457 | 457 | 457 | 457 | 453 | 449 | 411 | 341 | 325 | 442 | 453 | 453 | 445 | 449 | 445 | 449 | 457 | 453 | 465 | 473 | 480 | 444 |
| 14 | | 504 | 500 | 504 | 488 | 457 | 325 | 333 | 318 | 314 | 457 | 399 | 387 | 473 | 461 | 461 | 445 | 449 | 453 | 453 | 453 | 476 | 488 | 527 | 527 | 444 |
| 15 | D | 492 | 476 | 465 | 500 | 465 | 492 | 523 | 469 | 461 | 345 | 364 | 395 | 368 | 414 | 476 | 449 | 465 | 457 | 457 | 535 | 473 | 465 | 492 | 484 | 457 |
| 16 | | 499 | 518 | 491 | 483 | 472 | 576 | 522 | 483 | 456 | 444 | 305 | 375 | 286 | 231 | 317 | 448 | 479 | 448 | 456 | 456 | 460 | 464 | 483 | 518 | 445 |
| 17 | D | 441 | 448 | 503 | 510 | 483 | 324 | 456 | 472 | 417 | 266 | 235 | 437 | 328 | 433 | 456 | 433 | 433 | 425 | 495 | 510 | 514 | 499 | 541 | 553 | 442 |
| 18 | D | 549 | 495 | 499 | 429 | 394 | 425 | 479 | 355 | 437 | 429 | 394 | 200 | 317 | 379 | 367 | 429 | 433 | 479 | 475 | 522 | 499 | 518 | 491 | 491 | 437 |
| 19 | | 534 | 479 | 545 | 514 | 472 | 456 | 506 | 468 | 437 | 406 | 379 | 320 | 375 | 398 | 456 | 456 | 448 | 444 | 448 | 506 | 487 | 468 | 468 | 479 | 456 |
| 20 | | 479 | 472 | 475 | 375 | 522 | 495 | 487 | 437 | 448 | 448 | 417 | 390 | 313 | 394 | 421 | 429 | 472 | 448 | 448 | 472 | 483 | 475 | 479 | 479 | 448 |
| 21 | | 491 | 503 | 468 | 472 | 472 | 452 | 386 | 425 | 456 | 394 | 328 | 417 | 444 | 444 | 452 | 456 | 444 | 444 | 448 | 452 | 460 | 475 | 464 | 456 | 446 |
| 22 | | 456 | 464 | 464 | 472 | 479 | 472 | 468 | 441 | 413 | 344 | 452 | 468 | 452 | 456 | 448 | 444 | 441 | 441 | 452 | 452 | 464 | 456 | 460 | 460 | 451 |
| 23 | | 471 | 467 | 471 | 478 | 482 | 467 | 424 | 498 | 482 | 463 | 447 | 432 | 393 | 424 | 443 | 443 | 447 | 451 | 451 | 455 | 478 | 474 | 467 | 474 | 458 |
| 24 | | 474 | 471 | 467 | 463 | 463 | 467 | 467 | 463 | 463 | 459 | 455 | 443 | 401 | 238 | 110 | 130 | 192 | 374 | 486 | 533 | 517 | 583 | 560 | 560 | 426 |
| 25 | D | 486 | 482 | 494 | 471 | 412 | 308 | 362 | 285 | 343 | 370 | 381 | 370 | 265 | 91 | 145 | 393 | 362 | 513 | 509 | 502 | 525 | 509 | 486 | 498 | 398 |
| 26 | D | 362 | 381 | 478 | 350 | 409 | 424 | 463 | 440 | 440 | 436 | 409 | 358 | 188 | 188 | 269 | 459 | 451 | 432 | 443 | 451 | 474 | 474 | 486 | 486 | 406 |
| 27 | | 474 | 471 | 463 | 467 | 436 | 381 | 296 | 300 | 176 | 261 | 285 | 331 | 265 | 277 | 393 | 397 | 385 | 455 | 467 | 463 | 463 | 471 | 521 | 478 | 391 |
| 28 | | 485 | 489 | 497 | 508 | 466 | 462 | 466 | 446 | 446 | 431 | 427 | 446 | 446 | 450 | 442 | 442 | 442 | 446 | 446 | 439 | 458 | 462 | 458 | 454 | 456 |
| 29 | Q | 458 | 454 | 462 | 454 | 458 | 458 | 458 | 454 | 454 | 450 | 446 | 439 | 435 | 442 | 446 | 446 | 442 | 439 | 435 | 435 | 442 | 450 | 454 | 462 | 449 |
| 30 | | 470 | 470 | 466 | 462 | 408 | 415 | 450 | 423 | 423 | 105 | 140 | 404 | 446 | 462 | 454 | 454 | 446 | 439 | 439 | 446 | 450 | 458 | 458 | 462 | 419 |
| 31 | | 462 | 462 | 462 | 462 | 462 | 462 | 458 | 408 | 322 | 315 | 361 | 245 | 225 | 132 | 264 | 342 | 361 | 411 | 435 | 473 | 473 | 462 | 477 | 462 | 392 |
| MEAN A | | 473 | 469 | 473 | 461 | 457 | 449 | 447 | 428 | 414 | 401 | 382 | 391 | 376 | 379 | 397 | 424 | 428 | 441 | 451 | 464 | 469 | 473 | 478 | 478 | 438 |
| MEAN Q | | 460 | 458 | 456 | 453 | 459 | 458 | 458 | 450 | 446 | 443 | 423 | 415 | 425 | 435 | 446 | 442 | 440 | 437 | 440 | 446 | 445 | 454 | 459 | 462 | 446 |
| MEAN D | | 466 | 457 | 488 | 452 | 433 | 395 | 457 | 404 | 419 | 369 | 357 | 352 | 293 | 301 | 343 | 433 | 429 | 461 | 476 | 504 | 497 | 493 | 499 | 502 | 428 |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 2 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

JANUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 465 | 473 | 469 | 462 | 454 | 454 | 434 | 434 | 477 | 477 | 469 | 469 | 473 | 485 | 477 | 458 | 442 | 430 | 430 | 434 | 450 | 462 | 465 | 465 | 459 |
| 2 | | 465 | 465 | 461 | 477 | 523 | 461 | 458 | 458 | 458 | 477 | 458 | 438 | 415 | 419 | 442 | 469 | 469 | 465 | 465 | 458 | 458 | 465 | 461 | 461 | 460 |
| 3 | Q | 461 | 461 | 465 | 461 | 457 | 457 | 461 | 461 | 461 | 465 | 465 | 465 | 465 | 465 | 465 | 457 | 461 | 465 | 465 | 461 | 457 | 461 | 461 | 461 | 462 |
| 4 | | 461 | 461 | 461 | 457 | 457 | 453 | 449 | 461 | 461 | 469 | 480 | 492 | 484 | 484 | 473 | 461 | 457 | 449 | 449 | 453 | 453 | 457 | 461 | 461 | 463 |
| 5 | | 465 | 461 | 461 | 449 | 430 | 453 | 457 | 461 | 461 | 465 | 465 | 465 | 461 | 465 | 469 | 469 | 465 | 461 | 457 | 457 | 457 | 457 | 457 | 457 | 459 |
| 6 | Q | 457 | 461 | 461 | 461 | 465 | 457 | 457 | 461 | 465 | 465 | 469 | 476 | 476 | 476 | 465 | 465 | 461 | 457 | 457 | 453 | 453 | 457 | 457 | 461 | 462 |
| 7 | | 465 | 465 | 465 | 465 | 476 | 465 | 441 | 441 | 430 | 476 | 503 | 503 | 507 | 526 | 495 | 468 | 465 | 461 | 465 | 430 | 426 | 438 | 449 | 453 | 466 |
| 8 | | 464 | 472 | 480 | 457 | 437 | 464 | 461 | 476 | 418 | 461 | 472 | 476 | 472 | 476 | 472 | 472 | 468 | 472 | 457 | 453 | 453 | 445 | 453 | 461 | 462 |
| 9 | | 457 | 464 | 476 | 483 | 476 | 472 | 449 | 453 | 460 | 464 | 464 | 464 | 464 | 468 | 464 | 464 | 460 | 457 | 453 | 445 | 449 | 449 | 453 | 464 | 461 |
| 10 | Q | 464 | 464 | 464 | 460 | 456 | 460 | 464 | 449 | 449 | 456 | 464 | 472 | 476 | 487 | 487 | 476 | 472 | 456 | 449 | 453 | 456 | 449 | 456 | 456 | 462 |
| 11 | | 455 | 455 | 455 | 459 | 455 | 455 | 448 | 448 | 478 | 459 | 463 | 467 | 478 | 490 | 467 | 475 | 448 | 440 | 440 | 436 | 436 | 448 | 444 | 448 | 456 |
| 12 | | 452 | 463 | 463 | 459 | 448 | 448 | 436 | 448 | 455 | 475 | 475 | 494 | 505 | 521 | 498 | 448 | 444 | 417 | 425 | 440 | 444 | 452 | 455 | 455 | 459 |
| 13 | Q | 455 | 455 | 459 | 459 | 459 | 455 | 455 | 459 | 459 | 467 | 475 | 475 | 467 | 467 | 475 | 475 | 463 | 463 | 455 | 455 | 448 | 448 | 452 | 452 | 460 |
| 14 | | 471 | 478 | 482 | 463 | 452 | 402 | 383 | 413 | 429 | 459 | 471 | 475 | 471 | 478 | 478 | 478 | 463 | 463 | 459 | 452 | 444 | 448 | 467 | 463 | 456 |
| 15 | D | 459 | 467 | 459 | 467 | 432 | 471 | 448 | 452 | 463 | 436 | 482 | 482 | 494 | 486 | 471 | 478 | 459 | 471 | 478 | 463 | 425 | 440 | 455 | 455 | 462 |
| 16 | | 471 | 482 | 486 | 463 | 452 | 386 | 448 | 432 | 475 | 478 | 486 | 486 | 528 | 517 | 547 | 459 | 455 | 452 | 463 | 459 | 452 | 455 | 455 | 475 | 469 |
| 17 | D | 471 | 467 | 429 | 440 | 425 | 340 | 455 | 455 | 459 | 417 | 471 | 486 | 494 | 478 | 482 | 455 | 463 | 463 | 471 | 467 | 463 | 463 | 482 | 478 | 457 |
| 18 | D | 486 | 478 | 471 | 455 | 490 | 452 | 467 | 444 | 440 | 482 | 475 | 467 | 467 | 498 | 498 | 486 | 463 | 482 | 475 | 486 | 467 | 467 | 467 | 459 | 472 |
| 19 | | 494 | 513 | 501 | 475 | 459 | 455 | 452 | 467 | 482 | 498 | 498 | 494 | 490 | 463 | 467 | 459 | 459 | 455 | 467 | 452 | 452 | 455 | 455 | 472 | 472 |
| 20 | | 463 | 459 | 459 | 540 | 501 | 482 | 429 | 379 | 455 | 471 | 475 | 478 | 501 | 498 | 475 | 467 | 463 | 448 | 440 | 444 | 448 | 455 | 455 | 459 | 464 |
| 21 | | 458 | 458 | 454 | 458 | 454 | 447 | 447 | 462 | 458 | 474 | 470 | 481 | 477 | 477 | 474 | 466 | 466 | 462 | 451 | 447 | 451 | 454 | 458 | 458 | 461 |
| 22 | | 458 | 462 | 474 | 466 | 462 | 454 | 454 | 451 | 447 | 474 | 470 | 466 | 470 | 466 | 470 | 470 | 470 | 462 | 454 | 447 | 447 | 451 | 451 | 458 | 460 |
| 23 | | 454 | 458 | 466 | 462 | 466 | 458 | 474 | 458 | 454 | 458 | 470 | 470 | 474 | 481 | 489 | 474 | 451 | 431 | 439 | 443 | 447 | 447 | 454 | 458 | 460 |
| 24 | | 458 | 462 | 462 | 462 | 458 | 458 | 458 | 462 | 462 | 462 | 470 | 466 | 477 | 493 | 462 | 489 | 466 | 458 | 474 | 489 | 520 | 489 | 466 | 454 | 470 |
| 25 | D | 439 | 485 | 477 | 470 | 408 | 412 | 393 | 286 | 451 | 500 | 520 | 516 | 539 | 500 | 477 | 470 | 508 | 481 | 428 | 485 | 489 | 466 | 454 | 470 | 463 |
| 26 | D | 435 | 458 | 474 | 443 | 370 | 447 | 454 | 454 | 462 | 462 | 477 | 489 | 493 | 497 | 500 | 477 | 477 | 462 | 443 | 447 | 454 | 454 | 462 | 458 | 460 |
| 27 | | 466 | 470 | 466 | 474 | 462 | 385 | 366 | 393 | 439 | 451 | 474 | 504 | 500 | 500 | 497 | 462 | 462 | 439 | 462 | 447 | 447 | 454 | 462 | 470 | 456 |
| 28 | | 462 | 470 | 508 | 474 | 466 | 454 | 447 | 454 | 454 | 462 | 462 | 462 | 462 | 474 | 474 | 477 | 474 | 458 | 454 | 451 | 451 | 454 | 458 | 458 | 463 |
| 29 | Q | 454 | 462 | 462 | 462 | 466 | 466 | 458 | 454 | 458 | 458 | 462 | 462 | 462 | 466 | 477 | 474 | 470 | 462 | 454 | 454 | 451 | 454 | 454 | 454 | 461 |
| 30 | | 462 | 470 | 462 | 454 | 470 | 497 | 466 | 458 | 462 | 443 | 435 | 474 | 474 | 466 | 477 | 474 | 470 | 462 | 454 | 451 | 447 | 451 | 454 | 458 | 462 |
| 31 | | 458 | 458 | 462 | 458 | 458 | 454 | 443 | 439 | 458 | 470 | 477 | 500 | 493 | 485 | 454 | 439 | 420 | 439 | 451 | 451 | 454 | 454 | 458 | 458 | 458 |
| MEAN A | | 461 | 467 | 468 | 464 | 456 | 448 | 446 | 442 | 455 | 465 | 473 | 477 | 481 | 483 | 479 | 469 | 463 | 456 | 454 | 454 | 453 | 455 | 458 | 460 | 462 |
| MEAN Q | | 458 | 461 | 462 | 461 | 461 | 459 | 459 | 457 | 458 | 462 | 467 | 470 | 469 | 472 | 474 | 469 | 465 | 461 | 456 | 455 | 453 | 454 | 456 | 457 | 462 |
| MEAN D | | 458 | 471 | 462 | 455 | 425 | 424 | 443 | 418 | 455 | 460 | 485 | 488 | 497 | 492 | 486 | 473 | 474 | 472 | 459 | 470 | 460 | 458 | 464 | 464 | 463 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 3 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

JANUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | | 289 | 263 | 259 | 272 | 267 | 293 | 297 | 314 | 314 | 374 | 357 | 284 | 254 | 272 | 199 | 229 | 254 | 259 | 259 | 272 | 297 | 289 | 276 | 280 | 280 |
| 2 | | 280 | 272 | 280 | 250 | 203 | 263 | 272 | 276 | 276 | 280 | 284 | 293 | 284 | 280 | 272 | 267 | 272 | 284 | 280 | 280 | 284 | 280 | 280 | 284 | 274 |
| 3 | Q | 276 | 280 | 280 | 276 | 276 | 280 | 276 | 280 | 276 | 280 | 276 | 276 | 280 | 272 | 276 | 272 | 280 | 280 | 280 | 284 | 284 | 289 | 280 | 284 | 279 |
| 4 | | 283 | 283 | 279 | 279 | 275 | 271 | 279 | 288 | 279 | 271 | 266 | 266 | 240 | 262 | 262 | 283 | 279 | 283 | 283 | 288 | 288 | 292 | 283 | 288 | 277 |
| 5 | | 288 | 279 | 283 | 275 | 206 | 258 | 279 | 283 | 283 | 279 | 275 | 279 | 271 | 266 | 253 | 262 | 275 | 275 | 279 | 279 | 279 | 288 | 283 | 279 | 273 |
| 5 | Q | 279 | 279 | 283 | 279 | 271 | 266 | 279 | 279 | 279 | 271 | 279 | 275 | 266 | 262 | 271 | 271 | 279 | 283 | 288 | 288 | 288 | 288 | 283 | 283 | 278 |
| 7 | | 282 | 278 | 282 | 278 | 270 | 261 | 265 | 278 | 278 | 338 | 342 | 372 | 437 | 325 | 261 | 270 | 274 | 278 | 278 | 300 | 304 | 295 | 300 | 295 | 298 |
| 8 | | 278 | 261 | 227 | 239 | 235 | 244 | 270 | 304 | 317 | 338 | 282 | 282 | 282 | 278 | 278 | 278 | 278 | 282 | 287 | 295 | 287 | 291 | 295 | 287 | 279 |
| 9 | | 300 | 295 | 248 | 244 | 257 | 248 | 278 | 265 | 274 | 270 | 282 | 278 | 278 | 278 | 274 | 270 | 282 | 287 | 287 | 291 | 295 | 291 | 295 | 300 | 278 |
| 10 | Q | 287 | 274 | 274 | 282 | 287 | 282 | 282 | 261 | 300 | 291 | 278 | 282 | 265 | 257 | 270 | 261 | 261 | 261 | 265 | 265 | 265 | 291 | 291 | 291 | 276 |
| 11 | | 286 | 286 | 286 | 286 | 281 | 277 | 281 | 294 | 286 | 277 | 286 | 277 | 286 | 251 | 243 | 243 | 260 | 277 | 277 | 286 | 299 | 303 | 294 | 294 | 280 |
| 12 | | 303 | 290 | 281 | 273 | 281 | 269 | 281 | 286 | 277 | 311 | 359 | 350 | 290 | 191 | 226 | 204 | 234 | 260 | 299 | 290 | 299 | 290 | 290 | 286 | 280 |
| 13 | Q | 281 | 281 | 281 | 281 | 281 | 277 | 290 | 286 | 286 | 311 | 337 | 303 | 277 | 277 | 269 | 277 | 277 | 277 | 281 | 281 | 286 | 286 | 290 | 286 | 286 |
| 14 | | 272 | 233 | 237 | 237 | 255 | 177 | 225 | 400 | 388 | 310 | 353 | 310 | 276 | 272 | 276 | 268 | 263 | 268 | 276 | 272 | 293 | 285 | 255 | 246 | 277 |
| 15 | D | 190 | 160 | 190 | 165 | 139 | 199 | 199 | 276 | 280 | 379 | 319 | 280 | 272 | 272 | 250 | 255 | 268 | 263 | 276 | 255 | 298 | 293 | 289 | 289 | 252 |
| 16 | | 285 | 255 | 272 | 250 | 165 | 169 | 225 | 289 | 268 | 315 | 353 | 315 | 353 | 340 | 229 | 242 | 276 | 268 | 263 | 268 | 272 | 280 | 285 | 259 | 271 |
| 17 | D | 215 | 202 | 155 | 146 | 176 | 288 | 211 | 245 | 292 | 468 | 387 | 309 | 314 | 258 | 241 | 228 | 249 | 271 | 284 | 279 | 284 | 262 | 267 | 232 | 261 |
| 18 | D | 194 | 236 | 219 | 228 | 125 | 134 | 245 | 399 | 382 | 327 | 331 | 460 | 335 | 228 | 206 | 228 | 249 | 275 | 288 | 301 | 292 | 288 | 271 | 275 | 272 |
| 19 | | 206 | 189 | 271 | 241 | 249 | 198 | 228 | 262 | 292 | 425 | 399 | 348 | 314 | 284 | 275 | 267 | 275 | 279 | 301 | 292 | 292 | 297 | 284 | 284 | 281 |
| 20 | | 279 | 275 | 241 | 241 | 146 | 189 | 202 | 262 | 284 | 297 | 305 | 288 | 297 | 254 | 249 | 241 | 267 | 284 | 292 | 305 | 297 | 292 | 301 | 292 | 266 |
| 21 | | 278 | 266 | 223 | 266 | 270 | 313 | 386 | 334 | 287 | 317 | 317 | 283 | 270 | 270 | 274 | 270 | 278 | 283 | 291 | 283 | 287 | 287 | 283 | 283 | 287 |
| 22 | | 283 | 283 | 274 | 266 | 257 | 274 | 274 | 278 | 317 | 343 | 296 | 283 | 274 | 278 | 274 | 278 | 274 | 283 | 283 | 283 | 283 | 287 | 287 | 287 | 283 |
| 23 | | 287 | 291 | 291 | 287 | 278 | 253 | 223 | 240 | 270 | 274 | 278 | 266 | 244 | 240 | 248 | 261 | 266 | 266 | 274 | 274 | 283 | 274 | 283 | 278 | 268 |
| 24 | | 273 | 269 | 265 | 273 | 269 | 269 | 265 | 265 | 265 | 269 | 269 | 260 | 247 | 286 | 239 | 342 | 290 | 299 | 325 | 273 | 157 | 200 | 282 | 252 | 267 |
| 25 | D | 187 | 76 | 174 | 226 | 234 | 209 | 320 | 367 | 488 | 475 | 436 | 410 | 522 | 355 | 252 | 252 | 350 | 337 | 273 | 273 | 247 | 260 | 273 | 277 | 303 |
| 26 | D | 229 | 276 | 233 | 238 | 199 | 294 | 302 | 285 | 272 | 285 | 298 | 354 | 414 | 341 | 264 | 251 | 259 | 276 | 285 | 281 | 289 | 289 | 285 | 281 | 282 |
| 27 | | 272 | 276 | 276 | 259 | 161 | 221 | 246 | 448 | 392 | 474 | 482 | 401 | 366 | 375 | 255 | 225 | 259 | 281 | 294 | 315 | 306 | 289 | 276 | 285 | 310 |
| 28 | | 275 | 254 | 228 | 275 | 275 | 267 | 267 | 280 | 284 | 305 | 293 | 271 | 275 | 275 | 271 | 271 | 267 | 271 | 275 | 275 | 284 | 297 | 288 | 288 | 276 |
| 29 | Q | 284 | 280 | 275 | 271 | 271 | 263 | 271 | 275 | 275 | 275 | 271 | 271 | 258 | 258 | 263 | 263 | 267 | 271 | 284 | 284 | 288 | 288 | 284 | 280 | 274 |
| 30 | | 293 | 288 | 275 | 280 | 271 | 232 | 254 | 275 | 318 | 357 | 417 | 314 | 267 | 275 | 275 | 267 | 267 | 280 | 275 | 284 | 280 | 284 | 284 | 280 | 287 |
| 31 | | 280 | 275 | 275 | 275 | 275 | 271 | 271 | 288 | 293 | 314 | 374 | 357 | 293 | 267 | 194 | 232 | 254 | 275 | 284 | 288 | 305 | 297 | 288 | 284 | 284 |
| MEAN A | | 268 | 258 | 255 | 256 | 239 | 249 | 266 | 296 | 302 | 326 | 325 | 310 | 300 | 277 | 254 | 259 | 270 | 278 | 283 | 283 | 284 | 285 | 284 | 280 | 279 |
| MEAN Q | | 281 | 279 | 279 | 278 | 277 | 274 | 280 | 276 | 283 | 286 | 288 | 281 | 269 | 265 | 269 | 269 | 273 | 275 | 280 | 281 | 282 | 288 | 286 | 285 | 278 |
| MEAN D | | 203 | 190 | 194 | 200 | 175 | 225 | 255 | 315 | 343 | 387 | 354 | 363 | 371 | 291 | 243 | 243 | 275 | 285 | 281 | 278 | 282 | 279 | 277 | 271 | 274 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 4 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

FEBRUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 458 | 458 | 454 | 466 | 462 | 439 | 431 | 450 | 427 | 435 | 454 | 454 | 454 | 450 | 446 | 439 | 423 | 446 | 454 | 462 | 458 | 458 | 462 | 462 | 450 |
| 2 | D | 462 | 462 | 462 | 462 | 462 | 466 | 466 | 450 | 342 | 353 | 338 | 342 | 361 | 353 | 392 | 377 | 625 | 435 | 136 | -50 | 303 | 295 | 307 | 330 | 372 |
| 3 | D | 343 | 312 | 308 | 385 | 393 | 366 | 397 | 405 | 304 | 273 | 261 | 168 | 296 | -33 | 145 | 397 | 412 | 397 | 409 | 478 | 505 | 451 | 467 | 474 | 346 |
| 4 | | 463 | 459 | 471 | 451 | 451 | 455 | 436 | 381 | 409 | 385 | 440 | 447 | 428 | 424 | 420 | 440 | 424 | 440 | 447 | 459 | 482 | 521 | 548 | 548 | 451 |
| 5 | | 564 | 463 | 474 | 474 | 451 | 440 | 378 | 409 | 405 | 432 | 432 | 374 | 381 | 409 | 432 | 436 | 432 | 443 | 459 | 471 | 474 | 494 | 474 | 455 | 444 |
| 6 | | 468 | 491 | 441 | 344 | 394 | 398 | 437 | 487 | 448 | 444 | 406 | 452 | 464 | 452 | 444 | 444 | 448 | 448 | 452 | 468 | 475 | 506 | 541 | 537 | 454 |
| 7 | | 464 | 472 | 460 | 460 | 468 | 472 | 456 | 386 | 464 | 448 | 421 | 309 | 317 | 363 | 406 | 410 | 429 | 444 | 433 | 456 | 503 | 510 | 534 | 541 | 443 |
| 8 | | 515 | 519 | 484 | 469 | 438 | 399 | 403 | 438 | 457 | 457 | 442 | 438 | 465 | 449 | 434 | 434 | 418 | 434 | 480 | 473 | 500 | 496 | 480 | 473 | 458 |
| 9 | Q | 492 | 511 | 500 | 496 | 492 | 480 | 473 | 465 | 445 | 445 | 445 | 449 | 453 | 453 | 434 | 438 | 445 | 445 | 453 | 457 | 473 | 473 | 473 | 488 | 466 |
| 10 | | 520 | 551 | 551 | 520 | 481 | 470 | 474 | 458 | 419 | 330 | 303 | 353 | 415 | 439 | 474 | 427 | 431 | 458 | 474 | 481 | 505 | 590 | 567 | 412 | 463 |
| 11 | D | 295 | 148 | 458 | 481 | 450 | 350 | 284 | -61 | 102 | 1 | -38 | 78 | 241 | 129 | 334 | 338 | 303 | 299 | 346 | 361 | 334 | 350 | 497 | 493 | 274 |
| 12 | | 451 | 486 | 490 | 506 | 533 | 506 | 502 | 506 | 490 | 455 | 447 | 447 | 447 | 447 | 440 | 436 | 436 | 436 | 451 | 459 | 459 | 467 | 498 | 486 | 470 |
| 13 | | 513 | 529 | 490 | 478 | 459 | 440 | 382 | 413 | 413 | 451 | 405 | 451 | 455 | 397 | 292 | 374 | 440 | 459 | 459 | 471 | 482 | 494 | 459 | 502 | 446 |
| 14 | | 464 | 491 | 487 | 437 | 491 | 491 | 479 | 468 | 460 | 437 | 386 | 321 | 313 | 383 | 460 | 456 | 452 | 445 | 464 | 483 | 487 | 507 | 526 | 541 | 455 |
| 15 | D | 553 | 530 | 483 | 282 | 483 | 460 | 379 | 460 | 464 | 437 | 414 | 448 | 437 | 425 | 472 | 456 | 448 | 448 | 464 | 503 | 565 | 596 | 538 | 538 | 470 |
| 16 | | 570 | 546 | 519 | 504 | 477 | 356 | 376 | 430 | 438 | 430 | 438 | 349 | 263 | 349 | 438 | 434 | 469 | 469 | 469 | 461 | 465 | 461 | 477 | 461 | 444 |
| 17 | Q | 465 | 465 | 477 | 477 | 484 | 449 | 407 | 434 | 430 | 407 | 399 | 415 | 457 | 457 | 453 | 438 | 438 | 453 | 469 | 473 | 469 | 469 | 477 | 457 | 451 |
| 18 | Q | 454 | 462 | 462 | 462 | 466 | 466 | 466 | 466 | 466 | 466 | 466 | 466 | 466 | 466 | 466 | 458 | 450 | 450 | 454 | 462 | 470 | 466 | 470 | 466 | 463 |
| 19 | | 470 | 478 | 493 | 470 | 439 | 501 | 509 | 493 | 489 | 478 | 450 | 419 | 307 | 253 | 307 | 365 | 423 | 443 | 458 | 466 | 462 | 493 | 478 | 478 | 449 |
| 20 | | 479 | 479 | 479 | 482 | 436 | 397 | 440 | 494 | 475 | 459 | 440 | 370 | 358 | 444 | 455 | 455 | 448 | 440 | 459 | 479 | 482 | 479 | 479 | 494 | 454 |
| 21 | | 513 | 506 | 482 | 479 | 463 | 409 | 238 | 440 | 471 | 486 | 463 | 467 | 467 | 463 | 467 | 451 | 448 | 448 | 451 | 459 | 471 | 471 | 467 | 467 | 456 |
| 22 | Q | 472 | 476 | 480 | 480 | 480 | 480 | 464 | 449 | 433 | 472 | 449 | 460 | 456 | 437 | 449 | 449 | 445 | 449 | 460 | 468 | 476 | 476 | 476 | 476 | 463 |
| 23 | | 495 | 491 | 499 | 487 | 483 | 387 | 251 | 390 | 468 | 464 | 425 | 344 | 344 | 286 | 472 | 491 | 468 | 456 | 456 | 464 | 480 | 487 | 480 | 487 | 440 |
| 24 | | 488 | 496 | 488 | 488 | 481 | 419 | 473 | 457 | 415 | 450 | 465 | 465 | 473 | 465 | 465 | 457 | 442 | 450 | 450 | 457 | 465 | 473 | 473 | 473 | 464 |
| 25 | | 484 | 484 | 484 | 496 | 496 | 496 | 411 | 411 | 380 | 446 | 442 | 419 | 442 | 481 | 469 | 465 | 457 | 453 | 457 | 469 | 473 | 484 | 477 | 481 | 461 |
| 26 | | 485 | 489 | 497 | 485 | 474 | 482 | 478 | 478 | 431 | 369 | 427 | 431 | 447 | 435 | 451 | 478 | 478 | 458 | 470 | 474 | 485 | 497 | 505 | 489 | 466 |
| 27 | D | 482 | 528 | 520 | 524 | 513 | 501 | 489 | 458 | 482 | 493 | 474 | 462 | 474 | 416 | 265 | 79 | 497 | 633 | 482 | 493 | 505 | 520 | 478 | 489 | 469 |
| 28 | | 489 | 478 | 482 | 458 | 427 | 451 | 478 | 509 | 493 | 470 | 466 | 443 | 396 | 396 | 412 | 443 | 412 | 466 | 466 | 451 | 458 | 594 | 567 | 586 | 470 |
| MEAN A | | 477 | 473 | 478 | 464 | 465 | 444 | 423 | 429 | 426 | 417 | 406 | 394 | 403 | 389 | 416 | 422 | 445 | 449 | 443 | 447 | 471 | 484 | 488 | 485 | 443 |
| MEAN Q | | 468 | 474 | 474 | 476 | 477 | 463 | 448 | 453 | 440 | 445 | 443 | 448 | 457 | 453 | 448 | 443 | 440 | 450 | 460 | 466 | 468 | 469 | 470 | 470 | 458 |
| MEAN D | | 427 | 396 | 446 | 427 | 460 | 428 | 403 | 342 | 338 | 311 | 290 | 300 | 362 | 258 | 321 | 329 | 457 | 442 | 367 | 357 | 442 | 442 | 457 | 465 | 386 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

| TABLE 5 FORT CHURCHILL | | | Y = 0 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | | | | | | | | | FEBRUARY 1969 | | | |
|------------------------|---------|---------|-------------------------------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|----------|------|-----|
| HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN | |
| DAY | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | | |
| 1 | Q | 462 | 462 | 462 | 458 | 458 | 458 | 458 | 458 | 462 | 462 | 466 | 466 | 470 | 477 | 474 | 466 | 458 | 462 | 447 | 458 | 454 | 458 | 458 | 461 | |
| 2 | D | 458 | 458 | 458 | 458 | 458 | 458 | 458 | 454 | 431 | 470 | 485 | 485 | 489 | 504 | 500 | 485 | 458 | 554 | 692 | 619 | 493 | 485 | 424 | 405 | 485 |
| 3 | D | 416 | 408 | 359 | 397 | 408 | 454 | 454 | 474 | 385 | 428 | 493 | 550 | 508 | 546 | 546 | 493 | 470 | 493 | 497 | 500 | 485 | 474 | 431 | 447 | 463 |
| 4 | | 447 | 451 | 462 | 462 | 458 | 454 | 439 | 408 | 443 | 466 | 474 | 477 | 485 | 477 | 477 | 477 | 481 | 462 | 447 | 439 | 439 | 443 | 470 | 477 | 459 |
| 5 | | 489 | 439 | 485 | 470 | 447 | 443 | 447 | 451 | 443 | 454 | 474 | 481 | 481 | 493 | 497 | 485 | 462 | 447 | 443 | 447 | 451 | 454 | 462 | 458 | 463 |
| 6 | | 462 | 470 | 454 | 447 | 420 | 405 | 416 | 435 | 458 | 466 | 493 | 474 | 474 | 477 | 481 | 477 | 466 | 462 | 454 | 447 | 454 | 447 | 474 | 489 | 458 |
| 7 | | 458 | 458 | 462 | 458 | 458 | 454 | 447 | 339 | 458 | 466 | 477 | 481 | 500 | 512 | 497 | 489 | 474 | 462 | 470 | 454 | 439 | 447 | 447 | 454 | 461 |
| 8 | | 466 | 474 | 477 | 454 | 443 | 439 | 416 | 431 | 454 | 470 | 477 | 474 | 477 | 489 | 489 | 485 | 447 | 412 | 439 | 443 | 451 | 462 | 462 | 458 | |
| 9 | Q | 453 | 469 | 469 | 473 | 469 | 465 | 453 | 453 | 457 | 473 | 473 | 473 | 473 | 476 | 484 | 473 | 461 | 461 | 453 | 450 | 446 | 450 | 453 | 450 | 463 |
| 10 | | 461 | 476 | 484 | 484 | 473 | 465 | 461 | 461 | 469 | 457 | 484 | 499 | 492 | 488 | 492 | 488 | 476 | 453 | 453 | 450 | 453 | 484 | 457 | 423 | 470 |
| 11 | D | 323 | 319 | 446 | 480 | 446 | 415 | 446 | 400 | 492 | 476 | 545 | 595 | 603 | 519 | 530 | 576 | 568 | 561 | 545 | 515 | 511 | 476 | 450 | 446 | 487 |
| 12 | | 469 | 473 | 476 | 476 | 476 | 469 | 469 | 461 | 457 | 469 | 473 | 473 | 469 | 473 | 473 | 476 | 476 | 469 | 480 | 461 | 450 | 450 | 453 | 465 | 468 |
| 13 | | 469 | 473 | 469 | 469 | 457 | 446 | 453 | 450 | 476 | 488 | 480 | 476 | 469 | 492 | 511 | 484 | 461 | 465 | 461 | 465 | 461 | 469 | 453 | 457 | 469 |
| 14 | | 453 | 453 | 453 | 450 | 469 | 461 | 457 | 461 | 465 | 465 | 484 | 484 | 488 | 503 | 480 | 492 | 484 | 473 | 461 | 450 | 457 | 453 | 465 | 465 | 468 |
| 15 | D | 469 | 469 | 457 | 591 | 430 | 438 | 407 | 430 | 465 | 480 | 499 | 488 | 492 | 503 | 484 | 492 | 484 | 476 | 507 | 484 | 473 | 473 | 469 | 476 | 477 |
| 16 | | 499 | 492 | 469 | 457 | 450 | 453 | 411 | 419 | 492 | 480 | 484 | 499 | 515 | 503 | 488 | 492 | 473 | 450 | 453 | 450 | 457 | 461 | 457 | 457 | 469 |
| 17 | Q | 456 | 456 | 464 | 468 | 460 | 452 | 441 | 426 | 464 | 475 | 483 | 487 | 475 | 475 | 475 | 483 | 468 | 460 | 456 | 456 | 460 | 460 | 456 | 456 | 463 |
| 18 | Q | 460 | 460 | 460 | 460 | 460 | 460 | 460 | 460 | 460 | 464 | 464 | 468 | 468 | 472 | 475 | 475 | 472 | 468 | 456 | 449 | 445 | 452 | 460 | 456 | 462 |
| 19 | | 456 | 456 | 460 | 452 | 452 | 456 | 456 | 456 | 460 | 460 | 475 | 487 | 491 | 498 | 491 | 491 | 468 | 464 | 464 | 452 | 456 | 464 | 464 | 468 | 467 |
| 20 | | 472 | 472 | 472 | 464 | 441 | 472 | 460 | 460 | 475 | 483 | 495 | 506 | 518 | 491 | 487 | 491 | 468 | 441 | 429 | 452 | 460 | 460 | 468 | 475 | 471 |
| 21 | | 487 | 487 | 475 | 468 | 464 | 464 | 441 | 464 | 468 | 479 | 483 | 487 | 487 | 495 | 498 | 491 | 479 | 479 | 452 | 456 | 456 | 460 | 468 | 468 | 473 |
| 22 | Q | 468 | 468 | 472 | 472 | 472 | 472 | 468 | 468 | 460 | 483 | 487 | 483 | 483 | 491 | 495 | 495 | 483 | 472 | 460 | 460 | 452 | 456 | 468 | 468 | 473 |
| 23 | | 472 | 475 | 475 | 475 | 468 | 441 | 337 | 437 | 468 | 483 | 491 | 514 | 521 | 533 | 491 | 498 | 495 | 487 | 468 | 460 | 460 | 464 | 472 | 472 | 473 |
| 24 | | 472 | 483 | 483 | 475 | 468 | 475 | 475 | 472 | 491 | 487 | 487 | 491 | 491 | 495 | 498 | 506 | 506 | 475 | 468 | 468 | 464 | 483 | 479 | 464 | 481 |
| 25 | | 468 | 468 | 468 | 483 | 487 | 468 | 495 | 456 | 456 | 479 | 452 | 495 | 495 | 460 | 502 | 506 | 502 | 475 | 475 | 479 | 475 | 472 | 472 | 472 | 477 |
| 26 | | 472 | 479 | 483 | 510 | 548 | 445 | 452 | 483 | 518 | 502 | 495 | 502 | 472 | 502 | 518 | 518 | 502 | 502 | 456 | 506 | 491 | 475 | 483 | 475 | 491 |
| 27 | D | 457 | 472 | 491 | 468 | 418 | 457 | 426 | 480 | 487 | 472 | 480 | 480 | 480 | 510 | 568 | 560 | 583 | 503 | 457 | 457 | 449 | 472 | 464 | 464 | 482 |
| 28 | | 461 | 461 | 453 | 449 | 441 | 422 | 438 | 468 | 472 | 480 | 480 | 484 | 491 | 499 | 503 | 491 | 499 | 434 | 441 | 445 | 453 | 457 | 472 | 461 | 465 |
| MEAN A | | 459 | 460 | 464 | 469 | 457 | 452 | 444 | 447 | 464 | 472 | 483 | 491 | 491 | 494 | 497 | 495 | 485 | 473 | 471 | 466 | 460 | 462 | 461 | 460 | 470 |
| MEAN Q | | 460 | 463 | 465 | 466 | 464 | 461 | 456 | 453 | 460 | 471 | 474 | 475 | 473 | 477 | 481 | 480 | 470 | 464 | 458 | 452 | 452 | 455 | 459 | 458 | 464 |
| MEAN D | | 425 | 425 | 442 | 479 | 432 | 444 | 438 | 448 | 452 | 465 | 500 | 520 | 514 | 517 | 526 | 521 | 513 | 517 | 540 | 515 | 482 | 476 | 448 | 448 | 479 |

VERTICAL INTENSITY

TABLE 6 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

FEBRUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 275 | 271 | 275 | 271 | 262 | 258 | 262 | 271 | 279 | 271 | 275 | 271 | 275 | 271 | 279 | 275 | 266 | 279 | 288 | 288 | 292 | 283 | 279 | 279 | 275 |
| 2 | D | 275 | 275 | 271 | 271 | 271 | 271 | 271 | 275 | 326 | 262 | 318 | 305 | 258 | 241 | 211 | 206 | 232 | 271 | 258 | 403 | 309 | 223 | 236 | 236 | 270 |
| 3 | D | 232 | 241 | 206 | 211 | 253 | 322 | 352 | 369 | 510 | 467 | 476 | 579 | 497 | 532 | 271 | 249 | 271 | 301 | 288 | 129 | 189 | 74 | 262 | 301 | 316 |
| 4 | | 296 | 292 | 288 | 288 | 283 | 288 | 296 | 326 | 373 | 365 | 326 | 296 | 288 | 288 | 279 | 275 | 266 | 275 | 275 | 275 | 279 | 279 | 228 | 168 | 287 |
| 5 | | 99 | 129 | 168 | 219 | 253 | 292 | 313 | 318 | 326 | 305 | 326 | 305 | 271 | 253 | 262 | 249 | 258 | 271 | 296 | 288 | 292 | 296 | 296 | 288 | 266 |
| 6 | | 292 | 283 | 253 | 151 | 194 | 266 | 211 | 275 | 309 | 313 | 339 | 283 | 283 | 283 | 275 | 279 | 275 | 283 | 279 | 283 | 288 | 292 | 271 | 266 | 272 |
| 7 | | 279 | 283 | 279 | 279 | 279 | 271 | 279 | 236 | 279 | 283 | 309 | 369 | 262 | 241 | 245 | 228 | 236 | 266 | 283 | 288 | 313 | 309 | 305 | 241 | 277 |
| 8 | | 206 | 223 | 232 | 245 | 279 | 339 | 249 | 292 | 296 | 288 | 296 | 288 | 279 | 279 | 275 | 271 | 279 | 292 | 296 | 296 | 305 | 305 | 296 | 301 | 279 |
| 9 | Q | 288 | 271 | 266 | 271 | 275 | 271 | 262 | 271 | 288 | 288 | 275 | 275 | 275 | 283 | 279 | 266 | 275 | 279 | 283 | 288 | 288 | 296 | 296 | 296 | 279 |
| 10 | | 301 | 275 | 241 | 258 | 271 | 275 | 279 | 305 | 352 | 373 | 386 | 373 | 271 | 288 | 279 | 271 | 262 | 283 | 283 | 288 | 279 | 219 | 99 | 159 | 278 |
| 11 | D | 219 | 91 | 48 | 219 | 279 | 275 | 390 | 399 | 562 | 656 | 741 | 600 | 592 | 613 | 549 | 480 | 502 | 450 | 330 | 296 | 164 | 168 | 125 | 202 | 373 |
| 12 | | 198 | 262 | 275 | 236 | 215 | 223 | 271 | 271 | 296 | 305 | 296 | 296 | 296 | 292 | 292 | 296 | 296 | 296 | 292 | 288 | 309 | 305 | 296 | 194 | 275 |
| 13 | | 232 | 185 | 223 | 245 | 262 | 292 | 296 | 305 | 305 | 369 | 335 | 279 | 288 | 283 | 275 | 245 | 253 | 275 | 292 | 301 | 305 | 309 | 305 | 296 | 281 |
| 14 | | 292 | 288 | 271 | 245 | 241 | 271 | 271 | 288 | 283 | 288 | 339 | 343 | 279 | 258 | 275 | 271 | 266 | 271 | 301 | 301 | 296 | 296 | 296 | 266 | 283 |
| 15 | D | 279 | 258 | 223 | 245 | 168 | 253 | 249 | 283 | 305 | 309 | 356 | 292 | 279 | 271 | 258 | 262 | 262 | 271 | 266 | 236 | 202 | 215 | 262 | 258 | 261 |
| 16 | | 211 | 279 | 279 | 245 | 253 | 305 | 176 | 292 | 326 | 313 | 309 | 322 | 395 | 262 | 228 | 228 | 249 | 271 | 279 | 288 | 279 | 279 | 279 | 275 | 276 |
| 17 | Q | 275 | 279 | 266 | 258 | 249 | 245 | 279 | 288 | 275 | 288 | 271 | 253 | 271 | 275 | 275 | 279 | 275 | 279 | 283 | 292 | 296 | 288 | 288 | 279 | 275 |
| 18 | Q | 279 | 279 | 275 | 275 | 275 | 279 | 279 | 275 | 275 | 275 | 275 | 271 | 271 | 275 | 279 | 271 | 275 | 275 | 275 | 275 | 283 | 283 | 283 | 279 | 276 |
| 19 | | 275 | 275 | 271 | 241 | 206 | 181 | 215 | 258 | 262 | 271 | 271 | 288 | 343 | 253 | 202 | 219 | 253 | 279 | 283 | 283 | 296 | 305 | 301 | 288 | 263 |
| 20 | | 283 | 283 | 283 | 271 | 288 | 223 | 249 | 283 | 309 | 305 | 305 | 318 | 330 | 279 | 275 | 271 | 292 | 288 | 283 | 296 | 292 | 296 | 292 | 296 | 287 |
| 21 | | 266 | 275 | 279 | 279 | 275 | 313 | 249 | 322 | 292 | 292 | 292 | 279 | 275 | 279 | 279 | 283 | 279 | 283 | 292 | 288 | 292 | 296 | 288 | 279 | 284 |
| 22 | Q | 279 | 279 | 279 | 279 | 279 | 275 | 271 | 258 | 283 | 288 | 275 | 279 | 271 | 253 | 253 | 258 | 266 | 271 | 288 | 288 | 296 | 296 | 296 | 288 | 277 |
| 23 | | 288 | 288 | 271 | 271 | 271 | 356 | 330 | 322 | 305 | 305 | 330 | 348 | 360 | 253 | 253 | 271 | 279 | 275 | 283 | 288 | 292 | 296 | 288 | 283 | 296 |
| 24 | | 283 | 279 | 279 | 279 | 271 | 262 | 219 | 271 | 348 | 313 | 279 | 271 | 271 | 275 | 275 | 279 | 279 | 275 | 283 | 283 | 288 | 292 | 288 | 283 | 280 |
| 25 | | 288 | 245 | 253 | 266 | 262 | 266 | 279 | 301 | 322 | 292 | 275 | 292 | 288 | 279 | 279 | 283 | 288 | 288 | 296 | 301 | 305 | 301 | 305 | 301 | 286 |
| 26 | | 296 | 292 | 266 | 202 | 168 | 271 | 288 | 339 | 455 | 446 | 330 | 305 | 292 | 279 | 271 | 266 | 271 | 283 | 288 | 313 | 309 | 309 | 296 | 288 | 297 |
| 27 | D | 288 | 275 | 194 | 245 | 219 | 185 | 279 | 352 | 322 | 292 | 288 | 288 | 266 | 258 | 305 | 296 | 403 | 326 | 271 | 292 | 305 | 305 | 301 | 266 | 284 |
| 28 | | 258 | 262 | 228 | 236 | 215 | 228 | 301 | 348 | 313 | 296 | 296 | 288 | 279 | 275 | 245 | 249 | 266 | 292 | 262 | 271 | 275 | 288 | 262 | 279 | 271 |
| MEAN A | | 262 | 258 | 248 | 250 | 251 | 270 | 274 | 300 | 328 | 326 | 328 | 320 | 307 | 292 | 276 | 271 | 281 | 287 | 285 | 286 | 283 | 275 | 272 | 266 | 283 |
| MEAN Q | | 279 | 276 | 272 | 271 | 268 | 265 | 271 | 272 | 280 | 282 | 274 | 270 | 272 | 271 | 273 | 270 | 271 | 277 | 283 | 286 | 291 | 289 | 289 | 284 | 277 |
| MEAN D | | 259 | 228 | 188 | 238 | 238 | 261 | 308 | 336 | 405 | 397 | 436 | 413 | 378 | 383 | 318 | 299 | 334 | 324 | 283 | 271 | 234 | 197 | 237 | 253 | 301 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 7 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

MARCH 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 497 | 466 | 458 | 458 | 462 | 470 | 462 | 454 | 466 | 458 | 458 | 458 | 458 | 451 | 447 | 439 | 431 | 412 | 458 | 485 | 485 | 482 | 544 | 551 | 467 |
| 2 | | 504 | 488 | 434 | 543 | 496 | 481 | 481 | 469 | 477 | 457 | 446 | 403 | 318 | 388 | 434 | 450 | 450 | 450 | 461 | 465 | 477 | 481 | 469 | 469 | 458 |
| 3 | Q | 472 | 472 | 480 | 480 | 472 | 472 | 472 | 480 | 468 | 468 | 468 | 472 | 468 | 464 | 456 | 456 | 445 | 456 | 456 | 456 | 460 | 464 | 464 | 464 | 466 |
| 4 | Q | 463 | 467 | 471 | 471 | 471 | 475 | 471 | 467 | 471 | 475 | 471 | 471 | 471 | 463 | 463 | 455 | 451 | 455 | 471 | 486 | 552 | 645 | 603 | 556 | 488 |
| 5 | | 501 | 481 | 485 | 470 | 466 | 474 | 474 | 478 | 478 | 470 | 450 | 419 | 311 | 396 | 427 | 439 | 435 | 447 | 462 | 474 | 481 | 497 | 497 | 524 | 460 |
| 6 | | 523 | 515 | 527 | 488 | 477 | 473 | 477 | 403 | 403 | 442 | 291 | 291 | 430 | 473 | 449 | 415 | 422 | 434 | 508 | 500 | 500 | 496 | 508 | 531 | 457 |
| 7 | | 534 | 514 | 445 | 448 | 483 | 437 | 344 | 433 | 468 | 452 | 472 | 456 | 414 | 247 | 169 | 332 | 429 | 433 | 468 | 549 | 592 | 576 | 522 | 565 | 449 |
| 8 | | 552 | 502 | 440 | 416 | 440 | 494 | 475 | 459 | 447 | 351 | 409 | 358 | 409 | 471 | 459 | 447 | 447 | 447 | 467 | 498 | 486 | 544 | 544 | 459 | |
| 9 | | 516 | 528 | 489 | 512 | 497 | 462 | 458 | 408 | 315 | 315 | 415 | 415 | 264 | 187 | 226 | 381 | 524 | 481 | 477 | 505 | 505 | 493 | 466 | 474 | 430 |
| 10 | Q | 489 | 501 | 505 | 508 | 462 | 512 | 419 | 443 | 443 | 361 | 462 | 470 | 470 | 470 | 466 | 462 | 462 | 454 | 458 | 474 | 458 | 462 | 462 | 470 | 464 |
| 11 | | 476 | 488 | 484 | 445 | 511 | 484 | 271 | 364 | 248 | 349 | 352 | 197 | 46 | 186 | 333 | 434 | 504 | 484 | 492 | 496 | 573 | 504 | 434 | 372 | 397 |
| 12 | D | 402 | 332 | 382 | 379 | 491 | 444 | 247 | 324 | 305 | 417 | 289 | 413 | 448 | 359 | 351 | 320 | 301 | 425 | 506 | 506 | 479 | 464 | 487 | 522 | 400 |
| 13 | | 513 | 397 | 521 | 502 | 474 | 471 | 409 | 401 | 420 | 440 | 443 | 381 | 416 | 451 | 447 | 420 | 424 | 440 | 463 | 486 | 505 | 540 | 583 | 587 | 464 |
| 14 | | 605 | 617 | 601 | 555 | 489 | 501 | 454 | 462 | 454 | 462 | 435 | 415 | 423 | 415 | 408 | 415 | 423 | 442 | 462 | 504 | 559 | 539 | 597 | 625 | 494 |
| 15 | | 612 | 465 | 368 | 453 | 422 | 426 | 461 | 418 | 275 | 275 | 395 | 228 | 186 | 143 | 112 | 139 | 341 | 461 | 511 | 538 | 554 | 569 | 565 | 523 | 393 |
| 16 | | 499 | 483 | 475 | 487 | 413 | 235 | 378 | 375 | 402 | 332 | 165 | 444 | 367 | 406 | 468 | 479 | 468 | 452 | 460 | 464 | 468 | 475 | 499 | 537 | 426 |
| 17 | D | 525 | 203 | 467 | 498 | 467 | 350 | 459 | 474 | 451 | 389 | 370 | 288 | 265 | 300 | 432 | 428 | 366 | 300 | 439 | 494 | 598 | 606 | 467 | 451 | 420 |
| 18 | | 458 | 469 | 493 | 404 | 450 | 473 | 307 | 287 | 384 | 388 | 330 | 411 | 431 | 454 | 458 | 438 | 431 | 419 | 466 | 458 | 489 | 481 | 512 | 477 | 432 |
| 19 | | 472 | 492 | 480 | 465 | 465 | 476 | 472 | 279 | 248 | 418 | 461 | 465 | 468 | 457 | 461 | 449 | 449 | 449 | 453 | 472 | 542 | 585 | 585 | 449 | 459 |
| 20 | | 457 | 426 | 449 | 472 | 437 | 465 | 465 | 271 | 434 | 410 | 352 | 472 | 434 | 437 | 414 | 395 | 379 | 414 | 527 | 558 | 577 | 620 | 550 | 581 | 458 |
| 21 | | 506 | 464 | 591 | 522 | 456 | 448 | 436 | 126 | 402 | 452 | 440 | 429 | 471 | 471 | 444 | 456 | 444 | 433 | 436 | 479 | 479 | 615 | 588 | 514 | 463 |
| 22 | | 521 | 528 | 459 | 358 | 513 | 478 | 466 | 470 | 261 | 315 | 331 | 404 | 323 | 339 | 300 | 346 | 401 | 447 | 478 | 497 | 556 | 606 | 621 | 629 | 444 |
| 23 | D | 593 | 524 | 477 | 473 | 462 | 469 | 458 | 419 | 458 | 400 | 434 | 454 | 438 | 450 | 407 | 365 | 349 | 400 | 291 | 186 | 349 | 318 | 400 | 295 | 411 |
| 24 | D | 282 | 321 | 480 | 453 | 414 | 437 | 488 | 360 | 189 | -179 | 251 | 379 | 348 | 371 | 426 | 441 | 410 | 430 | 437 | 449 | 449 | 445 | 445 | 445 | 374 |
| 25 | D | 444 | 440 | 444 | 444 | 444 | 401 | 386 | 436 | 429 | 351 | 359 | 417 | 305 | 324 | 281 | 382 | 398 | 429 | 452 | 494 | 491 | 502 | 568 | 545 | 423 |
| 26 | | 505 | 505 | 459 | 459 | 459 | 439 | 404 | 420 | 304 | 435 | 327 | 284 | 350 | 431 | 358 | 369 | 420 | 435 | 455 | 470 | 505 | 552 | 555 | 555 | 436 |
| 27 | Q | 535 | 473 | 465 | 450 | 419 | 415 | 403 | 427 | 396 | 380 | 380 | 399 | 419 | 419 | 430 | 434 | 458 | 458 | 477 | 492 | 512 | 516 | 508 | 500 | 448 |
| 28 | Q | 503 | 495 | 499 | 464 | 441 | 426 | 422 | 433 | 433 | 449 | 449 | 457 | 453 | 449 | 414 | 433 | 410 | 433 | 449 | 457 | 449 | 453 | 457 | 457 | 449 |
| 29 | | 459 | 459 | 463 | 463 | 463 | 463 | 452 | 301 | 316 | 324 | 417 | 425 | 347 | 409 | 355 | 351 | 428 | 456 | 471 | 494 | 456 | 541 | 595 | 502 | 434 |
| 30 | | 470 | 470 | 439 | 431 | 358 | 424 | 431 | 431 | 439 | 338 | 404 | 420 | 431 | 424 | 427 | 439 | 420 | 412 | 455 | 493 | 466 | 594 | 524 | 524 | 444 |
| 31 | | 492 | 492 | 384 | 450 | 469 | 492 | 477 | 461 | 438 | 423 | 415 | 407 | 407 | 392 | 399 | 446 | 434 | 430 | 438 | 492 | 492 | 469 | 457 | 461 | 447 |
| MEAN A | | 496 | 467 | 471 | 465 | 459 | 450 | 428 | 401 | 391 | 381 | 392 | 400 | 380 | 390 | 391 | 408 | 424 | 436 | 461 | 479 | 502 | 518 | 518 | 506 | 442 |
| MEAN Q | | 492 | 482 | 484 | 475 | 453 | 460 | 437 | 450 | 442 | 426 | 446 | 454 | 456 | 453 | 446 | 448 | 445 | 451 | 462 | 473 | 486 | 508 | 499 | 489 | 463 |
| MEAN D | | 449 | 364 | 450 | 449 | 455 | 421 | 407 | 403 | 366 | 276 | 341 | 390 | 361 | 361 | 379 | 387 | 365 | 396 | 425 | 426 | 473 | 467 | 473 | 452 | 406 |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 8 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

MARCH 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | | 468 | 457 | 457 | 457 | 461 | 461 | 457 | 464 | 464 | 468 | 468 | 468 | 468 | 472 | 487 | 491 | 476 | 468 | 411 | 430 | 434 | 445 | 453 | 476 | 461 |
| 2 | | 464 | 441 | 319 | 334 | 449 | 464 | 461 | 461 | 457 | 468 | 472 | 480 | 495 | 484 | 499 | 495 | 476 | 468 | 457 | 453 | 457 | 457 | 457 | 457 | 455 |
| 3 | Q | 457 | 457 | 461 | 461 | 461 | 461 | 457 | 457 | 464 | 464 | 468 | 468 | 464 | 476 | 480 | 480 | 472 | 461 | 449 | 449 | 449 | 453 | 457 | 457 | 462 |
| 4 | Q | 457 | 457 | 457 | 457 | 457 | 457 | 461 | 461 | 461 | 464 | 464 | 464 | 468 | 476 | 484 | 484 | 472 | 453 | 457 | 457 | 476 | 487 | 480 | 449 | 465 |
| 5 | | 464 | 468 | 468 | 457 | 457 | 449 | 434 | 457 | 464 | 468 | 472 | 484 | 507 | 518 | 518 | 495 | 476 | 464 | 445 | 441 | 438 | 441 | 441 | 441 | 465 |
| 6 | | 460 | 456 | 460 | 460 | 452 | 463 | 425 | 414 | 448 | 460 | 460 | 440 | 483 | 486 | 498 | 475 | 463 | 448 | 437 | 448 | 448 | 444 | 444 | 444 | 455 |
| 7 | | 463 | 460 | 433 | 425 | 437 | 410 | 383 | 417 | 463 | 471 | 479 | 479 | 494 | 509 | 506 | 456 | 471 | 471 | 475 | 463 | 475 | 460 | 444 | 444 | 458 |
| 8 | | 479 | 471 | 433 | 437 | 387 | 437 | 448 | 425 | 471 | 475 | 471 | 490 | 486 | 490 | 486 | 486 | 475 | 475 | 448 | 448 | 448 | 452 | 456 | 467 | 460 |
| 9 | | 452 | 463 | 475 | 433 | 448 | 448 | 444 | 433 | 421 | 475 | 483 | 483 | 525 | 529 | 559 | 486 | 460 | 479 | 463 | 456 | 463 | 440 | 448 | 444 | 467 |
| 10 | Q | 448 | 460 | 460 | 448 | 448 | 452 | 452 | 444 | 456 | 483 | 463 | 463 | 471 | 479 | 479 | 475 | 471 | 463 | 463 | 460 | 440 | 448 | 448 | 448 | 459 |
| 11 | | 447 | 447 | 455 | 405 | 439 | 428 | 424 | 409 | 436 | 478 | 501 | 516 | 593 | 524 | 512 | 485 | 455 | 459 | 478 | 543 | 528 | 478 | 409 | 370 | 467 |
| 12 | D | 347 | 340 | 328 | 251 | 340 | 405 | 363 | 424 | 455 | 485 | 524 | 478 | 482 | 505 | 501 | 493 | 493 | 516 | 497 | 462 | 447 | 447 | 447 | 455 | 437 |
| 13 | | 459 | 531 | 489 | 470 | 459 | 455 | 420 | 432 | 462 | 470 | 466 | 470 | 478 | 482 | 489 | 493 | 485 | 451 | 447 | 451 | 459 | 462 | 462 | 470 | 467 |
| 14 | | 474 | 462 | 470 | 455 | 459 | 455 | 459 | 455 | 455 | 462 | 478 | 474 | 482 | 493 | 508 | 493 | 470 | 455 | 439 | 443 | 459 | 459 | 451 | 462 | 465 |
| 15 | | 482 | 416 | 332 | 382 | 386 | 409 | 439 | 439 | 443 | 478 | 493 | 516 | 570 | 581 | 543 | 524 | 443 | 470 | 474 | 455 | 478 | 482 | 485 | 470 | 466 |
| 16 | | 458 | 461 | 458 | 454 | 431 | 473 | 465 | 392 | 419 | 461 | 500 | 488 | 523 | 530 | 492 | 465 | 465 | 458 | 446 | 442 | 438 | 446 | 450 | 458 | 461 |
| 17 | D | 400 | 327 | 346 | 438 | 400 | 350 | 412 | 454 | 458 | 488 | 469 | 500 | 500 | 507 | 500 | 496 | 527 | 469 | 450 | 419 | 507 | 484 | 442 | 446 | 450 |
| 18 | | 454 | 454 | 458 | 396 | 358 | 423 | 362 | 412 | 446 | 473 | 454 | 469 | 488 | 492 | 492 | 481 | 477 | 461 | 427 | 431 | 435 | 454 | 442 | 461 | 446 |
| 19 | | 454 | 454 | 458 | 458 | 461 | 458 | 450 | 442 | 484 | 473 | 473 | 473 | 481 | 492 | 496 | 484 | 469 | 458 | 442 | 438 | 458 | 450 | 461 | 389 | 461 |
| 20 | | 400 | 285 | 354 | 458 | 454 | 446 | 442 | 369 | 435 | 477 | 469 | 465 | 484 | 504 | 507 | 527 | 542 | 527 | 488 | 481 | 465 | 477 | 454 | 446 | 456 |
| 21 | | 453 | 403 | 391 | 460 | 430 | 407 | 437 | 326 | 445 | 472 | 472 | 480 | 483 | 495 | 506 | 506 | 499 | 480 | 449 | 468 | 437 | 472 | 460 | 437 | 453 |
| 22 | | 437 | 441 | 418 | 388 | 449 | 449 | 445 | 441 | 407 | 468 | 483 | 480 | 483 | 499 | 518 | 487 | 476 | 453 | 483 | 460 | 468 | 464 | 464 | 468 | 460 |
| 23 | D | 476 | 476 | 468 | 460 | 449 | 453 | 445 | 460 | 453 | 476 | 480 | 472 | 483 | 491 | 514 | 506 | 480 | 480 | 637 | 568 | 614 | 529 | 388 | 330 | 483 |
| 24 | D | 226 | 249 | 253 | 246 | 376 | 380 | 395 | 399 | 460 | 537 | 579 | 552 | 506 | 499 | 499 | 506 | 480 | 468 | 460 | 453 | 457 | 453 | 457 | 453 | 431 |
| 25 | D | 445 | 441 | 445 | 453 | 449 | 434 | 430 | 468 | 472 | 526 | 522 | 499 | 514 | 537 | 533 | 468 | 449 | 437 | 453 | 445 | 445 | 453 | 491 | 480 | 470 |
| 26 | | 463 | 475 | 452 | 444 | 444 | 440 | 448 | 456 | 425 | 459 | 471 | 448 | 471 | 482 | 482 | 475 | 456 | 436 | 436 | 413 | 429 | 444 | 452 | 456 | 452 |
| 27 | Q | 459 | 452 | 448 | 436 | 436 | 444 | 425 | 456 | 467 | 463 | 467 | 471 | 475 | 479 | 475 | 475 | 459 | 452 | 448 | 436 | 440 | 440 | 436 | 444 | 454 |
| 28 | Q | 448 | 452 | 452 | 440 | 417 | 367 | 413 | 459 | 459 | 467 | 475 | 467 | 479 | 479 | 490 | 471 | 482 | 456 | 444 | 448 | 444 | 444 | 444 | 444 | 452 |
| 29 | | 444 | 444 | 448 | 452 | 452 | 440 | 444 | 421 | 471 | 490 | 482 | 471 | 502 | 494 | 509 | 475 | 482 | 475 | 448 | 456 | 444 | 452 | 479 | 498 | 465 |
| 30 | | 440 | 467 | 436 | 433 | 394 | 436 | 444 | 452 | 463 | 467 | 463 | 471 | 490 | 498 | 498 | 482 | 486 | 505 | 467 | 452 | 429 | 471 | 471 | 440 | 461 |
| 31 | | 452 | 448 | 459 | 467 | 448 | 452 | 433 | 467 | 475 | 475 | 475 | 475 | 490 | 521 | 513 | 498 | 479 | 490 | 482 | 459 | 444 | 444 | 444 | 444 | 468 |
| MEAN A | | 443 | 436 | 427 | 426 | 432 | 436 | 433 | 434 | 454 | 476 | 481 | 479 | 494 | 500 | 502 | 488 | 476 | 468 | 461 | 456 | 460 | 459 | 452 | 447 | 459 |
| MEAN Q | | 454 | 455 | 455 | 448 | 444 | 436 | 442 | 455 | 461 | 468 | 468 | 467 | 471 | 478 | 481 | 477 | 471 | 457 | 452 | 450 | 450 | 455 | 453 | 448 | 458 |
| MEAN D | | 379 | 367 | 368 | 370 | 403 | 404 | 409 | 441 | 459 | 502 | 515 | 500 | 497 | 508 | 509 | 494 | 486 | 474 | 499 | 469 | 494 | 473 | 445 | 433 | 454 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 9 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

MARCH 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 271 | 283 | 279 | 283 | 279 | 283 | 279 | 279 | 279 | 275 | 271 | 271 | 275 | 275 | 271 | 266 | 279 | 305 | 275 | 288 | 292 | 283 | 296 | 271 | 279 |
| 2 | | 164 | 168 | 296 | 271 | 232 | 245 | 271 | 288 | 288 | 296 | 313 | 335 | 356 | 249 | 241 | 258 | 266 | 283 | 283 | 283 | 288 | 288 | 288 | 283 | 272 |
| 3 | Q | 279 | 279 | 279 | 279 | 266 | 262 | 275 | 279 | 279 | 275 | 270 | 275 | 279 | 275 | 270 | 270 | 270 | 270 | 275 | 279 | 279 | 287 | 283 | 279 | 276 |
| 4 | Q | 275 | 275 | 275 | 275 | 275 | 275 | 270 | 266 | 266 | 275 | 275 | 270 | 270 | 270 | 270 | 270 | 270 | 279 | 279 | 287 | 309 | 266 | 253 | 287 | 274 |
| 5 | | 300 | 270 | 270 | 266 | 266 | 262 | 287 | 292 | 279 | 279 | 287 | 343 | 322 | 245 | 245 | 249 | 245 | 253 | 270 | 283 | 283 | 287 | 279 | 287 | 277 |
| 6 | | 279 | 270 | 253 | 223 | 219 | 206 | 279 | 296 | 313 | 317 | 398 | 347 | 270 | 287 | 291 | 270 | 274 | 317 | 291 | 274 | 287 | 296 | 300 | 300 | 286 |
| 7 | | 283 | 249 | 266 | 244 | 210 | 330 | 317 | 300 | 330 | 291 | 304 | 274 | 296 | 347 | 232 | 193 | 232 | 270 | 236 | 223 | 210 | 257 | 308 | 266 | 270 |
| 8 | | 253 | 167 | 150 | 253 | 253 | 253 | 261 | 266 | 312 | 368 | 287 | 329 | 295 | 283 | 278 | 278 | 283 | 291 | 291 | 291 | 291 | 300 | 291 | 266 | 275 |
| 9 | | 287 | 278 | 172 | 176 | 189 | 231 | 300 | 295 | 381 | 406 | 295 | 278 | 312 | 347 | 214 | 240 | 257 | 266 | 291 | 278 | 287 | 283 | 283 | 283 | 276 |
| 10 | Q | 278 | 283 | 278 | 240 | 206 | 231 | 266 | 240 | 325 | 376 | 291 | 278 | 278 | 287 | 278 | 274 | 274 | 270 | 274 | 291 | 283 | 287 | 287 | 287 | 278 |
| 11 | | 287 | 270 | 240 | 201 | 227 | 227 | 218 | 342 | 389 | 465 | 427 | 483 | 440 | 304 | 240 | 218 | 244 | 252 | 261 | 201 | 146 | 142 | 142 | 74 | 268 |
| 12 | D | 240 | 282 | 252 | 346 | 295 | 359 | 538 | 521 | 500 | 491 | 559 | 368 | 304 | 287 | 261 | 244 | 278 | 235 | 248 | 295 | 291 | 287 | 291 | 304 | 336 |
| 13 | | 265 | 133 | 184 | 244 | 256 | 282 | 333 | 295 | 303 | 299 | 303 | 329 | 295 | 291 | 282 | 282 | 274 | 256 | 274 | 286 | 291 | 274 | 265 | 278 | 274 |
| 14 | | 269 | 244 | 184 | 235 | 222 | 231 | 222 | 252 | 286 | 286 | 308 | 303 | 278 | 269 | 256 | 252 | 252 | 261 | 308 | 286 | 265 | 282 | 278 | 227 | 261 |
| 15 | | 129 | 142 | 248 | 116 | 210 | 371 | 337 | 401 | 533 | 491 | 431 | 474 | 461 | 342 | 239 | 252 | 265 | 274 | 256 | 303 | 295 | 278 | 303 | 295 | 310 |
| 16 | | 312 | 312 | 299 | 282 | 346 | 435 | 439 | 511 | 448 | 435 | 507 | 350 | 329 | 295 | 252 | 261 | 278 | 290 | 290 | 299 | 303 | 307 | 307 | 312 | 341 |
| 17 | D | 239 | 201 | 120 | 239 | 290 | 452 | 269 | 307 | 316 | 371 | 354 | 401 | 562 | 405 | 273 | 265 | 299 | 299 | 324 | 320 | 214 | 210 | 273 | 303 | 304 |
| 18 | | 307 | 307 | 281 | 235 | 243 | 303 | 422 | 477 | 413 | 430 | 417 | 345 | 307 | 298 | 286 | 294 | 294 | 328 | 311 | 298 | 311 | 324 | 328 | 315 | 328 |
| 19 | | 303 | 290 | 273 | 277 | 277 | 273 | 294 | 413 | 422 | 349 | 307 | 303 | 294 | 294 | 294 | 286 | 290 | 294 | 298 | 294 | 286 | 264 | 73 | 133 | 287 |
| 20 | | 184 | 243 | 158 | 235 | 277 | 303 | 315 | 413 | 303 | 388 | 362 | 332 | 303 | 298 | 298 | 294 | 281 | 248 | 239 | 256 | 260 | 95 | 35 | 82 | 258 |
| 21 | | 175 | 175 | 175 | 213 | 167 | 196 | 319 | 561 | 391 | 353 | 362 | 349 | 315 | 298 | 307 | 290 | 285 | 290 | 298 | 307 | 319 | 260 | 260 | 307 | 291 |
| 22 | | 311 | 260 | 243 | 252 | 235 | 264 | 285 | 307 | 442 | 485 | 417 | 387 | 387 | 328 | 252 | 268 | 264 | 285 | 294 | 307 | 324 | 285 | 264 | 252 | 308 |
| 23 | D | 302 | 311 | 307 | 307 | 294 | 294 | 328 | 353 | 349 | 336 | 294 | 285 | 290 | 285 | 298 | 256 | 239 | 273 | 205 | -33 | 99 | 162 | 103 | 162 | 254 |
| 24 | D | 192 | 272 | 319 | 306 | 272 | 319 | 412 | 527 | 556 | 1009 | 831 | 632 | 565 | 353 | 323 | 319 | 306 | 306 | 306 | 302 | 294 | 302 | 306 | 311 | 402 |
| 25 | D | 319 | 319 | 315 | 315 | 319 | 366 | 370 | 501 | 476 | 433 | 395 | 311 | 416 | 387 | 408 | 315 | 306 | 315 | 332 | 328 | 323 | 328 | 294 | 268 | 352 |
| 26 | | 294 | 234 | 311 | 311 | 302 | 319 | 344 | 395 | 353 | 311 | 395 | 387 | 315 | 311 | 315 | 323 | 311 | 302 | 289 | 277 | 285 | 285 | 306 | 302 | 316 |
| 27 | Q | 293 | 306 | 306 | 272 | 327 | 327 | 302 | 336 | 361 | 348 | 344 | 319 | 310 | 302 | 298 | 298 | 285 | 285 | 281 | 268 | 268 | 260 | 264 | 276 | 301 |
| 28 | Q | 289 | 293 | 285 | 268 | 281 | 234 | 281 | 340 | 319 | 319 | 314 | 306 | 302 | 302 | 298 | 331 | 319 | 310 | 310 | 310 | 310 | 314 | 319 | 314 | 303 |
| 29 | | 310 | 310 | 306 | 306 | 302 | 318 | 369 | 416 | 471 | 458 | 411 | 344 | 369 | 318 | 323 | 344 | 348 | 344 | 327 | 323 | 318 | 327 | 209 | 73 | 331 |
| 30 | | 154 | 225 | 285 | 293 | 289 | 272 | 276 | 344 | 340 | 361 | 335 | 327 | 310 | 310 | 306 | 306 | 310 | 327 | 373 | 344 | 352 | 314 | 310 | 310 | 307 |
| 31 | | 318 | 289 | 217 | 242 | 302 | 276 | 310 | 340 | 407 | 411 | 382 | 369 | 335 | 306 | 259 | 285 | 314 | 318 | 340 | 361 | 331 | 335 | 335 | 310 | 321 |
| MEAN A | | 263 | 256 | 252 | 258 | 262 | 290 | 316 | 360 | 369 | 387 | 369 | 345 | 337 | 305 | 279 | 275 | 281 | 287 | 288 | 281 | 281 | 273 | 262 | 259 | 297 |
| MEAN Q | | 283 | 287 | 285 | 267 | 271 | 266 | 279 | 292 | 310 | 319 | 299 | 290 | 288 | 287 | 284 | 282 | 286 | 285 | 285 | 287 | 291 | 283 | 281 | 289 | 286 |
| MEAN D | | 258 | 277 | 263 | 303 | 294 | 358 | 383 | 442 | 439 | 528 | 487 | 399 | 427 | 343 | 313 | 280 | 286 | 286 | 283 | 242 | 244 | 258 | 253 | 270 | 330 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 10 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

APRIL 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | D | 460 | 464 | 464 | 464 | 367 | 499 | 468 | 414 | 433 | 426 | 414 | 286 | 282 | 422 | 437 | 433 | 395 | 333 | 484 | 569 | 580 | 607 | 545 | 507 | 448 |
| 2 | | 523 | 496 | 461 | 438 | 438 | 454 | 446 | 454 | 454 | 454 | 450 | 411 | 380 | 345 | 399 | 399 | 357 | 345 | 446 | 539 | 632 | 666 | 589 | 500 | 462 |
| 3 | | 408 | 524 | 501 | 443 | 416 | 424 | 431 | 408 | 420 | 431 | 443 | 424 | 431 | 412 | 424 | 408 | 404 | 439 | 443 | 528 | 524 | 528 | 532 | 524 | 453 |
| 4 | | 567 | 474 | 428 | 369 | 397 | 412 | 428 | 424 | 373 | 311 | 335 | 346 | 219 | 373 | 443 | 424 | 439 | 428 | 451 | 478 | 524 | 563 | 478 | 478 | 423 |
| 5 | | 548 | 479 | 456 | 479 | 448 | 324 | 254 | 289 | 370 | 340 | 359 | 378 | 405 | 440 | 436 | 425 | 413 | 448 | 448 | 490 | 514 | 483 | 475 | 502 | 425 |
| 6 | | 534 | 557 | 507 | 441 | 480 | 449 | 433 | 352 | 306 | 433 | 464 | 457 | 445 | 414 | 414 | 406 | 433 | 422 | 457 | 519 | 511 | 623 | 588 | 611 | 469 |
| 7 | | 458 | 458 | 523 | 442 | 461 | 372 | 434 | 400 | 380 | 423 | 450 | 380 | 264 | 152 | 295 | 442 | 427 | 442 | 512 | 562 | 446 | 500 | 461 | 554 | 427 |
| 8 | | 536 | 582 | 517 | 424 | 451 | 470 | 462 | 459 | 459 | 428 | 385 | 432 | 420 | 389 | 416 | 428 | 435 | 443 | 443 | 466 | 501 | 579 | 470 | 474 | 461 |
| 9 | | 475 | 467 | 498 | 487 | 425 | 440 | 378 | 433 | 444 | 324 | 305 | 181 | 150 | 73 | 26 | 123 | 270 | 456 | 537 | 583 | 669 | 537 | 463 | 491 | 385 |
| 10 | Q | 461 | 468 | 472 | 464 | 472 | 457 | 453 | 434 | 418 | 418 | 426 | 360 | 383 | 399 | 391 | 441 | 410 | 399 | 445 | 523 | 584 | 615 | 627 | 623 | 464 |
| 11 | | 570 | 508 | 508 | 485 | 462 | 469 | 485 | 369 | 353 | 357 | 338 | 291 | 218 | 384 | 446 | 450 | 438 | 446 | 458 | 462 | 454 | 469 | 469 | 469 | 432 |
| 12 | | 463 | 466 | 470 | 474 | 470 | 482 | 478 | 470 | 447 | 428 | 439 | 432 | 447 | 447 | 474 | 463 | 463 | 466 | 470 | 478 | 501 | 617 | 583 | 764 | 487 |
| 13 | D | 630 | 746 | 607 | 464 | 564 | 626 | 363 | 258 | 371 | 433 | 409 | 464 | 266 | 7 | -218 | 77 | 336 | 433 | 572 | 657 | 541 | 560 | 626 | 680 | 436 |
| 14 | | 557 | 635 | 619 | 519 | 472 | 496 | 465 | 465 | 488 | 472 | 391 | 395 | 376 | 414 | 434 | 403 | 426 | 426 | 457 | 515 | 689 | 813 | 774 | 782 | 520 |
| 15 | | 628 | 497 | 450 | 454 | 350 | 435 | 469 | 500 | 249 | 222 | 361 | 365 | 222 | 408 | 400 | 446 | 442 | 466 | 485 | 489 | 489 | 504 | 504 | 500 | 431 |
| 16 | | 501 | 521 | 509 | 443 | 409 | 420 | 405 | 428 | 459 | 459 | 443 | 474 | 343 | 397 | 389 | 412 | 447 | 459 | 490 | 525 | 648 | 761 | 679 | 652 | 486 |
| 17 | D | 553 | 568 | 611 | 518 | 487 | 483 | 433 | 413 | 417 | 448 | 413 | 286 | 30 | 73 | 181 | 251 | 379 | 471 | 522 | 499 | 622 | 588 | 626 | 657 | 439 |
| 18 | | 589 | 434 | 430 | 500 | 476 | 337 | 151 | 306 | 411 | 449 | 445 | 438 | 383 | 438 | 457 | 469 | 461 | 453 | 465 | 496 | 492 | 573 | 623 | 577 | 452 |
| 19 | Q | 570 | 539 | 512 | 504 | 477 | 477 | 473 | 470 | 462 | 462 | 470 | 470 | 454 | 373 | 415 | 439 | 439 | 443 | 454 | 481 | 493 | 547 | 601 | 551 | 482 |
| 20 | | 591 | 529 | 548 | 478 | 482 | 478 | 385 | 409 | 401 | 447 | 463 | 471 | 436 | 440 | 451 | 447 | 440 | 447 | 463 | 502 | 548 | 602 | 610 | 563 | 485 |
| 21 | Q | 603 | 549 | 487 | 472 | 472 | 472 | 448 | 464 | 468 | 456 | 448 | 472 | 479 | 464 | 452 | 445 | 448 | 445 | 448 | 460 | 475 | 479 | 530 | 530 | 478 |
| 22 | | 535 | 504 | 496 | 496 | 496 | 500 | 504 | 496 | 473 | 407 | 415 | 403 | 395 | 442 | 434 | 457 | 430 | 434 | 449 | 457 | 457 | 473 | 492 | 480 | 463 |
| 23 | Q | 471 | 482 | 478 | 467 | 463 | 405 | 401 | 424 | 413 | 459 | 451 | 440 | 374 | 289 | 393 | 436 | 420 | 436 | 440 | 459 | 463 | 467 | 478 | 513 | 438 |
| 24 | | 510 | 534 | 479 | 483 | 472 | 414 | 367 | 452 | 460 | 476 | 476 | 476 | 472 | 468 | 468 | 452 | 414 | 452 | 445 | 452 | 460 | 476 | 499 | 538 | 466 |
| 25 | | 577 | 535 | 477 | 477 | 477 | 430 | 391 | 368 | 477 | 484 | 465 | 438 | 380 | 388 | 384 | 391 | 446 | 457 | 461 | 484 | 515 | 508 | 539 | 554 | 463 |
| 26 | Q | 501 | 497 | 454 | 478 | 470 | 470 | 408 | 431 | 439 | 454 | 443 | 412 | 377 | 423 | 447 | 431 | 451 | 423 | 470 | 485 | 543 | 563 | 555 | 543 | 465 |
| 27 | | 548 | 494 | 479 | 409 | 378 | 421 | 390 | 386 | 444 | 448 | 393 | 339 | 386 | 370 | 324 | 386 | 459 | 467 | 502 | 517 | 513 | 521 | 498 | 502 | 441 |
| 28 | D | 503 | 503 | 511 | 561 | 538 | 391 | 406 | 542 | 514 | 495 | 441 | 464 | 333 | 480 | 356 | 433 | 545 | 503 | 511 | 518 | 487 | 472 | 480 | 468 | 477 |
| 29 | | 470 | 474 | 470 | 458 | 458 | 458 | 458 | 462 | 458 | 443 | 424 | 443 | 427 | 389 | 412 | 396 | 396 | 439 | 485 | 532 | 555 | 629 | 652 | 559 | 473 |
| 30 | D | 591 | 506 | 521 | 506 | 370 | 335 | 292 | 443 | 401 | 144 | 304 | 342 | 265 | 187 | 82 | 319 | 459 | 517 | 572 | 599 | 579 | 657 | 614 | 541 | 423 |
| MEAN A | | 531 | 516 | 498 | 470 | 453 | 443 | 412 | 421 | 422 | 414 | 415 | 399 | 348 | 357 | 362 | 398 | 424 | 441 | 476 | 511 | 534 | 566 | 555 | 556 | 455 |
| MEAN Q | | 521 | 507 | 481 | 477 | 471 | 456 | 437 | 444 | 440 | 450 | 448 | 431 | 414 | 390 | 420 | 438 | 434 | 429 | 451 | 482 | 512 | 534 | 558 | 552 | 466 |
| MEAN D | | 547 | 557 | 543 | 502 | 465 | 467 | 392 | 414 | 427 | 389 | 396 | 368 | 235 | 234 | 168 | 303 | 423 | 451 | 532 | 568 | 562 | 577 | 578 | 571 | 445 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 11 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

APRIL 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | D | 443 | 443 | 447 | 435 | 451 | 405 | 435 | 451 | 443 | 474 | 489 | 504 | 539 | 512 | 497 | 481 | 512 | 497 | 566 | 600 | 508 | 493 | 508 | 439 | 482 |
| 2 | | 435 | 447 | 443 | 424 | 432 | 447 | 447 | 451 | 455 | 458 | 458 | 474 | 501 | 516 | 501 | 520 | 520 | 504 | 428 | 481 | 600 | 481 | 451 | 443 | 472 |
| 3 | | 366 | 340 | 416 | 420 | 435 | 432 | 466 | 474 | 466 | 470 | 458 | 470 | 481 | 497 | 501 | 504 | 493 | 489 | 501 | 520 | 470 | 451 | 451 | 443 | 459 |
| 4 | | 466 | 439 | 412 | 328 | 359 | 393 | 428 | 416 | 478 | 470 | 489 | 485 | 520 | 497 | 497 | 497 | 481 | 481 | 489 | 478 | 474 | 466 | 435 | 432 | 455 |
| 5 | | 458 | 458 | 451 | 451 | 443 | 481 | 397 | 474 | 447 | 458 | 478 | 481 | 493 | 497 | 497 | 481 | 485 | 458 | 435 | 451 | 451 | 443 | 435 | 439 | 460 |
| 6 | | 458 | 470 | 447 | 416 | 401 | 443 | 439 | 405 | 439 | 466 | 466 | 470 | 478 | 489 | 493 | 493 | 462 | 478 | 481 | 481 | 455 | 474 | 474 | 447 | 459 |
| 7 | | 336 | 370 | 405 | 405 | 405 | 382 | 393 | 458 | 478 | 474 | 474 | 474 | 504 | 543 | 527 | 508 | 508 | 489 | 508 | 520 | 432 | 443 | 443 | 451 | 455 |
| 8 | | 478 | 466 | 455 | 462 | 466 | 458 | 451 | 458 | 462 | 470 | 478 | 474 | 481 | 493 | 493 | 478 | 462 | 455 | 455 | 458 | 458 | 481 | 470 | 451 | 467 |
| 9 | | 443 | 455 | 451 | 435 | 412 | 389 | 366 | 455 | 458 | 481 | 489 | 550 | 558 | 570 | 554 | 535 | 451 | 428 | 466 | 520 | 558 | 455 | 439 | 439 | 473 |
| 10 | Q | 451 | 451 | 451 | 451 | 451 | 412 | 416 | 455 | 466 | 470 | 466 | 497 | 508 | 508 | 504 | 481 | 497 | 451 | 432 | 451 | 489 | 458 | 451 | 443 | 463 |
| 11 | | 467 | 475 | 459 | 448 | 413 | 429 | 429 | 417 | 452 | 463 | 482 | 498 | 536 | 528 | 505 | 475 | 463 | 452 | 433 | 433 | 444 | 444 | 448 | 452 | 460 |
| 12 | | 452 | 452 | 452 | 456 | 452 | 436 | 452 | 452 | 459 | 475 | 467 | 471 | 498 | 502 | 490 | 475 | 471 | 482 | 444 | 444 | 452 | 513 | 471 | 513 | 468 |
| 13 | D | 403 | 411 | 449 | 391 | 395 | 338 | 280 | 361 | 453 | 460 | 499 | 522 | 560 | 629 | 694 | 606 | 529 | 625 | 621 | 641 | 621 | 560 | 545 | 506 | 504 |
| 14 | | 418 | 184 | 437 | 480 | 457 | 445 | 437 | 468 | 441 | 457 | 483 | 476 | 529 | 506 | 499 | 499 | 472 | 457 | 468 | 476 | 575 | 591 | 537 | 472 | 469 |
| 15 | | 423 | 431 | 419 | 331 | 254 | 381 | 392 | 454 | 465 | 431 | 461 | 492 | 542 | 530 | 530 | 496 | 477 | 469 | 450 | 438 | 431 | 438 | 446 | 446 | 443 |
| 16 | | 450 | 458 | 450 | 408 | 404 | 442 | 435 | 412 | 461 | 481 | 477 | 477 | 538 | 527 | 530 | 507 | 469 | 484 | 431 | 465 | 546 | 546 | 465 | 438 | 471 |
| 17 | D | 443 | 324 | 359 | 462 | 455 | 393 | 424 | 386 | 432 | 455 | 474 | 485 | 516 | 547 | 547 | 600 | 535 | 489 | 501 | 451 | 501 | 478 | 478 | 447 | 466 |
| 18 | | 447 | 397 | 305 | 393 | 428 | 378 | 382 | 420 | 455 | 470 | 478 | 489 | 524 | 512 | 508 | 493 | 485 | 485 | 459 | 462 | 447 | 455 | 470 | 478 | 451 |
| 19 | Q | 460 | 471 | 463 | 471 | 463 | 456 | 456 | 456 | 463 | 463 | 471 | 475 | 479 | 509 | 506 | 494 | 471 | 452 | 448 | 444 | 448 | 456 | 467 | 460 | 467 |
| 20 | | 448 | 479 | 479 | 475 | 467 | 452 | 406 | 444 | 463 | 467 | 479 | 479 | 486 | 494 | 494 | 483 | 479 | 475 | 452 | 479 | 483 | 509 | 490 | 463 | 472 |
| 21 | Q | 480 | 468 | 472 | 468 | 457 | 457 | 449 | 468 | 464 | 464 | 468 | 476 | 484 | 491 | 495 | 495 | 487 | 472 | 457 | 441 | 438 | 445 | 461 | 464 | 468 |
| 22 | | 469 | 457 | 457 | 457 | 457 | 445 | 484 | 492 | 492 | 480 | 472 | 511 | 503 | 511 | 503 | 492 | 476 | 461 | 442 | 442 | 449 | 453 | 449 | 471 | 471 |
| 23 | Q | 458 | 470 | 473 | 462 | 446 | 446 | 443 | 466 | 466 | 473 | 470 | 485 | 489 | 523 | 500 | 485 | 485 | 470 | 454 | 458 | 446 | 435 | 443 | 446 | 466 |
| 24 | | 454 | 466 | 462 | 474 | 408 | 431 | 454 | 466 | 466 | 470 | 474 | 489 | 497 | 508 | 501 | 497 | 493 | 466 | 447 | 443 | 431 | 435 | 447 | 458 | 464 |
| 25 | | 459 | 475 | 444 | 436 | 440 | 428 | 425 | 417 | 467 | 463 | 467 | 482 | 502 | 505 | 494 | 482 | 455 | 452 | 452 | 448 | 448 | 444 | 463 | 475 | 459 |
| 26 | Q | 475 | 471 | 436 | 448 | 456 | 456 | 448 | 452 | 471 | 460 | 471 | 483 | 494 | 513 | 490 | 483 | 467 | 463 | 467 | 448 | 452 | 460 | 463 | 456 | 466 |
| 27 | | 461 | 422 | 430 | 376 | 360 | 437 | 441 | 426 | 461 | 457 | 487 | 468 | 499 | 507 | 530 | 487 | 453 | 457 | 453 | 445 | 445 | 441 | 445 | 445 | 451 |
| 28 | D | 445 | 449 | 449 | 445 | 391 | 268 | 314 | 441 | 507 | 484 | 576 | 522 | 580 | 557 | 546 | 499 | 492 | 453 | 422 | 430 | 445 | 445 | 453 | 453 | 461 |
| 29 | | 453 | 449 | 453 | 453 | 449 | 457 | 468 | 468 | 461 | 468 | 476 | 492 | 503 | 515 | 507 | 507 | 472 | 453 | 461 | 499 | 465 | 461 | 445 | 461 | 471 |
| 30 | D | 442 | 395 | 291 | 318 | 345 | 345 | 392 | 430 | 473 | 438 | 473 | 500 | 530 | 538 | 523 | 530 | 480 | 488 | 511 | 500 | 469 | 469 | 488 | 449 | 451 |
| MEAN A | | 445 | 431 | 434 | 429 | 422 | 419 | 420 | 443 | 462 | 466 | 479 | 487 | 512 | 519 | 515 | 503 | 483 | 475 | 468 | 475 | 477 | 471 | 465 | 455 | 465 |
| MEAN Q | | 465 | 466 | 459 | 460 | 455 | 445 | 442 | 459 | 466 | 466 | 469 | 483 | 491 | 509 | 499 | 488 | 481 | 462 | 452 | 448 | 455 | 451 | 457 | 454 | 466 |
| MEAN D | | 435 | 405 | 399 | 411 | 407 | 350 | 369 | 414 | 461 | 462 | 502 | 507 | 545 | 557 | 561 | 544 | 510 | 510 | 524 | 524 | 509 | 489 | 494 | 459 | 473 |

VERTICAL INTENSITY

TABLE 12 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

APRIL 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | D | 310 | 310 | 314 | 268 | 217 | 217 | 310 | 276 | 331 | 340 | 407 | 416 | 411 | 306 | 302 | 285 | 306 | 314 | 238 | 116 | 213 | 187 | 133 | 302 | 284 |
| 2 | | 314 | 268 | 276 | 293 | 302 | 306 | 314 | 310 | 318 | 318 | 335 | 386 | 361 | 327 | 293 | 293 | 293 | 302 | 335 | 331 | 162 | 179 | 141 | 128 | 287 |
| 3 | | 183 | 82 | 179 | 276 | 301 | 343 | 356 | 419 | 369 | 331 | 322 | 318 | 331 | 314 | 305 | 301 | 318 | 335 | 301 | 310 | 293 | 310 | 310 | 322 | 301 |
| 4 | | 276 | 200 | 267 | 305 | 225 | 280 | 407 | 407 | 424 | 495 | 474 | 436 | 462 | 352 | 318 | 314 | 310 | 314 | 310 | 322 | 314 | 276 | 322 | 327 | 339 |
| 5 | | 267 | 310 | 322 | 305 | 293 | 335 | 491 | 466 | 457 | 432 | 402 | 348 | 301 | 293 | 301 | 297 | 310 | 331 | 322 | 322 | 314 | 314 | 318 | 322 | 341 |
| 6 | | 292 | 284 | 229 | 208 | 208 | 292 | 301 | 360 | 398 | 322 | 297 | 297 | 301 | 305 | 297 | 288 | 297 | 301 | 305 | 314 | 314 | 271 | 191 | 166 | 285 |
| 7 | | 128 | 137 | 183 | 259 | 297 | 389 | 410 | 427 | 461 | 351 | 322 | 356 | 444 | 368 | 229 | 276 | 280 | 284 | 297 | 280 | 326 | 318 | 314 | 305 | 310 |
| 8 | | 216 | 183 | 216 | 242 | 225 | 267 | 292 | 301 | 317 | 338 | 360 | 296 | 301 | 284 | 275 | 284 | 292 | 305 | 309 | 309 | 305 | 288 | 280 | 309 | 283 |
| 9 | | 309 | 305 | 296 | 267 | 301 | 326 | 368 | 343 | 368 | 461 | 469 | 503 | 528 | 469 | 338 | 242 | 212 | 288 | 284 | 284 | 200 | 284 | 296 | 296 | 335 |
| 10 | Q | 296 | 292 | 292 | 288 | 275 | 292 | 360 | 385 | 381 | 385 | 389 | 389 | 305 | 267 | 250 | 275 | 313 | 330 | 343 | 347 | 305 | 313 | 284 | 288 | 318 |
| 11 | | 275 | 288 | 288 | 246 | 250 | 267 | 271 | 410 | 443 | 422 | 435 | 443 | 452 | 309 | 267 | 262 | 283 | 300 | 305 | 309 | 309 | 300 | 300 | 305 | 322 |
| 12 | | 296 | 292 | 288 | 283 | 283 | 292 | 313 | 326 | 309 | 326 | 296 | 321 | 283 | 275 | 275 | 271 | 279 | 300 | 300 | 305 | 309 | 283 | 309 | 187 | 292 |
| 13 | D | -103 | 61 | 107 | 292 | 237 | 334 | 447 | 460 | 346 | 376 | 380 | 359 | 405 | 426 | 199 | 115 | 203 | 325 | 149 | 73 | 69 | -95 | -112 | -120 | 206 |
| 14 | | -70 | 124 | 124 | 254 | 266 | 262 | 287 | 287 | 275 | 325 | 384 | 405 | 392 | 292 | 275 | 279 | 279 | 292 | 283 | 300 | 254 | 140 | 94 | 44 | 244 |
| 15 | | 40 | 124 | 216 | 203 | 321 | 304 | 317 | 355 | 493 | 426 | 439 | 493 | 455 | 283 | 250 | 258 | 279 | 275 | 296 | 304 | 304 | 296 | 296 | 292 | 305 |
| 16 | | 296 | 249 | 241 | 241 | 237 | 249 | 363 | 463 | 405 | 367 | 333 | 392 | 409 | 279 | 233 | 245 | 270 | 287 | 300 | 308 | 199 | 115 | 233 | 124 | 285 |
| 17 | D | 65 | -40 | 69 | 199 | 245 | 300 | 342 | 459 | 421 | 346 | 384 | 484 | 442 | 501 | 325 | 279 | 249 | 270 | 300 | 275 | 266 | 216 | 199 | 212 | 284 |
| 18 | | 40 | 115 | 224 | 249 | 266 | 501 | 459 | 492 | 387 | 345 | 333 | 325 | 320 | 291 | 295 | 291 | 291 | 304 | 304 | 308 | 325 | 312 | 224 | 245 | 302 |
| 19 | Q | 249 | 216 | 274 | 283 | 278 | 283 | 287 | 291 | 291 | 291 | 291 | 291 | 299 | 278 | 266 | 283 | 291 | 299 | 299 | 304 | 316 | 325 | 291 | 295 | 286 |
| 20 | | 232 | 232 | 211 | 283 | 274 | 287 | 258 | 262 | 304 | 287 | 287 | 283 | 278 | 270 | 274 | 278 | 278 | 278 | 278 | 278 | 270 | 190 | 98 | 149 | 255 |
| 21 | Q | 182 | 274 | 282 | 274 | 266 | 287 | 324 | 307 | 295 | 295 | 291 | 274 | 274 | 270 | 270 | 266 | 266 | 261 | 257 | 266 | 278 | 274 | 287 | 291 | 275 |
| 22 | | 282 | 274 | 261 | 257 | 253 | 257 | 266 | 303 | 370 | 299 | 324 | 387 | 287 | 253 | 253 | 253 | 249 | 253 | 261 | 266 | 261 | 270 | 282 | 274 | 279 |
| 23 | Q | 265 | 265 | 249 | 249 | 240 | 299 | 316 | 299 | 286 | 261 | 249 | 257 | 286 | 261 | 224 | 240 | 244 | 244 | 249 | 253 | 265 | 265 | 270 | 274 | 263 |
| 24 | | 265 | 203 | 173 | 165 | 228 | 341 | 320 | 261 | 265 | 249 | 253 | 244 | 244 | 240 | 232 | 232 | 236 | 244 | 236 | 240 | 257 | 257 | 274 | 286 | 248 |
| 25 | | 161 | 157 | 244 | 244 | 273 | 303 | 382 | 344 | 278 | 265 | 290 | 303 | 286 | 240 | 232 | 244 | 240 | 244 | 257 | 265 | 269 | 273 | 278 | 248 | 263 |
| 26 | Q | 261 | 215 | 169 | 244 | 244 | 244 | 269 | 282 | 261 | 265 | 282 | 273 | 261 | 207 | 228 | 244 | 248 | 240 | 265 | 299 | 299 | 307 | 265 | 261 | 256 |
| 27 | | 265 | 190 | 173 | 194 | 315 | 315 | 332 | 315 | 302 | 319 | 348 | 377 | 261 | 257 | 248 | 198 | 240 | 265 | 273 | 273 | 282 | 265 | 265 | 261 | 272 |
| 28 | D | 257 | 257 | 236 | 186 | 257 | 569 | 473 | 494 | 440 | 432 | 469 | 423 | 478 | 548 | 465 | 290 | 248 | 236 | 236 | 252 | 265 | 269 | 265 | 269 | 346 |
| 29 | | 269 | 273 | 273 | 273 | 265 | 265 | 273 | 269 | 265 | 285 | 285 | 269 | 273 | 260 | 244 | 248 | 240 | 248 | 265 | 277 | 265 | 231 | 110 | -60 | 244 |
| 30 | D | 131 | 198 | 194 | 165 | 290 | 431 | 415 | 348 | 373 | 448 | 410 | 344 | 360 | 369 | 331 | 231 | 248 | 277 | 281 | 260 | 260 | 227 | 198 | 269 | 294 |
| MEAN A | | 208 | 211 | 229 | 250 | 264 | 315 | 344 | 357 | 354 | 347 | 351 | 356 | 350 | 313 | 276 | 262 | 270 | 285 | 281 | 278 | 269 | 249 | 234 | 229 | 287 |
| MEAN Q | | 251 | 252 | 253 | 267 | 261 | 281 | 311 | 313 | 303 | 299 | 300 | 297 | 285 | 257 | 247 | 262 | 273 | 275 | 283 | 293 | 293 | 297 | 279 | 282 | 280 |
| MEAN D | | 132 | 157 | 184 | 222 | 249 | 370 | 397 | 407 | 382 | 388 | 410 | 405 | 419 | 430 | 324 | 240 | 251 | 284 | 241 | 195 | 215 | 161 | 137 | 186 | 283 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 13 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

MAY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 586 | 552 | 530 | 470 | 368 | 477 | 436 | 346 | 331 | 304 | 383 | 391 | 417 | 417 | 440 | 447 | 489 | 492 | 492 | 522 | 590 | 579 | 541 | 511 | 463 |
| 2 | D | 526 | 537 | 496 | 436 | 417 | 443 | 474 | 474 | 436 | 267 | 376 | 489 | 395 | 274 | 327 | 425 | 451 | 500 | 552 | 590 | 669 | 680 | 605 | 571 | 475 |
| 3 | | 519 | 522 | 500 | 489 | 387 | 41 | 289 | 428 | 319 | 319 | 334 | 252 | 274 | 327 | 222 | 380 | 462 | 470 | 522 | 522 | 598 | 613 | 601 | 583 | 416 |
| 4 | | 537 | 522 | 507 | 504 | 319 | 485 | 507 | 481 | 421 | 417 | 342 | 380 | 421 | 440 | 455 | 466 | 462 | 477 | 485 | 522 | 530 | 549 | 568 | 598 | 475 |
| 5 | | 643 | 575 | 537 | 507 | 489 | 489 | 477 | 466 | 428 | 462 | 481 | 402 | 323 | 161 | 402 | 485 | 492 | 492 | 496 | 549 | 537 | 586 | 620 | 650 | 490 |
| 6 | | 579 | 530 | 515 | 428 | 440 | 342 | 237 | 395 | 489 | 496 | 451 | 428 | 391 | 421 | 496 | 489 | 492 | 489 | 485 | 500 | 526 | 571 | 571 | 568 | 472 |
| 7 | Q | 628 | 628 | 613 | 537 | 451 | 451 | 500 | 477 | 436 | 428 | 447 | 436 | 474 | 500 | 496 | 485 | 485 | 485 | 485 | 492 | 489 | 485 | 485 | 489 | 495 |
| 8 | | 515 | 545 | 530 | 470 | 451 | 470 | 466 | 485 | 466 | 474 | 470 | 485 | 451 | 481 | 436 | 466 | 507 | 485 | 504 | 496 | 507 | 511 | 609 | 601 | 495 |
| 9 | | 552 | 530 | 545 | 492 | 443 | 466 | 507 | 507 | 334 | 346 | 425 | 455 | 380 | 489 | 504 | 496 | 489 | 485 | 492 | 507 | 511 | 635 | 737 | 609 | 497 |
| 10 | | 583 | 515 | 530 | 485 | 372 | 387 | 470 | 485 | 504 | 507 | 504 | 466 | 477 | 451 | 477 | 470 | 485 | 492 | 530 | 534 | 522 | 507 | 500 | 504 | 490 |
| 11 | Q | 522 | 537 | 526 | 485 | 440 | 398 | 458 | 485 | 485 | 286 | 383 | 376 | 432 | 455 | 474 | 440 | 455 | 470 | 496 | 515 | 534 | 545 | 530 | 522 | 469 |
| 12 | | 515 | 537 | 541 | 545 | 522 | 504 | 500 | 500 | 466 | 500 | 425 | 436 | 455 | 492 | 504 | 477 | 477 | 474 | 504 | 507 | 530 | 568 | 740 | 771 | 520 |
| 13 | D | 673 | 560 | 496 | 481 | 481 | 425 | 289 | 383 | 462 | 462 | 364 | 222 | 203 | 60 | 41 | 60 | 357 | 511 | 620 | 662 | 492 | 552 | 504 | 549 | 413 |
| 14 | D | 544 | 397 | 600 | 540 | 465 | 310 | 461 | 517 | 544 | 389 | 337 | 359 | 450 | 442 | 386 | 382 | 472 | 510 | 521 | 600 | 472 | 465 | 374 | 359 | 454 |
| 15 | D | 514 | 581 | 435 | 213 | 506 | 521 | 525 | 498 | 461 | -160 | 36 | 183 | -17 | 17 | 416 | 393 | 348 | 386 | 495 | 551 | 529 | 608 | 566 | 487 | 379 |
| 16 | D | 359 | 517 | 529 | 438 | 472 | 446 | 412 | 521 | 532 | 408 | 269 | 292 | 269 | 465 | 498 | 536 | 514 | 517 | 547 | 559 | 608 | 724 | 713 | 717 | 494 |
| 17 | | 694 | 664 | 540 | 555 | 544 | 555 | 521 | 540 | 525 | 510 | 517 | 514 | 427 | 284 | 389 | 525 | 536 | 544 | 547 | 562 | 592 | 679 | 713 | 686 | 548 |
| 18 | | 630 | 668 | 619 | 540 | 540 | 529 | 521 | 532 | 465 | 374 | 254 | 442 | 510 | 514 | 487 | 514 | 514 | 521 | 555 | 596 | 589 | 581 | 686 | 596 | 532 |
| 19 | | 645 | 577 | 555 | 547 | 525 | 536 | 547 | 529 | 525 | 536 | 547 | 506 | 491 | 438 | 438 | 555 | 581 | 551 | 540 | 596 | 589 | 566 | 600 | 600 | 547 |
| 20 | | 660 | 574 | 547 | 521 | 510 | 427 | 378 | 442 | 502 | 495 | 532 | 491 | 480 | 502 | 461 | 491 | 532 | 525 | 525 | 566 | 604 | 615 | 611 | 709 | 529 |
| 21 | | 698 | 668 | 585 | 517 | 521 | 540 | 382 | 465 | 517 | 585 | 412 | 201 | 288 | 386 | 269 | 367 | 555 | 566 | 566 | 555 | 656 | 656 | 743 | 713 | 517 |
| 22 | | 538 | 581 | 562 | 427 | 506 | 532 | 544 | 532 | 532 | 495 | 348 | 224 | 224 | 326 | 329 | 397 | 495 | 555 | 577 | 562 | 559 | 559 | 562 | 555 | 484 |
| 23 | | 596 | 604 | 570 | 510 | 559 | 547 | 555 | 442 | 389 | 544 | 480 | 404 | 307 | 378 | 514 | 536 | 547 | 547 | 525 | 562 | 555 | 570 | 608 | 604 | 519 |
| 24 | | 559 | 540 | 540 | 536 | 547 | 510 | 472 | 521 | 517 | 510 | 495 | 480 | 442 | 318 | 329 | 457 | 525 | 521 | 525 | 585 | 562 | 600 | 671 | 702 | 519 |
| 25 | | 536 | 585 | 502 | 431 | 506 | 510 | 495 | 495 | 510 | 487 | 465 | 483 | 487 | 498 | 498 | 498 | 495 | 502 | 510 | 517 | 566 | 623 | 675 | 626 | 521 |
| 26 | Q | 585 | 570 | 521 | 521 | 510 | 525 | 510 | 510 | 514 | 514 | 472 | 371 | 435 | 480 | 510 | 502 | 498 | 502 | 517 | 517 | 540 | 555 | 581 | 562 | 513 |
| 27 | Q | 566 | 555 | 536 | 532 | 517 | 514 | 517 | 514 | 502 | 465 | 423 | 404 | 423 | 442 | 502 | 510 | 510 | 502 | 502 | 506 | 521 | 521 | 536 | 555 | 503 |
| 28 | | 551 | 544 | 540 | 540 | 532 | 483 | 502 | 536 | 438 | 427 | 303 | 423 | 472 | 491 | 450 | 491 | 502 | 525 | 555 | 555 | 570 | 555 | 577 | 521 | 503 |
| 29 | Q | 540 | 547 | 551 | 540 | 532 | 532 | 521 | 491 | 435 | 450 | 446 | 431 | 378 | 397 | 483 | 476 | 495 | 514 | 547 | 555 | 581 | 555 | 638 | 732 | 515 |
| 30 | | 653 | 645 | 600 | 559 | 544 | 502 | 514 | 517 | 461 | 314 | 435 | 427 | 314 | 404 | 480 | 431 | 404 | 521 | 562 | 581 | 574 | 585 | 634 | 634 | 512 |
| 31 | | 634 | 619 | 544 | 536 | 408 | 292 | 487 | 442 | 367 | 397 | 450 | 450 | 288 | 318 | 431 | 544 | 540 | 532 | 510 | 577 | 683 | 743 | 743 | 724 | 511 |
| MEAN A | | 580 | 565 | 540 | 495 | 478 | 458 | 467 | 482 | 462 | 420 | 407 | 397 | 379 | 389 | 424 | 458 | 489 | 505 | 525 | 549 | 561 | 585 | 608 | 600 | 493 |
| MEAN Q | | 568 | 567 | 549 | 523 | 490 | 484 | 501 | 495 | 474 | 428 | 434 | 404 | 428 | 455 | 493 | 482 | 488 | 495 | 510 | 517 | 533 | 532 | 554 | 572 | 499 |
| MEAN D | | 523 | 519 | 511 | 422 | 468 | 429 | 432 | 479 | 487 | 273 | 276 | 309 | 260 | 252 | 334 | 359 | 428 | 485 | 547 | 592 | 554 | 606 | 552 | 537 | 443 |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 14 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

MAY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | | 449 | 461 | 457 | 415 | 287 | 399 | 368 | 446 | 453 | 446 | 469 | 496 | 507 | 507 | 511 | 496 | 476 | 469 | 446 | 446 | 449 | 446 | 453 | 442 | 450 |
| 2 | D | 446 | 442 | 438 | 407 | 376 | 399 | 438 | 438 | 438 | 438 | 473 | 481 | 500 | 542 | 535 | 496 | 504 | 403 | 566 | 438 | 492 | 446 | 461 | 446 | 461 |
| 3 | | 447 | 458 | 447 | 447 | 369 | 226 | 389 | 451 | 424 | 474 | 474 | 501 | 536 | 536 | 543 | 489 | 466 | 447 | 431 | 424 | 458 | 474 | 435 | 470 | 451 |
| 4 | | 447 | 447 | 451 | 424 | 435 | 424 | 428 | 443 | 428 | 451 | 459 | 493 | 517 | 505 | 501 | 482 | 482 | 447 | 447 | 439 | 439 | 428 | 435 | 428 | 453 |
| 5 | | 456 | 456 | 456 | 433 | 437 | 444 | 441 | 433 | 425 | 441 | 452 | 452 | 506 | 526 | 483 | 491 | 464 | 464 | 441 | 464 | 441 | 441 | 452 | 479 | 457 |
| 6 | | 452 | 452 | 433 | 464 | 417 | 363 | 363 | 441 | 460 | 464 | 472 | 491 | 506 | 514 | 491 | 491 | 472 | 479 | 468 | 444 | 437 | 444 | 452 | 441 | 455 |
| 7 | Q | 465 | 453 | 438 | 415 | 411 | 430 | 415 | 422 | 446 | 465 | 473 | 496 | 500 | 492 | 492 | 488 | 469 | 457 | 446 | 434 | 430 | 430 | 434 | 434 | 451 |
| 8 | | 438 | 454 | 446 | 438 | 395 | 395 | 411 | 454 | 454 | 461 | 469 | 469 | 489 | 477 | 477 | 489 | 465 | 473 | 438 | 438 | 442 | 450 | 477 | 504 | 454 |
| 9 | | 466 | 455 | 451 | 439 | 443 | 427 | 458 | 458 | 462 | 482 | 490 | 536 | 505 | 490 | 478 | 451 | 443 | 420 | 439 | 427 | 474 | 544 | 458 | 465 | 465 |
| 10 | | 451 | 455 | 451 | 412 | 451 | 470 | 373 | 474 | 459 | 490 | 470 | 502 | 509 | 505 | 482 | 470 | 455 | 467 | 455 | 439 | 439 | 447 | 451 | 459 | 460 |
| 11 | Q | 456 | 464 | 444 | 429 | 437 | 444 | 429 | 460 | 468 | 444 | 456 | 499 | 518 | 507 | 499 | 479 | 460 | 452 | 437 | 452 | 460 | 464 | 460 | 464 | 462 |
| 12 | | 468 | 468 | 476 | 476 | 452 | 452 | 452 | 460 | 452 | 452 | 464 | 491 | 522 | 518 | 495 | 483 | 476 | 472 | 444 | 468 | 429 | 476 | 499 | 487 | 472 |
| 13 | D | 426 | 325 | 368 | 368 | 309 | 368 | 282 | 391 | 442 | 465 | 457 | 500 | 442 | 563 | 625 | 656 | 539 | 563 | 539 | 594 | 524 | 465 | 379 | 266 | 452 |
| 14 | D | 372 | 130 | 294 | 391 | 344 | 336 | 376 | 446 | 469 | 465 | 454 | 512 | 532 | 536 | 575 | 532 | 485 | 450 | 454 | 610 | 602 | 508 | 360 | 251 | 437 |
| 15 | D | 369 | 373 | 88 | 138 | 291 | 330 | 377 | 369 | 345 | 650 | 412 | 541 | 587 | 439 | 564 | 701 | 705 | 861 | 787 | 763 | 728 | 673 | 423 | 291 | 492 |
| 16 | D | 209 | 283 | 314 | 337 | 263 | 361 | 462 | 439 | 462 | 400 | 373 | 462 | 459 | 498 | 505 | 505 | 501 | 509 | 509 | 466 | 474 | 505 | 490 | 478 | 428 |
| 17 | | 456 | 436 | 397 | 378 | 374 | 409 | 448 | 460 | 432 | 444 | 471 | 471 | 534 | 584 | 569 | 522 | 495 | 487 | 483 | 471 | 456 | 471 | 456 | 440 | 464 |
| 18 | | 338 | 393 | 460 | 424 | 389 | 424 | 467 | 432 | 424 | 452 | 510 | 510 | 522 | 534 | 530 | 506 | 510 | 467 | 440 | 456 | 452 | 479 | 479 | 461 | 461 |
| 19 | | 480 | 476 | 461 | 464 | 441 | 453 | 457 | 464 | 461 | 480 | 464 | 484 | 476 | 539 | 550 | 464 | 464 | 445 | 437 | 464 | 457 | 441 | 453 | 464 | 468 |
| 20 | | 464 | 464 | 449 | 433 | 433 | 418 | 425 | 453 | 449 | 480 | 484 | 511 | 543 | 519 | 523 | 511 | 484 | 472 | 453 | 437 | 476 | 476 | 472 | 484 | 471 |
| 21 | | 489 | 438 | 426 | 411 | 395 | 450 | 442 | 442 | 450 | 438 | 430 | 497 | 555 | 594 | 540 | 497 | 465 | 458 | 454 | 462 | 504 | 493 | 528 | 481 | 472 |
| 22 | | 450 | 450 | 446 | 364 | 391 | 434 | 434 | 454 | 465 | 462 | 454 | 489 | 571 | 555 | 544 | 536 | 485 | 458 | 458 | 434 | 438 | 442 | 450 | 450 | 463 |
| 23 | | 459 | 463 | 459 | 431 | 400 | 435 | 451 | 459 | 423 | 439 | 455 | 498 | 580 | 603 | 509 | 509 | 459 | 455 | 435 | 459 | 439 | 451 | 470 | 466 | 467 |
| 24 | | 455 | 455 | 455 | 451 | 423 | 420 | 400 | 470 | 463 | 486 | 482 | 513 | 505 | 568 | 560 | 470 | 466 | 451 | 435 | 455 | 435 | 463 | 474 | 482 | 468 |
| 25 | | 393 | 428 | 409 | 413 | 448 | 424 | 444 | 456 | 460 | 475 | 491 | 503 | 514 | 510 | 495 | 483 | 479 | 483 | 436 | 444 | 460 | 491 | 510 | 499 | 465 |
| 26 | Q | 487 | 491 | 479 | 444 | 448 | 460 | 456 | 464 | 464 | 460 | 475 | 506 | 538 | 530 | 506 | 491 | 475 | 464 | 448 | 440 | 448 | 467 | 483 | 475 | 475 |
| 27 | Q | 476 | 476 | 465 | 465 | 461 | 449 | 457 | 465 | 465 | 476 | 500 | 515 | 527 | 531 | 500 | 488 | 480 | 472 | 465 | 465 | 453 | 457 | 453 | 465 | 476 |
| 28 | | 468 | 465 | 465 | 461 | 457 | 414 | 402 | 445 | 414 | 398 | 468 | 519 | 523 | 511 | 507 | 484 | 449 | 433 | 445 | 449 | 453 | 461 | 465 | 468 | 459 |
| 29 | Q | 469 | 466 | 462 | 462 | 462 | 462 | 446 | 442 | 430 | 458 | 477 | 497 | 544 | 548 | 516 | 497 | 481 | 469 | 493 | 462 | 473 | 473 | 473 | 493 | 477 |
| 30 | | 485 | 481 | 473 | 469 | 438 | 368 | 426 | 446 | 454 | 477 | 493 | 501 | 548 | 563 | 524 | 512 | 489 | 438 | 462 | 466 | 469 | 458 | 477 | 505 | 476 |
| 31 | | 462 | 469 | 454 | 415 | 387 | 399 | 442 | 426 | 462 | 477 | 508 | 508 | 548 | 563 | 548 | 493 | 508 | 473 | 462 | 505 | 532 | 536 | 505 | 481 | 482 |
| MEAN A | | 440 | 433 | 426 | 417 | 402 | 409 | 421 | 445 | 445 | 464 | 465 | 497 | 522 | 529 | 522 | 507 | 486 | 478 | 470 | 471 | 472 | 471 | 463 | 449 | 463 |
| MEAN Q | | 471 | 470 | 458 | 443 | 443 | 449 | 440 | 450 | 454 | 461 | 476 | 503 | 525 | 521 | 503 | 489 | 473 | 463 | 458 | 450 | 453 | 458 | 461 | 466 | 468 |
| MEAN D | | 364 | 310 | 300 | 328 | 317 | 359 | 387 | 417 | 431 | 484 | 434 | 499 | 504 | 515 | 561 | 578 | 547 | 557 | 571 | 574 | 564 | 523 | 423 | 346 | 454 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 15 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

MAY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 219 | 177 | 235 | 252 | 381 | 281 | 302 | 431 | 419 | 369 | 319 | 302 | 265 | 256 | 248 | 273 | 277 | 290 | 302 | 315 | 302 | 273 | 285 | 290 | 294 |
| 2 | D | 290 | 277 | 231 | 198 | 248 | 315 | 319 | 306 | 306 | 415 | 335 | 277 | 273 | 260 | 215 | 227 | 265 | 290 | 431 | 406 | 269 | 177 | 223 | 290 | 285 |
| 3 | | 289 | 277 | 273 | 260 | 310 | 256 | 456 | 460 | 472 | 485 | 481 | 497 | 414 | 310 | 298 | 268 | 285 | 293 | 314 | 323 | 310 | 281 | 277 | 264 | 340 |
| 4 | | 281 | 289 | 281 | 285 | 156 | 223 | 273 | 306 | 352 | 348 | 389 | 331 | 268 | 264 | 273 | 268 | 285 | 293 | 306 | 314 | 302 | 298 | 302 | 285 | 290 |
| 5 | | 177 | 260 | 264 | 264 | 277 | 285 | 293 | 318 | 297 | 301 | 306 | 364 | 414 | 393 | 277 | 293 | 293 | 297 | 306 | 314 | 326 | 293 | 281 | 214 | 296 |
| 6 | | 268 | 289 | 239 | 260 | 355 | 480 | 389 | 385 | 289 | 285 | 285 | 293 | 285 | 227 | 247 | 272 | 272 | 285 | 289 | 310 | 301 | 289 | 285 | 268 | 298 |
| 7 | Q | 202 | 243 | 202 | 181 | 252 | 256 | 322 | 364 | 339 | 405 | 326 | 285 | 264 | 268 | 281 | 272 | 272 | 272 | 272 | 272 | 277 | 277 | 277 | 277 | 277 |
| 8 | | 289 | 256 | 222 | 189 | 222 | 314 | 368 | 343 | 322 | 289 | 276 | 272 | 276 | 268 | 260 | 247 | 260 | 268 | 268 | 264 | 268 | 272 | 297 | 285 | 275 |
| 9 | | 276 | 280 | 260 | 280 | 293 | 326 | 309 | 309 | 492 | 422 | 363 | 297 | 305 | 247 | 243 | 251 | 256 | 256 | 272 | 285 | 305 | 280 | 214 | 251 | 295 |
| 10 | | 268 | 247 | 243 | 264 | 322 | 280 | 239 | 363 | 322 | 309 | 326 | 342 | 280 | 255 | 251 | 259 | 268 | 288 | 309 | 305 | 305 | 284 | 284 | 280 | 287 |
| 11 | Q | 272 | 264 | 222 | 255 | 309 | 268 | 334 | 346 | 338 | 421 | 330 | 317 | 255 | 243 | 247 | 218 | 235 | 255 | 272 | 297 | 305 | 284 | 284 | 288 | 286 |
| 12 | | 288 | 272 | 255 | 234 | 255 | 272 | 288 | 301 | 346 | 321 | 346 | 330 | 280 | 259 | 255 | 243 | 238 | 255 | 259 | 296 | 305 | 321 | 255 | 168 | 277 |
| 13 | D | 160 | 226 | 243 | 193 | 255 | 189 | 454 | 549 | 441 | 412 | 619 | 578 | 611 | 652 | 474 | 321 | 189 | 247 | 230 | 123 | -80 | -84 | -47 | -130 | 284 |
| 14 | D | 56 | 226 | 263 | 172 | 334 | 520 | 359 | 392 | 392 | 537 | 537 | 408 | 288 | 259 | 243 | 238 | 205 | 263 | 292 | 172 | -366 | -345 | -76 | -217 | 215 |
| 15 | D | -291 | -26 | 139 | 300 | 379 | 395 | 428 | 486 | 565 | 784 | 685 | 734 | 689 | 887 | 1007 | 916 | 801 | 610 | 387 | 89 | -93 | -117 | -47 | 160 | 411 |
| 16 | D | 205 | 122 | 354 | 511 | 532 | 478 | 495 | 408 | 379 | 482 | 486 | 552 | 457 | 358 | 329 | 321 | 313 | 337 | 337 | 362 | 412 | 342 | 309 | 300 | 383 |
| 17 | | 283 | 279 | 259 | 263 | 362 | 362 | 391 | 399 | 428 | 469 | 428 | 436 | 511 | 416 | 238 | 255 | 267 | 267 | 275 | 296 | 304 | 246 | 122 | 89 | 319 |
| 18 | | 48 | 151 | 193 | 234 | 279 | 321 | 449 | 383 | 358 | 486 | 478 | 349 | 312 | 263 | 255 | 250 | 255 | 263 | 292 | 337 | 296 | 292 | 279 | 279 | 296 |
| 19 | | 246 | 254 | 258 | 254 | 246 | 296 | 324 | 312 | 320 | 296 | 300 | 386 | 419 | 465 | 370 | 263 | 275 | 246 | 254 | 279 | 296 | 279 | 279 | 271 | 299 |
| 20 | | 221 | 180 | 188 | 205 | 267 | 395 | 481 | 349 | 357 | 333 | 283 | 316 | 275 | 254 | 246 | 263 | 271 | 287 | 291 | 291 | 329 | 345 | 324 | 296 | 294 |
| 21 | | 250 | 246 | 296 | 333 | 337 | 374 | 411 | 436 | 432 | 378 | 531 | 617 | 642 | 568 | 469 | 333 | 275 | 279 | 283 | 287 | 308 | 353 | 283 | 254 | 374 |
| 22 | | 264 | 223 | 227 | 140 | 293 | 264 | 306 | 322 | 368 | 405 | 624 | 595 | 599 | 615 | 475 | 314 | 215 | 248 | 273 | 306 | 293 | 285 | 293 | 297 | 343 |
| 23 | | 297 | 256 | 240 | 215 | 256 | 306 | 318 | 359 | 425 | 405 | 483 | 458 | 537 | 330 | 235 | 256 | 264 | 277 | 277 | 285 | 281 | 285 | 273 | 256 | 316 |
| 24 | | 236 | 245 | 236 | 245 | 245 | 344 | 253 | 249 | 274 | 323 | 278 | 282 | 294 | 311 | 224 | 224 | 232 | 241 | 236 | 265 | 274 | 282 | 257 | 137 | 258 |
| 25 | | 34 | 117 | 237 | 282 | 228 | 241 | 299 | 282 | 278 | 307 | 290 | 257 | 245 | 245 | 237 | 237 | 237 | 249 | 262 | 266 | 286 | 303 | 270 | 262 | 248 |
| 26 | Q | 234 | 234 | 188 | 176 | 229 | 229 | 234 | 250 | 258 | 275 | 345 | 387 | 275 | 225 | 229 | 229 | 234 | 246 | 254 | 267 | 267 | 271 | 258 | 258 | 252 |
| 27 | Q | 258 | 250 | 234 | 221 | 221 | 213 | 242 | 250 | 275 | 300 | 287 | 275 | 242 | 209 | 234 | 250 | 250 | 250 | 250 | 258 | 258 | 267 | 267 | 279 | 252 |
| 28 | | 285 | 264 | 260 | 239 | 247 | 297 | 330 | 334 | 413 | 380 | 351 | 322 | 276 | 243 | 218 | 239 | 247 | 251 | 251 | 251 | 268 | 268 | 276 | 276 | 283 |
| 29 | Q | 285 | 264 | 239 | 247 | 243 | 251 | 268 | 285 | 334 | 276 | 276 | 301 | 268 | 222 | 231 | 247 | 243 | 264 | 268 | 280 | 285 | 280 | 276 | 206 | 264 |
| 30 | | 244 | 257 | 253 | 244 | 232 | 294 | 290 | 298 | 331 | 385 | 315 | 381 | 427 | 261 | 228 | 244 | 228 | 207 | 236 | 249 | 244 | 261 | 228 | 215 | 273 |
| 31 | | 254 | 196 | 183 | 229 | 370 | 507 | 345 | 370 | 399 | 378 | 312 | 357 | 415 | 279 | 196 | 237 | 245 | 262 | 262 | 262 | 241 | 138 | 163 | 133 | 280 |
| MEAN A | | 216 | 229 | 239 | 246 | 288 | 317 | 341 | 353 | 365 | 386 | 387 | 384 | 367 | 333 | 298 | 282 | 273 | 279 | 284 | 278 | 248 | 235 | 234 | 219 | 295 |
| MEAN Q | | 250 | 251 | 217 | 216 | 251 | 243 | 280 | 299 | 309 | 335 | 313 | 313 | 261 | 233 | 244 | 243 | 247 | 258 | 263 | 275 | 278 | 276 | 272 | 262 | 266 |
| MEAN D | | 84 | 165 | 246 | 275 | 349 | 379 | 411 | 428 | 417 | 526 | 532 | 510 | 464 | 484 | 454 | 405 | 354 | 349 | 336 | 231 | 28 | -5 | 72 | 80 | 316 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 16 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

JUNE 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 642 | 577 | 477 | 538 | 500 | 504 | 500 | 484 | 500 | 496 | 446 | 438 | 454 | 480 | 492 | 507 | 507 | 504 | 523 | 592 | 646 | 550 | 531 | 523 | 517 |
| 2 | | 531 | 534 | 531 | 550 | 457 | 457 | 515 | 369 | 415 | 438 | 484 | 400 | 349 | 457 | 500 | 480 | 480 | 492 | 504 | 546 | 561 | 550 | 596 | 646 | 494 |
| 3 | | 693 | 646 | 588 | 554 | 550 | 507 | 523 | 519 | 507 | 507 | 500 | 484 | 484 | 484 | 469 | 469 | 484 | 480 | 504 | 515 | 561 | 604 | 693 | 746 | 545 |
| 4 | | 689 | 596 | 600 | 523 | 492 | 492 | 511 | 400 | 353 | 454 | 461 | 415 | 322 | 307 | 465 | 531 | 519 | 527 | 523 | 561 | 585 | 534 | 546 | 585 | 500 |
| 5 | | 600 | 600 | 623 | 581 | 538 | 488 | 473 | 480 | 504 | 500 | 442 | 434 | 496 | 473 | 477 | 469 | 484 | 500 | 504 | 515 | 558 | 561 | 546 | 561 | 517 |
| 6 | Q | 546 | 542 | 558 | 546 | 523 | 492 | 473 | 492 | 473 | 480 | 461 | 457 | 484 | 461 | 492 | 461 | 477 | 496 | 507 | 554 | 600 | 658 | 689 | 735 | 527 |
| 7 | | 716 | 615 | 554 | 569 | 500 | 523 | 546 | 538 | 538 | 531 | 531 | 403 | 423 | 280 | 384 | 454 | 500 | 542 | 561 | 558 | 565 | 573 | 600 | 685 | 529 |
| 8 | | 708 | 677 | 619 | 585 | 554 | 585 | 542 | 561 | 561 | 631 | 604 | 523 | 488 | 500 | 438 | 473 | 515 | 504 | 531 | 627 | 704 | 893 | 804 | 754 | 599 |
| 9 | | 651 | 640 | 555 | 532 | 532 | 532 | 524 | 520 | 516 | 508 | 493 | 401 | 242 | 242 | 424 | 439 | 385 | 478 | 624 | 732 | 651 | 747 | 817 | 801 | 541 |
| 10 | | 643 | 616 | 516 | 566 | 532 | 524 | 389 | 493 | 501 | 478 | 485 | 451 | 389 | 370 | 489 | 508 | 470 | 489 | 501 | 524 | 543 | 562 | 535 | 547 | 505 |
| 11 | | 559 | 582 | 555 | 520 | 520 | 428 | 466 | 501 | 401 | 366 | 520 | 543 | 520 | 489 | 508 | 508 | 512 | 516 | 516 | 516 | 524 | 547 | 667 | 667 | 519 |
| 12 | D | 663 | 628 | 636 | 535 | 532 | 439 | 474 | 535 | 401 | 350 | 385 | 470 | 447 | 416 | 420 | 447 | 474 | 528 | 566 | 628 | 620 | 655 | 655 | 616 | 522 |
| 13 | D | 593 | 601 | 574 | 532 | 455 | 470 | 508 | 516 | 524 | 493 | 470 | 431 | 323 | 204 | 231 | 401 | 462 | 485 | 478 | 717 | 763 | 678 | 593 | 663 | 507 |
| 14 | D | 640 | 593 | 528 | 481 | 439 | 462 | 481 | 478 | 397 | 555 | 559 | 559 | 431 | 316 | 393 | 524 | 512 | 516 | 520 | 520 | 555 | 686 | 747 | 624 | 521 |
| 15 | | 593 | 551 | 562 | 501 | 470 | 524 | 508 | 532 | 474 | 508 | 520 | 497 | 200 | 123 | 231 | 485 | 516 | 485 | 508 | 578 | 616 | 555 | 551 | 555 | 485 |
| 16 | D | 539 | 613 | 539 | 532 | 505 | 466 | 374 | 462 | 516 | 219 | 424 | 439 | 435 | 401 | 281 | 242 | 408 | 489 | 543 | 597 | 574 | 620 | 670 | 678 | 482 |
| 17 | D | 656 | 517 | 371 | 571 | 560 | 525 | 475 | 232 | 448 | 506 | 444 | 413 | 521 | 529 | 513 | 467 | 498 | 482 | 475 | 525 | 517 | 536 | 533 | 533 | 494 |
| 18 | Q | 583 | 556 | 533 | 517 | 509 | 490 | 513 | 517 | 509 | 502 | 521 | 521 | 521 | 494 | 475 | 479 | 467 | 479 | 509 | 536 | 540 | 540 | 533 | 525 | 515 |
| 19 | | 509 | 513 | 517 | 540 | 517 | 521 | 502 | 509 | 402 | 301 | 382 | 490 | 509 | 490 | 471 | 479 | 506 | 536 | 536 | 548 | 540 | 594 | 625 | 598 | 506 |
| 20 | | 614 | 571 | 606 | 552 | 351 | 301 | 463 | 513 | 190 | 317 | 340 | 378 | 394 | 375 | 432 | 494 | 517 | 536 | 533 | 525 | 533 | 540 | 567 | 583 | 468 |
| 21 | | 579 | 560 | 540 | 533 | 525 | 440 | 286 | 448 | 494 | 490 | 317 | 263 | 263 | 297 | 417 | 525 | 517 | 517 | 509 | 540 | 548 | 533 | 525 | 563 | 468 |
| 22 | Q | 544 | 552 | 544 | 548 | 521 | 513 | 509 | 494 | 494 | 494 | 490 | 429 | 486 | 533 | 509 | 517 | 509 | 498 | 502 | 525 | 540 | 563 | 560 | 548 | 518 |
| 23 | | 540 | 548 | 533 | 533 | 529 | 525 | 509 | 502 | 486 | 394 | 413 | 502 | 494 | 471 | 479 | 475 | 502 | 533 | 575 | 606 | 644 | 718 | 741 | 671 | 538 |
| 24 | | 595 | 618 | 460 | 480 | 526 | 372 | 356 | 433 | 379 | 430 | 430 | 426 | 345 | 437 | 372 | 541 | 514 | 514 | 564 | 557 | 561 | 642 | 688 | 676 | 497 |
| 25 | | 564 | 564 | 572 | 541 | 537 | 541 | 541 | 457 | 503 | 445 | 441 | 422 | 356 | 318 | 410 | 503 | 457 | 464 | 541 | 607 | 688 | 680 | 726 | 707 | 524 |
| 26 | | 680 | 615 | 557 | 534 | 526 | 507 | 499 | 526 | 510 | 503 | 468 | 333 | 345 | 283 | 152 | 410 | 510 | 514 | 510 | 545 | 572 | 584 | 588 | 607 | 495 |
| 27 | | 573 | 562 | 558 | 511 | 558 | 527 | 469 | 473 | 454 | 458 | 411 | 319 | 330 | 450 | 500 | 473 | 511 | 527 | 523 | 527 | 565 | 619 | 724 | 643 | 511 |
| 28 | Q | 616 | 573 | 550 | 531 | 527 | 527 | 527 | 523 | 511 | 511 | 477 | 488 | 504 | 515 | 504 | 511 | 511 | 508 | 511 | 508 | 535 | 573 | 527 | 519 | 524 |
| 29 | Q | 527 | 558 | 550 | 554 | 515 | 519 | 508 | 515 | 438 | 404 | 427 | 423 | 438 | 515 | 515 | 504 | 496 | 492 | 504 | 511 | 546 | 573 | 558 | 612 | 508 |
| 30 | | 619 | 581 | 573 | 550 | 527 | 492 | 465 | 458 | 454 | 496 | 508 | 519 | 535 | 519 | 484 | 504 | 488 | 481 | 500 | 527 | 542 | 573 | 604 | 589 | 524 |
| MEAN A | | 607 | 583 | 549 | 538 | 511 | 490 | 481 | 483 | 462 | 459 | 462 | 442 | 418 | 408 | 431 | 476 | 490 | 504 | 524 | 562 | 583 | 608 | 625 | 625 | 513 |
| MEAN Q | | 563 | 556 | 547 | 539 | 519 | 508 | 506 | 508 | 485 | 478 | 475 | 464 | 487 | 504 | 499 | 494 | 492 | 494 | 507 | 527 | 552 | 582 | 573 | 588 | 519 |
| MEAN D | | 618 | 590 | 529 | 530 | 498 | 472 | 462 | 445 | 457 | 425 | 456 | 462 | 432 | 373 | 368 | 416 | 471 | 500 | 516 | 597 | 606 | 635 | 640 | 623 | 505 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

| TABLE 17 FORT CHURCHILL | | Y = 0 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | | | | | | | | | | | | JUNE 1969 | |
|-------------------------|------------|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|------|
| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 481 | 426 | 321 | 376 | 411 | 403 | 446 | 462 | 469 | 485 | 493 | 501 | 516 | 524 | 512 | 501 | 485 | 477 | 477 | 501 | 501 | 469 | 462 | 462 | 465 |
| 2 | | 462 | 462 | 462 | 438 | 407 | 399 | 423 | 454 | 442 | 477 | 485 | 497 | 516 | 532 | 516 | 512 | 485 | 469 | 458 | 434 | 446 | 434 | 462 | 481 | 465 |
| 3 | | 455 | 478 | 470 | 474 | 459 | 427 | 443 | 455 | 463 | 486 | 486 | 521 | 525 | 525 | 525 | 517 | 502 | 474 | 439 | 431 | 443 | 455 | 467 | 529 | 477 |
| 4 | | 490 | 478 | 486 | 439 | 412 | 420 | 416 | 424 | 427 | 459 | 490 | 506 | 549 | 588 | 537 | 494 | 459 | 463 | 439 | 470 | 478 | 455 | 463 | 482 | 472 |
| 5 | | 475 | 464 | 444 | 479 | 468 | 436 | 440 | 460 | 464 | 460 | 483 | 534 | 518 | 518 | 526 | 526 | 499 | 471 | 464 | 456 | 464 | 464 | 464 | 471 | 477 |
| 6 | Q | 475 | 475 | 487 | 479 | 456 | 448 | 436 | 452 | 460 | 483 | 495 | 518 | 534 | 534 | 518 | 503 | 479 | 440 | 452 | 471 | 464 | 487 | 495 | 510 | 481 |
| 7 | | 496 | 461 | 445 | 449 | 398 | 371 | 433 | 465 | 472 | 441 | 465 | 488 | 558 | 582 | 558 | 523 | 496 | 476 | 461 | 457 | 461 | 480 | 480 | 492 | 475 |
| 8 | | 484 | 441 | 445 | 449 | 445 | 363 | 379 | 445 | 461 | 441 | 500 | 523 | 582 | 531 | 527 | 535 | 527 | 515 | 429 | 531 | 531 | 562 | 535 | 496 | 487 |
| 9 | | 480 | 445 | 410 | 363 | 410 | 410 | 422 | 465 | 480 | 480 | 472 | 511 | 582 | 613 | 578 | 558 | 554 | 566 | 597 | 640 | 562 | 500 | 480 | 457 | 502 |
| 10 | | 492 | 433 | 437 | 437 | 449 | 410 | 383 | 398 | 441 | 449 | 488 | 554 | 554 | 574 | 535 | 511 | 523 | 472 | 449 | 441 | 449 | 453 | 449 | 457 | 468 |
| 11 | | 472 | 484 | 488 | 465 | 457 | 422 | 426 | 433 | 461 | 465 | 492 | 504 | 515 | 527 | 515 | 500 | 488 | 476 | 469 | 441 | 441 | 437 | 449 | 511 | 472 |
| 12 | D | 480 | 453 | 285 | 293 | 347 | 351 | 398 | 418 | 433 | 504 | 508 | 527 | 535 | 558 | 547 | 504 | 484 | 488 | 539 | 500 | 508 | 519 | 527 | 496 | 467 |
| 13 | D | 469 | 457 | 418 | 375 | 363 | 387 | 414 | 433 | 445 | 472 | 504 | 535 | 551 | 574 | 574 | 519 | 511 | 508 | 484 | 578 | 605 | 539 | 511 | 496 | 488 |
| 14 | D | 488 | 465 | 426 | 410 | 379 | 340 | 379 | 410 | 465 | 472 | 472 | 496 | 472 | 500 | 566 | 515 | 496 | 437 | 441 | 441 | 461 | 523 | 543 | 488 | 462 |
| 15 | | 480 | 480 | 465 | 508 | 465 | 457 | 441 | 465 | 465 | 472 | 457 | 488 | 488 | 535 | 593 | 519 | 488 | 500 | 484 | 484 | 480 | 445 | 480 | 472 | 484 |
| 16 | D | 472 | 480 | 465 | 433 | 410 | 371 | 433 | 441 | 429 | 472 | 511 | 519 | 578 | 574 | 531 | 535 | 511 | 457 | 449 | 480 | 437 | 461 | 500 | 508 | 477 |
| 17 | D | 472 | 336 | 320 | 367 | 457 | 465 | 410 | 410 | 472 | 465 | 465 | 496 | 543 | 531 | 527 | 500 | 504 | 519 | 511 | 437 | 410 | 441 | 457 | 457 | 457 |
| 18 | Q | 480 | 488 | 469 | 457 | 461 | 453 | 472 | 472 | 469 | 476 | 488 | 496 | 500 | 504 | 511 | 504 | 496 | 480 | 429 | 433 | 441 | 453 | 461 | 469 | 473 |
| 19 | | 472 | 465 | 469 | 472 | 461 | 465 | 457 | 449 | 429 | 418 | 519 | 523 | 515 | 511 | 515 | 488 | 469 | 465 | 449 | 449 | 457 | 453 | 488 | 492 | 473 |
| 20 | | 480 | 414 | 465 | 476 | 422 | 312 | 453 | 441 | 371 | 410 | 472 | 511 | 539 | 554 | 527 | 496 | 484 | 472 | 449 | 457 | 453 | 457 | 465 | 472 | 461 |
| 21 | | 480 | 480 | 465 | 472 | 465 | 433 | 390 | 429 | 469 | 465 | 465 | 531 | 562 | 562 | 531 | 504 | 488 | 465 | 472 | 453 | 469 | 457 | 461 | 476 | 477 |
| 22 | Q | 484 | 484 | 476 | 472 | 465 | 465 | 465 | 465 | 465 | 472 | 480 | 511 | 531 | 511 | 500 | 500 | 484 | 472 | 461 | 457 | 469 | 472 | 476 | 469 | 479 |
| 23 | | 465 | 465 | 465 | 469 | 469 | 465 | 465 | 461 | 461 | 441 | 449 | 500 | 504 | 511 | 508 | 511 | 480 | 441 | 480 | 488 | 511 | 519 | 511 | 480 | 480 |
| 24 | | 480 | 457 | 347 | 347 | 426 | 371 | 418 | 449 | 449 | 472 | 496 | 511 | 551 | 554 | 574 | 504 | 527 | 500 | 492 | 472 | 472 | 480 | 527 | 511 | 475 |
| 25 | | 472 | 469 | 480 | 472 | 480 | 465 | 457 | 426 | 457 | 472 | 488 | 523 | 558 | 554 | 531 | 504 | 523 | 519 | 453 | 511 | 511 | 484 | 484 | 488 | 491 |
| 26 | | 453 | 480 | 484 | 461 | 445 | 441 | 441 | 445 | 472 | 461 | 484 | 500 | 519 | 551 | 551 | 496 | 472 | 472 | 465 | 472 | 472 | 472 | 480 | 488 | 478 |
| 27 | | 484 | 480 | 465 | 426 | 457 | 457 | 437 | 445 | 469 | 480 | 480 | 500 | 578 | 547 | 519 | 515 | 488 | 488 | 469 | 461 | 472 | 480 | 527 | 496 | 484 |
| 28 | Q | 480 | 472 | 480 | 472 | 465 | 465 | 465 | 469 | 472 | 480 | 484 | 500 | 511 | 519 | 527 | 511 | 496 | 472 | 469 | 441 | 437 | 457 | 449 | 457 | 477 |
| 29 | Q | 469 | 472 | 480 | 465 | 457 | 465 | 457 | 465 | 465 | 457 | 484 | 511 | 551 | 527 | 511 | 504 | 480 | 469 | 449 | 433 | 445 | 449 | 465 | 484 | 476 |
| 30 | | 496 | 488 | 492 | 472 | 465 | 449 | 429 | 449 | 457 | 488 | 511 | 511 | 519 | 519 | 535 | 504 | 492 | 457 | 433 | 433 | 426 | 433 | 457 | 461 | 474 |
| MEAN A | | 477 | 461 | 444 | 439 | 438 | 419 | 431 | 445 | 455 | 466 | 486 | 512 | 535 | 542 | 534 | 510 | 496 | 479 | 467 | 472 | 473 | 473 | 482 | 484 | 476 |
| MEAN Q | | 478 | 478 | 478 | 469 | 461 | 459 | 459 | 464 | 466 | 474 | 486 | 507 | 525 | 519 | 514 | 504 | 487 | 467 | 452 | 447 | 451 | 464 | 469 | 478 | 477 |
| MEAN D | | 476 | 438 | 383 | 376 | 391 | 383 | 407 | 422 | 449 | 477 | 492 | 515 | 536 | 547 | 549 | 515 | 501 | 482 | 485 | 487 | 484 | 497 | 508 | 489 | 470 |

VERTICAL INTENSITY

TABLE 18 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

JUNE 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 204 | 187 | 171 | 262 | 200 | 225 | 241 | 270 | 287 | 308 | 312 | 270 | 245 | 245 | 233 | 237 | 241 | 245 | 270 | 303 | 283 | 279 | 287 | 283 | 254 |
| 2 | | 271 | 255 | 255 | 238 | 304 | 346 | 304 | 404 | 333 | 280 | 242 | 275 | 267 | 222 | 246 | 246 | 255 | 263 | 284 | 267 | 263 | 263 | 275 | 275 | 276 |
| 3 | | 202 | 223 | 198 | 194 | 202 | 215 | 239 | 252 | 277 | 277 | 285 | 277 | 244 | 215 | 210 | 206 | 210 | 231 | 256 | 239 | 248 | 256 | 202 | 115 | 228 |
| 4 | | 211 | 224 | 232 | 211 | 245 | 249 | 257 | 369 | 344 | 282 | 269 | 336 | 390 | 249 | 191 | 224 | 249 | 245 | 249 | 257 | 274 | 286 | 294 | 278 | 267 |
| 5 | | 221 | 150 | 154 | 213 | 229 | 229 | 271 | 262 | 275 | 300 | 354 | 304 | 254 | 238 | 225 | 213 | 217 | 233 | 250 | 258 | 258 | 275 | 279 | 267 | 247 |
| 6 | Q | 262 | 262 | 242 | 213 | 200 | 213 | 229 | 262 | 258 | 262 | 271 | 267 | 233 | 204 | 213 | 217 | 225 | 233 | 238 | 254 | 271 | 258 | 217 | 184 | 237 |
| 7 | | 151 | 164 | 143 | 172 | 218 | 235 | 260 | 260 | 260 | 285 | 351 | 476 | 472 | 364 | 201 | 226 | 247 | 264 | 280 | 272 | 260 | 276 | 285 | 243 | 265 |
| 8 | | 119 | 169 | 190 | 198 | 198 | 211 | 302 | 323 | 298 | 273 | 298 | 335 | 286 | 219 | 211 | 219 | 219 | 240 | 252 | 215 | 223 | 78 | 152 | 198 | 226 |
| 9 | | 216 | 166 | 120 | 116 | 220 | 245 | 249 | 287 | 279 | 262 | 329 | 399 | 362 | 270 | 187 | 204 | 195 | 237 | 179 | 12 | -163 | -55 | -63 | 99 | 181 |
| 10 | | 205 | 171 | 109 | 113 | 175 | 263 | 380 | 363 | 405 | 438 | 400 | 355 | 305 | 271 | 238 | 246 | 250 | 271 | 263 | 246 | 255 | 280 | 275 | 271 | 273 |
| 11 | | 273 | 256 | 239 | 239 | 248 | 273 | 306 | 331 | 343 | 314 | 252 | 260 | 256 | 248 | 252 | 248 | 243 | 243 | 252 | 264 | 260 | 277 | 264 | 223 | 265 |
| 12 | D | 231 | 110 | 52 | 189 | 252 | 435 | 410 | 348 | 473 | 439 | 402 | 398 | 314 | 239 | 223 | 239 | 248 | 264 | 289 | 293 | 298 | 285 | 277 | 264 | 290 |
| 13 | D | 257 | 211 | 195 | 220 | 328 | 366 | 282 | 316 | 316 | 316 | 316 | 282 | 357 | 282 | 182 | 174 | 215 | 240 | 282 | 270 | 115 | -77 | -56 | 124 | 230 |
| 14 | D | 166 | 233 | 212 | 196 | 267 | 267 | 346 | 367 | 383 | 308 | 275 | 283 | 475 | 525 | 308 | 250 | 275 | 258 | 254 | 250 | 275 | 333 | 279 | 246 | 293 |
| 15 | | 276 | 264 | 226 | 268 | 239 | 234 | 268 | 289 | 372 | 331 | 331 | 443 | 506 | 402 | 310 | 247 | 239 | 259 | 293 | 331 | 326 | 285 | 268 | 276 | 303 |
| 16 | D | 277 | 248 | 210 | 260 | 219 | 319 | 419 | 415 | 436 | 386 | 377 | 386 | 386 | 394 | 465 | 311 | 260 | 273 | 286 | 319 | 286 | 273 | 244 | 177 | 318 |
| 17 | D | 145 | 182 | 174 | 228 | 228 | 232 | 362 | 396 | 329 | 354 | 463 | 371 | 283 | 262 | 253 | 249 | 245 | 270 | 354 | 316 | 295 | 262 | 253 | 278 | 283 |
| 18 | Q | 278 | 241 | 253 | 232 | 258 | 266 | 266 | 278 | 283 | 278 | 270 | 262 | 262 | 258 | 258 | 253 | 245 | 245 | 262 | 253 | 253 | 258 | 262 | 258 | 260 |
| 19 | | 263 | 263 | 263 | 259 | 255 | 250 | 263 | 297 | 351 | 351 | 301 | 267 | 250 | 242 | 238 | 213 | 238 | 250 | 255 | 267 | 271 | 284 | 276 | 292 | 269 |
| 20 | | 272 | 88 | 239 | 243 | 285 | 436 | 360 | 314 | 411 | 432 | 474 | 507 | 436 | 281 | 226 | 239 | 247 | 256 | 264 | 268 | 268 | 272 | 272 | 272 | 307 |
| 21 | | 274 | 240 | 240 | 240 | 240 | 307 | 240 | 374 | 307 | 332 | 425 | 370 | 299 | 274 | 240 | 240 | 249 | 249 | 265 | 261 | 274 | 282 | 290 | 286 | 283 |
| 22 | Q | 279 | 279 | 262 | 245 | 250 | 250 | 258 | 271 | 279 | 296 | 317 | 346 | 275 | 254 | 250 | 241 | 254 | 254 | 254 | 266 | 275 | 291 | 291 | 279 | 271 |
| 23 | | 272 | 272 | 268 | 268 | 259 | 251 | 268 | 268 | 276 | 276 | 234 | 251 | 247 | 226 | 221 | 217 | 230 | 242 | 263 | 272 | 263 | 188 | 91 | 74 | 237 |
| 24 | | 113 | 168 | 147 | 260 | 227 | 298 | 399 | 344 | 332 | 323 | 315 | 336 | 353 | 252 | 201 | 206 | 239 | 252 | 277 | 290 | 256 | 256 | 193 | 201 | 260 |
| 25 | | 253 | 266 | 232 | 224 | 249 | 253 | 266 | 291 | 316 | 337 | 287 | 274 | 299 | 274 | 224 | 240 | 253 | 270 | 291 | 304 | 261 | 219 | 186 | 186 | 261 |
| 26 | | 233 | 187 | 204 | 238 | 259 | 254 | 263 | 254 | 263 | 275 | 317 | 351 | 330 | 280 | 229 | 216 | 280 | 259 | 284 | 284 | 288 | 292 | 288 | 271 | 267 |
| 27 | | 289 | 285 | 222 | 163 | 205 | 260 | 294 | 239 | 272 | 289 | 327 | 382 | 331 | 239 | 247 | 243 | 243 | 264 | 264 | 264 | 272 | 285 | 281 | 264 | 268 |
| 28 | Q | 278 | 257 | 261 | 261 | 261 | 257 | 278 | 273 | 307 | 307 | 299 | 273 | 269 | 269 | 261 | 252 | 248 | 252 | 261 | 261 | 273 | 286 | 286 | 278 | 271 |
| 29 | Q | 283 | 271 | 262 | 241 | 228 | 237 | 258 | 296 | 304 | 287 | 266 | 254 | 228 | 245 | 245 | 249 | 254 | 262 | 275 | 283 | 287 | 296 | 287 | 292 | 266 |
| 30 | | 284 | 293 | 272 | 246 | 238 | 255 | 301 | 335 | 356 | 284 | 280 | 263 | 267 | 263 | 250 | 259 | 267 | 267 | 267 | 267 | 276 | 284 | 297 | 284 | 277 |
| MEAN A | | 235 | 219 | 208 | 222 | 239 | 271 | 295 | 312 | 324 | 316 | 321 | 328 | 316 | 273 | 241 | 234 | 243 | 253 | 267 | 264 | 251 | 244 | 234 | 235 | 264 |
| MEAN Q | | 276 | 262 | 256 | 238 | 239 | 244 | 258 | 276 | 286 | 286 | 285 | 280 | 253 | 246 | 245 | 243 | 245 | 249 | 258 | 264 | 272 | 278 | 269 | 258 | 261 |
| MEAN D | | 215 | 197 | 168 | 219 | 259 | 324 | 364 | 368 | 387 | 361 | 366 | 344 | 363 | 341 | 286 | 244 | 249 | 261 | 293 | 290 | 254 | 215 | 199 | 218 | 283 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 19 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

JULY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN | |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-----|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 589 | 596 | 577 | 550 | 546 | 596 | 566 | 415 | 458 | 481 | 469 | 396 | 311 | 431 | 469 | 465 | 496 | 527 | 550 | 643 | 650 | 596 | 685 | 658 | 530 | |
| 2 | | 558 | 627 | 612 | 512 | 489 | 496 | 492 | 431 | 504 | 481 | 473 | 523 | 512 | 496 | 512 | 496 | 496 | 496 | 504 | 519 | 512 | 554 | 581 | 542 | 522 | |
| 3 | | 526 | 561 | 580 | 572 | 553 | 526 | 511 | 518 | 514 | 518 | 511 | 511 | 499 | 499 | 495 | 491 | 488 | 484 | 499 | 518 | 526 | 541 | 561 | 591 | 525 | |
| 4 | Q | 588 | 557 | 541 | 530 | 526 | 534 | 534 | 518 | 522 | 518 | 518 | 518 | 503 | 514 | 514 | 503 | 495 | 495 | 507 | 522 | 541 | 557 | 584 | 607 | 531 | |
| 5 | Q | 565 | 576 | 572 | 568 | 553 | 522 | 503 | 499 | 511 | 507 | 480 | 464 | 403 | 457 | 488 | 488 | 488 | 491 | 503 | 518 | 538 | 545 | 549 | 549 | 514 | |
| 6 | | 571 | 564 | 548 | 540 | 537 | 529 | 529 | 506 | 510 | 502 | 529 | 521 | 510 | 483 | 460 | 456 | 506 | 533 | 529 | 533 | 525 | 529 | 544 | 548 | 522 | |
| 7 | | 544 | 544 | 552 | 548 | 537 | 498 | 529 | 517 | 513 | 471 | 463 | 417 | 448 | 479 | 494 | 502 | 479 | 494 | 498 | 513 | 552 | 579 | 625 | 637 | 518 | |
| 8 | | 609 | 578 | 551 | 528 | 532 | 509 | 512 | 516 | 493 | 489 | 462 | 466 | 497 | 470 | 486 | 493 | 489 | 505 | 516 | 532 | 566 | 593 | 659 | 686 | 531 | |
| 9 | | 682 | 597 | 609 | 586 | 497 | 493 | 516 | 482 | 355 | 428 | 420 | 428 | 416 | 412 | 432 | 478 | 493 | 509 | 543 | 624 | 678 | 624 | 616 | 609 | 522 | |
| 10 | | 593 | 582 | 570 | 570 | 528 | 524 | 520 | 516 | 509 | 466 | 339 | 351 | 385 | 397 | 397 | 393 | 493 | 509 | 524 | 524 | 539 | 555 | 632 | 674 | 504 | |
| 11 | | 639 | 577 | 538 | 554 | 523 | 511 | 527 | 515 | 446 | 469 | 465 | 477 | 485 | 488 | 492 | 477 | 481 | 508 | 523 | 538 | 585 | 619 | 673 | 685 | 533 | |
| 12 | | 677 | 712 | 619 | 546 | 519 | 454 | 477 | 531 | 438 | 427 | 434 | 438 | 492 | 515 | 485 | 496 | 496 | 508 | 515 | 492 | 523 | 712 | 796 | 619 | 538 | |
| 13 | D | 553 | 599 | 549 | 526 | 537 | 460 | 460 | 507 | 480 | 330 | 395 | 399 | 468 | 499 | 514 | 526 | 518 | 484 | 537 | 595 | 661 | 684 | 572 | 603 | 519 | |
| 14 | D | 599 | 568 | 545 | 557 | 306 | 484 | 484 | 433 | 264 | 283 | 441 | 484 | 380 | 368 | 518 | 491 | 480 | 495 | 495 | 530 | 545 | 576 | 580 | 545 | 477 | |
| 15 | | 522 | 549 | 537 | 522 | 522 | 499 | 507 | 499 | 468 | 414 | 453 | 430 | 453 | 507 | 491 | 487 | 453 | 476 | 491 | 499 | 510 | 557 | 576 | 591 | 501 | |
| 16 | | 590 | 586 | 571 | 448 | 463 | 494 | 444 | 483 | 498 | 494 | 317 | 201 | 386 | 456 | 517 | 467 | 456 | 502 | 521 | 529 | 563 | 613 | 567 | 536 | 488 | |
| 17 | | 533 | 594 | 556 | 544 | 540 | 436 | 494 | 490 | 475 | 483 | 483 | 506 | 506 | 479 | 490 | 490 | 463 | 483 | 502 | 521 | 517 | 548 | 560 | 529 | 509 | |
| 18 | | 520 | 512 | 505 | 508 | 508 | 512 | 505 | 447 | 397 | 370 | 393 | 320 | 351 | 324 | 443 | 497 | 489 | 489 | 508 | 528 | 508 | 528 | 547 | 543 | 469 | |
| 19 | Q | 528 | 512 | 512 | 508 | 520 | 482 | 428 | 331 | 412 | 378 | 416 | 482 | 516 | 512 | 501 | 493 | 489 | 489 | 497 | 512 | 520 | 520 | 528 | 528 | 484 | |
| 20 | Q | 532 | 528 | 543 | 528 | 512 | 470 | 458 | 466 | 482 | 489 | 501 | 489 | 482 | 497 | 497 | 489 | 489 | 489 | 505 | 524 | 532 | 543 | 559 | 566 | 507 | |
| 21 | | 588 | 550 | 542 | 519 | 511 | 507 | 504 | 519 | 519 | 519 | 515 | 519 | 477 | 454 | 454 | 461 | 473 | 496 | 519 | 611 | 611 | 573 | 642 | 654 | 531 | |
| 22 | | 642 | 658 | 608 | 546 | 519 | 500 | 411 | 469 | 430 | 465 | 473 | 504 | 492 | 488 | 492 | 465 | 488 | 511 | 523 | 550 | 584 | 604 | 650 | 631 | 529 | |
| 23 | | 595 | 526 | 541 | 533 | 518 | 510 | 495 | 499 | 506 | 495 | 480 | 429 | 480 | 499 | 510 | 503 | 480 | 495 | 541 | 541 | 518 | 549 | 630 | 676 | 523 | |
| 24 | | 603 | 522 | 499 | 499 | 510 | 499 | 483 | 387 | 453 | 506 | 510 | 495 | 495 | 480 | 464 | 476 | 483 | 476 | 503 | 503 | 533 | 545 | 526 | 530 | 499 | |
| 25 | | 526 | 549 | 541 | 514 | 472 | 495 | 456 | 456 | 483 | 476 | 495 | 495 | 506 | 499 | 510 | 503 | 503 | 495 | 495 | 503 | 518 | 533 | 580 | 557 | 507 | |
| 26 | D | 576 | 564 | 530 | 522 | 541 | 564 | 549 | 518 | 514 | 518 | 510 | 510 | 476 | 406 | 148 | 356 | 472 | 487 | 503 | 518 | 526 | 626 | 680 | 568 | 508 | |
| 27 | D | 436 | 432 | 532 | 301 | 363 | 402 | 536 | 40 | 309 | 409 | 428 | 425 | 355 | 359 | 459 | 471 | 479 | 502 | 556 | 625 | 571 | 559 | 494 | 525 | 440 | |
| 28 | | 559 | 571 | 556 | 529 | 502 | 455 | 463 | 382 | 386 | 440 | 471 | 494 | 486 | 494 | 486 | 486 | 486 | 486 | 494 | 494 | 502 | 517 | 502 | 489 | 489 | |
| 29 | Q | 504 | 501 | 493 | 497 | 501 | 501 | 508 | 447 | 478 | 470 | 466 | 474 | 466 | 481 | 481 | 470 | 470 | 485 | 508 | 524 | 501 | 489 | 501 | 516 | 489 | |
| 30 | | 578 | 555 | 531 | 524 | 524 | 524 | 516 | 512 | 512 | 497 | 508 | 501 | 470 | 470 | 470 | 470 | 481 | 470 | 462 | 478 | 578 | 616 | 543 | 578 | 662 | 523 |
| 31 | | 616 | 555 | 524 | 535 | 493 | 470 | 504 | 508 | 508 | 497 | 466 | 416 | 447 | 466 | 451 | 470 | 478 | 478 | 489 | 504 | 524 | 547 | 543 | 551 | 502 | |
| MEAN A | | 575 | 565 | 551 | 525 | 507 | 499 | 497 | 463 | 463 | 461 | 461 | 454 | 456 | 464 | 472 | 478 | 484 | 495 | 512 | 538 | 551 | 569 | 591 | 588 | 509 | |
| MEAN Q | | 543 | 535 | 532 | 526 | 522 | 502 | 486 | 452 | 481 | 472 | 476 | 485 | 474 | 492 | 496 | 488 | 486 | 490 | 504 | 520 | 526 | 531 | 544 | 553 | 505 | |
| MEAN D | | 550 | 552 | 547 | 491 | 459 | 501 | 519 | 383 | 405 | 404 | 449 | 443 | 398 | 413 | 422 | 462 | 489 | 499 | 528 | 582 | 591 | 608 | 602 | 580 | 495 | |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 20 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

JULY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | D | 465 | 472 | 480 | 445 | 410 | 414 | 426 | 457 | 465 | 496 | 543 | 539 | 574 | 578 | 539 | 527 | 500 | 500 | 492 | 519 | 492 | 441 | 484 | 504 | 490 |
| 2 | | 515 | 480 | 472 | 441 | 418 | 359 | 461 | 461 | 465 | 480 | 500 | 519 | 531 | 531 | 527 | 508 | 480 | 465 | 461 | 457 | 449 | 461 | 476 | 472 | 475 |
| 3 | | 472 | 480 | 488 | 476 | 472 | 449 | 461 | 465 | 480 | 488 | 504 | 519 | 527 | 527 | 511 | 496 | 472 | 461 | 449 | 433 | 433 | 449 | 465 | 488 | 478 |
| 4 | Q | 488 | 480 | 472 | 472 | 465 | 465 | 465 | 465 | 476 | 488 | 504 | 511 | 523 | 519 | 515 | 504 | 488 | 480 | 469 | 449 | 441 | 445 | 465 | 476 | 480 |
| 5 | Q | 480 | 480 | 484 | 484 | 472 | 441 | 469 | 465 | 469 | 480 | 511 | 519 | 547 | 539 | 527 | 519 | 500 | 472 | 457 | 441 | 433 | 433 | 441 | 461 | 480 |
| 6 | | 465 | 469 | 476 | 472 | 472 | 469 | 465 | 461 | 472 | 488 | 511 | 527 | 519 | 535 | 543 | 519 | 484 | 480 | 476 | 453 | 449 | 441 | 449 | 461 | 482 |
| 7 | | 457 | 465 | 472 | 469 | 441 | 449 | 465 | 472 | 472 | 488 | 504 | 535 | 547 | 539 | 543 | 500 | 511 | 472 | 441 | 445 | 449 | 465 | 484 | 488 | 482 |
| 8 | | 469 | 480 | 480 | 472 | 465 | 461 | 457 | 472 | 480 | 488 | 504 | 511 | 527 | 539 | 531 | 511 | 496 | 496 | 496 | 472 | 480 | 472 | 484 | 511 | 490 |
| 9 | | 500 | 465 | 433 | 429 | 371 | 406 | 429 | 449 | 465 | 480 | 508 | 539 | 543 | 558 | 531 | 519 | 500 | 496 | 488 | 500 | 515 | 480 | 484 | 492 | 483 |
| 10 | | 504 | 476 | 457 | 414 | 414 | 437 | 449 | 469 | 461 | 457 | 469 | 511 | 554 | 566 | 578 | 554 | 504 | 480 | 465 | 453 | 457 | 457 | 484 | 527 | 483 |
| 11 | | 508 | 488 | 472 | 480 | 476 | 476 | 472 | 472 | 465 | 488 | 488 | 519 | 527 | 527 | 515 | 511 | 496 | 472 | 472 | 469 | 504 | 496 | 504 | 504 | 492 |
| 12 | | 469 | 418 | 433 | 398 | 398 | 441 | 426 | 465 | 500 | 472 | 496 | 547 | 543 | 539 | 519 | 511 | 504 | 488 | 472 | 472 | 465 | 523 | 629 | 527 | 486 |
| 13 | D | 488 | 488 | 476 | 472 | 433 | 449 | 433 | 472 | 488 | 465 | 511 | 543 | 543 | 543 | 551 | 535 | 511 | 496 | 535 | 566 | 543 | 527 | 496 | 511 | 503 |
| 14 | D | 519 | 515 | 484 | 437 | 402 | 469 | 472 | 472 | 449 | 465 | 531 | 515 | 582 | 578 | 543 | 531 | 511 | 504 | 472 | 465 | 457 | 496 | 496 | 496 | 494 |
| 15 | | 500 | 504 | 504 | 480 | 476 | 469 | 476 | 472 | 472 | 472 | 484 | 511 | 543 | 535 | 535 | 527 | 511 | 496 | 469 | 457 | 453 | 480 | 488 | 500 | 492 |
| 16 | | 504 | 504 | 476 | 441 | 469 | 461 | 457 | 465 | 480 | 476 | 457 | 511 | 539 | 574 | 527 | 519 | 511 | 457 | 496 | 480 | 488 | 492 | 496 | 496 | 491 |
| 17 | | 492 | 504 | 504 | 488 | 441 | 441 | 433 | 449 | 465 | 488 | 504 | 511 | 519 | 519 | 519 | 504 | 496 | 476 | 472 | 465 | 472 | 472 | 484 | 488 | 484 |
| 18 | | 480 | 480 | 476 | 476 | 480 | 480 | 472 | 453 | 453 | 472 | 496 | 531 | 582 | 586 | 531 | 504 | 500 | 488 | 472 | 472 | 461 | 465 | 480 | 484 | 491 |
| 19 | Q | 484 | 480 | 480 | 480 | 480 | 465 | 426 | 445 | 496 | 461 | 480 | 519 | 527 | 519 | 515 | 500 | 488 | 476 | 465 | 457 | 457 | 465 | 472 | 480 | 480 |
| 20 | Q | 484 | 488 | 488 | 480 | 472 | 457 | 465 | 480 | 488 | 496 | 500 | 511 | 539 | 535 | 527 | 523 | 504 | 480 | 476 | 465 | 461 | 472 | 472 | 484 | 490 |
| 21 | | 504 | 496 | 488 | 484 | 476 | 480 | 480 | 484 | 488 | 488 | 504 | 511 | 527 | 539 | 543 | 519 | 504 | 492 | 457 | 492 | 492 | 480 | 496 | 519 | 498 |
| 22 | | 511 | 488 | 480 | 484 | 465 | 429 | 398 | 445 | 472 | 492 | 519 | 535 | 535 | 539 | 523 | 504 | 496 | 496 | 488 | 492 | 496 | 496 | 515 | 492 | 491 |
| 23 | | 476 | 465 | 461 | 472 | 480 | 472 | 480 | 476 | 480 | 480 | 480 | 508 | 519 | 523 | 519 | 504 | 511 | 519 | 504 | 472 | 465 | 480 | 492 | 519 | 490 |
| 24 | | 492 | 476 | 472 | 472 | 472 | 476 | 465 | 472 | 469 | 492 | 500 | 511 | 519 | 519 | 515 | 511 | 484 | 484 | 484 | 472 | 488 | 480 | 472 | 476 | 487 |
| 25 | | 472 | 469 | 441 | 441 | 402 | 418 | 418 | 457 | 480 | 488 | 511 | 511 | 511 | 508 | 504 | 492 | 484 | 480 | 472 | 461 | 457 | 472 | 488 | 500 | 472 |
| 26 | | 492 | 488 | 437 | 422 | 433 | 445 | 480 | 488 | 496 | 500 | 504 | 511 | 543 | 570 | 574 | 543 | 496 | 488 | 480 | 465 | 461 | 484 | 504 | 418 | 488 |
| 27 | D | 277 | 191 | 230 | 316 | 340 | 410 | 441 | 441 | 511 | 480 | 504 | 543 | 586 | 566 | 519 | 504 | 484 | 496 | 527 | 558 | 492 | 480 | 476 | 476 | 452 |
| 28 | | 500 | 496 | 500 | 488 | 476 | 433 | 457 | 465 | 457 | 492 | 519 | 523 | 527 | 527 | 519 | 504 | 496 | 488 | 488 | 492 | 480 | 480 | 472 | 469 | 490 |
| 29 | Q | 476 | 476 | 472 | 476 | 480 | 484 | 480 | 465 | 480 | 488 | 508 | 511 | 523 | 523 | 519 | 511 | 504 | 476 | 472 | 472 | 457 | 457 | 469 | 472 | 486 |
| 30 | | 484 | 496 | 484 | 488 | 488 | 484 | 480 | 480 | 488 | 500 | 508 | 519 | 527 | 535 | 535 | 535 | 511 | 527 | 480 | 484 | 480 | 449 | 480 | 519 | 498 |
| 31 | | 519 | 508 | 488 | 476 | 465 | 476 | 472 | 480 | 480 | 488 | 492 | 527 | 551 | 519 | 535 | 504 | 496 | 488 | 480 | 465 | 461 | 476 | 480 | 492 | 492 |
| MEAN A | | 482 | 473 | 467 | 459 | 449 | 451 | 456 | 466 | 476 | 483 | 502 | 521 | 539 | 540 | 530 | 515 | 498 | 486 | 478 | 475 | 471 | 473 | 486 | 490 | 486 |
| MEAN Q | | 483 | 481 | 479 | 479 | 474 | 462 | 461 | 464 | 482 | 483 | 501 | 515 | 532 | 527 | 521 | 511 | 497 | 477 | 468 | 457 | 450 | 454 | 464 | 475 | 483 |
| MEAN D | | 448 | 431 | 422 | 419 | 404 | 437 | 451 | 466 | 482 | 481 | 519 | 530 | 565 | 567 | 545 | 528 | 501 | 497 | 501 | 515 | 489 | 486 | 491 | 481 | 486 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 21 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

JULY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | D | 272 | 263 | 200 | 212 | 229 | 238 | 272 | 453 | 369 | 369 | 318 | 310 | 305 | 234 | 212 | 229 | 242 | 255 | 280 | 301 | 225 | 276 | 242 | 200 | 271 |
| 2 | | 146 | 243 | 226 | 239 | 260 | 286 | 324 | 378 | 328 | 345 | 294 | 269 | 269 | 256 | 247 | 252 | 256 | 260 | 269 | 277 | 290 | 302 | 273 | 269 | 273 |
| 3 | | 270 | 274 | 244 | 232 | 236 | 261 | 261 | 287 | 282 | 278 | 274 | 265 | 257 | 244 | 244 | 236 | 244 | 253 | 261 | 274 | 270 | 278 | 295 | 287 | 263 |
| 4 | Q | 279 | 284 | 279 | 271 | 267 | 262 | 262 | 275 | 279 | 279 | 271 | 267 | 258 | 258 | 258 | 258 | 254 | 250 | 262 | 271 | 284 | 292 | 322 | 322 | 274 |
| 5 | Q | 301 | 289 | 272 | 247 | 217 | 251 | 289 | 323 | 310 | 314 | 289 | 276 | 263 | 247 | 251 | 255 | 263 | 263 | 255 | 259 | 259 | 268 | 280 | 297 | 272 |
| 6 | | 290 | 286 | 277 | 265 | 260 | 256 | 265 | 260 | 277 | 273 | 260 | 256 | 248 | 244 | 244 | 231 | 235 | 244 | 265 | 260 | 260 | 265 | 265 | 273 | 261 |
| 7 | | 266 | 266 | 257 | 240 | 223 | 206 | 228 | 257 | 291 | 308 | 317 | 283 | 232 | 232 | 245 | 236 | 249 | 257 | 261 | 253 | 266 | 278 | 295 | 291 | 260 |
| 8 | | 284 | 288 | 284 | 275 | 267 | 267 | 271 | 275 | 284 | 275 | 275 | 258 | 263 | 246 | 246 | 250 | 250 | 250 | 271 | 288 | 292 | 284 | 242 | 203 | 266 |
| 9 | | 179 | 128 | 111 | 149 | 179 | 251 | 293 | 340 | 365 | 310 | 293 | 289 | 251 | 226 | 217 | 230 | 243 | 251 | 276 | 315 | 259 | 285 | 285 | 276 | 250 |
| 10 | | 285 | 264 | 103 | 196 | 183 | 251 | 260 | 251 | 277 | 362 | 366 | 306 | 264 | 230 | 230 | 192 | 234 | 255 | 243 | 255 | 264 | 277 | 272 | 200 | 251 |
| 11 | | 261 | 235 | 218 | 218 | 261 | 265 | 265 | 282 | 329 | 307 | 278 | 261 | 252 | 244 | 252 | 261 | 261 | 261 | 273 | 303 | 324 | 316 | 295 | 265 | 270 |
| 12 | | 135 | 156 | 181 | 160 | 288 | 279 | 347 | 317 | 428 | 356 | 322 | 296 | 232 | 228 | 228 | 228 | 237 | 245 | 245 | 262 | 271 | 228 | 186 | 228 | 253 |
| 13 | D | 246 | 255 | 204 | 182 | 263 | 310 | 331 | 331 | 386 | 561 | 395 | 340 | 306 | 238 | 212 | 221 | 225 | 229 | 250 | 314 | 357 | 289 | 289 | 293 | 293 |
| 14 | D | 269 | 247 | 222 | 256 | 281 | 256 | 303 | 383 | 354 | 422 | 290 | 247 | 354 | 337 | 239 | 230 | 234 | 247 | 269 | 273 | 324 | 290 | 256 | 256 | 285 |
| 15 | | 265 | 257 | 227 | 235 | 240 | 248 | 248 | 265 | 350 | 384 | 325 | 367 | 287 | 252 | 244 | 244 | 248 | 248 | 257 | 265 | 270 | 282 | 295 | 282 | 274 |
| 16 | | 271 | 245 | 228 | 245 | 241 | 284 | 301 | 284 | 258 | 284 | 382 | 390 | 262 | 215 | 224 | 228 | 245 | 237 | 258 | 292 | 258 | 262 | 262 | 254 | 267 |
| 17 | | 246 | 233 | 216 | 221 | 221 | 302 | 246 | 255 | 293 | 310 | 293 | 255 | 246 | 238 | 233 | 246 | 250 | 250 | 259 | 268 | 280 | 297 | 285 | 259 | 258 |
| 18 | | 243 | 247 | 247 | 247 | 252 | 252 | 256 | 218 | 235 | 209 | 392 | 401 | 337 | 256 | 222 | 230 | 239 | 247 | 247 | 260 | 273 | 260 | 260 | 273 | 263 |
| 19 | Q | 259 | 259 | 251 | 251 | 246 | 234 | 259 | 225 | 161 | 200 | 234 | 229 | 242 | 251 | 246 | 242 | 242 | 251 | 251 | 255 | 255 | 255 | 259 | 259 | 242 |
| 20 | Q | 260 | 260 | 247 | 221 | 234 | 247 | 260 | 281 | 264 | 251 | 242 | 234 | 221 | 217 | 225 | 230 | 230 | 225 | 230 | 242 | 255 | 260 | 251 | 255 | 243 |
| 21 | | 250 | 250 | 246 | 246 | 237 | 246 | 250 | 246 | 250 | 254 | 250 | 246 | 233 | 216 | 194 | 212 | 237 | 263 | 297 | 301 | 280 | 267 | 267 | 165 | 246 |
| 22 | | 242 | 216 | 199 | 220 | 220 | 242 | 293 | 314 | 306 | 284 | 293 | 263 | 242 | 242 | 246 | 225 | 237 | 242 | 254 | 259 | 259 | 259 | 250 | 263 | 253 |
| 23 | | 245 | 241 | 236 | 219 | 241 | 249 | 262 | 258 | 258 | 253 | 271 | 275 | 258 | 258 | 258 | 253 | 253 | 266 | 301 | 292 | 262 | 275 | 271 | 228 | 258 |
| 24 | | 249 | 262 | 262 | 262 | 262 | 254 | 267 | 271 | 271 | 254 | 267 | 262 | 254 | 254 | 245 | 241 | 241 | 245 | 262 | 271 | 271 | 258 | 254 | 262 | 258 |
| 25 | | 261 | 261 | 171 | 214 | 223 | 317 | 360 | 291 | 257 | 283 | 283 | 253 | 257 | 253 | 257 | 253 | 257 | 257 | 261 | 270 | 266 | 270 | 283 | 300 | 265 |
| 26 | D | 270 | 249 | 214 | 214 | 240 | 197 | 240 | 257 | 257 | 266 | 266 | 266 | 257 | 236 | 202 | 184 | 214 | 232 | 232 | 240 | 257 | 253 | 167 | 17 | 226 |
| 27 | D | 128 | 153 | 286 | 441 | 436 | 436 | 423 | 650 | 556 | 462 | 385 | 338 | 406 | 333 | 235 | 252 | 265 | 273 | 291 | 273 | 273 | 282 | 282 | 273 | 339 |
| 28 | | 269 | 261 | 252 | 244 | 239 | 282 | 329 | 450 | 462 | 351 | 295 | 274 | 265 | 265 | 261 | 261 | 257 | 248 | 261 | 261 | 274 | 274 | 274 | 274 | 286 |
| 29 | Q | 264 | 260 | 260 | 260 | 264 | 260 | 260 | 298 | 286 | 286 | 277 | 260 | 247 | 247 | 247 | 247 | 251 | 251 | 251 | 256 | 260 | 260 | 256 | 264 | 261 |
| 30 | | 269 | 247 | 260 | 260 | 247 | 234 | 234 | 239 | 260 | 273 | 264 | 256 | 256 | 247 | 230 | 204 | 226 | 251 | 307 | 307 | 277 | 273 | 273 | 200 | 254 |
| 31 | | 160 | 203 | 242 | 229 | 220 | 246 | 238 | 246 | 255 | 276 | 298 | 306 | 229 | 233 | 216 | 225 | 233 | 242 | 250 | 272 | 281 | 255 | 272 | 281 | 246 |
| MEAN A | | 246 | 245 | 230 | 238 | 248 | 263 | 280 | 305 | 308 | 311 | 299 | 284 | 266 | 248 | 236 | 235 | 244 | 250 | 262 | 274 | 274 | 273 | 266 | 251 | 264 |
| MEAN Q | | 273 | 270 | 262 | 250 | 246 | 251 | 266 | 280 | 260 | 266 | 263 | 253 | 246 | 244 | 246 | 246 | 248 | 248 | 250 | 257 | 263 | 267 | 274 | 279 | 259 |
| MEAN D | | 237 | 233 | 225 | 261 | 290 | 287 | 314 | 415 | 384 | 416 | 331 | 300 | 326 | 275 | 220 | 223 | 236 | 247 | 264 | 280 | 287 | 278 | 247 | 208 | 283 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 22 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

AUGUST 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | Q | 547 | 512 | 505 | 505 | 512 | 505 | 432 | 470 | 493 | 497 | 478 | 451 | 382 | 385 | 451 | 478 | 470 | 485 | 485 | 493 | 505 | 508 | 520 | 528 | 483 |
| 2 | | 525 | 517 | 509 | 506 | 509 | 502 | 502 | 502 | 498 | 490 | 471 | 486 | 486 | 502 | 444 | 479 | 471 | 467 | 479 | 509 | 532 | 544 | 563 | 544 | 502 |
| 3 | D | 525 | 548 | 571 | 532 | 517 | 509 | 517 | 517 | 517 | 433 | 433 | 417 | 317 | 371 | 421 | 456 | 482 | 490 | 494 | 625 | 682 | 748 | 779 | 694 | 525 |
| 4 | | 672 | 618 | 564 | 495 | 476 | 410 | 460 | 495 | 499 | 449 | 184 | 295 | 387 | 457 | 487 | 464 | 460 | 499 | 526 | 568 | 576 | 560 | 549 | 510 | 486 |
| 5 | | 507 | 541 | 545 | 376 | 468 | 376 | 491 | 495 | 495 | 487 | 453 | 380 | 214 | 349 | 460 | 483 | 495 | 499 | 510 | 518 | 530 | 514 | 510 | 526 | 468 |
| 6 | | 538 | 588 | 515 | 581 | 534 | 369 | 408 | 481 | 488 | 500 | 492 | 438 | 481 | 488 | 492 | 481 | 477 | 481 | 488 | 508 | 527 | 527 | 508 | 515 | 496 |
| 7 | | 527 | 515 | 519 | 527 | 519 | 496 | 365 | 385 | 342 | 488 | 508 | 492 | 450 | 458 | 461 | 496 | 496 | 504 | 515 | 527 | 581 | 673 | 761 | 696 | 513 |
| 8 | | 670 | 620 | 543 | 512 | 512 | 501 | 512 | 505 | 336 | 389 | 474 | 359 | 293 | 289 | 436 | 524 | 509 | 524 | 528 | 539 | 528 | 593 | 562 | 620 | 495 |
| 9 | | 612 | 605 | 524 | 451 | 489 | 512 | 505 | 497 | 389 | 443 | 482 | 447 | 343 | 316 | 378 | 485 | 493 | 497 | 528 | 528 | 535 | 539 | 609 | 616 | 493 |
| 10 | | 575 | 563 | 521 | 467 | 429 | 398 | 444 | 387 | 417 | 298 | 394 | 413 | 321 | 275 | 287 | 406 | 475 | 498 | 506 | 513 | 513 | 521 | 517 | 506 | 444 |
| 11 | Q | 506 | 506 | 498 | 502 | 510 | 510 | 506 | 506 | 510 | 513 | 490 | 494 | 483 | 494 | 490 | 490 | 475 | 506 | 506 | 510 | 521 | 521 | 521 | 533 | 504 |
| 12 | D | 557 | 603 | 487 | 576 | 545 | 361 | 457 | 491 | 318 | 449 | 441 | 245 | 245 | 326 | 453 | 468 | 461 | 430 | 545 | 549 | 545 | 557 | 561 | 557 | 468 |
| 13 | | 537 | 537 | 522 | 499 | 503 | 399 | 422 | 514 | 314 | 288 | 407 | 430 | 414 | 476 | 499 | 487 | 484 | 491 | 511 | 549 | 603 | 614 | 591 | 537 | 485 |
| 14 | | 542 | 527 | 515 | 535 | 500 | 508 | 512 | 319 | 400 | 454 | 396 | 454 | 465 | 300 | 308 | 446 | 485 | 500 | 531 | 542 | 538 | 550 | 535 | 523 | 474 |
| 15 | | 523 | 523 | 512 | 519 | 519 | 508 | 485 | 492 | 477 | 492 | 504 | 512 | 515 | 508 | 500 | 492 | 492 | 500 | 508 | 512 | 515 | 527 | 523 | 512 | 507 |
| 16 | | 512 | 512 | 516 | 516 | 512 | 501 | 493 | 478 | 486 | 486 | 428 | 366 | 455 | 493 | 509 | 501 | 478 | 493 | 524 | 536 | 559 | 586 | 601 | 570 | 505 |
| 17 | | 586 | 551 | 555 | 532 | 528 | 516 | 451 | 428 | 462 | 416 | 466 | 485 | 481 | 501 | 501 | 481 | 478 | 485 | 508 | 543 | 570 | 562 | 559 | 535 | 508 |
| 18 | | 560 | 594 | 563 | 563 | 517 | 513 | 509 | 509 | 509 | 509 | 486 | 502 | 490 | 440 | 278 | 382 | 486 | 490 | 498 | 517 | 517 | 536 | 536 | 501 | 501 |
| 19 | D | 583 | 556 | 509 | 505 | 509 | 405 | 416 | 471 | 509 | 486 | 362 | 301 | 270 | 355 | 494 | 490 | 471 | 536 | 583 | 660 | 702 | 656 | 610 | 587 | 501 |
| 20 | | 553 | 545 | 495 | 410 | 479 | 448 | 417 | 224 | 371 | 433 | 417 | 456 | 464 | 371 | 464 | 506 | 495 | 502 | 510 | 522 | 549 | 545 | 591 | 572 | 472 |
| 21 | | 576 | 564 | 518 | 471 | 363 | 502 | 541 | 526 | 510 | 502 | 502 | 495 | 471 | 405 | 394 | 452 | 464 | 479 | 518 | 541 | 510 | 526 | 526 | 584 | 497 |
| 22 | | 530 | 542 | 522 | 522 | 522 | 519 | 519 | 511 | 515 | 507 | 499 | 441 | 363 | 410 | 480 | 487 | 480 | 503 | 511 | 522 | 573 | 526 | 530 | 550 | 503 |
| 23 | | 623 | 550 | 526 | 526 | 518 | 495 | 507 | 526 | 472 | 480 | 452 | 324 | 254 | 328 | 437 | 530 | 530 | 526 | 538 | 561 | 588 | 577 | 565 | 604 | 502 |
| 24 | | 597 | 586 | 523 | 469 | 512 | 531 | 523 | 523 | 512 | 488 | 449 | 356 | 387 | 379 | 484 | 488 | 488 | 496 | 496 | 523 | 527 | 539 | 531 | 574 | 499 |
| 25 | Q | 574 | 527 | 527 | 550 | 515 | 504 | 504 | 511 | 488 | 504 | 504 | 504 | 504 | 504 | 496 | 488 | 480 | 488 | 500 | 515 | 527 | 519 | 519 | 515 | 511 |
| 26 | D | 520 | 528 | 524 | 524 | 520 | 528 | 497 | 481 | 524 | 485 | 204 | 266 | 305 | 340 | 465 | 497 | 501 | 512 | 532 | 551 | 571 | 637 | 610 | 692 | 492 |
| 27 | D | 786 | 583 | 430 | 508 | 379 | 528 | 571 | 547 | 528 | 356 | 348 | 367 | 371 | 391 | 411 | 450 | 454 | 481 | 512 | 551 | 575 | 583 | 547 | 606 | 494 |
| 28 | | 603 | 587 | 525 | 517 | 435 | 435 | 435 | 470 | 454 | 458 | 474 | 497 | 513 | 466 | 462 | 454 | 478 | 490 | 509 | 525 | 544 | 560 | 552 | 529 | 499 |
| 29 | Q | 517 | 517 | 529 | 525 | 513 | 521 | 505 | 513 | 505 | 505 | 501 | 493 | 482 | 458 | 454 | 450 | 470 | 482 | 497 | 501 | 513 | 525 | 521 | 525 | 501 |
| 30 | Q | 526 | 522 | 530 | 530 | 530 | 530 | 490 | 475 | 498 | 526 | 518 | 514 | 506 | 459 | 482 | 502 | 494 | 498 | 518 | 522 | 545 | 522 | 526 | 533 | 512 |
| 31 | | 538 | 542 | 538 | 538 | 534 | 526 | 530 | 330 | 310 | 389 | 479 | 503 | 515 | 511 | 503 | 483 | 468 | 475 | 503 | 546 | 546 | 597 | 648 | 656 | 509 |
| MEAN A | | 566 | 553 | 522 | 509 | 498 | 479 | 481 | 470 | 456 | 458 | 442 | 425 | 407 | 413 | 448 | 477 | 482 | 494 | 513 | 536 | 553 | 564 | 567 | 567 | 495 |
| MEAN Q | | 534 | 517 | 518 | 522 | 516 | 514 | 487 | 495 | 499 | 509 | 498 | 491 | 471 | 460 | 475 | 482 | 478 | 492 | 501 | 508 | 522 | 519 | 521 | 527 | 502 |
| MEAN D | | 594 | 563 | 504 | 529 | 494 | 466 | 492 | 501 | 479 | 442 | 358 | 319 | 302 | 357 | 449 | 472 | 474 | 490 | 533 | 587 | 615 | 636 | 621 | 627 | 496 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 23 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

AUGUST 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | Q | 488 | 484 | 480 | 476 | 476 | 469 | 441 | 461 | 480 | 480 | 484 | 511 | 547 | 547 | 519 | 511 | 488 | 472 | 457 | 453 | 445 | 453 | 465 | 480 | 482 |
| 2 | | 488 | 488 | 488 | 480 | 480 | 476 | 480 | 484 | 488 | 488 | 508 | 527 | 543 | 547 | 547 | 523 | 500 | 492 | 469 | 465 | 445 | 453 | 480 | 480 | 492 |
| 3 | D | 476 | 476 | 472 | 449 | 472 | 488 | 488 | 476 | 465 | 496 | 508 | 519 | 578 | 574 | 566 | 511 | 488 | 488 | 480 | 515 | 523 | 547 | 547 | 511 | 505 |
| 4 | | 472 | 433 | 441 | 465 | 445 | 465 | 457 | 472 | 480 | 469 | 457 | 551 | 570 | 582 | 554 | 511 | 519 | 496 | 523 | 504 | 504 | 508 | 496 | 488 | 494 |
| 5 | | 488 | 484 | 465 | 472 | 422 | 410 | 465 | 476 | 480 | 488 | 496 | 496 | 535 | 547 | 535 | 519 | 496 | 461 | 445 | 449 | 465 | 465 | 472 | 484 | 480 |
| 6 | | 492 | 488 | 480 | 472 | 480 | 422 | 472 | 480 | 488 | 496 | 500 | 535 | 543 | 535 | 527 | 519 | 496 | 484 | 465 | 453 | 453 | 453 | 465 | 472 | 486 |
| 7 | | 484 | 480 | 480 | 480 | 472 | 465 | 418 | 394 | 457 | 496 | 511 | 527 | 547 | 535 | 527 | 504 | 488 | 469 | 476 | 472 | 496 | 543 | 558 | 523 | 492 |
| 8 | | 496 | 508 | 492 | 476 | 480 | 480 | 476 | 465 | 461 | 472 | 484 | 496 | 543 | 601 | 554 | 488 | 484 | 472 | 461 | 453 | 465 | 511 | 492 | 504 | 492 |
| 9 | | 519 | 508 | 445 | 426 | 469 | 480 | 480 | 488 | 480 | 496 | 504 | 511 | 551 | 570 | 527 | 476 | 476 | 457 | 472 | 453 | 476 | 480 | 500 | 511 | 490 |
| 10 | | 488 | 492 | 469 | 441 | 484 | 504 | 469 | 441 | 480 | 465 | 488 | 543 | 574 | 582 | 543 | 504 | 472 | 484 | 476 | 484 | 480 | 484 | 484 | 484 | 492 |
| 11 | Q | 488 | 488 | 488 | 488 | 484 | 488 | 488 | 492 | 492 | 484 | 500 | 519 | 539 | 535 | 523 | 515 | 496 | 480 | 457 | 449 | 469 | 480 | 480 | 496 | 492 |
| 12 | D | 496 | 500 | 465 | 457 | 414 | 347 | 418 | 472 | 472 | 519 | 511 | 496 | 519 | 566 | 519 | 511 | 511 | 496 | 426 | 449 | 461 | 480 | 504 | 508 | 480 |
| 13 | | 496 | 480 | 488 | 480 | 461 | 437 | 469 | 488 | 480 | 406 | 511 | 535 | 566 | 547 | 519 | 496 | 488 | 472 | 472 | 472 | 488 | 523 | 519 | 504 | 492 |
| 14 | | 504 | 511 | 496 | 496 | 472 | 476 | 461 | 465 | 472 | 488 | 504 | 527 | 554 | 543 | 554 | 527 | 504 | 496 | 488 | 465 | 469 | 488 | 488 | 488 | 497 |
| 15 | | 488 | 488 | 484 | 484 | 480 | 472 | 461 | 492 | 500 | 504 | 508 | 515 | 511 | 519 | 519 | 504 | 496 | 480 | 469 | 457 | 465 | 476 | 480 | 488 | 489 |
| 16 | | 488 | 480 | 484 | 480 | 480 | 480 | 484 | 492 | 488 | 488 | 500 | 523 | 539 | 527 | 511 | 500 | 476 | 449 | 457 | 457 | 480 | 492 | 511 | 500 | 490 |
| 17 | | 500 | 457 | 410 | 363 | 371 | 422 | 429 | 457 | 488 | 504 | 511 | 519 | 535 | 535 | 523 | 504 | 484 | 476 | 476 | 472 | 484 | 480 | 484 | 484 | 474 |
| 18 | | 492 | 492 | 492 | 488 | 480 | 480 | 488 | 488 | 484 | 508 | 519 | 531 | 551 | 558 | 535 | 504 | 484 | 472 | 453 | 457 | 465 | 472 | 480 | 480 | 494 |
| 19 | D | 484 | 484 | 472 | 465 | 465 | 441 | 441 | 469 | 504 | 508 | 523 | 558 | 609 | 582 | 527 | 531 | 508 | 472 | 551 | 574 | 613 | 527 | 488 | 488 | 512 |
| 20 | | 488 | 488 | 457 | 390 | 433 | 394 | 402 | 453 | 496 | 484 | 500 | 527 | 539 | 558 | 531 | 504 | 488 | 465 | 457 | 465 | 480 | 484 | 488 | 492 | 478 |
| 21 | | 488 | 488 | 480 | 457 | 406 | 441 | 472 | 484 | 484 | 492 | 504 | 508 | 519 | 535 | 539 | 511 | 492 | 433 | 476 | 492 | 465 | 472 | 472 | 480 | 483 |
| 22 | | 488 | 484 | 480 | 480 | 480 | 484 | 484 | 496 | 496 | 496 | 500 | 511 | 543 | 547 | 519 | 508 | 500 | 476 | 449 | 453 | 472 | 472 | 472 | 472 | 490 |
| 23 | | 480 | 476 | 480 | 441 | 433 | 457 | 476 | 488 | 488 | 519 | 531 | 547 | 586 | 601 | 535 | 496 | 480 | 484 | 480 | 496 | 508 | 508 | 496 | 484 | 499 |
| 24 | | 508 | 504 | 476 | 480 | 461 | 484 | 484 | 488 | 488 | 504 | 496 | 519 | 578 | 593 | 551 | 523 | 500 | 492 | 465 | 472 | 457 | 472 | 480 | 480 | 498 |
| 25 | Q | 500 | 508 | 515 | 472 | 465 | 457 | 488 | 496 | 496 | 496 | 500 | 508 | 515 | 515 | 511 | 500 | 484 | 469 | 461 | 453 | 461 | 469 | 480 | 484 | 488 |
| 26 | D | 480 | 480 | 480 | 484 | 476 | 476 | 465 | 472 | 480 | 472 | 418 | 484 | 582 | 566 | 535 | 504 | 492 | 472 | 461 | 461 | 457 | 476 | 480 | 492 | 485 |
| 27 | D | 472 | 418 | 316 | 324 | 301 | 445 | 476 | 488 | 488 | 488 | 543 | 562 | 566 | 558 | 535 | 504 | 472 | 457 | 469 | 465 | 476 | 496 | 496 | 508 | 472 |
| 28 | | 519 | 496 | 453 | 441 | 437 | 398 | 465 | 465 | 484 | 496 | 511 | 527 | 527 | 523 | 531 | 508 | 488 | 476 | 476 | 441 | 457 | 472 | 488 | 492 | 482 |
| 29 | Q | 492 | 488 | 484 | 476 | 465 | 480 | 472 | 484 | 488 | 496 | 504 | 519 | 535 | 547 | 554 | 523 | 496 | 472 | 461 | 449 | 449 | 461 | 472 | 480 | 490 |
| 30 | Q | 484 | 484 | 484 | 480 | 480 | 476 | 437 | 457 | 504 | 504 | 504 | 519 | 519 | 531 | 511 | 504 | 480 | 472 | 457 | 457 | 461 | 465 | 472 | 485 | 485 |
| 31 | | 476 | 480 | 480 | 480 | 480 | 480 | 476 | 484 | 492 | 504 | 500 | 515 | 527 | 527 | 519 | 519 | 504 | 449 | 449 | 453 | 449 | 469 | 488 | 488 | 487 |
| MEAN A | | 490 | 484 | 470 | 460 | 455 | 457 | 464 | 474 | 485 | 490 | 501 | 521 | 547 | 552 | 534 | 510 | 493 | 474 | 470 | 468 | 475 | 484 | 489 | 490 | 489 |
| MEAN Q | | 490 | 490 | 490 | 479 | 474 | 474 | 465 | 478 | 492 | 491 | 498 | 512 | 531 | 533 | 528 | 512 | 494 | 475 | 462 | 452 | 456 | 465 | 472 | 483 | 487 |
| MEAN D | | 482 | 472 | 441 | 436 | 426 | 440 | 458 | 476 | 482 | 497 | 501 | 524 | 571 | 569 | 536 | 512 | 494 | 477 | 477 | 493 | 506 | 505 | 503 | 501 | 491 |

VERTICAL INTENSITY

TABLE 24 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

AUGUST 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 260 | 251 | 243 | 239 | 234 | 247 | 243 | 286 | 282 | 294 | 329 | 355 | 329 | 260 | 226 | 234 | 239 | 239 | 247 | 251 | 256 | 256 | 256 | 260 | 263 |
| 2 | | 262 | 258 | 253 | 245 | 245 | 241 | 249 | 253 | 253 | 253 | 253 | 241 | 241 | 236 | 223 | 219 | 219 | 223 | 232 | 245 | 258 | 296 | 279 | 258 | 247 |
| 3 | D | 251 | 243 | 217 | 187 | 208 | 234 | 247 | 243 | 247 | 346 | 268 | 324 | 277 | 195 | 187 | 187 | 225 | 238 | 281 | 251 | 200 | 41 | -49 | -41 | 209 |
| 4 | | 34 | 77 | 154 | 227 | 292 | 348 | 305 | 292 | 288 | 373 | 477 | 421 | 313 | 236 | 232 | 227 | 232 | 253 | 257 | 279 | 279 | 253 | 236 | 249 | 264 |
| 5 | | 268 | 264 | 208 | 229 | 315 | 431 | 272 | 247 | 272 | 277 | 285 | 375 | 375 | 255 | 212 | 229 | 229 | 255 | 264 | 281 | 281 | 272 | 272 | 268 | 277 |
| 6 | | 266 | 214 | 163 | 210 | 214 | 296 | 283 | 288 | 257 | 245 | 257 | 275 | 245 | 245 | 236 | 236 | 227 | 227 | 240 | 249 | 257 | 257 | 257 | 257 | 246 |
| 7 | | 259 | 247 | 242 | 242 | 238 | 264 | 333 | 380 | 268 | 234 | 234 | 247 | 216 | 216 | 208 | 238 | 242 | 251 | 255 | 272 | 311 | 328 | 234 | 216 | 257 |
| 8 | | 236 | 206 | 227 | 240 | 244 | 244 | 253 | 304 | 408 | 390 | 339 | 433 | 330 | 266 | 175 | 240 | 244 | 249 | 257 | 261 | 257 | 296 | 292 | 231 | 276 |
| 9 | | 208 | 216 | 208 | 220 | 259 | 242 | 263 | 302 | 375 | 319 | 306 | 306 | 285 | 294 | 190 | 233 | 251 | 263 | 272 | 281 | 272 | 276 | 281 | 255 | 266 |
| 10 | | 240 | 244 | 171 | 145 | 115 | 197 | 308 | 339 | 407 | 437 | 334 | 270 | 240 | 192 | 162 | 188 | 235 | 261 | 274 | 265 | 265 | 261 | 265 | 261 | 253 |
| 11 | Q | 260 | 256 | 256 | 251 | 247 | 243 | 243 | 243 | 247 | 251 | 264 | 251 | 234 | 239 | 234 | 226 | 230 | 234 | 243 | 247 | 251 | 251 | 239 | 243 | 245 |
| 12 | D | 252 | 166 | 132 | 123 | 252 | 373 | 308 | 291 | 420 | 390 | 326 | 528 | 339 | 274 | 231 | 231 | 248 | 313 | 252 | 240 | 244 | 248 | 265 | 265 | 280 |
| 13 | | 247 | 243 | 217 | 238 | 268 | 286 | 316 | 290 | 462 | 333 | 316 | 303 | 264 | 221 | 247 | 255 | 255 | 264 | 277 | 286 | 294 | 316 | 247 | 251 | 279 |
| 14 | | 262 | 253 | 249 | 245 | 197 | 145 | 219 | 369 | 318 | 369 | 443 | 412 | 399 | 369 | 283 | 240 | 253 | 266 | 283 | 283 | 292 | 283 | 266 | 266 | 290 |
| 15 | | 269 | 269 | 256 | 256 | 256 | 260 | 278 | 303 | 312 | 260 | 265 | 265 | 265 | 265 | 256 | 256 | 256 | 252 | 248 | 256 | 260 | 265 | 278 | 278 | 266 |
| 16 | | 276 | 267 | 267 | 258 | 250 | 254 | 280 | 289 | 306 | 340 | 357 | 319 | 250 | 232 | 241 | 254 | 245 | 237 | 271 | 293 | 306 | 306 | 297 | 280 | 278 |
| 17 | | 282 | 191 | 79 | 148 | 196 | 247 | 291 | 342 | 368 | 308 | 278 | 265 | 252 | 256 | 260 | 260 | 265 | 269 | 278 | 295 | 232 | 286 | 303 | 295 | 262 |
| 18 | | 272 | 242 | 160 | 238 | 272 | 272 | 272 | 272 | 277 | 290 | 311 | 272 | 264 | 255 | 195 | 186 | 246 | 259 | 264 | 272 | 281 | 285 | 285 | 285 | 260 |
| 19 | D | 267 | 207 | 176 | 198 | 215 | 340 | 426 | 327 | 323 | 392 | 465 | 345 | 323 | 241 | 228 | 250 | 280 | 314 | 323 | 254 | 90 | 26 | 69 | 276 | 265 |
| 20 | | 269 | 261 | 256 | 226 | 269 | 360 | 411 | 489 | 403 | 424 | 364 | 304 | 282 | 274 | 243 | 278 | 287 | 287 | 287 | 295 | 312 | 304 | 299 | 274 | 311 |
| 21 | | 286 | 251 | 212 | 251 | 204 | 243 | 251 | 268 | 281 | 277 | 277 | 277 | 268 | 234 | 191 | 212 | 234 | 251 | 268 | 286 | 273 | 273 | 264 | 277 | 255 |
| 22 | | 267 | 263 | 255 | 255 | 250 | 250 | 259 | 259 | 259 | 267 | 276 | 315 | 302 | 216 | 233 | 237 | 242 | 250 | 263 | 267 | 272 | 280 | 272 | 263 | 261 |
| 23 | | 201 | 196 | 214 | 244 | 244 | 265 | 265 | 300 | 309 | 261 | 335 | 429 | 412 | 253 | 222 | 244 | 248 | 265 | 257 | 265 | 278 | 278 | 265 | 257 | 271 |
| 24 | | 195 | 152 | 178 | 165 | 208 | 247 | 239 | 247 | 269 | 282 | 338 | 312 | 260 | 208 | 230 | 243 | 252 | 256 | 260 | 273 | 282 | 277 | 273 | 260 | 246 |
| 25 | Q | 246 | 221 | 212 | 221 | 238 | 259 | 251 | 290 | 272 | 259 | 268 | 268 | 264 | 259 | 259 | 264 | 268 | 268 | 272 | 272 | 272 | 277 | 272 | 264 | 259 |
| 26 | D | 262 | 262 | 257 | 253 | 253 | 253 | 262 | 305 | 266 | 305 | 439 | 305 | 409 | 288 | 214 | 236 | 249 | 253 | 257 | 262 | 266 | 253 | 266 | 184 | 273 |
| 27 | D | 122 | 53 | 144 | 291 | 485 | 295 | 243 | 252 | 308 | 520 | 520 | 455 | 343 | 243 | 222 | 252 | 243 | 252 | 287 | 295 | 304 | 287 | 287 | 308 | 292 |
| 28 | | 273 | 204 | 178 | 147 | 303 | 372 | 294 | 307 | 303 | 325 | 286 | 260 | 264 | 264 | 251 | 247 | 264 | 286 | 303 | 346 | 307 | 299 | 303 | 303 | 279 |
| 29 | Q | 293 | 271 | 267 | 258 | 254 | 258 | 267 | 280 | 293 | 275 | 275 | 262 | 254 | 241 | 232 | 219 | 219 | 245 | 258 | 267 | 275 | 275 | 275 | 275 | 262 |
| 30 | Q | 266 | 266 | 261 | 253 | 248 | 253 | 279 | 279 | 287 | 261 | 266 | 274 | 270 | 261 | 248 | 261 | 261 | 266 | 270 | 279 | 283 | 287 | 274 | 274 | 268 |
| 31 | | 278 | 269 | 265 | 260 | 260 | 265 | 282 | 351 | 329 | 325 | 278 | 273 | 265 | 260 | 256 | 247 | 265 | 269 | 273 | 286 | 291 | 295 | 299 | 291 | 280 |
| MEAN A | | 246 | 225 | 212 | 225 | 250 | 274 | 280 | 300 | 312 | 319 | 323 | 321 | 291 | 250 | 227 | 236 | 247 | 259 | 267 | 273 | 269 | 264 | 256 | 254 | 266 |
| MEAN Q | | 265 | 253 | 248 | 244 | 244 | 252 | 256 | 275 | 276 | 268 | 280 | 282 | 270 | 252 | 240 | 241 | 243 | 250 | 258 | 263 | 268 | 269 | 263 | 263 | 259 |
| MEAN D | | 231 | 186 | 185 | 210 | 283 | 299 | 297 | 284 | 313 | 391 | 404 | 391 | 338 | 248 | 216 | 231 | 249 | 274 | 280 | 260 | 221 | 171 | 167 | 198 | 264 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 25 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

SEPTEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 562 | 523 | 534 | 542 | 515 | 507 | 523 | 511 | 483 | 530 | 530 | 530 | 526 | 511 | 499 | 487 | 475 | 475 | 479 | 503 | 519 | 523 | 523 | 519 | 514 |
| 2 | Q | 519 | 530 | 538 | 542 | 515 | 534 | 538 | 511 | 507 | 499 | 530 | 526 | 511 | 515 | 503 | 491 | 483 | 487 | 499 | 511 | 523 | 530 | 530 | 526 | 517 |
| 3 | | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 530 | 526 | 523 | 515 | 428 | 420 | 475 | 491 | 491 | 483 | 495 | 515 | 530 | 542 | 515 | 546 | 578 | 513 |
| 4 | | 585 | 589 | 589 | 542 | 582 | 523 | 523 | 531 | 538 | 523 | 531 | 515 | 515 | 499 | 499 | 507 | 507 | 515 | 531 | 570 | 593 | 605 | 550 | 531 | 541 |
| 5 | | 506 | 510 | 522 | 530 | 533 | 530 | 533 | 490 | 467 | 459 | 478 | 502 | 290 | 184 | 321 | 341 | 459 | 545 | 581 | 679 | 730 | 804 | 635 | 522 | 506 |
| 6 | D | 530 | 541 | 530 | 349 | 467 | 436 | 247 | 463 | 486 | 479 | 428 | 294 | 412 | 436 | 498 | 486 | 522 | 518 | 534 | 553 | 612 | 686 | 604 | 518 | 485 |
| 7 | | 545 | 561 | 526 | 545 | 526 | 514 | 510 | 514 | 279 | 263 | 475 | 412 | 345 | 349 | 483 | 483 | 530 | 530 | 534 | 608 | 702 | 686 | 710 | 718 | 514 |
| 8 | | 639 | 586 | 456 | 326 | 491 | 459 | 480 | 361 | 322 | 410 | 498 | 502 | 519 | 442 | 442 | 526 | 533 | 544 | 558 | 544 | 551 | 551 | 544 | 547 | 493 |
| 9 | | 537 | 548 | 525 | 521 | 513 | 474 | 419 | 450 | 521 | 513 | 493 | 443 | 321 | 223 | 255 | 368 | 517 | 521 | 521 | 537 | 533 | 576 | 584 | 584 | 479 |
| 10 | | 556 | 568 | 584 | 458 | 521 | 529 | 513 | 529 | 517 | 513 | 513 | 513 | 505 | 474 | 443 | 431 | 474 | 505 | 517 | 529 | 584 | 568 | 529 | 525 | 516 |
| 11 | | 610 | 461 | 489 | 504 | 512 | 469 | 446 | 395 | 364 | 426 | 461 | 442 | 457 | 411 | 481 | 512 | 500 | 520 | 543 | 571 | 543 | 547 | 528 | 543 | 489 |
| 12 | | 579 | 551 | 543 | 543 | 512 | 364 | 461 | 497 | 497 | 481 | 454 | 457 | 481 | 497 | 493 | 497 | 497 | 504 | 516 | 520 | 524 | 528 | 528 | 520 | 502 |
| 13 | Q | 520 | 524 | 536 | 528 | 418 | 473 | 500 | 512 | 500 | 403 | 442 | 403 | 450 | 489 | 497 | 493 | 481 | 497 | 504 | 520 | 536 | 540 | 536 | 540 | 493 |
| 14 | | 535 | 554 | 503 | 441 | 546 | 543 | 515 | 500 | 507 | 464 | 406 | 363 | 410 | 425 | 461 | 492 | 496 | 507 | 523 | 566 | 667 | 699 | 675 | 574 | 516 |
| 15 | | 511 | 496 | 453 | 507 | 492 | 503 | 425 | 386 | 453 | 437 | 402 | 382 | 293 | 172 | 230 | 183 | 261 | 386 | 488 | 535 | 535 | 539 | 574 | 605 | 427 |
| 16 | | 558 | 566 | 511 | 351 | 511 | 402 | 394 | 488 | 433 | 468 | 476 | 433 | 418 | 503 | 503 | 492 | 500 | 507 | 515 | 519 | 531 | 535 | 535 | 527 | 487 |
| 17 | | 531 | 539 | 535 | 535 | 531 | 531 | 535 | 535 | 527 | 511 | 511 | 379 | 363 | 418 | 441 | 472 | 504 | 508 | 531 | 539 | 550 | 605 | 609 | 562 | 513 |
| 18 | D | 569 | 549 | 483 | 499 | 526 | 510 | 448 | 510 | 510 | 518 | 518 | 452 | 417 | 432 | 370 | 522 | 507 | 487 | 585 | 557 | 663 | 651 | 643 | 713 | 527 |
| 19 | | 686 | 538 | 530 | 510 | 366 | 351 | 530 | 546 | 518 | 495 | 471 | 487 | 495 | 475 | 495 | 499 | 503 | 510 | 503 | 510 | 514 | 534 | 553 | 542 | 507 |
| 20 | | 542 | 534 | 534 | 483 | 491 | 386 | 409 | 456 | 398 | 304 | 409 | 417 | 405 | 386 | 382 | 448 | 499 | 538 | 538 | 530 | 518 | 542 | 526 | 526 | 467 |
| 21 | | 564 | 556 | 533 | 517 | 521 | 541 | 548 | 510 | 436 | 486 | 490 | 494 | 517 | 502 | 498 | 486 | 502 | 510 | 517 | 537 | 545 | 533 | 548 | 576 | 519 |
| 22 | Q | 576 | 548 | 541 | 517 | 502 | 502 | 463 | 354 | 385 | 467 | 490 | 420 | 498 | 506 | 502 | 502 | 502 | 510 | 521 | 521 | 529 | 525 | 521 | 525 | 497 |
| 23 | | 525 | 533 | 537 | 541 | 533 | 525 | 510 | 533 | 533 | 525 | 521 | 514 | 510 | 409 | 323 | 432 | 494 | 510 | 525 | 576 | 646 | 591 | 619 | 591 | 523 |
| 24 | | 532 | 548 | 548 | 524 | 516 | 454 | 524 | 532 | 524 | 509 | 400 | 446 | 485 | 509 | 501 | 497 | 497 | 501 | 505 | 524 | 540 | 540 | 532 | 532 | 509 |
| 25 | | 548 | 548 | 559 | 493 | 349 | 536 | 419 | 458 | 571 | 532 | 524 | 501 | 509 | 497 | 466 | 419 | 481 | 493 | 516 | 532 | 594 | 575 | 555 | 571 | 510 |
| 26 | Q | 513 | 524 | 524 | 524 | 524 | 524 | 485 | 400 | 431 | 377 | 404 | 517 | 517 | 509 | 501 | 493 | 485 | 485 | 493 | 509 | 524 | 517 | 528 | 524 | 493 |
| 27 | | 523 | 519 | 519 | 519 | 527 | 523 | 519 | 519 | 516 | 523 | 523 | 519 | 519 | 512 | 496 | 492 | 484 | 484 | 496 | 531 | 554 | 574 | 648 | 659 | 529 |
| 28 | D | 644 | 648 | 593 | 570 | 535 | 539 | 554 | 535 | 473 | 399 | 488 | 267 | -36 | 119 | 224 | 422 | 473 | 508 | 488 | 539 | 597 | 655 | 718 | 632 | 483 |
| 29 | D | 585 | 605 | 613 | 446 | 628 | 523 | 454 | 457 | 465 | -167 | 135 | 399 | 520 | 322 | 135 | 19 | 454 | 461 | 551 | 589 | 570 | 628 | 423 | 197 | 417 |
| 30 | D | 359 | 387 | 418 | 472 | 484 | 437 | 476 | 422 | 266 | -36 | 88 | 224 | -129 | 243 | 445 | 255 | 359 | 371 | 491 | 584 | 588 | 534 | 530 | 522 | 366 |
| MEAN A | | 551 | 540 | 528 | 497 | 507 | 489 | 481 | 481 | 465 | 428 | 454 | 439 | 415 | 415 | 429 | 441 | 482 | 498 | 521 | 546 | 572 | 581 | 569 | 552 | 495 |
| MEAN Q | | 538 | 530 | 535 | 531 | 495 | 508 | 502 | 457 | 461 | 455 | 479 | 479 | 500 | 506 | 500 | 493 | 485 | 491 | 499 | 513 | 526 | 527 | 528 | 527 | 503 |
| MEAN D | | 537 | 546 | 527 | 467 | 528 | 489 | 436 | 477 | 440 | 238 | 331 | 327 | 237 | 310 | 335 | 341 | 463 | 469 | 530 | 565 | 606 | 631 | 583 | 517 | 455 |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 25 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

SEPTEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | Q | 492 | 480 | 480 | 476 | 465 | 476 | 472 | 472 | 496 | 488 | 488 | 496 | 511 | 523 | 527 | 519 | 504 | 484 | 469 | 457 | 457 | 461 | 472 | 480 | 485 |
| 2 | Q | 481 | 481 | 481 | 481 | 489 | 485 | 450 | 458 | 481 | 505 | 505 | 509 | 516 | 512 | 512 | 505 | 489 | 473 | 458 | 450 | 458 | 466 | 473 | 481 | 483 |
| 3 | | 477 | 477 | 477 | 485 | 481 | 481 | 481 | 485 | 485 | 489 | 489 | 512 | 532 | 528 | 512 | 497 | 489 | 462 | 458 | 454 | 458 | 470 | 473 | 477 | 485 |
| 4 | | 482 | 482 | 467 | 443 | 467 | 474 | 474 | 490 | 490 | 498 | 502 | 513 | 517 | 525 | 513 | 506 | 490 | 451 | 455 | 467 | 467 | 482 | 482 | 486 | 484 |
| 5 | | 483 | 479 | 475 | 479 | 483 | 483 | 483 | 468 | 487 | 514 | 511 | 507 | 557 | 577 | 585 | 534 | 491 | 472 | 495 | 554 | 546 | 554 | 487 | 452 | 507 |
| 6 | D | 479 | 491 | 452 | 358 | 444 | 390 | 413 | 479 | 491 | 499 | 499 | 507 | 530 | 534 | 507 | 507 | 460 | 475 | 468 | 468 | 491 | 530 | 511 | 483 | 478 |
| 7 | | 484 | 488 | 492 | 484 | 476 | 469 | 476 | 476 | 480 | 508 | 508 | 523 | 539 | 562 | 515 | 500 | 488 | 476 | 492 | 527 | 551 | 519 | 555 | 543 | 506 |
| 8 | | 528 | 474 | 434 | 278 | 263 | 243 | 290 | 509 | 462 | 493 | 509 | 540 | 540 | 544 | 524 | 485 | 477 | 466 | 466 | 466 | 470 | 477 | 485 | 493 | 455 |
| 9 | | 493 | 493 | 493 | 481 | 470 | 446 | 442 | 470 | 497 | 509 | 493 | 516 | 567 | 602 | 536 | 501 | 485 | 446 | 434 | 458 | 474 | 497 | 501 | 513 | 492 |
| 10 | | 525 | 517 | 490 | 471 | 467 | 475 | 471 | 486 | 498 | 494 | 494 | 502 | 510 | 514 | 498 | 490 | 478 | 471 | 439 | 451 | 482 | 494 | 490 | 486 | 487 |
| 11 | | 487 | 468 | 386 | 444 | 448 | 468 | 448 | 456 | 515 | 522 | 518 | 542 | 546 | 542 | 526 | 503 | 491 | 468 | 487 | 479 | 464 | 472 | 487 | 495 | 486 |
| 12 | | 499 | 511 | 495 | 476 | 464 | 362 | 448 | 487 | 495 | 499 | 503 | 518 | 522 | 518 | 511 | 499 | 483 | 476 | 468 | 464 | 468 | 479 | 487 | 487 | 484 |
| 13 | Q | 484 | 484 | 488 | 480 | 430 | 457 | 480 | 488 | 496 | 500 | 508 | 516 | 535 | 527 | 516 | 500 | 488 | 465 | 453 | 457 | 465 | 477 | 484 | 488 | 486 |
| 14 | | 489 | 501 | 489 | 501 | 489 | 493 | 466 | 497 | 497 | 509 | 513 | 536 | 544 | 544 | 520 | 517 | 489 | 458 | 470 | 505 | 552 | 556 | 513 | 497 | 506 |
| 15 | | 435 | 388 | 337 | 427 | 466 | 442 | 423 | 470 | 485 | 505 | 544 | 571 | 614 | 645 | 599 | 579 | 560 | 513 | 423 | 431 | 458 | 481 | 497 | 505 | 492 |
| 16 | | 510 | 514 | 475 | 424 | 420 | 338 | 494 | 490 | 521 | 514 | 514 | 545 | 561 | 533 | 521 | 514 | 502 | 482 | 479 | 479 | 482 | 486 | 490 | 486 | 491 |
| 17 | | 487 | 487 | 487 | 487 | 487 | 491 | 491 | 491 | 499 | 499 | 515 | 530 | 569 | 569 | 546 | 530 | 483 | 495 | 530 | 460 | 460 | 483 | 499 | 483 | 503 |
| 18 | D | 476 | 468 | 433 | 448 | 437 | 456 | 460 | 448 | 491 | 507 | 515 | 522 | 562 | 522 | 519 | 495 | 515 | 515 | 515 | 472 | 530 | 507 | 503 | 519 | 493 |
| 19 | | 508 | 469 | 484 | 469 | 250 | 402 | 461 | 484 | 492 | 504 | 516 | 520 | 523 | 531 | 523 | 512 | 508 | 492 | 492 | 492 | 484 | 492 | 492 | 492 | 483 |
| 20 | | 493 | 501 | 497 | 509 | 485 | 560 | 431 | 454 | 485 | 509 | 532 | 548 | 560 | 552 | 532 | 524 | 489 | 501 | 458 | 474 | 482 | 485 | 489 | 489 | 502 |
| 21 | | 493 | 501 | 489 | 482 | 478 | 478 | 478 | 501 | 509 | 509 | 509 | 517 | 517 | 517 | 517 | 501 | 482 | 489 | 478 | 489 | 489 | 489 | 489 | 497 | 496 |
| 22 | Q | 506 | 494 | 498 | 494 | 479 | 502 | 483 | 471 | 494 | 510 | 525 | 541 | 529 | 522 | 514 | 510 | 502 | 494 | 486 | 486 | 486 | 486 | 486 | 486 | 499 |
| 23 | | 487 | 487 | 495 | 495 | 495 | 487 | 480 | 503 | 503 | 507 | 511 | 519 | 523 | 542 | 542 | 511 | 476 | 480 | 491 | 503 | 542 | 503 | 507 | 507 | 504 |
| 24 | | 491 | 487 | 499 | 487 | 464 | 491 | 480 | 499 | 507 | 511 | 534 | 523 | 526 | 526 | 526 | 511 | 499 | 487 | 472 | 476 | 476 | 484 | 484 | 491 | 497 |
| 25 | | 492 | 500 | 496 | 481 | 442 | 465 | 434 | 477 | 496 | 500 | 512 | 516 | 524 | 531 | 539 | 508 | 500 | 485 | 488 | 488 | 500 | 488 | 477 | 485 | 493 |
| 26 | Q | 497 | 493 | 493 | 489 | 493 | 497 | 482 | 427 | 486 | 528 | 513 | 521 | 521 | 521 | 521 | 513 | 505 | 489 | 478 | 474 | 482 | 486 | 486 | 489 | 495 |
| 27 | | 490 | 494 | 494 | 494 | 494 | 498 | 498 | 498 | 502 | 506 | 506 | 514 | 518 | 529 | 529 | 533 | 518 | 498 | 483 | 490 | 490 | 483 | 490 | 502 | 502 |
| 28 | D | 487 | 502 | 518 | 494 | 494 | 490 | 494 | 510 | 494 | 510 | 522 | 545 | 592 | 662 | 639 | 565 | 506 | 518 | 502 | 479 | 506 | 545 | 537 | 510 | 526 |
| 29 | D | 515 | 538 | 523 | 515 | 429 | 413 | 448 | 523 | 484 | 488 | 491 | 570 | 581 | 632 | 710 | 652 | 495 | 511 | 495 | 538 | 491 | 491 | 488 | 445 | 519 |
| 30 | D | 374 | 394 | 312 | 441 | 409 | 460 | 519 | 534 | 530 | 577 | 499 | 570 | 499 | 523 | 491 | 589 | 566 | 538 | 593 | 577 | 554 | 499 | 495 | 507 | 502 |
| MEAN A | | 488 | 485 | 471 | 466 | 452 | 456 | 462 | 483 | 495 | 507 | 510 | 527 | 540 | 547 | 536 | 520 | 497 | 484 | 479 | 482 | 490 | 494 | 494 | 492 | 494 |
| MEAN Q | | 492 | 487 | 488 | 484 | 471 | 484 | 473 | 463 | 491 | 506 | 508 | 516 | 523 | 521 | 518 | 509 | 498 | 481 | 469 | 465 | 470 | 475 | 480 | 485 | 490 |
| MEAN D | | 466 | 479 | 447 | 451 | 443 | 442 | 467 | 499 | 498 | 516 | 505 | 543 | 553 | 575 | 573 | 561 | 508 | 511 | 515 | 507 | 515 | 515 | 507 | 493 | 504 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 27 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

SEPTEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | Q | 299 | 291 | 278 | 247 | 247 | 239 | 273 | 291 | 312 | 273 | 273 | 278 | 286 | 278 | 278 | 278 | 273 | 278 | 278 | 278 | 282 | 282 | 278 | 282 | 277 |
| 2 | Q | 269 | 274 | 265 | 256 | 222 | 200 | 213 | 226 | 278 | 278 | 261 | 265 | 261 | 261 | 256 | 261 | 261 | 265 | 265 | 269 | 274 | 274 | 269 | 269 | 258 |
| 3 | | 261 | 261 | 261 | 261 | 261 | 261 | 261 | 261 | 261 | 265 | 274 | 304 | 239 | 248 | 252 | 257 | 261 | 261 | 257 | 261 | 274 | 287 | 283 | 287 | 265 |
| 4 | | 279 | 240 | 175 | 175 | 201 | 222 | 257 | 253 | 253 | 261 | 261 | 261 | 261 | 257 | 244 | 248 | 253 | 257 | 266 | 283 | 292 | 296 | 283 | 274 | 252 |
| 5 | | 256 | 252 | 252 | 252 | 252 | 248 | 256 | 282 | 291 | 282 | 317 | 330 | 364 | 498 | 468 | 702 | 425 | 265 | 265 | 338 | 334 | 178 | 36 | 57 | 300 |
| 6 | D | 136 | 227 | 218 | 231 | 296 | 391 | 530 | 382 | 317 | 335 | 421 | 395 | 300 | 265 | 253 | 261 | 261 | 270 | 287 | 296 | 296 | 274 | 270 | 270 | 299 |
| 7 | | 274 | 240 | 240 | 244 | 257 | 270 | 296 | 322 | 491 | 474 | 370 | 396 | 326 | 249 | 244 | 266 | 261 | 279 | 318 | 331 | 296 | 283 | 171 | 192 | 295 |
| 8 | | 210 | 162 | 184 | 110 | 167 | 145 | 219 | 431 | 487 | 543 | 374 | 305 | 262 | 249 | 257 | 253 | 262 | 275 | 275 | 275 | 270 | 270 | 275 | 275 | 272 |
| 9 | | 271 | 241 | 236 | 228 | 245 | 232 | 505 | 409 | 292 | 297 | 305 | 314 | 301 | 271 | 184 | 158 | 249 | 245 | 266 | 271 | 271 | 292 | 297 | 271 | 277 |
| 10 | | 202 | 202 | 202 | 128 | 141 | 232 | 254 | 254 | 258 | 258 | 254 | 262 | 262 | 262 | 254 | 228 | 232 | 258 | 280 | 284 | 293 | 288 | 267 | 267 | 243 |
| 11 | | 246 | 189 | 77 | 137 | 228 | 302 | 315 | 363 | 419 | 406 | 319 | 306 | 289 | 259 | 215 | 241 | 250 | 263 | 285 | 311 | 293 | 285 | 276 | 285 | 273 |
| 12 | | 263 | 237 | 255 | 237 | 255 | 324 | 272 | 272 | 272 | 302 | 294 | 272 | 246 | 250 | 250 | 255 | 259 | 263 | 263 | 263 | 268 | 272 | 268 | 263 | 266 |
| 13 | Q | 255 | 255 | 251 | 229 | 238 | 298 | 281 | 268 | 285 | 324 | 298 | 277 | 225 | 229 | 242 | 251 | 255 | 255 | 259 | 259 | 259 | 264 | 255 | 259 | 261 |
| 14 | | 266 | 253 | 209 | 162 | 175 | 192 | 218 | 279 | 283 | 348 | 357 | 270 | 227 | 183 | 196 | 231 | 235 | 253 | 261 | 244 | 188 | 32 | 27 | 36 | 214 |
| 15 | | 83 | 187 | 296 | 309 | 274 | 287 | 417 | 391 | 382 | 413 | 395 | 417 | 395 | 300 | 196 | 287 | 291 | 265 | 291 | 270 | 300 | 300 | 304 | 287 | 306 |
| 16 | | 200 | 222 | 257 | 122 | 278 | 283 | 409 | 400 | 374 | 313 | 339 | 339 | 278 | 257 | 261 | 270 | 265 | 270 | 278 | 278 | 274 | 274 | 274 | 270 | 283 |
| 17 | | 269 | 269 | 269 | 265 | 265 | 265 | 265 | 256 | 265 | 287 | 287 | 434 | 313 | 248 | 187 | 213 | 243 | 248 | 248 | 282 | 269 | 265 | 239 | 252 | 267 |
| 18 | D | 260 | 243 | 200 | 191 | 182 | 291 | 278 | 226 | 308 | 317 | 291 | 312 | 299 | 234 | 178 | 243 | 278 | 347 | 299 | 308 | 256 | 208 | 221 | 148 | 255 |
| 19 | | 171 | 115 | 128 | 236 | 384 | 310 | 297 | 271 | 284 | 314 | 327 | 284 | 280 | 262 | 262 | 267 | 271 | 275 | 280 | 280 | 280 | 284 | 284 | 271 | 267 |
| 20 | | 280 | 271 | 262 | 245 | 262 | 158 | 332 | 414 | 479 | 414 | 301 | 271 | 275 | 176 | 167 | 215 | 241 | 284 | 288 | 271 | 271 | 280 | 284 | 284 | 280 |
| 21 | | 283 | 253 | 227 | 231 | 270 | 253 | 240 | 296 | 344 | 279 | 262 | 266 | 270 | 266 | 266 | 270 | 274 | 279 | 279 | 279 | 279 | 279 | 292 | 305 | 272 |
| 22 | Q | 291 | 282 | 248 | 226 | 226 | 265 | 434 | 369 | 317 | 278 | 278 | 252 | 265 | 269 | 274 | 282 | 287 | 287 | 287 | 287 | 287 | 278 | 278 | 278 | 284 |
| 23 | | 277 | 277 | 268 | 260 | 260 | 268 | 290 | 277 | 268 | 273 | 273 | 264 | 268 | 247 | 212 | 207 | 251 | 299 | 312 | 307 | 255 | 190 | 108 | 268 | 257 |
| 24 | | 272 | 276 | 250 | 250 | 259 | 233 | 263 | 276 | 276 | 302 | 328 | 285 | 267 | 267 | 267 | 272 | 272 | 276 | 276 | 276 | 280 | 285 | 285 | 289 | 274 |
| 25 | | 275 | 249 | 240 | 249 | 362 | 223 | 327 | 327 | 271 | 284 | 284 | 275 | 275 | 275 | 275 | 262 | 236 | 258 | 275 | 279 | 297 | 301 | 297 | 292 | 279 |
| 26 | Q | 287 | 279 | 283 | 261 | 266 | 266 | 283 | 187 | 344 | 387 | 300 | 274 | 274 | 270 | 270 | 270 | 274 | 279 | 279 | 279 | 287 | 283 | 283 | 279 | 281 |
| 27 | | 273 | 273 | 273 | 273 | 269 | 273 | 273 | 273 | 269 | 269 | 269 | 269 | 273 | 269 | 269 | 265 | 265 | 273 | 278 | 286 | 295 | 299 | 282 | 247 | 273 |
| 28 | D | 185 | 94 | 224 | 238 | 246 | 264 | 264 | 268 | 277 | 298 | 290 | 559 | 377 | 307 | 329 | 220 | 229 | 246 | 268 | 298 | 290 | 98 | 168 | 272 | 263 |
| 29 | D | 228 | 245 | 206 | 145 | 163 | 93 | 197 | 297 | 498 | 593 | 667 | 498 | 350 | 358 | 389 | 106 | 193 | 306 | 411 | 350 | 245 | 232 | 115 | 176 | 294 |
| 30 | D | 179 | 244 | 331 | 357 | 388 | 253 | 257 | 410 | 653 | 788 | 775 | 766 | 714 | 679 | 492 | 440 | 444 | 453 | 275 | 196 | 166 | 309 | 314 | 296 | 424 |
| MEAN A | | 243 | 237 | 235 | 225 | 251 | 251 | 299 | 308 | 337 | 349 | 335 | 333 | 301 | 281 | 263 | 266 | 268 | 277 | 282 | 283 | 274 | 258 | 243 | 250 | 277 |
| MEAN Q | | 280 | 276 | 265 | 244 | 240 | 254 | 297 | 268 | 307 | 308 | 282 | 269 | 262 | 261 | 264 | 268 | 270 | 273 | 273 | 274 | 278 | 276 | 273 | 273 | 272 |
| MEAN D | | 198 | 211 | 236 | 232 | 255 | 258 | 305 | 317 | 411 | 466 | 489 | 506 | 408 | 369 | 328 | 254 | 281 | 324 | 308 | 290 | 251 | 224 | 218 | 232 | 307 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 28 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

OCTOBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN | |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-----|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | | |
| 1 | D | 542 | 476 | 460 | 511 | 499 | 456 | 309 | 258 | 394 | 414 | 398 | 204 | 231 | 367 | 437 | 464 | 530 | 526 | 526 | 534 | 584 | 612 | 596 | 534 | 453 | |
| 2 | D | 522 | 584 | 592 | 534 | 491 | 188 | 297 | 204 | 103 | 188 | -60 | 355 | 309 | 204 | 262 | 526 | 619 | 526 | 530 | 518 | 542 | 577 | 584 | 581 | 407 | |
| 3 | D | 549 | 499 | 309 | 231 | 398 | 394 | 417 | 379 | 460 | 382 | 359 | 243 | 192 | -33 | 235 | 281 | 359 | 491 | 530 | 530 | 518 | 515 | 553 | 530 | 388 | |
| 4 | | 537 | 514 | 506 | 490 | 444 | 350 | 490 | 498 | 479 | 428 | 397 | 362 | 413 | 467 | 498 | 514 | 502 | 482 | 490 | 514 | 506 | 506 | 545 | 556 | 479 | |
| 5 | | 548 | 552 | 525 | 541 | 521 | 366 | 463 | 506 | 413 | 327 | 304 | 366 | 498 | 498 | 521 | 506 | 506 | 498 | 514 | 514 | 560 | 552 | 510 | 525 | 485 | |
| 6 | D | 525 | 541 | 486 | 506 | 506 | 444 | 413 | 424 | 486 | 494 | 444 | 424 | 339 | 397 | 405 | 521 | 490 | 521 | 576 | 591 | 599 | 556 | 521 | 514 | 488 | |
| 7 | | 516 | 536 | 520 | 307 | 536 | 520 | 342 | 415 | 474 | 474 | 450 | 466 | 489 | 501 | 509 | 501 | 489 | 489 | 497 | 497 | 536 | 536 | 520 | 509 | 485 | |
| 8 | Q | 513 | 509 | 513 | 513 | 520 | 520 | 516 | 505 | 415 | 513 | 513 | 505 | 505 | 505 | 497 | 489 | 493 | 497 | 505 | 524 | 536 | 547 | 547 | 559 | 511 | |
| 9 | | 528 | 516 | 516 | 524 | 520 | 489 | 466 | 458 | 497 | 505 | 501 | 489 | 513 | 505 | 513 | 501 | 505 | 505 | 516 | 536 | 567 | 606 | 540 | 528 | 514 | |
| 10 | D | 527 | 566 | 492 | 434 | 457 | 418 | 473 | 512 | 504 | 500 | 251 | 344 | 364 | 442 | 457 | 434 | 434 | 480 | 554 | 613 | 663 | 620 | 554 | 539 | 485 | |
| 11 | | 550 | 535 | 535 | 535 | 500 | 379 | 348 | 445 | 473 | 469 | 438 | 383 | 251 | 212 | 372 | 473 | 527 | 504 | 508 | 531 | 558 | 570 | 539 | 519 | 465 | |
| 12 | | 554 | 484 | 512 | 558 | 535 | 492 | 492 | 333 | 321 | 341 | 313 | 286 | 139 | 76 | 170 | 267 | 395 | 504 | 527 | 512 | 519 | 535 | 527 | 523 | 413 | |
| 13 | | 518 | 518 | 518 | 518 | 511 | 433 | 483 | 413 | 507 | 495 | 371 | 266 | 378 | 472 | 499 | 491 | 483 | 487 | 507 | 518 | 514 | 514 | 518 | 518 | 477 | |
| 14 | Q | 522 | 518 | 526 | 526 | 534 | 518 | 514 | 522 | 518 | 518 | 522 | 518 | 518 | 503 | 495 | 495 | 491 | 499 | 511 | 518 | 538 | 526 | 518 | 518 | 516 | |
| 15 | Q | 518 | 518 | 518 | 530 | 518 | 511 | 464 | 487 | 487 | 487 | 460 | 378 | 425 | 483 | 503 | 503 | 495 | 495 | 499 | 511 | 526 | 534 | 526 | 522 | 496 | |
| 16 | | 525 | 525 | 533 | 517 | 494 | 482 | 377 | 443 | 517 | 541 | 525 | 517 | 510 | 502 | 494 | 482 | 482 | 502 | 537 | 591 | 572 | 591 | 579 | 572 | 517 | |
| 17 | | 568 | 564 | 525 | 529 | 529 | 513 | 517 | 521 | 521 | 517 | 494 | 525 | 525 | 525 | 517 | 510 | 502 | 506 | 517 | 541 | 576 | 611 | 572 | 607 | 535 | |
| 18 | | 607 | 556 | 510 | 513 | 525 | 521 | 381 | 370 | 447 | 494 | 443 | 486 | 525 | 529 | 529 | 513 | 510 | 513 | 517 | 525 | 533 | 537 | 529 | 533 | 506 | |
| 19 | | 547 | 551 | 563 | 555 | 582 | 547 | 540 | 470 | 353 | 454 | 485 | 415 | 334 | 341 | 505 | 540 | 520 | 516 | 528 | 528 | 543 | 567 | 543 | 543 | 503 | |
| 20 | | 543 | 540 | 547 | 528 | 524 | 509 | 528 | 524 | 516 | 512 | 516 | 524 | 516 | 516 | 505 | 501 | 501 | 501 | 516 | 524 | 536 | 551 | 524 | 516 | 522 | |
| 21 | | 543 | 540 | 540 | 540 | 540 | 536 | 524 | 493 | 361 | 275 | 442 | 524 | 543 | 524 | 505 | 474 | 477 | 516 | 540 | 540 | 532 | 555 | 536 | 524 | 505 | |
| 22 | | 527 | 539 | 527 | 527 | 476 | 453 | 574 | 539 | 535 | 438 | 438 | 438 | 465 | 504 | 539 | 508 | 500 | 500 | 531 | 535 | 519 | 523 | 515 | 523 | 507 | |
| 23 | | 523 | 539 | 539 | 523 | 508 | 461 | 453 | 515 | 515 | 546 | 531 | 531 | 523 | 523 | 515 | 508 | 508 | 508 | 515 | 531 | 542 | 527 | 523 | 515 | 518 | |
| 24 | | 531 | 519 | 457 | 422 | 426 | 368 | 441 | 414 | 418 | 484 | 523 | 461 | 399 | 441 | 511 | 500 | 523 | 523 | 535 | 531 | 523 | 542 | 527 | 535 | 481 | |
| 25 | | 545 | 549 | 553 | 534 | 522 | 359 | 514 | 510 | 503 | 491 | 468 | 514 | 522 | 514 | 514 | 510 | 507 | 507 | 510 | 522 | 545 | 526 | 538 | 522 | 513 | |
| 26 | Q | 522 | 518 | 522 | 522 | 518 | 518 | 398 | 351 | 452 | 514 | 522 | 522 | 514 | 514 | 507 | 499 | 499 | 499 | 507 | 514 | 522 | 522 | 518 | 518 | 501 | |
| 27 | | 522 | 526 | 538 | 530 | 522 | 514 | 507 | 522 | 514 | 468 | 452 | 510 | 483 | 437 | 503 | 514 | 499 | 503 | 499 | 526 | 580 | 569 | 619 | 596 | 519 | |
| 28 | | 583 | 591 | 529 | 517 | 498 | 521 | 509 | 506 | 463 | 490 | 521 | 525 | 521 | 502 | 506 | 486 | 474 | 482 | 521 | 529 | 579 | 591 | 537 | 525 | 521 | |
| 29 | | 517 | 525 | 537 | 498 | 502 | 548 | 513 | 517 | 506 | 529 | 529 | 521 | 521 | 513 | 506 | 498 | 498 | 498 | 509 | 521 | 525 | 525 | 521 | 517 | 517 | |
| 30 | Q | 513 | 513 | 513 | 517 | 517 | 517 | 467 | 474 | 506 | 513 | 513 | 513 | 513 | 513 | 506 | 498 | 498 | 494 | 502 | 513 | 513 | 513 | 513 | 517 | 521 | 507 |
| 31 | | 525 | 537 | 525 | 498 | 451 | 459 | 397 | 428 | 327 | 381 | 408 | 265 | 257 | 335 | 385 | 463 | 506 | 490 | 474 | 482 | 502 | 521 | 533 | 521 | 445 | |
| MEAN A | | 536 | 532 | 516 | 501 | 504 | 462 | 456 | 450 | 451 | 457 | 435 | 432 | 427 | 430 | 465 | 483 | 494 | 502 | 518 | 529 | 545 | 551 | 540 | 534 | 490 | |
| MEAN Q | | 518 | 515 | 518 | 522 | 522 | 517 | 472 | 468 | 476 | 509 | 506 | 487 | 495 | 504 | 501 | 497 | 495 | 497 | 504 | 516 | 527 | 529 | 525 | 528 | 506 | |
| MEAN D | | 533 | 533 | 468 | 443 | 470 | 380 | 382 | 355 | 389 | 396 | 278 | 314 | 287 | 275 | 359 | 445 | 487 | 509 | 543 | 557 | 581 | 576 | 562 | 539 | 444 | |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 29 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

OCTOBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | D | 499 | 484 | 554 | 495 | 429 | 429 | 468 | 503 | 511 | 511 | 546 | 534 | 570 | 527 | 534 | 527 | 562 | 499 | 484 | 491 | 515 | 523 | 507 | 495 | 508 |
| 2 | D | 500 | 551 | 500 | 489 | 461 | 364 | 461 | 485 | 477 | 539 | 676 | 539 | 524 | 516 | 567 | 578 | 543 | 516 | 539 | 492 | 485 | 504 | 508 | 512 | 514 |
| 3 | D | 517 | 486 | 544 | 388 | 450 | 548 | 470 | 462 | 517 | 521 | 521 | 564 | 493 | 443 | 548 | 564 | 529 | 513 | 509 | 478 | 482 | 493 | 501 | 505 | 502 |
| 4 | | 506 | 514 | 502 | 491 | 471 | 455 | 479 | 498 | 518 | 518 | 518 | 557 | 526 | 518 | 518 | 518 | 526 | 533 | 514 | 483 | 483 | 479 | 494 | 502 | 505 |
| 5 | | 537 | 514 | 502 | 502 | 487 | 491 | 440 | 487 | 494 | 502 | 561 | 565 | 526 | 518 | 526 | 518 | 506 | 510 | 526 | 487 | 510 | 494 | 487 | 494 | 508 |
| 6 | D | 499 | 503 | 484 | 441 | 410 | 449 | 460 | 480 | 503 | 519 | 534 | 527 | 566 | 550 | 531 | 515 | 558 | 550 | 538 | 515 | 503 | 488 | 492 | 499 | 505 |
| 7 | | 508 | 493 | 481 | 539 | 481 | 489 | 450 | 504 | 516 | 520 | 528 | 532 | 528 | 532 | 535 | 532 | 516 | 504 | 493 | 481 | 481 | 489 | 493 | 496 | 505 |
| 8 | Q | 496 | 496 | 500 | 500 | 500 | 496 | 496 | 489 | 489 | 512 | 512 | 516 | 512 | 520 | 516 | 516 | 500 | 500 | 493 | 477 | 481 | 485 | 493 | 504 | 500 |
| 9 | | 500 | 500 | 500 | 496 | 496 | 493 | 489 | 493 | 512 | 512 | 512 | 516 | 512 | 520 | 524 | 512 | 516 | 504 | 496 | 500 | 512 | 504 | 500 | 500 | 505 |
| 10 | D | 496 | 500 | 473 | 465 | 465 | 434 | 434 | 524 | 496 | 539 | 590 | 547 | 575 | 535 | 528 | 504 | 489 | 473 | 516 | 535 | 543 | 524 | 496 | 504 | 508 |
| 11 | | 508 | 508 | 512 | 496 | 477 | 500 | 465 | 457 | 512 | 528 | 539 | 547 | 598 | 543 | 520 | 504 | 508 | 493 | 481 | 477 | 493 | 500 | 500 | 500 | 507 |
| 12 | | 495 | 503 | 492 | 499 | 495 | 480 | 488 | 503 | 531 | 515 | 546 | 562 | 581 | 503 | 538 | 507 | 480 | 480 | 488 | 464 | 484 | 495 | 499 | 503 | 506 |
| 13 | | 503 | 499 | 503 | 499 | 495 | 523 | 499 | 480 | 507 | 511 | 511 | 523 | 542 | 527 | 527 | 515 | 503 | 480 | 476 | 472 | 464 | 480 | 495 | 495 | 501 |
| 14 | Q | 499 | 503 | 503 | 507 | 503 | 499 | 503 | 503 | 507 | 507 | 511 | 515 | 515 | 527 | 531 | 519 | 511 | 503 | 488 | 480 | 488 | 492 | 499 | 499 | 505 |
| 15 | Q | 503 | 503 | 503 | 507 | 511 | 488 | 476 | 503 | 519 | 527 | 542 | 550 | 558 | 527 | 519 | 519 | 511 | 495 | 484 | 484 | 492 | 503 | 503 | 503 | 510 |
| 16 | | 498 | 498 | 502 | 502 | 479 | 479 | 491 | 502 | 510 | 510 | 514 | 518 | 518 | 518 | 522 | 530 | 518 | 471 | 475 | 510 | 506 | 502 | 487 | 491 | 502 |
| 17 | | 510 | 510 | 494 | 494 | 494 | 475 | 494 | 502 | 502 | 506 | 518 | 510 | 510 | 514 | 518 | 518 | 514 | 498 | 487 | 487 | 494 | 494 | 502 | 506 | 502 |
| 18 | | 502 | 498 | 491 | 494 | 502 | 487 | 448 | 518 | 502 | 526 | 533 | 541 | 510 | 514 | 514 | 518 | 510 | 502 | 487 | 479 | 487 | 491 | 494 | 491 | 502 |
| 19 | | 491 | 494 | 498 | 498 | 494 | 494 | 494 | 494 | 530 | 530 | 557 | 557 | 533 | 518 | 514 | 514 | 506 | 491 | 475 | 483 | 487 | 487 | 494 | 502 | 505 |
| 20 | | 501 | 505 | 497 | 493 | 486 | 493 | 493 | 497 | 501 | 505 | 505 | 505 | 509 | 517 | 525 | 521 | 509 | 509 | 497 | 493 | 493 | 497 | 493 | 493 | 502 |
| 21 | | 493 | 497 | 501 | 505 | 501 | 501 | 501 | 513 | 509 | 532 | 513 | 525 | 521 | 525 | 529 | 529 | 505 | 470 | 474 | 482 | 482 | 486 | 493 | 493 | 503 |
| 22 | | 497 | 497 | 493 | 490 | 482 | 408 | 474 | 493 | 501 | 513 | 509 | 517 | 529 | 525 | 517 | 517 | 501 | 493 | 493 | 493 | 482 | 490 | 493 | 493 | 496 |
| 23 | | 493 | 493 | 497 | 490 | 493 | 486 | 439 | 462 | 509 | 501 | 501 | 505 | 509 | 509 | 517 | 509 | 501 | 493 | 486 | 478 | 486 | 493 | 490 | 493 | 493 |
| 24 | | 492 | 500 | 516 | 449 | 430 | 371 | 387 | 485 | 539 | 528 | 508 | 528 | 531 | 516 | 512 | 516 | 492 | 489 | 489 | 481 | 485 | 485 | 492 | 492 | 488 |
| 25 | | 492 | 496 | 492 | 492 | 481 | 407 | 489 | 496 | 504 | 504 | 504 | 504 | 504 | 508 | 512 | 516 | 508 | 500 | 489 | 485 | 485 | 489 | 485 | 492 | 493 |
| 26 | Q | 492 | 492 | 492 | 492 | 489 | 489 | 438 | 446 | 500 | 508 | 512 | 516 | 516 | 516 | 520 | 524 | 512 | 500 | 485 | 481 | 481 | 485 | 489 | 492 | 494 |
| 27 | | 492 | 500 | 500 | 500 | 492 | 496 | 477 | 492 | 508 | 516 | 516 | 508 | 524 | 531 | 524 | 535 | 524 | 508 | 496 | 496 | 508 | 489 | 485 | 500 | 505 |
| 28 | | 480 | 495 | 484 | 491 | 488 | 491 | 495 | 499 | 491 | 499 | 503 | 507 | 507 | 519 | 519 | 523 | 511 | 476 | 491 | 480 | 491 | 484 | 480 | 484 | 495 |
| 29 | | 491 | 495 | 495 | 507 | 495 | 491 | 476 | 488 | 503 | 507 | 499 | 507 | 507 | 511 | 515 | 515 | 507 | 499 | 495 | 488 | 480 | 484 | 488 | 491 | 497 |
| 30 | Q | 491 | 495 | 495 | 495 | 495 | 491 | 448 | 464 | 499 | 503 | 503 | 507 | 507 | 511 | 515 | 511 | 499 | 491 | 484 | 480 | 484 | 488 | 491 | 491 | 493 |
| 31 | | 495 | 499 | 499 | 495 | 468 | 460 | 484 | 491 | 523 | 527 | 534 | 538 | 566 | 527 | 527 | 507 | 491 | 495 | 480 | 476 | 484 | 491 | 495 | 491 | 502 |
| MEAN A | | 499 | 501 | 500 | 491 | 481 | 473 | 471 | 491 | 507 | 516 | 527 | 529 | 531 | 519 | 525 | 521 | 512 | 498 | 494 | 487 | 491 | 493 | 494 | 497 | 502 |
| MEAN Q | | 497 | 498 | 499 | 500 | 500 | 493 | 472 | 481 | 503 | 511 | 516 | 521 | 522 | 520 | 520 | 518 | 507 | 498 | 486 | 480 | 485 | 490 | 495 | 498 | 500 |
| MEAN D | | 502 | 505 | 511 | 456 | 443 | 445 | 459 | 491 | 501 | 526 | 574 | 542 | 545 | 514 | 541 | 538 | 536 | 510 | 517 | 502 | 506 | 506 | 501 | 503 | 507 |

VERTICAL INTENSITY

TABLE 30 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

OCTOBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | D | 294 | 234 | 191 | 173 | 130 | 260 | 441 | 458 | 462 | 454 | 519 | 475 | 398 | 238 | 234 | 238 | 268 | 311 | 311 | 316 | 303 | 290 | 277 | 307 | 316 |
| 2 | D | 264 | 52 | 104 | 238 | 298 | 458 | 406 | 557 | 570 | 578 | 557 | 578 | 604 | 380 | 410 | 449 | 475 | 298 | 315 | 307 | 307 | 320 | 311 | 285 | 380 |
| 3 | D | 294 | 268 | 164 | 70 | 294 | 216 | 332 | 410 | 354 | 405 | 380 | 427 | 543 | 457 | 578 | 509 | 393 | 276 | 285 | 302 | 294 | 289 | 306 | 302 | 339 |
| 4 | | 297 | 267 | 258 | 293 | 297 | 435 | 327 | 336 | 331 | 361 | 301 | 301 | 267 | 241 | 280 | 275 | 288 | 301 | 288 | 288 | 293 | 293 | 301 | 305 | 301 |
| 5 | | 262 | 292 | 292 | 283 | 275 | 258 | 227 | 288 | 386 | 361 | 373 | 318 | 283 | 262 | 266 | 279 | 279 | 283 | 309 | 313 | 313 | 318 | 300 | 283 | 296 |
| 6 | D | 283 | 274 | 257 | 73 | 206 | 274 | 296 | 437 | 326 | 322 | 360 | 352 | 322 | 274 | 287 | 287 | 304 | 360 | 339 | 287 | 313 | 313 | 309 | 296 | 298 |
| 7 | | 282 | 265 | 260 | 63 | 222 | 265 | 307 | 440 | 329 | 307 | 290 | 273 | 269 | 269 | 273 | 273 | 277 | 273 | 282 | 286 | 295 | 303 | 299 | 286 | 279 |
| 8 | Q | 277 | 273 | 277 | 277 | 273 | 273 | 265 | 299 | 329 | 265 | 273 | 273 | 273 | 273 | 265 | 265 | 265 | 282 | 295 | 303 | 295 | 295 | 303 | 312 | 282 |
| 9 | | 298 | 286 | 281 | 273 | 273 | 316 | 324 | 290 | 273 | 273 | 281 | 264 | 269 | 273 | 277 | 277 | 286 | 277 | 273 | 281 | 269 | 281 | 286 | 281 | 282 |
| 10 | D | 272 | 263 | 242 | 272 | 332 | 340 | 332 | 310 | 310 | 370 | 469 | 537 | 473 | 310 | 246 | 238 | 268 | 293 | 315 | 327 | 250 | 263 | 280 | 280 | 316 |
| 11 | | 229 | 212 | 195 | 229 | 254 | 417 | 378 | 357 | 353 | 348 | 374 | 327 | 314 | 395 | 199 | 246 | 267 | 272 | 284 | 289 | 297 | 301 | 276 | 280 | 296 |
| 12 | | 279 | 245 | 202 | 253 | 257 | 253 | 339 | 488 | 424 | 390 | 343 | 364 | 356 | 381 | 432 | 343 | 287 | 283 | 287 | 317 | 313 | 304 | 283 | 279 | 321 |
| 13 | | 278 | 278 | 278 | 266 | 266 | 278 | 308 | 355 | 274 | 287 | 389 | 355 | 304 | 253 | 261 | 261 | 270 | 270 | 287 | 295 | 287 | 287 | 287 | 278 | 290 |
| 14 | Q | 277 | 277 | 277 | 269 | 256 | 260 | 269 | 273 | 273 | 273 | 269 | 273 | 273 | 273 | 277 | 269 | 273 | 282 | 286 | 299 | 307 | 294 | 277 | 269 | 276 |
| 15 | Q | 269 | 269 | 277 | 273 | 230 | 222 | 367 | 362 | 341 | 324 | 320 | 273 | 217 | 217 | 247 | 264 | 273 | 281 | 286 | 294 | 294 | 290 | 281 | 281 | 281 |
| 16 | | 277 | 281 | 273 | 252 | 252 | 307 | 448 | 371 | 290 | 277 | 277 | 273 | 273 | 269 | 260 | 264 | 273 | 281 | 294 | 294 | 324 | 315 | 290 | 286 | 292 |
| 17 | | 260 | 251 | 268 | 268 | 268 | 307 | 302 | 294 | 285 | 281 | 281 | 268 | 268 | 268 | 268 | 268 | 268 | 268 | 268 | 281 | 285 | 251 | 158 | 149 | 264 |
| 18 | | 186 | 250 | 246 | 259 | 267 | 267 | 408 | 425 | 374 | 348 | 357 | 293 | 259 | 267 | 272 | 267 | 276 | 280 | 280 | 280 | 280 | 280 | 280 | 276 | 291 |
| 19 | | 280 | 246 | 212 | 199 | 216 | 259 | 272 | 369 | 429 | 310 | 284 | 301 | 442 | 327 | 259 | 263 | 267 | 280 | 293 | 289 | 284 | 293 | 293 | 284 | 290 |
| 20 | | 271 | 279 | 267 | 262 | 254 | 262 | 267 | 279 | 284 | 284 | 279 | 284 | 279 | 284 | 279 | 284 | 284 | 284 | 288 | 292 | 296 | 292 | 292 | 292 | 280 |
| 21 | | 287 | 287 | 283 | 283 | 278 | 274 | 270 | 274 | 410 | 479 | 325 | 278 | 274 | 274 | 274 | 274 | 270 | 291 | 283 | 287 | 287 | 291 | 291 | 287 | 296 |
| 22 | | 283 | 274 | 266 | 232 | 249 | 185 | 236 | 287 | 274 | 317 | 304 | 261 | 244 | 244 | 287 | 278 | 283 | 295 | 308 | 291 | 287 | 291 | 291 | 283 | 273 |
| 23 | | 282 | 282 | 282 | 265 | 244 | 192 | 167 | 282 | 273 | 269 | 282 | 282 | 278 | 278 | 282 | 286 | 286 | 282 | 286 | 290 | 308 | 308 | 290 | 286 | 273 |
| 24 | | 286 | 282 | 231 | 235 | 286 | 299 | 316 | 278 | 325 | 393 | 308 | 346 | 367 | 273 | 265 | 261 | 273 | 278 | 286 | 290 | 286 | 273 | 290 | 286 | 292 |
| 25 | | 272 | 281 | 277 | 277 | 281 | 302 | 289 | 264 | 277 | 277 | 281 | 277 | 277 | 277 | 277 | 277 | 277 | 281 | 281 | 285 | 285 | 294 | 294 | 285 | 281 |
| 26 | | 280 | 280 | 280 | 280 | 276 | 276 | 285 | 349 | 336 | 289 | 272 | 276 | 280 | 280 | 280 | 280 | 276 | 280 | 280 | 280 | 285 | 285 | 280 | 280 | 285 |
| 27 | Q | 280 | 280 | 276 | 263 | 246 | 255 | 267 | 293 | 302 | 327 | 310 | 272 | 267 | 246 | 246 | 272 | 285 | 280 | 289 | 293 | 276 | 289 | 285 | 297 | 279 |
| 28 | | 309 | 254 | 232 | 237 | 224 | 245 | 284 | 318 | 313 | 284 | 275 | 271 | 271 | 275 | 279 | 284 | 279 | 275 | 279 | 292 | 292 | 284 | 296 | 288 | 277 |
| 29 | | 288 | 284 | 275 | 258 | 207 | 211 | 233 | 297 | 310 | 297 | 275 | 275 | 280 | 280 | 284 | 288 | 288 | 288 | 292 | 297 | 301 | 305 | 305 | 292 | 280 |
| 30 | Q | 287 | 287 | 283 | 283 | 283 | 279 | 270 | 266 | 274 | 274 | 274 | 274 | 274 | 274 | 283 | 283 | 287 | 291 | 300 | 296 | 296 | 296 | 291 | 291 | 283 |
| 31 | | 290 | 290 | 278 | 235 | 231 | 261 | 325 | 423 | 406 | 427 | 414 | 389 | 295 | 286 | 252 | 243 | 265 | 286 | 303 | 316 | 308 | 303 | 303 | 295 | 309 |
| MEAN A | | 277 | 263 | 251 | 238 | 256 | 281 | 308 | 346 | 339 | 337 | 332 | 323 | 316 | 287 | 286 | 285 | 288 | 286 | 292 | 295 | 294 | 293 | 287 | 283 | 293 |
| MEAN Q | | 278 | 277 | 279 | 276 | 264 | 262 | 291 | 310 | 311 | 285 | 280 | 274 | 264 | 264 | 270 | 272 | 276 | 282 | 289 | 294 | 294 | 292 | 288 | 287 | 282 |
| MEAN D | | 281 | 218 | 192 | 165 | 252 | 310 | 361 | 434 | 404 | 426 | 457 | 474 | 468 | 332 | 351 | 344 | 342 | 308 | 313 | 308 | 293 | 295 | 297 | 294 | 330 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 31 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

NOVEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 544 | 529 | 509 | 552 | 536 | 513 | 517 | 517 | 521 | 517 | 517 | 513 | 513 | 513 | 501 | 494 | 486 | 490 | 498 | 505 | 513 | 517 | 525 | 515 | |
| 2 | | 556 | 622 | 552 | 536 | 513 | 513 | 505 | 482 | 416 | 350 | 420 | 482 | 521 | 505 | 482 | 361 | 416 | 505 | 536 | 552 | 529 | 513 | 595 | 599 | 503 |
| 3 | D | 642 | 622 | 560 | 536 | 466 | 412 | 431 | 287 | 388 | 381 | 482 | 501 | 490 | 505 | 459 | 494 | 529 | 521 | 521 | 513 | 568 | 548 | 536 | 540 | 497 |
| 4 | | 524 | 520 | 539 | 450 | 520 | 528 | 497 | 364 | 376 | 364 | 220 | 341 | 512 | 528 | 520 | 512 | 500 | 497 | 497 | 512 | 516 | 512 | 532 | 543 | 476 |
| 5 | | 578 | 535 | 528 | 539 | 535 | 543 | 504 | 489 | 473 | 438 | 516 | 520 | 512 | 512 | 493 | 469 | 520 | 520 | 512 | 508 | 512 | 512 | 516 | 520 | 513 |
| 6 | Q | 520 | 528 | 532 | 532 | 528 | 520 | 524 | 489 | 512 | 524 | 528 | 520 | 520 | 512 | 508 | 504 | 500 | 500 | 504 | 508 | 524 | 516 | 520 | 535 | 517 |
| 7 | | 534 | 542 | 523 | 534 | 503 | 418 | 418 | 480 | 425 | 309 | 351 | 324 | 196 | 433 | 503 | 511 | 511 | 511 | 519 | 534 | 566 | 593 | 581 | 550 | 474 |
| 8 | | 566 | 538 | 511 | 460 | 344 | 453 | 250 | 394 | 402 | 340 | 418 | 441 | 519 | 527 | 464 | 410 | 464 | 503 | 550 | 651 | 675 | 718 | 686 | 628 | 496 |
| 9 | D | 573 | 542 | 527 | 542 | 476 | 496 | 192 | 305 | 410 | 425 | 281 | 1 | 324 | 386 | 348 | 507 | 507 | 550 | 476 | 496 | 511 | 538 | 531 | 527 | 436 |
| 10 | D | 530 | 518 | 518 | 479 | 397 | 471 | 132 | 428 | 530 | 452 | 491 | 549 | 86 | 136 | 331 | 471 | 537 | 502 | 518 | 572 | 596 | 557 | 530 | 526 | 452 |
| 11 | | 572 | 537 | 533 | 514 | 471 | 495 | 491 | 432 | 417 | 393 | 378 | 479 | 514 | 502 | 471 | 471 | 510 | 502 | 506 | 526 | 537 | 514 | 530 | 533 | 493 |
| 12 | | 569 | 533 | 537 | 526 | 483 | 510 | 549 | 526 | 498 | 448 | 401 | 502 | 518 | 533 | 526 | 510 | 487 | 487 | 510 | 506 | 510 | 533 | 533 | 526 | 511 |
| 13 | | 525 | 552 | 544 | 529 | 525 | 521 | 517 | 486 | 404 | 423 | 474 | 509 | 474 | 513 | 509 | 497 | 501 | 501 | 486 | 501 | 521 | 544 | 540 | 525 | 505 |
| 14 | Q | 544 | 556 | 564 | 548 | 536 | 532 | 525 | 517 | 513 | 509 | 517 | 517 | 509 | 505 | 501 | 509 | 494 | 494 | 501 | 505 | 509 | 517 | 517 | 521 | 519 |
| 15 | Q | 517 | 517 | 517 | 517 | 517 | 513 | 513 | 517 | 509 | 513 | 517 | 513 | 513 | 517 | 509 | 501 | 494 | 501 | 509 | 509 | 513 | 517 | 517 | 525 | 513 |
| 16 | | 524 | 524 | 520 | 524 | 524 | 524 | 524 | 524 | 508 | 477 | 508 | 520 | 516 | 516 | 512 | 500 | 493 | 493 | 500 | 512 | 524 | 520 | 520 | 524 | 514 |
| 17 | | 524 | 524 | 524 | 524 | 524 | 531 | 524 | 520 | 516 | 516 | 516 | 516 | 516 | 512 | 508 | 504 | 504 | 500 | 508 | 531 | 516 | 520 | 531 | 535 | 518 |
| 18 | | 528 | 531 | 543 | 539 | 531 | 535 | 531 | 508 | 493 | 500 | 477 | 489 | 485 | 520 | 524 | 512 | 500 | 500 | 516 | 520 | 520 | 531 | 535 | 516 | 516 |
| 19 | | 534 | 546 | 538 | 538 | 530 | 527 | 460 | 476 | 523 | 523 | 507 | 476 | 476 | 449 | 495 | 507 | 515 | 523 | 530 | 573 | 558 | 558 | 554 | 542 | 519 |
| 20 | | 562 | 546 | 573 | 585 | 550 | 538 | 519 | 515 | 507 | 484 | 484 | 515 | 519 | 515 | 511 | 507 | 507 | 511 | 515 | 519 | 515 | 519 | 519 | 519 | 523 |
| 21 | Q | 523 | 530 | 530 | 530 | 530 | 523 | 515 | 515 | 507 | 499 | 511 | 499 | 495 | 507 | 503 | 499 | 511 | 515 | 515 | 519 | 523 | 523 | 530 | 527 | 516 |
| 22 | | 526 | 526 | 526 | 506 | 611 | 498 | 413 | 592 | 561 | 549 | 533 | 529 | 510 | 491 | 498 | 514 | 510 | 510 | 514 | 526 | 545 | 553 | 545 | 541 | 526 |
| 23 | | 537 | 537 | 529 | 529 | 522 | 526 | 529 | 529 | 526 | 529 | 522 | 522 | 514 | 518 | 514 | 498 | 494 | 491 | 506 | 529 | 537 | 545 | 537 | 533 | 523 |
| 24 | | 533 | 541 | 537 | 533 | 526 | 510 | 467 | 498 | 487 | 459 | 444 | 479 | 514 | 514 | 506 | 514 | 506 | 510 | 514 | 529 | 529 | 533 | 561 | 537 | 512 |
| 25 | | 544 | 548 | 536 | 525 | 521 | 532 | 443 | 412 | 443 | 482 | 513 | 396 | 412 | 466 | 505 | 482 | 482 | 513 | 493 | 505 | 528 | 552 | 567 | 622 | 501 |
| 26 | | 638 | 583 | 497 | 478 | 505 | 462 | 509 | 532 | 528 | 532 | 521 | 521 | 513 | 521 | 509 | 493 | 482 | 427 | 505 | 571 | 575 | 525 | 521 | 528 | 520 |
| 27 | D | 528 | 540 | 528 | 513 | 365 | 143 | 365 | 423 | 384 | 338 | 92 | 330 | 232 | 178 | 279 | 380 | 521 | 493 | 532 | 583 | 564 | 544 | 579 | 556 | 416 |
| 28 | | 566 | 586 | 559 | 551 | 477 | 520 | 465 | 341 | 438 | 461 | 524 | 516 | 477 | 489 | 516 | 508 | 500 | 504 | 508 | 516 | 535 | 586 | 605 | 539 | 512 |
| 29 | | 551 | 555 | 524 | 516 | 520 | 516 | 426 | 294 | 372 | 453 | 481 | 508 | 407 | 356 | 446 | 489 | 446 | 473 | 559 | 566 | 594 | 613 | 601 | 598 | 494 |
| 30 | D | 457 | 379 | 438 | 508 | 520 | 504 | 481 | 450 | 360 | 395 | 516 | 535 | 527 | 520 | 520 | 465 | 453 | 489 | 524 | 539 | 535 | 524 | 516 | 531 | 487 |
| MEAN A | | 546 | 540 | 530 | 523 | 504 | 494 | 458 | 461 | 465 | 453 | 455 | 469 | 461 | 473 | 483 | 487 | 496 | 501 | 512 | 531 | 540 | 543 | 547 | 543 | 501 |
| MEAN Q | | 530 | 532 | 530 | 536 | 530 | 520 | 519 | 511 | 512 | 513 | 518 | 513 | 510 | 511 | 507 | 503 | 498 | 499 | 504 | 508 | 515 | 517 | 520 | 526 | 516 |
| MEAN D | | 546 | 520 | 514 | 516 | 445 | 405 | 320 | 379 | 414 | 398 | 372 | 383 | 332 | 345 | 387 | 464 | 509 | 511 | 514 | 541 | 555 | 542 | 538 | 536 | 458 |

EAST COMPONENT OF HORIZONTAL INTENSITY

TABLE 32 FORT CHURCHILL

Y = 0 PLUS TABULAR VALUES IN GAMMAS

NOVEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | Q | 495 | 495 | 484 | 491 | 499 | 495 | 495 | 499 | 499 | 499 | 503 | 507 | 515 | 519 | 519 | 515 | 503 | 491 | 488 | 484 | 491 | 491 | 491 | 491 | 499 |
| 2 | | 511 | 515 | 507 | 499 | 499 | 491 | 484 | 499 | 503 | 499 | 519 | 515 | 507 | 515 | 519 | 554 | 542 | 515 | 511 | 519 | 484 | 491 | 499 | 491 | 508 |
| 3 | D | 519 | 491 | 530 | 491 | 390 | 320 | 437 | 433 | 491 | 530 | 530 | 507 | 519 | 515 | 538 | 534 | 519 | 515 | 515 | 499 | 523 | 503 | 491 | 491 | 493 |
| 4 | | 499 | 499 | 495 | 499 | 472 | 488 | 468 | 480 | 491 | 515 | 527 | 562 | 511 | 515 | 523 | 530 | 523 | 523 | 503 | 495 | 495 | 491 | 491 | 495 | 504 |
| 5 | | 507 | 507 | 503 | 499 | 491 | 488 | 484 | 491 | 499 | 491 | 503 | 507 | 515 | 515 | 515 | 499 | 503 | 499 | 495 | 491 | 491 | 491 | 495 | 499 | 499 |
| 6 | Q | 498 | 498 | 498 | 498 | 498 | 502 | 487 | 498 | 498 | 498 | 498 | 498 | 506 | 506 | 506 | 506 | 498 | 490 | 483 | 487 | 483 | 490 | 490 | 490 | 496 |
| 7 | | 490 | 490 | 510 | 498 | 475 | 487 | 475 | 494 | 514 | 506 | 514 | 537 | 576 | 537 | 529 | 522 | 490 | 494 | 479 | 490 | 490 | 506 | 506 | 506 | 505 |
| 8 | | 494 | 498 | 487 | 471 | 451 | 467 | 451 | 475 | 494 | 502 | 506 | 514 | 506 | 518 | 522 | 502 | 514 | 522 | 483 | 526 | 522 | 529 | 522 | 514 | 500 |
| 9 | D | 537 | 506 | 506 | 498 | 467 | 381 | 412 | 362 | 444 | 522 | 541 | 572 | 592 | 569 | 600 | 506 | 483 | 490 | 479 | 447 | 471 | 487 | 487 | 490 | 494 |
| 10 | D | 494 | 498 | 502 | 490 | 506 | 522 | 287 | 408 | 475 | 463 | 451 | 494 | 686 | 576 | 592 | 533 | 510 | 518 | 514 | 529 | 526 | 490 | 494 | 498 | 502 |
| 11 | | 505 | 513 | 505 | 501 | 489 | 450 | 474 | 493 | 505 | 509 | 528 | 521 | 509 | 517 | 525 | 505 | 517 | 493 | 486 | 497 | 493 | 489 | 493 | 497 | 501 |
| 12 | | 504 | 527 | 504 | 496 | 488 | 449 | 488 | 492 | 496 | 496 | 496 | 512 | 508 | 504 | 516 | 520 | 527 | 504 | 481 | 477 | 481 | 485 | 488 | 492 | 497 |
| 13 | | 492 | 500 | 504 | 496 | 496 | 496 | 496 | 492 | 492 | 504 | 520 | 512 | 527 | 512 | 508 | 524 | 496 | 481 | 461 | 477 | 477 | 481 | 485 | 488 | 497 |
| 14 | Q | 488 | 500 | 504 | 500 | 496 | 492 | 488 | 485 | 488 | 496 | 496 | 496 | 496 | 500 | 504 | 508 | 500 | 492 | 488 | 481 | 477 | 481 | 485 | 488 | 493 |
| 15 | Q | 492 | 492 | 492 | 492 | 492 | 492 | 488 | 488 | 488 | 492 | 496 | 496 | 496 | 500 | 504 | 504 | 500 | 492 | 488 | 481 | 477 | 481 | 485 | 488 | 492 |
| 16 | | 488 | 492 | 492 | 492 | 492 | 492 | 488 | 492 | 488 | 496 | 496 | 496 | 496 | 504 | 508 | 508 | 508 | 496 | 473 | 473 | 473 | 481 | 485 | 488 | 492 |
| 17 | | 487 | 491 | 491 | 491 | 495 | 491 | 491 | 491 | 491 | 495 | 499 | 495 | 495 | 499 | 503 | 507 | 507 | 495 | 472 | 476 | 476 | 472 | 480 | 484 | 491 |
| 18 | | 487 | 487 | 491 | 495 | 495 | 495 | 491 | 495 | 499 | 499 | 503 | 507 | 507 | 503 | 503 | 511 | 503 | 499 | 480 | 472 | 476 | 480 | 484 | 484 | 494 |
| 19 | | 487 | 503 | 491 | 491 | 491 | 487 | 468 | 484 | 499 | 499 | 503 | 515 | 507 | 507 | 503 | 503 | 499 | 487 | 480 | 484 | 487 | 480 | 487 | 499 | 493 |
| 20 | | 495 | 487 | 511 | 503 | 484 | 491 | 487 | 495 | 495 | 503 | 503 | 499 | 495 | 495 | 503 | 503 | 495 | 487 | 484 | 484 | 484 | 484 | 484 | 487 | 493 |
| 21 | Q | 486 | 486 | 490 | 490 | 486 | 483 | 486 | 486 | 490 | 494 | 498 | 498 | 498 | 494 | 494 | 490 | 479 | 483 | 483 | 483 | 479 | 479 | 479 | 486 | 488 |
| 22 | | 490 | 490 | 486 | 490 | 479 | 424 | 443 | 479 | 483 | 483 | 494 | 498 | 506 | 514 | 510 | 502 | 498 | 498 | 486 | 486 | 483 | 471 | 479 | 486 | 486 |
| 23 | | 494 | 494 | 494 | 494 | 486 | 486 | 486 | 486 | 490 | 490 | 494 | 494 | 494 | 498 | 502 | 514 | 506 | 494 | 471 | 471 | 467 | 475 | 486 | 486 | 490 |
| 24 | | 494 | 494 | 502 | 494 | 486 | 483 | 475 | 490 | 494 | 506 | 518 | 506 | 502 | 510 | 494 | 510 | 483 | 471 | 471 | 471 | 479 | 475 | 479 | 486 | 491 |
| 25 | | 494 | 498 | 494 | 494 | 490 | 486 | 451 | 436 | 483 | 506 | 502 | 525 | 525 | 522 | 514 | 518 | 486 | 483 | 459 | 463 | 467 | 475 | 475 | 486 | 489 |
| 26 | | 505 | 470 | 485 | 454 | 446 | 431 | 431 | 482 | 485 | 485 | 493 | 493 | 493 | 493 | 501 | 528 | 505 | 458 | 462 | 442 | 474 | 478 | 482 | 485 | 478 |
| 27 | D | 493 | 493 | 493 | 482 | 442 | 278 | 419 | 458 | 478 | 528 | 470 | 540 | 556 | 493 | 509 | 544 | 485 | 485 | 501 | 478 | 478 | 474 | 482 | 501 | 482 |
| 28 | | 505 | 509 | 501 | 505 | 493 | 482 | 454 | 454 | 493 | 493 | 493 | 497 | 509 | 497 | 509 | 513 | 501 | 489 | 493 | 478 | 470 | 478 | 497 | 482 | 491 |
| 29 | | 485 | 489 | 497 | 497 | 493 | 485 | 454 | 415 | 482 | 489 | 501 | 497 | 524 | 536 | 513 | 517 | 505 | 513 | 517 | 497 | 485 | 489 | 478 | 493 | 494 |
| 30 | D | 462 | 482 | 556 | 536 | 501 | 493 | 392 | 470 | 485 | 489 | 497 | 485 | 497 | 497 | 493 | 513 | 509 | 501 | 462 | 478 | 474 | 474 | 485 | 493 | 489 |
| MEAN A | | 496 | 497 | 500 | 494 | 482 | 467 | 461 | 473 | 491 | 499 | 503 | 510 | 519 | 513 | 516 | 515 | 504 | 496 | 485 | 484 | 484 | 485 | 488 | 492 | 494 |
| MEAN Q | | 492 | 495 | 494 | 495 | 495 | 493 | 489 | 491 | 493 | 496 | 498 | 498 | 501 | 503 | 505 | 505 | 498 | 492 | 487 | 484 | 480 | 484 | 486 | 489 | 493 |
| MEAN D | | 501 | 494 | 518 | 500 | 461 | 399 | 389 | 426 | 475 | 507 | 498 | 520 | 570 | 530 | 546 | 526 | 501 | 502 | 494 | 486 | 494 | 486 | 488 | 495 | 492 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

VERTICAL INTENSITY

TABLE 33 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

NOVEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | Q | 295 | 269 | 269 | 269 | 273 | 290 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 286 | 282 | 282 | 286 | 286 | 295 | 295 | 295 | 295 | 295 | 285 |
| 2 | | 281 | 225 | 277 | 277 | 272 | 242 | 234 | 307 | 388 | 328 | 285 | 264 | 272 | 281 | 272 | 272 | 298 | 281 | 294 | 311 | 302 | 298 | 311 | 187 | 282 |
| 3 | D | 183 | 148 | 191 | 247 | 336 | 383 | 354 | 336 | 473 | 443 | 319 | 285 | 277 | 277 | 264 | 255 | 277 | 277 | 277 | 294 | 289 | 277 | 277 | 285 | 293 |
| 4 | | 284 | 289 | 250 | 225 | 207 | 246 | 276 | 302 | 323 | 417 | 400 | 293 | 272 | 276 | 280 | 284 | 284 | 289 | 297 | 302 | 306 | 302 | 297 | 284 | 291 |
| 5 | | 296 | 296 | 283 | 262 | 202 | 236 | 275 | 305 | 309 | 318 | 275 | 266 | 271 | 275 | 271 | 249 | 258 | 262 | 271 | 275 | 275 | 279 | 279 | 275 | 273 |
| 6 | Q | 275 | 275 | 275 | 267 | 258 | 241 | 245 | 301 | 275 | 271 | 271 | 271 | 271 | 271 | 271 | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 275 | 280 | 271 |
| 7 | | 274 | 236 | 210 | 206 | 287 | 394 | 373 | 394 | 424 | 429 | 420 | 334 | 309 | 274 | 249 | 257 | 257 | 274 | 283 | 296 | 300 | 287 | 296 | 266 | 305 |
| 8 | | 230 | 269 | 256 | 320 | 350 | 350 | 423 | 338 | 269 | 278 | 252 | 243 | 256 | 278 | 278 | 230 | 265 | 316 | 329 | 290 | 273 | 239 | 248 | 192 | 282 |
| 9 | D | 225 | 260 | 264 | 260 | 264 | 354 | 358 | 401 | 418 | 418 | 496 | 483 | 427 | 311 | 440 | 285 | 260 | 277 | 273 | 294 | 303 | 285 | 277 | 281 | 330 |
| 10 | D | 280 | 272 | 272 | 259 | 134 | 151 | 70 | 293 | 297 | 353 | 426 | 319 | 327 | 366 | 259 | 229 | 254 | 293 | 314 | 263 | 220 | 254 | 280 | 280 | 269 |
| 11 | | 284 | 263 | 259 | 254 | 242 | 263 | 323 | 357 | 366 | 319 | 319 | 289 | 276 | 267 | 250 | 246 | 250 | 259 | 276 | 280 | 280 | 272 | 276 | 280 | 281 |
| 12 | | 232 | 232 | 267 | 262 | 194 | 228 | 254 | 262 | 279 | 318 | 292 | 258 | 262 | 275 | 271 | 267 | 279 | 279 | 271 | 271 | 275 | 288 | 288 | 284 | 266 |
| 13 | | 279 | 275 | 275 | 275 | 267 | 271 | 271 | 297 | 365 | 348 | 297 | 275 | 262 | 258 | 258 | 249 | 254 | 267 | 271 | 288 | 279 | 288 | 284 | 275 | 280 |
| 14 | Q | 278 | 278 | 253 | 244 | 244 | 266 | 274 | 270 | 270 | 274 | 270 | 274 | 278 | 278 | 278 | 278 | 278 | 278 | 283 | 278 | 283 | 278 | 283 | 283 | 273 |
| 15 | Q | 282 | 278 | 274 | 274 | 274 | 274 | 269 | 274 | 274 | 274 | 274 | 274 | 274 | 278 | 282 | 278 | 278 | 282 | 282 | 282 | 278 | 278 | 282 | 278 | 277 |
| 16 | | 282 | 278 | 282 | 278 | 278 | 278 | 274 | 278 | 286 | 278 | 269 | 274 | 278 | 278 | 278 | 278 | 278 | 282 | 278 | 282 | 286 | 286 | 282 | 282 | 279 |
| 17 | | 277 | 277 | 277 | 277 | 277 | 273 | 277 | 277 | 277 | 273 | 277 | 273 | 277 | 281 | 281 | 277 | 281 | 281 | 285 | 285 | 285 | 290 | 294 | 290 | 280 |
| 18 | | 285 | 280 | 285 | 268 | 276 | 272 | 268 | 285 | 289 | 289 | 280 | 272 | 259 | 272 | 280 | 276 | 276 | 289 | 298 | 293 | 285 | 293 | 293 | 289 | 281 |
| 19 | | 289 | 289 | 280 | 285 | 276 | 285 | 263 | 328 | 293 | 268 | 272 | 250 | 259 | 242 | 268 | 255 | 268 | 285 | 302 | 293 | 289 | 280 | 280 | 272 | 278 |
| 20 | | 258 | 189 | 168 | 223 | 258 | 271 | 284 | 284 | 292 | 305 | 279 | 279 | 279 | 284 | 284 | 279 | 279 | 279 | 288 | 284 | 292 | 288 | 292 | 284 | 271 |
| 21 | Q | 288 | 288 | 288 | 284 | 275 | 275 | 288 | 293 | 284 | 284 | 280 | 275 | 267 | 275 | 271 | 258 | 267 | 271 | 284 | 284 | 293 | 288 | 288 | 293 | 281 |
| 22 | | 287 | 283 | 292 | 201 | 132 | 249 | 223 | 197 | 266 | 283 | 292 | 283 | 279 | 266 | 266 | 266 | 274 | 279 | 283 | 287 | 305 | 296 | 296 | 296 | 266 |
| 23 | | 296 | 292 | 292 | 292 | 288 | 288 | 283 | 288 | 283 | 292 | 288 | 283 | 283 | 283 | 288 | 283 | 288 | 292 | 305 | 314 | 309 | 305 | 301 | 296 | 292 |
| 24 | | 291 | 287 | 269 | 274 | 269 | 274 | 287 | 291 | 300 | 339 | 334 | 282 | 257 | 265 | 261 | 261 | 261 | 287 | 287 | 300 | 295 | 300 | 295 | 295 | 286 |
| 25 | | 290 | 286 | 286 | 290 | 286 | 286 | 320 | 294 | 342 | 307 | 299 | 320 | 260 | 256 | 264 | 268 | 268 | 273 | 299 | 290 | 290 | 299 | 294 | 273 | 289 |
| 26 | | 243 | 234 | 187 | 118 | 230 | 234 | 264 | 273 | 273 | 282 | 290 | 290 | 282 | 286 | 290 | 290 | 316 | 282 | 355 | 329 | 295 | 290 | 295 | 290 | 272 |
| 27 | D | 286 | 286 | 277 | 282 | 420 | 355 | 338 | 450 | 472 | 619 | 619 | 351 | 476 | 316 | 334 | 325 | 230 | 277 | 286 | 290 | 286 | 295 | 295 | 264 | 351 |
| 28 | | 272 | 251 | 238 | 251 | 212 | 251 | 333 | 315 | 328 | 333 | 289 | 285 | 281 | 276 | 285 | 281 | 281 | 289 | 294 | 298 | 302 | 242 | 251 | 294 | 280 |
| 29 | | 294 | 285 | 251 | 281 | 281 | 285 | 385 | 376 | 311 | 350 | 337 | 298 | 264 | 320 | 272 | 272 | 268 | 259 | 259 | 234 | 255 | 242 | 290 | 229 | 288 |
| 30 | D | 234 | 290 | 160 | 173 | 195 | 251 | 195 | 381 | 480 | 415 | 285 | 290 | 281 | 290 | 290 | 316 | 272 | 247 | 272 | 281 | 294 | 285 | 290 | 294 | 282 |
| MEAN A | | 272 | 265 | 257 | 256 | 259 | 277 | 286 | 311 | 327 | 333 | 319 | 291 | 287 | 281 | 281 | 271 | 272 | 279 | 289 | 288 | 287 | 283 | 286 | 276 | 285 |
| MEAN Q | | 284 | 278 | 272 | 267 | 265 | 269 | 273 | 285 | 278 | 278 | 276 | 276 | 275 | 278 | 278 | 273 | 276 | 279 | 282 | 283 | 285 | 283 | 285 | 285 | 278 |
| MEAN D | | 242 | 251 | 233 | 244 | 270 | 299 | 263 | 372 | 428 | 450 | 429 | 345 | 358 | 312 | 317 | 282 | 259 | 274 | 284 | 284 | 278 | 279 | 284 | 281 | 305 |

NORTH COMPONENT OF HORIZONTAL INTENSITY

TABLE 34 FORT CHURCHILL

X = 6500 PLUS TABULAR VALUES IN GAMMAS

DECEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | |
| 1 | | 535 | 523 | 516 | 516 | 512 | 516 | 508 | 492 | 418 | 430 | 402 | 391 | 410 | 477 | 473 | 465 | 426 | 465 | 480 | 504 | 527 | 520 | 520 | 527 | 481 |
| 2 | | 527 | 527 | 527 | 535 | 527 | 527 | 488 | 449 | 363 | 441 | 457 | 449 | 434 | 434 | 473 | 480 | 480 | 480 | 488 | 496 | 504 | 504 | 496 | 482 | |
| 3 | | 512 | 512 | 512 | 512 | 512 | 512 | 512 | 496 | 512 | 520 | 520 | 520 | 516 | 516 | 512 | 504 | 504 | 496 | 504 | 512 | 531 | 551 | 559 | 605 | 519 |
| 4 | | 561 | 530 | 534 | 534 | 561 | 573 | 554 | 526 | 526 | 491 | 472 | 417 | 452 | 394 | 355 | 472 | 503 | 511 | 526 | 519 | 511 | 522 | 534 | 530 | 505 |
| 5 | D | 530 | 530 | 526 | 526 | 515 | 452 | 394 | 448 | 526 | 472 | 315 | 237 | 167 | 269 | 312 | 456 | 507 | 456 | 558 | 608 | 585 | 604 | 550 | 604 | 465 |
| 6 | | 533 | 529 | 514 | 525 | 525 | 494 | 486 | 459 | 510 | 463 | 400 | 471 | 494 | 506 | 510 | 506 | 506 | 506 | 510 | 518 | 518 | 518 | 514 | 518 | 489 |
| 7 | D | 533 | 529 | 514 | 525 | 525 | 494 | 486 | 459 | 510 | 463 | 400 | 471 | 494 | 506 | 510 | 506 | 506 | 506 | 510 | 518 | 518 | 518 | 514 | 518 | 501 |
| 8 | | 529 | 537 | 533 | 533 | 541 | 553 | 533 | 525 | 510 | 502 | 518 | 518 | 514 | 514 | 510 | 510 | 502 | 514 | 510 | 514 | 521 | 525 | 533 | 533 | 522 |
| 9 | D | 541 | 557 | 510 | 553 | 537 | 541 | 525 | 514 | 522 | 525 | 522 | 506 | 447 | 483 | 486 | 498 | 514 | 533 | 525 | 518 | 533 | 533 | 533 | 537 | 521 |
| 10 | | 528 | 517 | 517 | 517 | 524 | 517 | 509 | 478 | 470 | 509 | 505 | 501 | 509 | 513 | 509 | 509 | 505 | 509 | 509 | 532 | 540 | 571 | 524 | 536 | 515 |
| 11 | | 571 | 583 | 560 | 524 | 509 | 489 | 462 | 376 | 489 | 517 | 505 | 509 | 493 | 482 | 485 | 521 | 505 | 501 | 493 | 513 | 532 | 532 | 532 | 556 | 510 |
| 12 | | 578 | 562 | 555 | 520 | 590 | 531 | 485 | 477 | 512 | 512 | 512 | 485 | 492 | 500 | 508 | 512 | 500 | 492 | 496 | 508 | 516 | 516 | 523 | 527 | 517 |
| 13 | Q | 547 | 555 | 559 | 562 | 559 | 523 | 516 | 496 | 508 | 531 | 523 | 516 | 512 | 508 | 508 | 504 | 508 | 500 | 500 | 508 | 516 | 523 | 531 | 539 | 523 |
| 14 | | 535 | 531 | 535 | 539 | 547 | 531 | 527 | 523 | 520 | 516 | 516 | 512 | 504 | 512 | 504 | 500 | 500 | 504 | 508 | 512 | 508 | 520 | 547 | 547 | 521 |
| 15 | | 530 | 538 | 538 | 534 | 546 | 538 | 530 | 519 | 511 | 491 | 394 | 491 | 515 | 530 | 515 | 515 | 503 | 495 | 499 | 523 | 546 | 565 | 577 | 612 | 523 |
| 16 | D | 585 | 554 | 593 | 554 | 526 | 526 | 515 | 351 | 429 | 460 | 515 | 468 | 488 | 491 | 491 | 398 | 418 | 507 | 515 | 538 | 515 | 530 | 526 | 530 | 501 |
| 17 | | 561 | 554 | 538 | 530 | 519 | 523 | 523 | 519 | 499 | 484 | 453 | 441 | 526 | 519 | 511 | 499 | 499 | 491 | 495 | 515 | 526 | 515 | 519 | 530 | 512 |
| 18 | | 537 | 533 | 522 | 514 | 514 | 522 | 518 | 514 | 514 | 514 | 506 | 510 | 514 | 510 | 506 | 506 | 498 | 498 | 502 | 506 | 506 | 514 | 522 | 541 | 514 |
| 19 | | 541 | 537 | 529 | 537 | 537 | 529 | 537 | 529 | 522 | 506 | 491 | 498 | 494 | 518 | 510 | 506 | 502 | 506 | 506 | 522 | 514 | 522 | 522 | 529 | 519 |
| 20 | Q | 529 | 533 | 529 | 529 | 529 | 537 | 537 | 529 | 525 | 518 | 522 | 514 | 514 | 514 | 514 | 510 | 506 | 514 | 514 | 514 | 514 | 522 | 522 | 533 | 522 |
| 21 | Q | 552 | 567 | 575 | 575 | 552 | 567 | 536 | 525 | 521 | 517 | 513 | 513 | 513 | 513 | 513 | 505 | 505 | 505 | 509 | 513 | 517 | 521 | 521 | 525 | 528 |
| 22 | | 540 | 528 | 525 | 521 | 525 | 528 | 505 | 412 | 497 | 525 | 528 | 474 | 455 | 451 | 494 | 497 | 505 | 505 | 521 | 528 | 528 | 525 | 521 | 525 | 507 |
| 23 | D | 528 | 528 | 532 | 528 | 521 | 505 | 431 | 420 | 474 | 245 | 156 | 253 | 397 | 358 | 377 | 513 | 505 | 505 | 528 | 575 | 559 | 552 | 583 | 544 | 463 |
| 24 | | 560 | 501 | 552 | 575 | 548 | 532 | 521 | 505 | 529 | 482 | 474 | 381 | 211 | 377 | 478 | 498 | 498 | 513 | 521 | 517 | 532 | 552 | 529 | 529 | 496 |
| 25 | | 528 | 531 | 531 | 520 | 446 | 442 | 520 | 508 | 396 | 404 | 485 | 473 | 435 | 365 | 466 | 543 | 504 | 512 | 520 | 516 | 520 | 535 | 551 | 535 | 491 |
| 26 | | 528 | 528 | 528 | 528 | 512 | 462 | 435 | 303 | 388 | 450 | 427 | 481 | 508 | 512 | 508 | 497 | 466 | 489 | 524 | 508 | 531 | 528 | 574 | 593 | 492 |
| 27 | | 609 | 586 | 528 | 481 | 462 | 493 | 493 | 477 | 466 | 438 | 311 | 268 | 442 | 520 | 508 | 504 | 489 | 504 | 516 | 508 | 504 | 504 | 512 | 512 | 485 |
| 28 | | 516 | 520 | 520 | 512 | 512 | 516 | 516 | 512 | 504 | 473 | 462 | 466 | 504 | 504 | 500 | 497 | 493 | 497 | 500 | 512 | 516 | 520 | 520 | 528 | 505 |
| 29 | | 534 | 534 | 534 | 527 | 527 | 519 | 511 | 503 | 426 | 352 | 364 | 484 | 519 | 519 | 515 | 511 | 503 | 503 | 511 | 511 | 511 | 511 | 511 | 515 | 498 |
| 30 | Q | 519 | 519 | 523 | 523 | 511 | 538 | 523 | 519 | 511 | 511 | 469 | 484 | 503 | 515 | 519 | 511 | 511 | 511 | 507 | 507 | 515 | 515 | 511 | 519 | 512 |
| 31 | Q | 519 | 523 | 523 | 519 | 527 | 527 | 515 | 488 | 488 | 472 | 399 | 434 | 488 | 511 | 511 | 511 | 507 | 503 | 503 | 511 | 511 | 519 | 519 | 523 | 502 |
| MEAN A | | 544 | 538 | 530 | 529 | 523 | 512 | 505 | 480 | 486 | 475 | 457 | 456 | 466 | 477 | 482 | 497 | 496 | 501 | 510 | 520 | 523 | 530 | 532 | 539 | 504 |
| MEAN Q | | 533 | 539 | 542 | 542 | 535 | 539 | 525 | 511 | 511 | 510 | 485 | 492 | 506 | 512 | 513 | 509 | 508 | 505 | 507 | 511 | 514 | 520 | 521 | 528 | 517 |
| MEAN D | | 560 | 547 | 517 | 534 | 506 | 466 | 469 | 443 | 488 | 434 | 407 | 389 | 394 | 411 | 407 | 463 | 487 | 501 | 527 | 555 | 544 | 552 | 552 | 552 | 488 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

EAST COMPONENT OF HORIZONTAL INTENSITY

| TABLE 35 FORT CHURCHILL | | Y = 0 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | | | | | | | | | | | | DECEMBER 1969 | | | |
|-------------------------|----|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|------|-----|-----|
| HOUR | UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN | | |
| DAY | | T0 1 | T0 2 | T0 3 | T0 4 | T0 5 | T0 6 | T0 7 | T0 8 | T0 9 | T0 10 | T0 11 | T0 12 | T0 13 | T0 14 | T0 15 | T0 16 | T0 17 | T0 18 | T0 19 | T0 20 | T0 21 | T0 22 | T0 23 | T0 24 | | | |
| 1 | | 489 | 493 | 493 | 489 | 485 | 485 | 482 | 482 | 474 | 478 | 509 | 528 | 524 | 489 | 513 | 489 | 470 | 450 | 458 | 462 | 470 | 474 | 478 | 482 | 485 | 485 | |
| 2 | | 482 | 482 | 482 | 485 | 493 | 489 | 462 | 474 | 458 | 482 | 489 | 493 | 493 | 497 | 497 | 497 | 489 | 478 | 478 | 478 | 474 | 478 | 482 | 485 | 483 | 483 | |
| 3 | | 493 | 493 | 493 | 497 | 493 | 489 | 489 | 489 | 493 | 493 | 493 | 493 | 497 | 497 | 501 | 505 | 501 | 493 | 485 | 485 | 482 | 474 | 485 | 493 | 492 | 492 | |
| 4 | | 497 | 497 | 501 | 501 | 493 | 485 | 485 | 485 | 489 | 493 | 501 | 505 | 509 | 532 | 517 | 513 | 478 | 485 | 478 | 478 | 474 | 482 | 482 | 485 | 494 | 494 | |
| 5 | D | 493 | 493 | 493 | 493 | 482 | 478 | 384 | 442 | 482 | 505 | 509 | 548 | 564 | 544 | 501 | 489 | 493 | 442 | 454 | 489 | 493 | 501 | 485 | 485 | 489 | 489 | |
| 6 | D | 547 | 500 | 566 | 484 | 449 | 426 | 430 | 445 | 465 | 508 | 508 | 516 | 500 | 520 | 504 | 484 | 473 | 477 | 484 | 492 | 484 | 484 | 484 | 492 | 489 | 489 | |
| 7 | | 492 | 492 | 492 | 492 | 488 | 500 | 508 | 477 | 488 | 492 | 500 | 500 | 500 | 496 | 496 | 496 | 488 | 488 | 481 | 477 | 477 | 477 | 484 | 488 | 491 | 491 | |
| 8 | | 492 | 496 | 508 | 508 | 488 | 484 | 469 | 481 | 484 | 492 | 492 | 492 | 492 | 496 | 496 | 492 | 488 | 488 | 477 | 477 | 484 | 484 | 484 | 492 | 489 | 489 | |
| 9 | D | 500 | 496 | 484 | 484 | 488 | 488 | 481 | 484 | 484 | 492 | 492 | 500 | 512 | 496 | 508 | 512 | 492 | 484 | 481 | 481 | 477 | 481 | 484 | 488 | 490 | 490 | |
| 10 | | 488 | 492 | 492 | 492 | 488 | 484 | 484 | 484 | 481 | 492 | 496 | 496 | 492 | 492 | 496 | 504 | 496 | 477 | 477 | 481 | 477 | 492 | 484 | 481 | 488 | 488 | |
| 11 | | 507 | 507 | 507 | 495 | 483 | 476 | 468 | 483 | 480 | 499 | 507 | 499 | 499 | 515 | 515 | 503 | 491 | 491 | 476 | 472 | 476 | 472 | 476 | 483 | 491 | 491 | |
| 12 | | 487 | 499 | 495 | 503 | 495 | 468 | 444 | 468 | 487 | 487 | 495 | 499 | 495 | 499 | 507 | 507 | 495 | 487 | 483 | 476 | 472 | 472 | 480 | 483 | 487 | 487 | |
| 13 | Q | 491 | 495 | 507 | 499 | 495 | 491 | 480 | 483 | 487 | 491 | 491 | 491 | 495 | 499 | 507 | 503 | 499 | 491 | 483 | 476 | 472 | 476 | 480 | 483 | 490 | 490 | |
| 14 | | 487 | 491 | 491 | 495 | 491 | 483 | 483 | 483 | 487 | 491 | 491 | 491 | 495 | 499 | 515 | 507 | 491 | 483 | 480 | 476 | 468 | 468 | 480 | 480 | 488 | 488 | |
| 15 | | 483 | 491 | 495 | 499 | 499 | 487 | 483 | 483 | 483 | 491 | 507 | 499 | 499 | 499 | 503 | 503 | 491 | 499 | 476 | 468 | 468 | 476 | 483 | 499 | 490 | 490 | |
| 16 | D | 498 | 494 | 510 | 506 | 498 | 486 | 475 | 420 | 502 | 494 | 490 | 506 | 506 | 510 | 518 | 514 | 482 | 479 | 479 | 479 | 475 | 467 | 475 | 482 | 489 | 489 | |
| 17 | | 479 | 490 | 498 | 490 | 490 | 490 | 486 | 482 | 482 | 494 | 502 | 506 | 490 | 498 | 506 | 510 | 498 | 490 | 482 | 475 | 479 | 479 | 482 | 482 | 490 | 490 | |
| 18 | | 490 | 490 | 494 | 494 | 490 | 486 | 486 | 486 | 486 | 490 | 490 | 490 | 490 | 490 | 494 | 490 | 490 | 490 | 486 | 475 | 475 | 479 | 486 | 488 | 488 | 488 | |
| 19 | | 490 | 490 | 494 | 494 | 490 | 494 | 486 | 486 | 486 | 490 | 498 | 498 | 506 | 498 | 498 | 494 | 490 | 486 | 486 | 482 | 482 | 482 | 482 | 482 | 490 | 490 | |
| 20 | Q | 486 | 490 | 490 | 490 | 490 | 490 | 486 | 482 | 486 | 490 | 490 | 490 | 490 | 490 | 494 | 490 | 486 | 486 | 482 | 482 | 475 | 475 | 479 | 479 | 486 | 486 | |
| 21 | Q | 481 | 481 | 497 | 493 | 493 | 481 | 478 | 481 | 481 | 485 | 485 | 485 | 489 | 489 | 489 | 497 | 481 | 481 | 481 | 474 | 474 | 474 | 478 | 481 | 484 | 484 | |
| 22 | | 481 | 485 | 489 | 481 | 481 | 481 | 489 | 458 | 474 | 481 | 489 | 497 | 505 | 513 | 520 | 489 | 474 | 478 | 474 | 474 | 474 | 474 | 478 | 481 | 484 | 484 | |
| 23 | D | 489 | 489 | 497 | 489 | 489 | 470 | 442 | 474 | 489 | 481 | 544 | 560 | 520 | 536 | 509 | 489 | 474 | 478 | 466 | 466 | 474 | 474 | 489 | 489 | 491 | 491 | |
| 24 | | 481 | 462 | 489 | 517 | 489 | 481 | 481 | 481 | 481 | 489 | 497 | 513 | 528 | 509 | 497 | 489 | 478 | 478 | 474 | 466 | 462 | 478 | 481 | 481 | 487 | 487 | |
| 25 | | 485 | 489 | 489 | 481 | 478 | 411 | 427 | 470 | 509 | 489 | 489 | 505 | 513 | 524 | 517 | 493 | 458 | 454 | 454 | 458 | 458 | 478 | 485 | 485 | 479 | 479 | |
| 26 | | 485 | 489 | 493 | 485 | 474 | 481 | 431 | 407 | 466 | 497 | 513 | 497 | 493 | 497 | 497 | 493 | 470 | 435 | 466 | 466 | 462 | 481 | 489 | 497 | 478 | 478 | |
| 27 | | 543 | 512 | 480 | 504 | 441 | 441 | 441 | 445 | 461 | 492 | 465 | 465 | 504 | 496 | 496 | 496 | 484 | 477 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | 480 | |
| 28 | | 480 | 480 | 484 | 484 | 488 | 488 | 480 | 480 | 484 | 488 | 488 | 488 | 488 | 492 | 496 | 488 | 477 | 473 | 473 | 469 | 473 | 477 | 480 | 480 | 482 | 482 | |
| 29 | | 488 | 492 | 488 | 488 | 484 | 484 | 477 | 480 | 477 | 477 | 488 | 492 | 488 | 496 | 500 | 492 | 477 | 477 | 480 | 473 | 477 | 480 | 480 | 480 | 484 | 484 | |
| 30 | Q | 480 | 484 | 484 | 480 | 473 | 480 | 484 | 480 | 484 | 484 | 488 | 488 | 488 | 488 | 492 | 496 | 488 | 488 | 488 | 488 | 480 | 477 | 480 | 477 | 480 | 484 | 484 |
| 31 | Q | 480 | 484 | 488 | 488 | 496 | 480 | 480 | 480 | 488 | 488 | 484 | 488 | 488 | 492 | 496 | 492 | 496 | 492 | 480 | 477 | 477 | 477 | 477 | 480 | 485 | 485 | |
| MEAN A | | 492 | 491 | 496 | 493 | 486 | 479 | 470 | 472 | 483 | 490 | 496 | 501 | 502 | 503 | 503 | 497 | 485 | 479 | 477 | 476 | 475 | 478 | 481 | 485 | 487 | 487 | |
| MEAN Q | | 484 | 487 | 493 | 490 | 489 | 485 | 482 | 482 | 486 | 488 | 488 | 489 | 490 | 493 | 496 | 494 | 490 | 488 | 483 | 478 | 475 | 476 | 478 | 481 | 486 | 486 | |
| MEAN D | | 506 | 495 | 510 | 491 | 481 | 470 | 442 | 453 | 484 | 496 | 509 | 526 | 520 | 521 | 508 | 498 | 483 | 472 | 473 | 481 | 481 | 481 | 484 | 488 | 490 | 490 | |

VERTICAL INTENSITY

TABLE 36 FORT CHURCHILL

Z = 60500 PLUS TABULAR VALUES IN GAMMAS

DECEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | MEAN |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | |
| 1 | | 290 | 294 | 285 | 285 | 285 | 285 | 294 | 298 | 316 | 294 | 281 | 320 | 281 | 229 | 247 | 229 | 229 | 268 | 303 | 303 | 311 | 303 | 303 | 303 | 285 |
| 2 | | 303 | 290 | 290 | 285 | 264 | 264 | 277 | 277 | 316 | 285 | 277 | 268 | 264 | 251 | 264 | 268 | 251 | 259 | 277 | 285 | 294 | 294 | 285 | 285 | 278 |
| 3 | | 285 | 276 | 267 | 267 | 267 | 259 | 259 | 276 | 267 | 276 | 276 | 276 | 272 | 272 | 280 | 272 | 272 | 276 | 276 | 280 | 280 | 280 | 289 | 280 | 274 |
| 4 | | 279 | 275 | 271 | 271 | 227 | 275 | 271 | 271 | 266 | 275 | 301 | 314 | 279 | 275 | 223 | 210 | 253 | 279 | 279 | 279 | 279 | 284 | 284 | 279 | 271 |
| 5 | D | 284 | 284 | 275 | 266 | 262 | 301 | 314 | 305 | 284 | 314 | 383 | 461 | 314 | 232 | 227 | 197 | 275 | 310 | 305 | 292 | 275 | 223 | 271 | 236 | 287 |
| 6 | | 166 | 157 | 136 | 162 | 400 | 313 | 270 | 305 | 331 | 370 | 318 | 287 | 279 | 270 | 235 | 257 | 253 | 279 | 292 | 292 | 296 | 292 | 270 | 279 | 271 |
| 7 | | 274 | 274 | 279 | 279 | 261 | 248 | 209 | 287 | 292 | 296 | 309 | 270 | 261 | 270 | 279 | 270 | 274 | 279 | 287 | 287 | 292 | 296 | 292 | 287 | 277 |
| 8 | | 287 | 287 | 261 | 261 | 278 | 230 | 243 | 278 | 291 | 295 | 278 | 274 | 278 | 282 | 278 | 274 | 278 | 278 | 282 | 282 | 287 | 287 | 287 | 300 | 277 |
| 9 | D | 286 | 277 | 238 | 242 | 268 | 268 | 268 | 286 | 273 | 273 | 273 | 264 | 247 | 247 | 238 | 242 | 264 | 273 | 277 | 277 | 286 | 286 | 294 | 281 | 268 |
| 10 | | 277 | 277 | 277 | 277 | 269 | 273 | 286 | 295 | 273 | 273 | 277 | 269 | 269 | 277 | 277 | 269 | 269 | 277 | 277 | 286 | 290 | 251 | 173 | 160 | 267 |
| 11 | | 190 | 276 | 276 | 259 | 263 | 311 | 429 | 455 | 333 | 294 | 311 | 276 | 268 | 246 | 203 | 233 | 246 | 268 | 281 | 289 | 294 | 285 | 289 | 289 | 286 |
| 12 | | 289 | 272 | 246 | 185 | 211 | 220 | 250 | 281 | 276 | 276 | 272 | 276 | 272 | 268 | 268 | 268 | 268 | 276 | 281 | 281 | 285 | 285 | 281 | 276 | 265 |
| 13 | Q | 293 | 293 | 271 | 271 | 267 | 254 | 293 | 337 | 285 | 280 | 280 | 280 | 276 | 271 | 271 | 267 | 271 | 276 | 276 | 276 | 280 | 280 | 280 | 280 | 279 |
| 14 | | 279 | 279 | 275 | 270 | 266 | 275 | 270 | 270 | 270 | 270 | 266 | 266 | 266 | 262 | 257 | 249 | 240 | 257 | 275 | 279 | 284 | 292 | 284 | 288 | 271 |
| 15 | | 288 | 279 | 284 | 266 | 266 | 266 | 270 | 270 | 284 | 301 | 336 | 284 | 262 | 270 | 266 | 266 | 266 | 284 | 292 | 292 | 292 | 292 | 292 | 275 | 281 |
| 16 | D | 225 | 191 | 221 | 251 | 247 | 260 | 273 | 425 | 334 | 312 | 277 | 295 | 269 | 243 | 238 | 195 | 199 | 260 | 273 | 299 | 286 | 286 | 290 | 295 | 269 |
| 17 | | 294 | 277 | 264 | 277 | 277 | 281 | 277 | 277 | 285 | 298 | 320 | 277 | 272 | 268 | 272 | 272 | 272 | 277 | 281 | 294 | 281 | 285 | 285 | 290 | 281 |
| 18 | | 284 | 280 | 284 | 280 | 275 | 275 | 275 | 275 | 271 | 271 | 271 | 271 | 271 | 275 | 271 | 271 | 275 | 275 | 275 | 271 | 275 | 280 | 280 | 280 | 276 |
| 19 | | 278 | 274 | 274 | 261 | 248 | 235 | 244 | 261 | 265 | 265 | 269 | 256 | 261 | 261 | 261 | 261 | 265 | 265 | 269 | 265 | 265 | 265 | 265 | 265 | 262 |
| 20 | Q | 273 | 273 | 277 | 269 | 269 | 269 | 273 | 277 | 273 | 269 | 269 | 264 | 264 | 269 | 260 | 264 | 269 | 269 | 273 | 269 | 273 | 273 | 277 | 277 | 271 |
| 21 | Q | 293 | 293 | 259 | 220 | 237 | 237 | 272 | 267 | 267 | 267 | 267 | 267 | 267 | 267 | 272 | 267 | 272 | 267 | 276 | 276 | 280 | 276 | 276 | 280 | 268 |
| 22 | | 275 | 275 | 267 | 271 | 271 | 271 | 275 | 357 | 301 | 267 | 271 | 271 | 267 | 228 | 241 | 215 | 254 | 288 | 292 | 292 | 288 | 284 | 292 | 292 | 275 |
| 23 | D | 291 | 282 | 274 | 261 | 222 | 256 | 239 | 329 | 355 | 419 | 423 | 346 | 269 | 265 | 291 | 244 | 261 | 295 | 299 | 299 | 291 | 295 | 269 | 269 | 294 |
| 24 | | 238 | 191 | 182 | 242 | 272 | 277 | 277 | 289 | 281 | 298 | 328 | 336 | 366 | 259 | 264 | 255 | 281 | 289 | 289 | 302 | 306 | 311 | 298 | 281 | 280 |
| 25 | | 260 | 280 | 280 | 280 | 135 | 161 | 246 | 225 | 284 | 340 | 280 | 272 | 254 | 263 | 229 | 216 | 254 | 297 | 306 | 314 | 306 | 306 | 301 | 301 | 267 |
| 26 | | 291 | 287 | 287 | 278 | 291 | 287 | 304 | 359 | 385 | 334 | 329 | 308 | 278 | 270 | 278 | 278 | 278 | 266 | 287 | 300 | 304 | 312 | 287 | 270 | 298 |
| 27 | | 231 | 261 | 219 | 248 | 342 | 321 | 257 | 321 | 333 | 401 | 389 | 363 | 304 | 282 | 274 | 274 | 278 | 291 | 295 | 287 | 291 | 295 | 295 | 287 | 297 |
| 28 | | 289 | 285 | 285 | 285 | 281 | 285 | 281 | 281 | 285 | 285 | 276 | 255 | 272 | 276 | 276 | 259 | 268 | 276 | 285 | 289 | 293 | 297 | 293 | 293 | 281 |
| 29 | | 291 | 296 | 291 | 287 | 279 | 283 | 275 | 296 | 338 | 351 | 313 | 283 | 287 | 279 | 275 | 275 | 279 | 283 | 291 | 291 | 296 | 296 | 291 | 291 | 292 |
| 30 | Q | 287 | 287 | 282 | 282 | 227 | 274 | 278 | 282 | 282 | 282 | 282 | 270 | 274 | 278 | 274 | 282 | 282 | 291 | 287 | 291 | 291 | 291 | 287 | 287 | 280 |
| 31 | Q | 289 | 285 | 285 | 281 | 276 | 285 | 276 | 276 | 268 | 285 | 302 | 281 | 272 | 276 | 281 | 276 | 272 | 281 | 285 | 285 | 289 | 289 | 293 | 289 | 282 |
| MEAN A | | 274 | 271 | 263 | 262 | 265 | 268 | 275 | 300 | 296 | 301 | 300 | 290 | 275 | 264 | 260 | 254 | 264 | 278 | 285 | 287 | 288 | 286 | 282 | 279 | 278 |
| MEAN Q | | 287 | 286 | 275 | 265 | 255 | 264 | 278 | 288 | 275 | 277 | 280 | 272 | 271 | 272 | 272 | 272 | 273 | 276 | 279 | 279 | 283 | 282 | 283 | 283 | 276 |
| MEAN D | | 250 | 238 | 229 | 237 | 280 | 280 | 273 | 330 | 315 | 338 | 335 | 331 | 276 | 251 | 246 | 227 | 250 | 283 | 289 | 292 | 287 | 276 | 279 | 272 | 278 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

MEAN VALUES OF MAGNETIC ELEMENTS

NORTH COMPONENT OF HORIZONTAL INTENSITY—ALL DAYS

| TABLE 37 FORT CHURCHILL | | X = 6500 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | 1969 | | | |
|-------------------------|-----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
| 0-1 | 473 | 477 | 496 | 531 | 580 | 607 | 575 | 566 | 551 | 536 | 546 | 544 | 540 | 582 | 529 | 510 |
| 1-2 | 469 | 473 | 467 | 516 | 565 | 583 | 565 | 553 | 540 | 532 | 540 | 538 | 528 | 567 | 514 | 505 |
| 2-3 | 473 | 478 | 471 | 498 | 540 | 549 | 551 | 522 | 528 | 516 | 530 | 530 | 516 | 541 | 503 | 503 |
| 3-4 | 461 | 464 | 465 | 470 | 495 | 538 | 525 | 509 | 497 | 501 | 523 | 529 | 498 | 517 | 483 | 494 |
| 4-5 | 457 | 465 | 459 | 453 | 478 | 511 | 507 | 498 | 507 | 504 | 504 | 523 | 489 | 499 | 481 | 487 |
| 5-6 | 449 | 444 | 450 | 443 | 458 | 490 | 499 | 479 | 489 | 462 | 494 | 512 | 472 | 482 | 461 | 475 |
| 6-7 | 447 | 423 | 428 | 412 | 467 | 481 | 497 | 481 | 481 | 456 | 458 | 505 | 461 | 482 | 444 | 458 |
| 7-8 | 428 | 429 | 401 | 421 | 482 | 483 | 463 | 470 | 481 | 450 | 461 | 480 | 454 | 475 | 438 | 450 |
| 8-9 | 414 | 426 | 391 | 422 | 462 | 462 | 463 | 456 | 465 | 451 | 465 | 486 | 447 | 461 | 432 | 448 |
| 9-10 | 401 | 417 | 381 | 414 | 420 | 459 | 461 | 458 | 428 | 457 | 453 | 475 | 435 | 450 | 420 | 437 |
| 10-11 | 382 | 406 | 392 | 415 | 407 | 462 | 461 | 442 | 454 | 435 | 455 | 457 | 431 | 443 | 424 | 425 |
| 11-12 | 391 | 394 | 400 | 399 | 397 | 442 | 454 | 425 | 439 | 432 | 469 | 456 | 425 | 430 | 418 | 428 |
| 12-13 | 376 | 403 | 380 | 348 | 379 | 418 | 456 | 407 | 415 | 427 | 461 | 466 | 411 | 415 | 393 | 427 |
| 13-14 | 379 | 389 | 390 | 357 | 389 | 408 | 464 | 413 | 415 | 430 | 473 | 477 | 415 | 419 | 398 | 430 |
| 14-15 | 397 | 416 | 391 | 362 | 424 | 431 | 472 | 448 | 429 | 465 | 483 | 482 | 433 | 444 | 412 | 445 |
| 15-16 | 424 | 422 | 408 | 398 | 458 | 476 | 478 | 477 | 441 | 483 | 487 | 497 | 454 | 472 | 433 | 458 |
| 16-17 | 428 | 445 | 424 | 424 | 489 | 490 | 484 | 482 | 482 | 494 | 496 | 496 | 470 | 486 | 456 | 466 |
| 17-18 | 441 | 449 | 436 | 441 | 505 | 504 | 495 | 494 | 498 | 502 | 501 | 501 | 481 | 500 | 469 | 473 |
| 18-19 | 451 | 443 | 461 | 476 | 525 | 524 | 512 | 513 | 521 | 518 | 512 | 510 | 497 | 519 | 494 | 479 |
| 19-20 | 464 | 447 | 479 | 511 | 549 | 562 | 538 | 536 | 546 | 529 | 531 | 520 | 518 | 546 | 516 | 491 |
| 20-21 | 469 | 471 | 502 | 534 | 561 | 583 | 551 | 553 | 572 | 545 | 540 | 523 | 534 | 562 | 538 | 501 |
| 21-22 | 473 | 484 | 518 | 566 | 585 | 608 | 569 | 564 | 581 | 551 | 543 | 530 | 548 | 582 | 554 | 508 |
| 22-23 | 478 | 488 | 518 | 555 | 608 | 625 | 591 | 567 | 569 | 540 | 547 | 532 | 552 | 598 | 546 | 511 |
| 23-24 | 478 | 485 | 506 | 556 | 600 | 625 | 588 | 567 | 552 | 534 | 543 | 539 | 548 | 595 | 537 | 511 |
| MEAN | 438 | 443 | 442 | 455 | 493 | 513 | 509 | 495 | 495 | 490 | 501 | 504 | 482 | 503 | 470 | 472 |

MEAN VALUES OF MAGNETIC ELEMENTS

EAST COMPONENT OF HORIZONTAL INTENSITY-ALL DAYS

| TABLE 38 FORT CHURCHILL | | Y = 0 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | 1969 | | | |
|-------------------------|-----|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
| 0-1 | 461 | 459 | 443 | 445 | 440 | 477 | 482 | 490 | 488 | 499 | 496 | 492 | 473 | 472 | 469 | 477 |
| 1-2 | 467 | 460 | 436 | 431 | 433 | 461 | 473 | 484 | 485 | 501 | 497 | 491 | 468 | 463 | 463 | 479 |
| 2-3 | 468 | 464 | 427 | 434 | 426 | 444 | 467 | 470 | 471 | 500 | 500 | 496 | 464 | 452 | 458 | 482 |
| 3-4 | 464 | 469 | 426 | 429 | 417 | 439 | 459 | 460 | 466 | 491 | 494 | 493 | 459 | 444 | 453 | 480 |
| 4-5 | 456 | 457 | 432 | 422 | 402 | 438 | 449 | 455 | 452 | 481 | 482 | 486 | 451 | 436 | 447 | 470 |
| 5-6 | 448 | 452 | 436 | 419 | 409 | 419 | 451 | 457 | 456 | 473 | 467 | 479 | 447 | 434 | 446 | 462 |
| 6-7 | 446 | 444 | 433 | 420 | 421 | 431 | 456 | 464 | 462 | 471 | 461 | 470 | 448 | 443 | 447 | 455 |
| 7-8 | 442 | 447 | 434 | 443 | 445 | 445 | 466 | 474 | 483 | 491 | 473 | 472 | 460 | 458 | 463 | 459 |
| 8-9 | 455 | 464 | 454 | 462 | 445 | 455 | 476 | 485 | 495 | 507 | 491 | 483 | 473 | 465 | 480 | 473 |
| 9-10 | 465 | 472 | 476 | 466 | 464 | 466 | 483 | 490 | 507 | 516 | 499 | 490 | 483 | 476 | 491 | 482 |
| 10-11 | 473 | 483 | 481 | 479 | 465 | 486 | 502 | 501 | 510 | 527 | 503 | 496 | 492 | 489 | 499 | 489 |
| 11-12 | 477 | 491 | 479 | 487 | 497 | 512 | 521 | 521 | 527 | 529 | 510 | 501 | 504 | 513 | 506 | 495 |
| 12-13 | 481 | 491 | 494 | 512 | 522 | 535 | 539 | 547 | 540 | 531 | 519 | 502 | 518 | 536 | 519 | 498 |
| 13-14 | 483 | 494 | 500 | 519 | 529 | 542 | 540 | 552 | 547 | 519 | 513 | 503 | 520 | 541 | 521 | 498 |
| 14-15 | 479 | 497 | 502 | 515 | 522 | 534 | 530 | 534 | 536 | 525 | 516 | 503 | 516 | 530 | 520 | 499 |
| 15-16 | 469 | 495 | 488 | 503 | 507 | 510 | 515 | 510 | 520 | 521 | 515 | 497 | 504 | 511 | 508 | 494 |
| 16-17 | 463 | 485 | 476 | 483 | 486 | 496 | 498 | 493 | 497 | 512 | 504 | 485 | 490 | 493 | 492 | 484 |
| 17-18 | 456 | 473 | 468 | 475 | 478 | 479 | 486 | 474 | 484 | 498 | 496 | 479 | 479 | 479 | 481 | 476 |
| 18-19 | 454 | 471 | 461 | 468 | 470 | 467 | 478 | 470 | 479 | 494 | 485 | 477 | 473 | 471 | 476 | 472 |
| 19-20 | 454 | 466 | 456 | 475 | 471 | 472 | 475 | 468 | 482 | 487 | 484 | 476 | 472 | 472 | 475 | 470 |
| 20-21 | 453 | 460 | 460 | 477 | 472 | 473 | 471 | 475 | 490 | 491 | 484 | 475 | 473 | 473 | 480 | 468 |
| 21-22 | 455 | 462 | 459 | 471 | 471 | 473 | 473 | 484 | 494 | 493 | 485 | 478 | 475 | 475 | 479 | 470 |
| 22-23 | 458 | 461 | 452 | 465 | 463 | 482 | 486 | 489 | 494 | 494 | 488 | 481 | 476 | 480 | 476 | 472 |
| 23-24 | 460 | 460 | 447 | 455 | 449 | 484 | 490 | 490 | 492 | 497 | 492 | 485 | 475 | 478 | 473 | 474 |
| MEAN | 462 | 470 | 459 | 465 | 463 | 476 | 486 | 489 | 494 | 502 | 494 | 487 | 479 | 478 | 480 | 478 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY-ALL DAYS

| TABLE 39 FORT CHURCHILL | | Z = 60500 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | 1969 | | | |
|-------------------------|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
| 0-1 | 268 | 262 | 263 | 208 | 216 | 235 | 246 | 246 | 243 | 277 | 272 | 274 | 251 | 236 | 248 | 269 |
| 1-2 | 258 | 258 | 256 | 211 | 229 | 219 | 245 | 225 | 237 | 263 | 265 | 271 | 245 | 230 | 242 | 263 |
| 2-3 | 255 | 248 | 252 | 229 | 239 | 208 | 230 | 212 | 235 | 251 | 257 | 263 | 240 | 222 | 242 | 256 |
| 3-4 | 256 | 250 | 258 | 250 | 246 | 222 | 238 | 225 | 225 | 238 | 256 | 262 | 244 | 233 | 243 | 256 |
| 4-5 | 239 | 251 | 262 | 264 | 288 | 239 | 248 | 250 | 251 | 256 | 259 | 265 | 256 | 256 | 258 | 254 |
| 5-6 | 249 | 270 | 290 | 315 | 317 | 271 | 263 | 274 | 251 | 281 | 277 | 268 | 277 | 281 | 284 | 266 |
| 6-7 | 266 | 274 | 316 | 344 | 341 | 295 | 280 | 280 | 299 | 308 | 286 | 275 | 297 | 299 | 317 | 275 |
| 7-8 | 296 | 300 | 360 | 357 | 353 | 312 | 305 | 300 | 308 | 346 | 311 | 300 | 321 | 318 | 343 | 302 |
| 8-9 | 302 | 328 | 369 | 354 | 365 | 324 | 308 | 312 | 337 | 339 | 327 | 296 | 330 | 327 | 350 | 313 |
| 9-10 | 326 | 326 | 387 | 347 | 386 | 316 | 311 | 319 | 349 | 337 | 333 | 301 | 337 | 333 | 355 | 322 |
| 10-11 | 325 | 328 | 369 | 351 | 387 | 321 | 299 | 323 | 335 | 332 | 319 | 300 | 332 | 333 | 347 | 318 |
| 11-12 | 310 | 320 | 345 | 356 | 384 | 328 | 284 | 321 | 333 | 323 | 291 | 290 | 324 | 329 | 339 | 303 |
| 12-13 | 300 | 307 | 337 | 350 | 367 | 316 | 266 | 291 | 301 | 316 | 287 | 275 | 309 | 310 | 326 | 292 |
| 13-14 | 277 | 292 | 305 | 313 | 333 | 273 | 248 | 250 | 281 | 287 | 281 | 264 | 284 | 276 | 297 | 279 |
| 14-15 | 254 | 276 | 279 | 276 | 298 | 241 | 236 | 227 | 263 | 286 | 281 | 260 | 265 | 251 | 276 | 268 |
| 15-16 | 259 | 271 | 275 | 262 | 282 | 234 | 235 | 236 | 266 | 285 | 271 | 254 | 261 | 247 | 272 | 264 |
| 16-17 | 270 | 281 | 281 | 270 | 273 | 243 | 244 | 247 | 268 | 288 | 272 | 264 | 267 | 252 | 277 | 272 |
| 17-18 | 278 | 287 | 287 | 285 | 279 | 253 | 250 | 259 | 277 | 286 | 279 | 278 | 275 | 260 | 284 | 281 |
| 18-19 | 283 | 285 | 288 | 281 | 284 | 267 | 262 | 267 | 282 | 292 | 289 | 285 | 280 | 270 | 286 | 286 |
| 19-20 | 283 | 286 | 281 | 278 | 278 | 264 | 274 | 273 | 283 | 295 | 288 | 287 | 281 | 272 | 284 | 286 |
| 20-21 | 284 | 283 | 281 | 269 | 248 | 251 | 274 | 269 | 274 | 294 | 287 | 288 | 275 | 261 | 280 | 286 |
| 21-22 | 285 | 275 | 273 | 249 | 235 | 244 | 273 | 264 | 258 | 293 | 283 | 286 | 268 | 254 | 268 | 282 |
| 22-23 | 284 | 272 | 262 | 234 | 234 | 234 | 266 | 256 | 243 | 287 | 286 | 282 | 262 | 248 | 257 | 281 |
| 23-24 | 280 | 266 | 259 | 229 | 219 | 235 | 251 | 254 | 250 | 283 | 276 | 279 | 257 | 240 | 255 | 275 |
| MEAN | 279 | 283 | 297 | 287 | 295 | 264 | 264 | 266 | 277 | 293 | 285 | 278 | 281 | 272 | 289 | 281 |

MEAN VALUES OF MAGNETIC ELEMENTS

NORTH COMPONENT OF HORIZONTAL INTENSITY—QUIET DAYS

| TABLE 40 FORT CHURCHILL | | X = 6500 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | 1969 | | | |
|-------------------------|-----|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|--|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER | |
| 0-1 | 460 | 468 | 492 | 521 | 568 | 563 | 543 | 534 | 538 | 518 | 530 | 533 | 522 | 552 | 517 | 498 | |
| 1-2 | 458 | 474 | 482 | 507 | 567 | 556 | 535 | 517 | 530 | 515 | 532 | 539 | 518 | 544 | 509 | 501 | |
| 2-3 | 456 | 474 | 484 | 481 | 549 | 547 | 532 | 518 | 535 | 518 | 530 | 542 | 514 | 537 | 505 | 501 | |
| 3-4 | 453 | 476 | 475 | 477 | 523 | 539 | 526 | 522 | 531 | 522 | 536 | 542 | 510 | 528 | 501 | 502 | |
| 4-5 | 459 | 477 | 453 | 471 | 490 | 519 | 522 | 516 | 495 | 522 | 530 | 535 | 499 | 512 | 485 | 500 | |
| 5-6 | 458 | 463 | 460 | 456 | 484 | 508 | 502 | 514 | 508 | 517 | 520 | 539 | 494 | 502 | 485 | 495 | |
| 6-7 | 458 | 448 | 437 | 437 | 501 | 506 | 486 | 487 | 502 | 472 | 519 | 525 | 482 | 495 | 462 | 488 | |
| 7-8 | 450 | 453 | 450 | 444 | 495 | 508 | 452 | 495 | 457 | 468 | 511 | 511 | 475 | 488 | 455 | 481 | |
| 8-9 | 446 | 440 | 442 | 440 | 474 | 485 | 481 | 499 | 461 | 476 | 512 | 511 | 472 | 485 | 455 | 477 | |
| 9-10 | 443 | 445 | 426 | 450 | 428 | 478 | 472 | 509 | 455 | 509 | 513 | 510 | 470 | 472 | 460 | 478 | |
| 10-11 | 423 | 443 | 446 | 448 | 434 | 475 | 476 | 498 | 479 | 506 | 518 | 485 | 469 | 471 | 470 | 467 | |
| 11-12 | 415 | 448 | 454 | 431 | 404 | 464 | 485 | 491 | 479 | 487 | 513 | 492 | 464 | 461 | 463 | 467 | |
| 12-13 | 425 | 457 | 456 | 414 | 428 | 487 | 474 | 471 | 500 | 495 | 510 | 506 | 469 | 465 | 466 | 475 | |
| 13-14 | 435 | 453 | 453 | 390 | 455 | 504 | 492 | 460 | 506 | 504 | 511 | 512 | 473 | 478 | 463 | 478 | |
| 14-15 | 446 | 448 | 446 | 420 | 493 | 499 | 496 | 475 | 500 | 501 | 507 | 513 | 479 | 491 | 467 | 479 | |
| 15-16 | 442 | 443 | 448 | 438 | 482 | 494 | 488 | 482 | 493 | 497 | 503 | 509 | 477 | 487 | 469 | 474 | |
| 16-17 | 440 | 440 | 445 | 434 | 488 | 492 | 486 | 478 | 485 | 495 | 498 | 508 | 474 | 486 | 465 | 472 | |
| 17-18 | 437 | 450 | 451 | 429 | 495 | 494 | 490 | 492 | 491 | 497 | 499 | 505 | 478 | 493 | 467 | 473 | |
| 18-19 | 440 | 460 | 462 | 451 | 510 | 507 | 504 | 501 | 499 | 504 | 504 | 507 | 487 | 506 | 479 | 478 | |
| 19-20 | 446 | 466 | 473 | 482 | 517 | 527 | 520 | 508 | 513 | 516 | 508 | 511 | 499 | 518 | 496 | 483 | |
| 20-21 | 445 | 468 | 486 | 512 | 533 | 552 | 526 | 522 | 526 | 527 | 515 | 514 | 511 | 533 | 513 | 486 | |
| 21-22 | 454 | 469 | 508 | 534 | 532 | 582 | 531 | 519 | 527 | 529 | 517 | 520 | 519 | 541 | 525 | 490 | |
| 22-23 | 459 | 470 | 499 | 558 | 554 | 573 | 544 | 521 | 528 | 525 | 520 | 521 | 523 | 548 | 528 | 493 | |
| 23-24 | 462 | 470 | 489 | 552 | 572 | 588 | 553 | 527 | 527 | 528 | 526 | 528 | 527 | 560 | 524 | 497 | |
| MEAN | 446 | 458 | 463 | 466 | 499 | 519 | 505 | 502 | 503 | 506 | 516 | 517 | 492 | 506 | 484 | 485 | |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

MEAN VALUES OF MAGNETIC ELEMENTS

EAST COMPONENT OF HORIZONTAL INTENSITY-QUIET DAYS

TABLE 41 FORT CHURCHILL Y = 0 PLUS TABULAR VALUES IN GAMMAS 1969

| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| 0-1 | 458 | 460 | 454 | 465 | 471 | 478 | 483 | 490 | 492 | 497 | 492 | 484 | 477 | 481 | 477 | 474 |
| 1-2 | 461 | 463 | 455 | 466 | 470 | 478 | 481 | 490 | 487 | 498 | 495 | 487 | 478 | 480 | 477 | 477 |
| 2-3 | 462 | 465 | 455 | 459 | 458 | 478 | 479 | 490 | 488 | 499 | 494 | 493 | 477 | 476 | 475 | 479 |
| 3-4 | 461 | 466 | 448 | 460 | 443 | 469 | 479 | 479 | 484 | 500 | 495 | 490 | 473 | 468 | 473 | 478 |
| 4-5 | 461 | 464 | 444 | 455 | 443 | 461 | 474 | 474 | 471 | 500 | 495 | 489 | 469 | 463 | 468 | 477 |
| 5-6 | 459 | 461 | 436 | 445 | 449 | 459 | 462 | 474 | 484 | 493 | 493 | 485 | 467 | 461 | 465 | 475 |
| 6-7 | 459 | 456 | 442 | 442 | 440 | 459 | 461 | 465 | 473 | 472 | 489 | 482 | 462 | 456 | 457 | 472 |
| 7-8 | 457 | 453 | 455 | 459 | 450 | 464 | 464 | 478 | 463 | 481 | 491 | 482 | 466 | 464 | 465 | 471 |
| 8-9 | 458 | 460 | 461 | 466 | 454 | 466 | 482 | 492 | 491 | 503 | 493 | 486 | 476 | 474 | 480 | 474 |
| 9-10 | 462 | 471 | 468 | 466 | 461 | 474 | 483 | 491 | 506 | 511 | 496 | 488 | 481 | 477 | 488 | 479 |
| 10-11 | 467 | 474 | 468 | 469 | 476 | 486 | 501 | 498 | 508 | 516 | 498 | 488 | 487 | 490 | 490 | 482 |
| 11-12 | 470 | 475 | 467 | 483 | 503 | 507 | 515 | 512 | 516 | 521 | 498 | 489 | 496 | 509 | 497 | 483 |
| 12-13 | 469 | 473 | 471 | 491 | 525 | 525 | 532 | 531 | 523 | 522 | 501 | 490 | 504 | 528 | 502 | 483 |
| 13-14 | 472 | 477 | 478 | 509 | 521 | 519 | 527 | 533 | 521 | 520 | 503 | 493 | 506 | 525 | 507 | 486 |
| 14-15 | 474 | 481 | 481 | 499 | 503 | 514 | 521 | 528 | 518 | 520 | 505 | 496 | 503 | 517 | 505 | 489 |
| 15-16 | 469 | 480 | 477 | 488 | 489 | 504 | 511 | 512 | 509 | 518 | 505 | 494 | 496 | 504 | 498 | 487 |
| 16-17 | 465 | 470 | 471 | 481 | 473 | 487 | 497 | 494 | 498 | 507 | 498 | 490 | 486 | 488 | 489 | 481 |
| 17-18 | 461 | 464 | 457 | 462 | 463 | 467 | 477 | 475 | 481 | 498 | 492 | 488 | 474 | 471 | 475 | 476 |
| 18-19 | 456 | 458 | 452 | 452 | 458 | 452 | 468 | 462 | 469 | 486 | 487 | 483 | 465 | 460 | 465 | 471 |
| 19-20 | 455 | 452 | 450 | 448 | 450 | 447 | 457 | 452 | 465 | 480 | 484 | 478 | 460 | 452 | 461 | 467 |
| 20-21 | 453 | 452 | 450 | 455 | 453 | 451 | 450 | 456 | 470 | 485 | 480 | 475 | 461 | 453 | 465 | 465 |
| 21-22 | 454 | 455 | 455 | 451 | 458 | 464 | 454 | 465 | 475 | 490 | 484 | 476 | 465 | 460 | 468 | 467 |
| 22-23 | 456 | 459 | 453 | 457 | 461 | 469 | 464 | 472 | 480 | 495 | 486 | 478 | 469 | 467 | 471 | 470 |
| 23-24 | 457 | 458 | 448 | 454 | 466 | 478 | 475 | 483 | 485 | 498 | 489 | 481 | 473 | 476 | 471 | 471 |
| MEAN | 462 | 464 | 458 | 466 | 468 | 477 | 483 | 487 | 490 | 500 | 493 | 486 | 478 | 479 | 479 | 476 |

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY—QUIET DAYS

TABLE 42 FORT CHURCHILL Z = 60500 PLUS TABULAR VALUES IN GAMMAS 1969

| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| 0-1 | 281 | 279 | 283 | 251 | 250 | 276 | 273 | 265 | 280 | 278 | 284 | 287 | 274 | 266 | 273 | 283 |
| 1-2 | 279 | 276 | 287 | 252 | 251 | 262 | 270 | 253 | 276 | 277 | 278 | 286 | 271 | 259 | 273 | 280 |
| 2-3 | 279 | 272 | 285 | 253 | 217 | 256 | 262 | 248 | 265 | 279 | 272 | 275 | 264 | 246 | 271 | 275 |
| 3-4 | 278 | 271 | 267 | 267 | 216 | 238 | 250 | 244 | 244 | 276 | 267 | 265 | 257 | 237 | 264 | 270 |
| 4-5 | 277 | 268 | 271 | 261 | 251 | 239 | 246 | 244 | 240 | 264 | 265 | 255 | 257 | 245 | 259 | 266 |
| 5-6 | 274 | 265 | 266 | 281 | 243 | 244 | 251 | 252 | 254 | 262 | 269 | 264 | 260 | 248 | 266 | 268 |
| 6-7 | 280 | 271 | 279 | 311 | 280 | 258 | 266 | 256 | 297 | 291 | 273 | 278 | 278 | 265 | 295 | 276 |
| 7-8 | 276 | 272 | 292 | 313 | 299 | 276 | 280 | 275 | 268 | 310 | 285 | 288 | 286 | 283 | 296 | 280 |
| 8-9 | 283 | 280 | 310 | 303 | 309 | 286 | 260 | 276 | 307 | 311 | 278 | 275 | 290 | 283 | 308 | 279 |
| 9-10 | 286 | 282 | 319 | 299 | 335 | 286 | 266 | 268 | 308 | 285 | 278 | 277 | 291 | 289 | 303 | 281 |
| 10-11 | 288 | 274 | 299 | 300 | 313 | 285 | 263 | 280 | 282 | 280 | 276 | 280 | 285 | 285 | 290 | 280 |
| 11-12 | 281 | 270 | 290 | 297 | 313 | 280 | 253 | 282 | 269 | 274 | 276 | 272 | 280 | 282 | 283 | 275 |
| 12-13 | 269 | 272 | 288 | 285 | 261 | 253 | 246 | 270 | 262 | 264 | 275 | 271 | 268 | 258 | 275 | 272 |
| 13-14 | 265 | 271 | 287 | 257 | 233 | 246 | 244 | 252 | 261 | 264 | 278 | 272 | 261 | 244 | 267 | 272 |
| 14-15 | 269 | 273 | 284 | 247 | 244 | 245 | 246 | 240 | 264 | 270 | 278 | 272 | 261 | 244 | 266 | 273 |
| 15-16 | 269 | 270 | 282 | 262 | 243 | 243 | 246 | 241 | 268 | 272 | 273 | 272 | 262 | 243 | 271 | 271 |
| 16-17 | 273 | 271 | 286 | 273 | 247 | 245 | 248 | 243 | 270 | 276 | 276 | 273 | 265 | 246 | 276 | 273 |
| 17-18 | 275 | 277 | 285 | 275 | 258 | 249 | 248 | 250 | 273 | 282 | 279 | 276 | 269 | 251 | 279 | 277 |
| 18-19 | 280 | 283 | 285 | 283 | 263 | 258 | 250 | 258 | 273 | 289 | 282 | 279 | 274 | 257 | 283 | 281 |
| 19-20 | 281 | 286 | 287 | 293 | 275 | 264 | 257 | 263 | 274 | 294 | 283 | 279 | 278 | 265 | 287 | 282 |
| 20-21 | 282 | 291 | 291 | 293 | 278 | 272 | 263 | 268 | 278 | 294 | 285 | 283 | 282 | 270 | 289 | 285 |
| 21-22 | 288 | 289 | 283 | 297 | 276 | 278 | 267 | 269 | 276 | 292 | 283 | 282 | 282 | 273 | 287 | 286 |
| 22-23 | 286 | 289 | 281 | 279 | 272 | 269 | 274 | 263 | 273 | 288 | 285 | 283 | 279 | 270 | 280 | 286 |
| 23-24 | 285 | 284 | 289 | 282 | 262 | 258 | 279 | 263 | 273 | 287 | 285 | 283 | 278 | 266 | 283 | 284 |
| MEAN | 278 | 277 | 286 | 280 | 266 | 261 | 259 | 259 | 272 | 282 | 278 | 276 | 273 | 261 | 280 | 277 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

MEAN VALUES OF MAGNETIC ELEMENTS

NORTH COMPONENT OF HORIZONTAL INTENSITY-DISTURBED DAYS

| TABLE 43 | FORT CHURCHILL | | | | | | | | | | | | X = | 6500 PLUS TABULAR VALUES IN GAMMAS | | | | 1969 |
|----------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------------------------------------|---------|--------|--|------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER | | |
| 0-1 | 466 | 427 | 449 | 547 | 523 | 618 | 550 | 594 | 537 | 533 | 546 | 560 | 529 | 571 | 517 | 500 | | |
| 1-2 | 457 | 396 | 364 | 557 | 519 | 590 | 552 | 563 | 546 | 533 | 520 | 547 | 512 | 556 | 500 | 480 | | |
| 2-3 | 488 | 446 | 450 | 543 | 511 | 529 | 547 | 504 | 527 | 468 | 514 | 517 | 504 | 523 | 497 | 491 | | |
| 3-4 | 452 | 427 | 449 | 502 | 422 | 530 | 491 | 529 | 467 | 443 | 516 | 534 | 480 | 493 | 465 | 482 | | |
| 4-5 | 433 | 460 | 455 | 465 | 468 | 498 | 459 | 494 | 528 | 470 | 445 | 506 | 473 | 480 | 480 | 461 | | |
| 5-6 | 395 | 428 | 421 | 467 | 429 | 472 | 501 | 466 | 489 | 380 | 405 | 466 | 443 | 467 | 439 | 424 | | |
| 6-7 | 457 | 403 | 407 | 392 | 432 | 462 | 519 | 492 | 436 | 382 | 320 | 469 | 431 | 476 | 404 | 412 | | |
| 7-8 | 404 | 342 | 403 | 414 | 479 | 445 | 383 | 501 | 477 | 355 | 379 | 443 | 419 | 452 | 412 | 392 | | |
| 8-9 | 419 | 338 | 366 | 427 | 487 | 457 | 405 | 479 | 440 | 389 | 414 | 488 | 426 | 457 | 406 | 415 | | |
| 9-10 | 369 | 311 | 276 | 389 | 273 | 425 | 404 | 442 | 238 | 396 | 398 | 434 | 363 | 386 | 325 | 378 | | |
| 10-11 | 357 | 290 | 341 | 396 | 276 | 456 | 449 | 358 | 331 | 278 | 372 | 407 | 359 | 385 | 337 | 357 | | |
| 11-12 | 352 | 300 | 390 | 368 | 309 | 462 | 443 | 319 | 327 | 314 | 383 | 389 | 363 | 383 | 350 | 356 | | |
| 12-13 | 293 | 362 | 361 | 235 | 260 | 432 | 398 | 302 | 237 | 287 | 332 | 394 | 324 | 348 | 280 | 345 | | |
| 13-14 | 301 | 258 | 361 | 234 | 252 | 373 | 413 | 357 | 310 | 275 | 345 | 411 | 324 | 349 | 295 | 329 | | |
| 14-15 | 343 | 321 | 379 | 168 | 334 | 368 | 422 | 449 | 335 | 359 | 387 | 407 | 356 | 393 | 310 | 365 | | |
| 15-16 | 433 | 329 | 387 | 303 | 359 | 416 | 462 | 472 | 341 | 445 | 464 | 463 | 406 | 427 | 369 | 422 | | |
| 16-17 | 429 | 457 | 365 | 423 | 428 | 471 | 489 | 474 | 463 | 487 | 509 | 487 | 457 | 466 | 435 | 471 | | |
| 17-18 | 461 | 442 | 396 | 451 | 485 | 500 | 499 | 490 | 469 | 509 | 511 | 501 | 476 | 494 | 456 | 479 | | |
| 18-19 | 476 | 367 | 425 | 532 | 547 | 516 | 528 | 533 | 530 | 543 | 514 | 527 | 503 | 531 | 508 | 471 | | |
| 19-20 | 504 | 357 | 426 | 568 | 592 | 597 | 582 | 587 | 565 | 557 | 541 | 555 | 536 | 590 | 529 | 489 | | |
| 20-21 | 497 | 442 | 473 | 562 | 554 | 606 | 591 | 615 | 606 | 581 | 555 | 544 | 552 | 592 | 556 | 510 | | |
| 21-22 | 493 | 442 | 467 | 577 | 606 | 635 | 608 | 636 | 631 | 576 | 542 | 552 | 564 | 621 | 563 | 507 | | |
| 22-23 | 499 | 457 | 473 | 578 | 552 | 640 | 602 | 621 | 583 | 562 | 538 | 552 | 555 | 604 | 549 | 512 | | |
| 23-24 | 502 | 465 | 452 | 571 | 537 | 623 | 580 | 627 | 517 | 539 | 536 | 552 | 542 | 592 | 520 | 514 | | |
| MEAN | 428 | 386 | 406 | 445 | 443 | 505 | 495 | 496 | 455 | 444 | 458 | 488 | 454 | 485 | 437 | 440 | | |

MEAN VALUES OF MAGNETIC ELEMENTS

EAST COMPONENT OF HORIZONTAL INTENSITY-DISTURBED DAYS

| TABLE 44 FORT CHURCHILL | | Y = 0 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | 1969 | | | |
|-------------------------|-----|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
| 0-1 | 458 | 425 | 379 | 435 | 364 | 476 | 448 | 482 | 466 | 502 | 501 | 506 | 454 | 443 | 446 | 473 |
| 1-2 | 471 | 425 | 367 | 405 | 310 | 438 | 431 | 472 | 479 | 505 | 494 | 495 | 441 | 413 | 439 | 471 |
| 2-3 | 462 | 442 | 368 | 399 | 300 | 383 | 422 | 441 | 447 | 511 | 518 | 510 | 434 | 387 | 431 | 483 |
| 3-4 | 455 | 479 | 370 | 411 | 328 | 376 | 419 | 436 | 451 | 456 | 500 | 491 | 431 | 390 | 422 | 481 |
| 4-5 | 425 | 432 | 403 | 407 | 317 | 391 | 404 | 426 | 443 | 443 | 461 | 481 | 419 | 385 | 424 | 450 |
| 5-6 | 424 | 444 | 404 | 350 | 359 | 383 | 437 | 440 | 442 | 445 | 399 | 470 | 416 | 405 | 410 | 434 |
| 6-7 | 443 | 438 | 409 | 369 | 387 | 407 | 451 | 458 | 467 | 459 | 389 | 442 | 427 | 426 | 426 | 428 |
| 7-8 | 418 | 448 | 441 | 414 | 417 | 422 | 466 | 476 | 499 | 491 | 426 | 453 | 448 | 445 | 461 | 436 |
| 8-9 | 455 | 452 | 459 | 461 | 431 | 449 | 482 | 482 | 498 | 501 | 475 | 484 | 469 | 461 | 480 | 467 |
| 9-10 | 460 | 465 | 502 | 462 | 484 | 477 | 481 | 497 | 516 | 526 | 507 | 496 | 489 | 485 | 502 | 482 |
| 10-11 | 485 | 500 | 515 | 502 | 434 | 492 | 519 | 501 | 505 | 574 | 498 | 509 | 503 | 487 | 524 | 498 |
| 11-12 | 488 | 520 | 500 | 507 | 499 | 515 | 530 | 524 | 543 | 542 | 520 | 526 | 518 | 517 | 523 | 514 |
| 12-13 | 497 | 514 | 497 | 545 | 504 | 536 | 565 | 571 | 553 | 545 | 570 | 520 | 535 | 544 | 535 | 525 |
| 13-14 | 492 | 517 | 508 | 557 | 515 | 547 | 567 | 569 | 575 | 514 | 530 | 521 | 534 | 550 | 539 | 515 |
| 14-15 | 486 | 526 | 509 | 561 | 561 | 549 | 545 | 536 | 573 | 541 | 546 | 508 | 537 | 548 | 546 | 517 |
| 15-16 | 473 | 521 | 494 | 544 | 578 | 515 | 528 | 512 | 561 | 538 | 526 | 498 | 524 | 533 | 534 | 505 |
| 16-17 | 474 | 513 | 486 | 510 | 547 | 501 | 501 | 494 | 508 | 536 | 501 | 483 | 505 | 511 | 510 | 493 |
| 17-18 | 472 | 517 | 474 | 510 | 557 | 482 | 497 | 477 | 511 | 510 | 502 | 472 | 498 | 503 | 501 | 491 |
| 18-19 | 459 | 540 | 499 | 524 | 571 | 485 | 501 | 477 | 515 | 517 | 494 | 473 | 505 | 509 | 514 | 492 |
| 19-20 | 470 | 515 | 469 | 524 | 574 | 487 | 515 | 493 | 507 | 502 | 486 | 481 | 502 | 517 | 501 | 488 |
| 20-21 | 460 | 482 | 494 | 509 | 564 | 484 | 489 | 506 | 515 | 506 | 494 | 481 | 499 | 511 | 506 | 479 |
| 21-22 | 458 | 476 | 473 | 489 | 523 | 497 | 486 | 505 | 515 | 506 | 486 | 481 | 491 | 503 | 496 | 475 |
| 22-23 | 464 | 448 | 445 | 494 | 423 | 508 | 491 | 503 | 507 | 501 | 488 | 484 | 480 | 481 | 487 | 471 |
| 23-24 | 464 | 448 | 433 | 459 | 346 | 489 | 481 | 501 | 493 | 503 | 495 | 488 | 467 | 454 | 472 | 474 |
| MEAN | 463 | 479 | 454 | 473 | 454 | 470 | 486 | 491 | 504 | 507 | 492 | 490 | 480 | 475 | 484 | 481 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY-DISTURBED DAYS

| TABLE 45 FORT CHURCHILL | | Z = 60500 PLUS TABULAR VALUES IN GAMMAS | | | | | | | | | | | | 1969 | | |
|-------------------------|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--------|---------|--------|
| U.T. | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | SUMMER | EQUINOX | WINTER |
| 0-1 | 203 | 259 | 258 | 132 | 84 | 215 | 237 | 231 | 198 | 281 | 242 | 250 | 216 | 192 | 217 | 239 |
| 1-2 | 190 | 228 | 277 | 157 | 165 | 197 | 233 | 186 | 211 | 218 | 251 | 238 | 213 | 195 | 216 | 227 |
| 2-3 | 194 | 188 | 263 | 184 | 246 | 168 | 225 | 185 | 236 | 192 | 233 | 229 | 212 | 206 | 219 | 211 |
| 3-4 | 200 | 238 | 303 | 222 | 275 | 219 | 261 | 210 | 232 | 165 | 244 | 237 | 234 | 241 | 231 | 230 |
| 4-5 | 175 | 238 | 294 | 249 | 349 | 259 | 290 | 283 | 255 | 252 | 270 | 280 | 266 | 295 | 263 | 241 |
| 5-6 | 225 | 261 | 358 | 370 | 379 | 324 | 287 | 299 | 258 | 310 | 299 | 280 | 304 | 322 | 324 | 266 |
| 6-7 | 255 | 308 | 383 | 397 | 411 | 364 | 314 | 297 | 305 | 361 | 263 | 273 | 328 | 347 | 362 | 275 |
| 7-8 | 315 | 336 | 442 | 407 | 428 | 368 | 415 | 284 | 317 | 434 | 372 | 330 | 371 | 374 | 400 | 338 |
| 8-9 | 343 | 405 | 439 | 382 | 417 | 387 | 384 | 313 | 411 | 404 | 428 | 315 | 386 | 375 | 409 | 373 |
| 9-10 | 387 | 397 | 528 | 388 | 526 | 361 | 416 | 391 | 466 | 426 | 450 | 338 | 423 | 424 | 452 | 393 |
| 10-11 | 354 | 436 | 487 | 410 | 532 | 366 | 331 | 404 | 489 | 457 | 429 | 335 | 419 | 408 | 461 | 389 |
| 11-12 | 363 | 413 | 399 | 405 | 510 | 344 | 300 | 391 | 506 | 474 | 345 | 331 | 398 | 386 | 446 | 363 |
| 12-13 | 371 | 378 | 427 | 419 | 464 | 363 | 326 | 338 | 408 | 468 | 358 | 276 | 383 | 373 | 431 | 346 |
| 13-14 | 291 | 383 | 343 | 430 | 484 | 341 | 275 | 248 | 369 | 332 | 312 | 251 | 338 | 337 | 369 | 309 |
| 14-15 | 243 | 318 | 313 | 324 | 454 | 286 | 220 | 216 | 328 | 351 | 317 | 246 | 301 | 294 | 329 | 281 |
| 15-16 | 243 | 299 | 280 | 240 | 405 | 244 | 223 | 231 | 254 | 344 | 282 | 227 | 273 | 276 | 280 | 263 |
| 16-17 | 275 | 334 | 286 | 251 | 354 | 249 | 236 | 249 | 281 | 342 | 259 | 250 | 281 | 272 | 290 | 280 |
| 17-18 | 285 | 324 | 286 | 284 | 349 | 261 | 247 | 274 | 324 | 308 | 274 | 283 | 292 | 283 | 301 | 292 |
| 18-19 | 281 | 283 | 283 | 241 | 336 | 293 | 264 | 280 | 308 | 313 | 284 | 289 | 288 | 293 | 286 | 284 |
| 19-20 | 278 | 271 | 242 | 195 | 231 | 290 | 280 | 260 | 290 | 308 | 284 | 292 | 268 | 265 | 259 | 281 |
| 20-21 | 282 | 234 | 244 | 215 | 28 | 254 | 287 | 221 | 251 | 293 | 278 | 287 | 240 | 198 | 251 | 270 |
| 21-22 | 279 | 197 | 258 | 161 | -5 | 215 | 278 | 171 | 224 | 295 | 279 | 276 | 219 | 165 | 235 | 258 |
| 22-23 | 277 | 237 | 253 | 137 | 72 | 199 | 247 | 167 | 218 | 297 | 284 | 279 | 222 | 171 | 226 | 269 |
| 23-24 | 271 | 253 | 270 | 186 | 80 | 218 | 208 | 198 | 232 | 294 | 281 | 272 | 230 | 176 | 246 | 269 |
| MEAN | 274 | 301 | 330 | 283 | 316 | 283 | 283 | 264 | 307 | 330 | 305 | 278 | 296 | 286 | 312 | 289 |

HOURLY RANGES

TABLE 46 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

JANUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 6 | 4 | 3 | 1 | 5 | 2 | 17 | 15 | 7 | 7 | 22 | 12 | 5 | 11 | 13 | 4 | 7 | 7 | 5 | 5 | 4 | 6 | 4 | 2 | 174 | 7 |
| 2 | | 2 | 2 | 1 | 17 | 21 | 3 | 1 | 1 | 1 | 3 | 3 | 7 | 9 | 2 | 4 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 89 | 4 |
| 3 | Q | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 30 | 1 |
| 4 | | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 2 | 3 | 4 | 5 | 4 | 13 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 1 | 65 | 3 |
| 5 | | 1 | 1 | 1 | 7 | 13 | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 50 | 2 |
| 6 | Q | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 35 | 1 |
| 7 | | 1 | 2 | 0 | 2 | 4 | 4 | 7 | 13 | 10 | 12 | 15 | 14 | 19 | 15 | 11 | 2 | 2 | 3 | 3 | 4 | 6 | 12 | 2 | 3 | 166 | 7 |
| 8 | | 6 | 3 | 4 | 8 | 14 | 4 | 3 | 20 | 15 | 18 | 5 | 11 | 6 | 4 | 1 | 3 | 2 | 3 | 2 | 4 | 4 | 3 | 3 | 3 | 149 | 6 |
| 9 | | 5 | 2 | 4 | 10 | 5 | 4 | 5 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 78 | 3 |
| 10 | Q | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 5 | 9 | 5 | 3 | 3 | 10 | 12 | 3 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 74 | 3 |
| 11 | | 1 | 1 | 1 | 1 | 1 | 0 | 5 | 5 | 16 | 2 | 4 | 3 | 5 | 3 | 5 | 5 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 3 | 80 | 3 |
| 12 | | 4 | 3 | 2 | 2 | 4 | 20 | 15 | 10 | 11 | 5 | 26 | 13 | 8 | 11 | 12 | 6 | 4 | 2 | 5 | 3 | 1 | 2 | 1 | 1 | 171 | 7 |
| 13 | Q | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 8 | 3 | 12 | 5 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 57 | 2 |
| 14 | | 4 | 2 | 5 | 5 | 4 | 33 | 24 | 22 | 27 | 6 | 16 | 20 | 4 | 5 | 4 | 3 | 1 | 2 | 2 | 3 | 4 | 4 | 8 | 7 | 215 | 9 |
| 15 | D | 12 | 8 | 8 | 10 | 9 | 5 | 9 | 6 | 3 | 20 | 16 | 6 | 9 | 12 | 11 | 8 | 5 | 4 | 13 | 20 | 11 | 8 | 7 | 6 | 226 | 9 |
| 16 | | 5 | 5 | 4 | 3 | 28 | 12 | 9 | 13 | 3 | 12 | 22 | 19 | 21 | 27 | 35 | 18 | 7 | 7 | 2 | 2 | 2 | 2 | 6 | 5 | 269 | 11 |
| 17 | D | 8 | 11 | 22 | 20 | 16 | 21 | 22 | 9 | 10 | 30 | 22 | 19 | 20 | 23 | 18 | 16 | 7 | 9 | 20 | 19 | 11 | 5 | 8 | 11 | 377 | 16 |
| 18 | D | 8 | 4 | 6 | 9 | 16 | 30 | 27 | 35 | 14 | 10 | 16 | 30 | 26 | 25 | 17 | 10 | 10 | 12 | 12 | 7 | 11 | 10 | 10 | 7 | 362 | 15 |
| 19 | | 12 | 16 | 5 | 8 | 7 | 10 | 5 | 9 | 8 | 16 | 8 | 14 | 13 | 12 | 10 | 6 | 6 | 2 | 8 | 9 | 4 | 5 | 8 | 4 | 205 | 9 |
| 20 | | 9 | 7 | 5 | 16 | 16 | 7 | 10 | 14 | 3 | 3 | 7 | 10 | 12 | 16 | 17 | 13 | 5 | 5 | 21 | 5 | 11 | 8 | 5 | 4 | 229 | 10 |
| 21 | | 4 | 4 | 4 | 3 | 5 | 10 | 11 | 10 | 5 | 15 | 13 | 14 | 8 | 4 | 2 | 2 | 2 | 3 | 4 | 2 | 3 | 6 | 4 | 4 | 142 | 6 |
| 22 | | 2 | 2 | 2 | 4 | 5 | 2 | 3 | 7 | 14 | 15 | 6 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 82 | 3 |
| 23 | | 1 | 2 | 2 | 2 | 3 | 5 | 20 | 8 | 2 | 2 | 2 | 2 | 10 | 7 | 2 | 2 | 2 | 1 | 1 | 4 | 4 | 4 | 3 | 3 | 94 | 4 |
| 24 | | 5 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 12 | 27 | 13 | 15 | 21 | 20 | 11 | 9 | 17 | 8 | 10 | 6 | 191 | 8 |
| 25 | D | 14 | 14 | 12 | 5 | 8 | 26 | 22 | 26 | 21 | 12 | 8 | 12 | 24 | 30 | 45 | 24 | 23 | 16 | 19 | 10 | 12 | 7 | 5 | 12 | 407 | 17 |
| 26 | D | 31 | 19 | 10 | 34 | 25 | 18 | 3 | 4 | 3 | 3 | 12 | 15 | 36 | 34 | 37 | 16 | 7 | 4 | 6 | 6 | 9 | 9 | 7 | 9 | 357 | 15 |
| 27 | | 4 | 4 | 3 | 6 | 10 | 21 | 22 | 44 | 47 | 25 | 15 | 12 | 13 | 15 | 15 | 7 | 11 | 5 | 7 | 8 | 4 | 5 | 8 | 6 | 317 | 13 |
| 28 | | 2 | 5 | 6 | 7 | 4 | 3 | 4 | 3 | 4 | 3 | 6 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 3 | 2 | 2 | 80 | 3 |
| 29 | Q | 2 | 1 | 2 | 4 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 1 | 3 | 43 | 2 |
| 30 | | 2 | 2 | 2 | 2 | 13 | 12 | 5 | 4 | 5 | 42 | 31 | 15 | 4 | 3 | 2 | 3 | 2 | 1 | 2 | 2 | 4 | 2 | 2 | 1 | 163 | 7 |
| 31 | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 17 | 8 | 9 | 13 | 13 | 11 | 19 | 22 | 10 | 9 | 10 | 4 | 5 | 4 | 4 | 7 | 1 | 174 | 7 |
| SUMS | | 157 | 133 | 120 | 193 | 246 | 271 | 267 | 313 | 261 | 295 | 309 | 299 | 321 | 334 | 315 | 191 | 152 | 130 | 165 | 146 | 150 | 135 | 132 | 116 | 5151 | |
| MEANS | | 5 | 4 | 4 | 6 | 8 | 9 | 9 | 10 | 8 | 10 | 10 | 10 | 10 | 11 | 10 | 6 | 5 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | | 7 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 47 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

JANUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 2 | 2 | 2 | 2 | 3 | 2 | 10 | 11 | 2 | 2 | 9 | 5 | 3 | 5 | 7 | 7 | 4 | 6 | 2 | 2 | 2 | 2 | 2 | 1 | 95 | 4 |
| 2 | | 1 | 0 | 1 | 11 | 19 | 3 | 0 | 0 | 0 | 2 | 5 | 3 | 6 | 2 | 6 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 66 | 3 |
| 3 | Q | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 |
| 4 | | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 29 | 1 |
| 5 | | 0 | 0 | 1 | 2 | 13 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 26 | 1 |
| 6 | Q | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 1 |
| 7 | | 0 | 1 | 0 | 2 | 5 | 7 | 4 | 8 | 8 | 7 | 6 | 4 | 9 | 8 | 8 | 4 | 2 | 3 | 4 | 3 | 3 | 4 | 1 | 1 | 102 | 4 |
| 8 | | 2 | 1 | 3 | 5 | 8 | 5 | 2 | 7 | 15 | 4 | 2 | 5 | 4 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 83 | 3 |
| 9 | | 1 | 2 | 1 | 3 | 2 | 7 | 4 | 3 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 45 | 2 |
| 10 | Q | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 3 | 2 | 1 | 1 | 4 | 2 | 3 | 3 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 32 | 1 |
| 11 | | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 13 | 2 | 2 | 1 | 3 | 4 | 3 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 49 | 2 |
| 12 | | 2 | 0 | 1 | 0 | 6 | 6 | 8 | 7 | 6 | 3 | 8 | 6 | 7 | 9 | 11 | 5 | 3 | 2 | 3 | 4 | 3 | 1 | 0 | 0 | 101 | 4 |
| 13 | Q | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 0 | 1 | 1 | 1 | 23 | 1 |
| 14 | | 3 | 2 | 2 | 3 | 2 | 25 | 21 | 16 | 19 | 4 | 4 | 3 | 1 | 4 | 5 | 4 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 135 | 6 |
| 15 | D | 5 | 5 | 6 | 8 | 15 | 15 | 9 | 2 | 2 | 12 | 4 | 3 | 5 | 6 | 6 | 4 | 2 | 4 | 6 | 10 | 4 | 4 | 2 | 2 | 141 | 6 |
| 16 | | 1 | 3 | 2 | 2 | 11 | 21 | 15 | 17 | 2 | 3 | 4 | 8 | 11 | 10 | 26 | 16 | 6 | 5 | 2 | 2 | 2 | 2 | 2 | 5 | 178 | 7 |
| 17 | D | 5 | 7 | 10 | 20 | 12 | 20 | 6 | 4 | 3 | 14 | 15 | 10 | 6 | 7 | 11 | 10 | 6 | 3 | 8 | 6 | 4 | 3 | 6 | 5 | 201 | 8 |
| 18 | D | 4 | 3 | 6 | 3 | 19 | 15 | 7 | 43 | 14 | 5 | 3 | 18 | 12 | 17 | 8 | 5 | 10 | 6 | 8 | 4 | 4 | 3 | 3 | 2 | 222 | 9 |
| 19 | | 11 | 9 | 8 | 2 | 4 | 10 | 5 | 4 | 3 | 8 | 7 | 5 | 7 | 6 | 4 | 6 | 6 | 3 | 4 | 6 | 3 | 3 | 5 | 2 | 131 | 5 |
| 20 | | 4 | 4 | 1 | 22 | 15 | 14 | 13 | 18 | 4 | 1 | 3 | 3 | 4 | 11 | 12 | 6 | 4 | 3 | 7 | 3 | 9 | 6 | 1 | 3 | 171 | 7 |
| 21 | | 4 | 2 | 3 | 1 | 2 | 5 | 6 | 1 | 1 | 1 | 4 | 8 | 5 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 71 | 3 |
| 22 | | 2 | 1 | 3 | 4 | 7 | 1 | 1 | 5 | 9 | 6 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 48 | 2 |
| 23 | | 0 | 1 | 1 | 1 | 1 | 3 | 9 | 9 | 2 | 1 | 1 | 0 | 3 | 4 | 3 | 4 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 55 | 2 |
| 24 | | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 7 | 9 | 12 | 21 | 11 | 6 | 7 | 7 | 6 | 6 | 4 | 4 | 4 | 106 | 4 |
| 25 | D | 7 | 15 | 10 | 5 | 10 | 30 | 11 | 24 | 17 | 7 | 6 | 7 | 14 | 31 | 35 | 16 | 8 | 13 | 17 | 4 | 7 | 6 | 3 | 8 | 311 | 13 |
| 26 | D | 16 | 9 | 4 | 24 | 26 | 14 | 2 | 2 | 1 | 2 | 3 | 6 | 23 | 32 | 20 | 10 | 6 | 4 | 6 | 2 | 5 | 2 | 4 | 3 | 226 | 9 |
| 27 | | 2 | 2 | 2 | 8 | 15 | 32 | 18 | 37 | 17 | 11 | 16 | 5 | 14 | 10 | 8 | 7 | 6 | 4 | 6 | 2 | 2 | 2 | 6 | 2 | 234 | 10 |
| 28 | | 2 | 4 | 6 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 46 | 2 |
| 29 | Q | 1 | 0 | 2 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 23 | 1 |
| 30 | | 2 | 1 | 1 | 0 | 13 | 8 | 3 | 1 | 2 | 26 | 15 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 93 | 4 |
| 31 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 13 | 6 | 4 | 6 | 6 | 13 | 12 | 6 | 8 | 6 | 3 | 3 | 2 | 1 | 3 | 1 | 103 | 4 |
| SUMS | | 80 | 75 | 76 | 132 | 215 | 255 | 165 | 240 | 163 | 135 | 132 | 126 | 168 | 208 | 218 | 154 | 110 | 91 | 102 | 75 | 73 | 66 | 57 | 54 | 3170 | |
| MEANS | | 3 | 2 | 2 | 4 | 7 | 8 | 5 | 8 | 5 | 4 | 4 | 4 | 5 | 7 | 7 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | | 4 |

HOURLY RANGES

TABLE 48 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

FEBRUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 1 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 6 | 5 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 2 | 1 | 1 | 59 | 2 |
| 2 | D | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 3 | 24 | 10 | 14 | 10 | 6 | 8 | 20 | 32 | 24 | 16 | 51 | 72 | 13 | 7 | 8 | 8 | 333 | 14 |
| 3 | D | 5 | 9 | 12 | 11 | 10 | 16 | 11 | 24 | 14 | 10 | 20 | 31 | 42 | 56 | 66 | 48 | 18 | 18 | 23 | 23 | 17 | 17 | 9 | 11 | 521 | 22 |
| 4 | | 6 | 5 | 7 | 1 | 1 | 1 | 25 | 33 | 17 | 10 | 9 | 12 | 15 | 20 | 10 | 8 | 13 | 6 | 3 | 4 | 10 | 8 | 6 | 10 | 240 | 10 |
| 5 | | 14 | 8 | 7 | 6 | 3 | 4 | 24 | 15 | 8 | 4 | 10 | 6 | 8 | 15 | 10 | 4 | 4 | 2 | 6 | 4 | 4 | 5 | 4 | 2 | 177 | 7 |
| 6 | | 5 | 3 | 11 | 24 | 14 | 16 | 20 | 8 | 2 | 7 | 4 | 8 | 8 | 3 | 1 | 6 | 3 | 6 | 6 | 3 | 5 | 8 | 4 | 11 | 186 | 8 |
| 7 | | 3 | 1 | 2 | 1 | 1 | 3 | 7 | 16 | 6 | 7 | 5 | 27 | 8 | 11 | 5 | 4 | 4 | 3 | 4 | 5 | 9 | 8 | 7 | 11 | 158 | 7 |
| 8 | | 7 | 6 | 3 | 3 | 8 | 14 | 23 | 9 | 2 | 2 | 4 | 4 | 3 | 8 | 6 | 5 | 2 | 4 | 5 | 6 | 5 | 2 | 4 | 2 | 137 | 6 |
| 9 | Q | 3 | 3 | 3 | 3 | 2 | 2 | 5 | 3 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 63 | 3 |
| 10 | | 7 | 5 | 6 | 6 | 3 | 1 | 2 | 5 | 14 | 6 | 8 | 11 | 4 | 8 | 6 | 5 | 6 | 4 | 3 | 2 | 6 | 12 | 23 | 11 | 164 | 7 |
| 11 | D | 46 | 45 | 17 | 10 | 1 | 25 | 50 | 51 | 40 | 61 | 46 | 44 | 20 | 24 | 24 | 29 | 8 | 6 | 16 | 9 | 9 | 15 | 13 | 11 | 620 | 26 |
| 12 | | 13 | 4 | 4 | 10 | 9 | 11 | 10 | 12 | 6 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 4 | 5 | 5 | 7 | 7 | 8 | 129 | 5 |
| 13 | | 8 | 6 | 4 | 4 | 2 | 8 | 31 | 14 | 12 | 14 | 3 | 8 | 8 | 6 | 12 | 16 | 6 | 2 | 3 | 6 | 6 | 6 | 10 | 9 | 204 | 9 |
| 14 | | 1 | 5 | 6 | 4 | 6 | 3 | 2 | 2 | 2 | 5 | 9 | 12 | 16 | 15 | 6 | 4 | 3 | 3 | 5 | 3 | 5 | 7 | 6 | 7 | 137 | 6 |
| 15 | D | 7 | 3 | 10 | 38 | 14 | 17 | 38 | 16 | 4 | 4 | 9 | 15 | 24 | 13 | 19 | 11 | 8 | 4 | 4 | 15 | 10 | 14 | 5 | 6 | 308 | 13 |
| 16 | | 8 | 4 | 4 | 3 | 6 | 42 | 33 | 10 | 10 | 6 | 7 | 16 | 7 | 22 | 7 | 5 | 5 | 7 | 6 | 5 | 3 | 4 | 7 | 2 | 229 | 10 |
| 17 | Q | 1 | 2 | 1 | 2 | 3 | 12 | 13 | 10 | 4 | 5 | 5 | 7 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 4 | 3 | 96 | 4 |
| 18 | Q | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 5 | 28 | 1 |
| 19 | | 2 | 1 | 3 | 9 | 8 | 8 | 4 | 3 | 2 | 4 | 6 | 7 | 33 | 23 | 8 | 5 | 4 | 4 | 3 | 2 | 5 | 3 | 2 | 2 | 151 | 6 |
| 20 | | 1 | 2 | 2 | 5 | 10 | 15 | 10 | 2 | 4 | 5 | 5 | 8 | 9 | 11 | 4 | 6 | 7 | 5 | 4 | 5 | 5 | 4 | 5 | 4 | 138 | 6 |
| 21 | | 4 | 4 | 4 | 3 | 5 | 12 | 26 | 20 | 8 | 5 | 6 | 4 | 7 | 8 | 10 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 145 | 6 |
| 22 | Q | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 10 | 12 | 6 | 5 | 3 | 4 | 6 | 5 | 3 | 3 | 4 | 1 | 2 | 3 | 6 | 5 | 1 | 93 | 4 |
| 23 | | 3 | 2 | 4 | 2 | 2 | 28 | 28 | 18 | 8 | 2 | 8 | 18 | 16 | 19 | 14 | 16 | 5 | 4 | 3 | 4 | 2 | 6 | 2 | 2 | 216 | 9 |
| 24 | | 1 | 4 | 4 | 2 | 4 | 14 | 11 | 6 | 14 | 6 | 5 | 4 | 5 | 5 | 11 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 117 | 5 |
| 25 | | 3 | 4 | 4 | 3 | 2 | 2 | 14 | 11 | 10 | 6 | 3 | 5 | 9 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 94 | 4 |
| 26 | | 1 | 4 | 9 | 6 | 17 | 10 | 8 | 4 | 16 | 12 | 14 | 16 | 9 | 15 | 12 | 10 | 4 | 4 | 6 | 5 | 9 | 5 | 2 | 2 | 200 | 8 |
| 27 | D | 4 | 4 | 11 | 7 | 10 | 9 | 9 | 8 | 5 | 4 | 4 | 6 | 19 | 24 | 24 | 24 | 49 | 38 | 13 | 14 | 9 | 8 | 6 | 5 | 314 | 13 |
| 28 | | 3 | 3 | 4 | 6 | 7 | 9 | 11 | 8 | 3 | 4 | 4 | 8 | 7 | 5 | 6 | 7 | 6 | 8 | 5 | 5 | 4 | 18 | 11 | 14 | 166 | 7 |
| SUMS | | 161 | 141 | 147 | 173 | 153 | 287 | 426 | 324 | 263 | 214 | 218 | 296 | 294 | 336 | 295 | 264 | 199 | 169 | 190 | 214 | 162 | 184 | 158 | 155 | 5423 | |
| MEANS | | 6 | 5 | 5 | 6 | 5 | 10 | 15 | 12 | 9 | 8 | 8 | 11 | 11 | 12 | 11 | 9 | 7 | 6 | 7 | 8 | 6 | 7 | 6 | 6 | | 8 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 49 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

FEBRUARY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 3 | 4 | 4 | 4 | 3 | 1 | 0 | 1 | 38 | 2 |
| 2 | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 6 | 5 | 4 | 4 | 8 | 13 | 18 | 12 | 24 | 16 | 35 | 12 | 7 | 8 | 4 | 187 | 8 |
| 3 | D | 4 | 8 | 6 | 6 | 4 | 21 | 14 | 14 | 12 | 15 | 10 | 18 | 16 | 42 | 52 | 36 | 12 | 18 | 9 | 10 | 5 | 15 | 6 | 8 | 361 | 15 |
| 4 | | 4 | 3 | 4 | 1 | 1 | 1 | 4 | 23 | 6 | 6 | 3 | 4 | 8 | 10 | 4 | 5 | 13 | 7 | 4 | 5 | 4 | 4 | 8 | 7 | 139 | 6 |
| 5 | | 9 | 6 | 3 | 4 | 2 | 2 | 6 | 12 | 8 | 2 | 5 | 3 | 5 | 8 | 7 | 3 | 4 | 2 | 4 | 1 | 2 | 4 | 4 | 1 | 107 | 4 |
| 6 | | 1 | 2 | 2 | 46 | 21 | 15 | 33 | 9 | 2 | 2 | 4 | 2 | 4 | 1 | 1 | 5 | 3 | 4 | 4 | 2 | 2 | 2 | 7 | 6 | 180 | 8 |
| 7 | | 2 | 1 | 1 | 0 | 0 | 1 | 2 | 30 | 4 | 1 | 1 | 5 | 6 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | 4 | 89 | 4 |
| 8 | | 6 | 3 | 3 | 3 | 3 | 4 | 12 | 6 | 5 | 1 | 2 | 2 | 2 | 7 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 1 | 2 | 1 | 92 | 4 |
| 9 | Q | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 4 | 7 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 46 | 2 |
| 10 | | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 5 | 5 | 4 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 3 | 2 | 3 | 8 | 9 | 8 | 96 | 4 |
| 11 | D | 26 | 41 | 17 | 7 | 2 | 11 | 29 | 52 | 34 | 58 | 46 | 30 | 16 | 19 | 10 | 15 | 9 | 4 | 6 | 6 | 6 | 9 | 6 | 5 | 464 | 19 |
| 12 | | 7 | 4 | 4 | 8 | 5 | 12 | 4 | 9 | 5 | 2 | 2 | 0 | 1 | 1 | 3 | 2 | 4 | 1 | 4 | 5 | 3 | 2 | 2 | 4 | 94 | 4 |
| 13 | | 5 | 5 | 2 | 2 | 3 | 6 | 15 | 8 | 15 | 12 | 1 | 2 | 4 | 4 | 6 | 8 | 8 | 3 | 2 | 4 | 2 | 2 | 2 | 2 | 123 | 5 |
| 14 | | 1 | 2 | 2 | 4 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 4 | 5 | 6 | 3 | 4 | 5 | 3 | 4 | 3 | 3 | 2 | 4 | 4 | 76 | 3 |
| 15 | D | 3 | 2 | 5 | 38 | 19 | 16 | 27 | 13 | 2 | 2 | 3 | 6 | 18 | 10 | 14 | 12 | 9 | 6 | 6 | 8 | 4 | 4 | 5 | 5 | 237 | 10 |
| 16 | | 6 | 4 | 3 | 2 | 3 | 24 | 15 | 17 | 2 | 2 | 2 | 6 | 5 | 9 | 5 | 3 | 5 | 4 | 4 | 2 | 2 | 2 | 2 | 1 | 130 | 5 |
| 17 | Q | 1 | 1 | 1 | 2 | 3 | 4 | 10 | 12 | 4 | 4 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 5 | 2 | 2 | 4 | 1 | 1 | 1 | 72 | 3 |
| 18 | Q | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 3 | 16 | 1 |
| 19 | | 0 | 1 | 1 | 4 | 8 | 9 | 4 | 2 | 1 | 2 | 3 | 4 | 7 | 8 | 6 | 4 | 4 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 81 | 3 |
| 20 | | 1 | 1 | 0 | 2 | 5 | 13 | 3 | 4 | 2 | 3 | 1 | 3 | 6 | 6 | 4 | 7 | 8 | 8 | 3 | 5 | 2 | 3 | 2 | 2 | 94 | 4 |
| 21 | | 3 | 4 | 2 | 1 | 3 | 14 | 25 | 4 | 3 | 4 | 3 | 2 | 5 | 6 | 8 | 2 | 3 | 2 | 2 | 1 | 3 | 2 | 0 | 0 | 102 | 4 |
| 22 | Q | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 13 | 10 | 2 | 2 | 2 | 2 | 2 | 5 | 3 | 5 | 4 | 1 | 2 | 1 | 2 | 3 | 1 | 65 | 3 |
| 23 | | 2 | 1 | 2 | 1 | 2 | 11 | 31 | 9 | 3 | 2 | 2 | 11 | 6 | 9 | 7 | 9 | 4 | 3 | 2 | 3 | 2 | 4 | 2 | 1 | 129 | 5 |
| 24 | | 1 | 2 | 2 | 1 | 2 | 11 | 12 | 2 | 6 | 2 | 2 | 3 | 4 | 4 | 7 | 3 | 5 | 4 | 2 | 1 | 2 | -- | -- | 1 | 79 | -- |
| 25 | | 1 | -- | -- | 2 | 1 | -- | -- | 10 | 4 | -- | 1 | 1 | 2 | -- | 1 | 1 | 0 | -- | 2 | 0 | 1 | 1 | 0 | 0 | 28 | -- |
| 26 | | 1 | 1 | 7 | 9 | 22 | 10 | 5 | 5 | 5 | 5 | 4 | 7 | -- | 5 | 7 | 5 | 2 | 7 | 5 | -- | -- | 2 | 2 | 1 | 117 | -- |
| 27 | D | 1 | 2 | 11 | 9 | 8 | 12 | 4 | 9 | 4 | 2 | 3 | 2 | 6 | 10 | 18 | 16 | 17 | 21 | 17 | 16 | 4 | 7 | 4 | 2 | 205 | 9 |
| 28 | | 2 | 1 | 2 | 5 | 8 | 6 | 10 | 6 | 3 | 3 | 2 | 2 | 3 | 2 | 6 | 5 | 6 | 8 | 3 | 2 | 2 | 6 | 8 | 5 | 106 | 4 |
| SUMS | | 91 | 100 | 77 | 152 | 107 | 190 | 258 | 261 | 150 | 141 | 112 | 122 | 135 | 178 | 191 | 177 | 150 | 154 | 115 | 127 | 79 | 94 | 90 | 78 | 3329 | |
| MEANS | | 4 | 4 | 3 | 6 | 4 | 8 | 10 | 10 | 6 | 6 | 4 | 5 | 5 | 7 | 8 | 7 | 6 | 6 | 5 | 5 | 3 | 4 | 4 | 3 | | 6 |

HOURLY RANGES

TABLE 50 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

MARCH 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 6 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 6 | 2 | 2 | 2 | 6 | 9 | 5 | 8 | 11 | 8 | 8 | 5 | 2 | 14 | 10 | 120 | 5 |
| 2 | | 13 | 11 | 54 | 22 | 3 | 3 | 2 | 2 | 4 | 3 | 3 | 11 | 9 | 8 | 12 | 6 | 3 | 3 | 2 | 2 | 2 | 5 | 3 | 2 | 188 | 8 |
| 3 | Q | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 49 | 2 |
| 4 | Q | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 3 | 2 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 2 | 18 | 12 | 16 | 21 | 90 | 4 |
| 5 | | 10 | 7 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 10 | 9 | 14 | 14 | 6 | 2 | 2 | 2 | 1 | 4 | 4 | 3 | 2 | 7 | 114 | 5 |
| 6 | | 5 | 4 | 3 | 5 | 6 | 4 | 26 | 22 | 9 | 7 | 37 | 20 | 15 | 5 | 3 | 7 | 7 | 11 | 7 | 3 | 6 | 6 | 5 | 4 | 227 | 9 |
| 7 | | 6 | 7 | 4 | 23 | 13 | 17 | 26 | 10 | 6 | 6 | 5 | 14 | 8 | 37 | 30 | 18 | 6 | 4 | 9 | 11 | 8 | 10 | 8 | 14 | 300 | 13 |
| 8 | | 12 | 14 | 7 | 30 | 28 | 7 | 4 | 10 | 4 | 20 | 10 | 11 | 17 | 5 | 5 | 12 | 6 | 4 | 2 | 5 | 7 | 5 | 7 | 8 | 240 | 10 |
| 9 | | 2 | 5 | 9 | 18 | 6 | 6 | 8 | 17 | 13 | 13 | 10 | 10 | 12 | 22 | 31 | 15 | 8 | 7 | 4 | 4 | 6 | 5 | 6 | 2 | 239 | 10 |
| 10 | Q | 5 | 3 | 4 | 6 | 12 | 4 | 17 | 13 | 8 | 15 | 5 | 8 | 4 | 2 | 4 | 2 | 2 | 1 | 3 | 4 | 4 | 5 | 4 | 3 | 138 | 6 |
| 11 | | 2 | 4 | 1 | 28 | 6 | 17 | 33 | 17 | 22 | 17 | 18 | 40 | 27 | 18 | 30 | 10 | 7 | 4 | 5 | 10 | 16 | 13 | 22 | 22 | 389 | 16 |
| 12 | D | 37 | 36 | 35 | 34 | 19 | 21 | 34 | 16 | 26 | 9 | 43 | 18 | 15 | 12 | 17 | 14 | 14 | 14 | 7 | 7 | 4 | 2 | 7 | 4 | 445 | 19 |
| 13 | | 7 | 25 | 13 | 8 | 3 | 2 | 20 | 11 | 4 | 3 | 2 | 10 | 7 | 3 | 3 | 6 | 3 | 4 | 3 | 4 | 3 | 5 | 4 | 4 | 157 | 7 |
| 14 | | 5 | 5 | 5 | 9 | 8 | 3 | 7 | 4 | 5 | 1 | 6 | 2 | 3 | 6 | 4 | 3 | 5 | 4 | 2 | 8 | 4 | 12 | 4 | 6 | 121 | 5 |
| 15 | | 16 | 10 | 58 | 30 | 26 | 24 | 14 | 8 | 39 | 23 | 7 | 20 | 16 | 12 | 6 | 18 | 20 | 6 | 9 | 9 | 9 | 13 | 6 | 9 | 408 | 17 |
| 16 | | 3 | 4 | 1 | 2 | 26 | 50 | 22 | 29 | 15 | 44 | 46 | 8 | 14 | 8 | 9 | 2 | 4 | 2 | 4 | 2 | 7 | 3 | 5 | 8 | 318 | 13 |
| 17 | D | 12 | 52 | 60 | 5 | 10 | 38 | 11 | 5 | 9 | 15 | 20 | 32 | 32 | 43 | 7 | 11 | 9 | 14 | 15 | 13 | 11 | 26 | 5 | 1 | 456 | 19 |
| 18 | | 3 | 3 | 2 | 44 | 24 | 7 | 31 | 23 | 10 | 19 | 13 | 9 | 7 | 6 | 5 | 7 | 6 | 4 | 5 | 3 | 11 | 9 | 10 | 7 | 268 | 11 |
| 19 | | 1 | 4 | 2 | 3 | 3 | 3 | 1 | 52 | 23 | 10 | 4 | 4 | 5 | 3 | 3 | 2 | 2 | 2 | 3 | 20 | 20 | 20 | 15 | 12 | 217 | 9 |
| 20 | | 8 | 25 | 23 | 3 | 2 | 4 | 6 | 45 | 8 | 27 | 25 | 10 | 8 | 7 | 5 | 4 | 9 | 10 | 20 | 11 | 15 | 12 | 18 | 8 | 313 | 13 |
| 21 | | 8 | 33 | 16 | 10 | 14 | 12 | 12 | 43 | 27 | 2 | 3 | 6 | 5 | 11 | 8 | 2 | 3 | 3 | 5 | 4 | 13 | 12 | 14 | 12 | 278 | 12 |
| 22 | | 6 | 8 | 5 | 44 | 6 | 4 | 2 | 3 | 28 | 15 | 16 | 4 | 16 | 10 | 8 | 12 | 7 | 4 | 4 | 2 | 10 | 5 | 4 | 6 | 229 | 10 |
| 23 | D | 8 | 6 | 3 | 2 | 2 | 1 | 8 | 7 | 7 | 11 | 9 | 7 | 6 | 4 | 10 | 2 | 5 | 8 | 79 | 32 | 32 | 30 | 30 | 8 | 317 | 13 |
| 24 | D | 8 | 12 | 16 | 12 | 6 | 14 | 12 | 34 | 110 | 106 | 23 | 21 | 41 | 21 | 7 | 11 | 10 | 4 | 3 | 2 | 1 | 6 | 5 | 2 | 487 | 20 |
| 25 | D | 2 | 1 | 4 | 2 | 1 | 19 | 14 | 14 | 22 | 24 | 14 | 14 | 28 | 11 | 14 | 9 | 7 | 5 | 8 | 11 | 5 | 6 | 7 | 9 | 251 | 10 |
| 26 | | 6 | 10 | 4 | 3 | 2 | 7 | 5 | 12 | 25 | 6 | 13 | 14 | 27 | 16 | 7 | 12 | 7 | 10 | 10 | 6 | 6 | 12 | 5 | 10 | 235 | 10 |
| 27 | Q | 10 | 4 | 2 | 4 | 7 | 7 | 12 | 6 | 11 | 6 | 8 | 5 | 8 | 3 | 4 | 4 | 3 | 2 | 3 | 5 | 2 | 2 | 2 | 2 | 122 | 5 |
| 28 | Q | 2 | 1 | 3 | 6 | 24 | 18 | 15 | 8 | 7 | 6 | 4 | 5 | 4 | 6 | 5 | 8 | 7 | 7 | 3 | 3 | 3 | 2 | 2 | 2 | 151 | 6 |
| 29 | | 2 | 1 | 2 | 2 | 1 | 7 | 8 | 24 | 12 | 8 | 11 | 11 | 17 | 17 | 18 | 13 | 23 | 11 | 9 | 8 | 5 | 23 | 18 | 13 | 264 | 11 |
| 30 | | 5 | 3 | 5 | 8 | 33 | 10 | 8 | 7 | 3 | 19 | 8 | 11 | 6 | 6 | 7 | 2 | 3 | 5 | 10 | 12 | 6 | 27 | 23 | 11 | 238 | 10 |
| 31 | | 10 | 4 | 18 | 12 | 5 | 3 | 3 | 3 | 8 | 4 | 13 | 7 | 10 | 16 | 15 | 20 | 11 | 5 | 8 | 8 | 7 | 7 | 4 | 3 | 204 | 9 |
| SUMS | | 222 | 307 | 368 | 382 | 302 | 318 | 371 | 454 | 472 | 450 | 390 | 345 | 386 | 341 | 296 | 243 | 210 | 174 | 257 | 224 | 251 | 301 | 277 | 232 | 7573 | |
| MEANS | | 7 | 10 | 12 | 12 | 10 | 10 | 12 | 15 | 15 | 15 | 13 | 11 | 12 | 11 | 10 | 8 | 7 | 6 | 8 | 7 | 8 | 10 | 9 | 7 | | 10 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 51 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

MARCH 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 6 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 6 | 6 | 6 | 10 | 9 | 8 | 5 | 3 | 2 | 6 | 2 | 83 | 3 |
| 2 | | 6 | 8 | 43 | 32 | 5 | 2 | 1 | 0 | 1 | 2 | 1 | 2 | 5 | 5 | 6 | 5 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 138 | 6 |
| 3 | Q | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 29 | 1 |
| 4 | Q | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 5 | 3 | 10 | 8 | 7 | 6 | 53 | 2 |
| 5 | | 3 | 3 | 2 | 1 | 1 | 2 | 4 | 2 | 1 | 1 | 4 | 3 | 5 | 5 | 5 | 5 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 3 | 62 | 3 |
| 6 | | 2 | 1 | 2 | 2 | 4 | 6 | 10 | 21 | 5 | 4 | 12 | 13 | 5 | 2 | 4 | 5 | 6 | 10 | 5 | 2 | 2 | 2 | 2 | 2 | 129 | 5 |
| 7 | | 3 | 4 | 3 | 18 | 11 | 8 | 14 | 12 | 5 | 3 | 2 | 9 | 4 | 8 | 11 | 9 | 5 | 7 | 8 | 9 | 6 | 4 | 6 | 6 | 175 | 7 |
| 8 | | 6 | 6 | 4 | 9 | 17 | 6 | 7 | 12 | 2 | 9 | 4 | 4 | 3 | 4 | 3 | 9 | 5 | 4 | 4 | 3 | 2 | 2 | 4 | 5 | 134 | 6 |
| 9 | | 2 | 4 | 7 | 14 | 6 | 5 | 5 | 12 | 24 | 14 | 2 | 3 | 6 | 24 | 24 | 6 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 1 | 178 | 7 |
| 10 | Q | 3 | 1 | 2 | 1 | 11 | 4 | 10 | 6 | 2 | 16 | 2 | 5 | 2 | 2 | 3 | 1 | 1 | 1 | 4 | 4 | 1 | 3 | 2 | 1 | 88 | 4 |
| 11 | | 1 | 2 | 3 | 20 | 9 | 8 | 23 | 15 | 16 | 6 | 14 | 17 | 24 | 15 | 14 | 8 | 6 | 8 | 6 | 6 | 5 | 14 | 22 | 20 | 282 | 12 |
| 12 | D | 22 | 21 | 22 | 23 | 16 | 12 | 32 | 6 | 11 | 10 | 17 | 3 | 6 | 4 | 12 | 6 | 5 | 11 | 11 | 5 | 4 | 2 | 2 | 3 | 266 | 11 |
| 13 | | 2 | 23 | 9 | 3 | 1 | 1 | 18 | 13 | 2 | 1 | 1 | 2 | 2 | 2 | 5 | 3 | 4 | 1 | 2 | 2 | 4 | 3 | 4 | 4 | 110 | 5 |
| 14 | | 6 | 4 | 6 | 6 | 7 | 4 | 6 | 6 | 3 | 1 | 2 | 1 | 2 | 4 | 4 | 4 | 5 | 2 | 5 | 4 | 2 | 5 | 3 | 6 | 98 | 4 |
| 15 | | 5 | 9 | 30 | 9 | 11 | 18 | 5 | 4 | 22 | 9 | 5 | 13 | 14 | 16 | 14 | 16 | 4 | 7 | 7 | 8 | 6 | 5 | 7 | 7 | 251 | 10 |
| 16 | | 3 | 1 | 0 | 1 | 14 | 36 | 15 | 16 | 18 | 21 | 28 | 3 | 6 | 4 | 5 | 2 | 4 | 4 | 4 | 2 | 5 | 3 | 3 | 2 | 200 | 8 |
| 17 | D | 11 | 25 | 21 | 5 | 6 | 27 | 14 | 2 | 2 | 6 | 3 | 10 | 16 | 10 | 4 | 10 | 8 | 7 | 7 | 8 | 12 | 15 | 3 | 1 | 233 | 10 |
| 18 | | 1 | 1 | 2 | 29 | 35 | 5 | 23 | 22 | 10 | 7 | 6 | 4 | 4 | 5 | 4 | 6 | 8 | 6 | 5 | 2 | 4 | 3 | 3 | 1 | 196 | 8 |
| 19 | | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 27 | 18 | 2 | 2 | 2 | 2 | 3 | 2 | 4 | 2 | 2 | 4 | 7 | 9 | 11 | 15 | 9 | 134 | 6 |
| 20 | | 9 | 27 | 26 | 3 | 4 | 2 | 4 | 16 | 6 | 7 | 6 | 3 | 5 | 2 | 3 | 7 | 10 | 15 | 10 | 11 | 8 | 9 | 7 | 8 | 208 | 9 |
| 21 | | 5 | 22 | 29 | 4 | 17 | 12 | 8 | 32 | 9 | 3 | 1 | 3 | 2 | 7 | 5 | 1 | 2 | 5 | 3 | 4 | 4 | 7 | 7 | 2 | 194 | 8 |
| 22 | | 2 | 4 | 4 | 25 | 8 | 4 | 3 | 3 | 12 | 15 | 15 | 4 | 6 | 4 | 4 | 5 | 7 | 4 | 2 | 4 | 4 | 3 | 4 | 5 | 151 | 6 |
| 23 | D | 4 | 3 | 3 | 2 | 2 | 2 | 5 | 3 | 2 | 4 | 4 | 5 | 2 | 3 | 6 | 4 | 5 | 7 | 32 | 39 | 7 | 21 | 13 | 14 | 192 | 8 |
| 24 | D | 13 | 10 | 18 | 12 | 11 | 8 | 10 | 23 | 43 | 43 | 12 | 13 | 18 | 12 | 4 | 7 | 13 | 4 | 4 | 1 | 4 | 6 | 3 | 2 | 294 | 12 |
| 25 | D | 3 | 1 | 3 | 1 | 1 | 5 | 7 | 20 | 14 | 9 | 10 | 8 | 18 | 5 | 6 | 7 | 5 | 5 | 8 | 9 | 4 | 3 | 6 | 5 | 163 | 7 |
| 26 | | 3 | 12 | 1 | 1 | 2 | 3 | 3 | 2 | 17 | 2 | 4 | 6 | 12 | 7 | 4 | 6 | 5 | 4 | 6 | 4 | 8 | 3 | 2 | 2 | 119 | 5 |
| 27 | Q | 2 | 1 | 0 | 4 | 4 | 6 | 8 | 3 | 3 | 1 | 2 | 2 | 5 | 4 | 3 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 60 | 3 |
| 28 | Q | 1 | 1 | 1 | 3 | 11 | 19 | 12 | 4 | 4 | 3 | 2 | 2 | 3 | 2 | 6 | 5 | 4 | 7 | 3 | 2 | 2 | 2 | 1 | 1 | 101 | 4 |
| 29 | | 1 | 1 | 1 | 1 | 1 | 5 | 8 | 13 | 7 | 9 | 2 | 4 | 9 | 6 | 12 | 12 | 11 | 12 | 9 | 7 | 2 | 4 | 8 | 16 | 161 | 7 |
| 30 | | 4 | 5 | 6 | 3 | 20 | 10 | 5 | 6 | 2 | 5 | 5 | 3 | 2 | 4 | 5 | 2 | 4 | 7 | 11 | 14 | 3 | 13 | 11 | 9 | 159 | 7 |
| 31 | | 7 | 3 | 15 | 9 | 3 | 5 | 4 | 5 | 3 | 2 | 4 | 5 | 8 | 15 | 11 | 12 | 10 | 5 | 5 | 4 | 6 | 3 | 2 | 2 | 148 | 6 |
| SUMS | | 138 | 208 | 267 | 245 | 242 | 231 | 270 | 310 | 266 | 218 | 174 | 155 | 200 | 192 | 195 | 181 | 159 | 169 | 187 | 178 | 134 | 164 | 158 | 148 | 4789 | |
| MEANS | | 4 | 7 | 9 | 8 | 8 | 7 | 9 | 10 | 9 | 7 | 6 | 5 | 6 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | 4 | 5 | 5 | 5 | | 6 |

HOURLY RANGES

TABLE 52 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

APRIL 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 1 | 2 | 6 | 12 | 9 | 19 | 7 | 12 | 7 | 8 | 5 | 21 | 21 | 6 | 6 | 5 | 14 | 16 | 19 | 19 | 22 | 17 | 18 | 5 | 277 | 12 |
| 2 | | 7 | 9 | 3 | 4 | 5 | 2 | 3 | 2 | 2 | 2 | 5 | 4 | 12 | 16 | 24 | 13 | 13 | 17 | 12 | 19 | 18 | 14 | 24 | 16 | 246 | 10 |
| 3 | | 18 | 114 | 14 | 2 | 4 | 3 | 2 | 7 | 5 | 11 | 4 | 8 | 8 | 6 | 6 | 8 | 6 | 6 | 6 | 9 | 6 | 8 | 12 | 14 | 287 | 12 |
| 4 | | 13 | 9 | 6 | 23 | 25 | 13 | 11 | 9 | 17 | 12 | 13 | 12 | 16 | 24 | 4 | 6 | 5 | 4 | 4 | 8 | 12 | 5 | 10 | 14 | 275 | 11 |
| 5 | | 11 | 3 | 4 | 4 | 6 | 30 | 36 | 22 | 11 | 6 | 9 | 6 | 6 | 6 | 6 | 8 | 4 | 8 | 4 | 6 | 4 | 7 | 4 | 10 | 221 | 9 |
| 6 | | 4 | 7 | 12 | 8 | 14 | 3 | 4 | 30 | 21 | 9 | 4 | 3 | 5 | 9 | 6 | 6 | 3 | 4 | 4 | 11 | 12 | 12 | 6 | 12 | 209 | 9 |
| 7 | | 30 | 13 | 11 | 5 | 6 | 23 | 11 | 31 | 18 | 3 | 3 | 12 | 12 | 10 | 24 | 5 | 5 | 3 | 14 | 15 | 4 | 13 | 6 | 8 | 285 | 12 |
| 8 | | 6 | 6 | 14 | 8 | 5 | 2 | 2 | 1 | 1 | 10 | 7 | 2 | 5 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 5 | 14 | 8 | 14 | 131 | 5 |
| 9 | | 6 | 4 | 3 | 9 | 6 | 8 | 36 | 9 | 6 | 16 | 31 | 15 | 15 | 19 | 12 | 11 | 23 | 11 | 6 | 10 | 14 | 12 | 3 | 6 | 291 | 12 |
| 10 | Q | 2 | 2 | 2 | 1 | 1 | 27 | 13 | 11 | 7 | 6 | 5 | 6 | 7 | 5 | 10 | 5 | 4 | 3 | 7 | 10 | 8 | 16 | 10 | 5 | 173 | 7 |
| 11 | | 4 | 7 | 6 | 7 | 6 | 4 | 1 | 26 | 10 | 9 | 12 | 10 | 27 | 15 | 7 | 2 | 3 | 4 | 5 | 3 | 3 | 2 | 2 | 2 | 177 | 7 |
| 12 | | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 4 | 5 | 6 | 3 | 4 | 6 | 6 | 2 | 2 | 5 | 5 | 4 | 4 | 16 | 18 | 13 | 32 | 148 | 6 |
| 13 | D | 26 | 11 | 25 | 7 | 19 | 15 | 58 | 27 | 25 | 16 | 14 | 13 | 24 | 44 | 25 | 28 | 11 | 20 | 18 | 18 | 38 | 24 | 27 | 14 | 547 | 23 |
| 14 | | 15 | 94 | 26 | 7 | 5 | 6 | 11 | 8 | 4 | 12 | 9 | 7 | 8 | 7 | 16 | 7 | 10 | 11 | 4 | 12 | 25 | 10 | 15 | 9 | 338 | 14 |
| 15 | | 27 | 17 | 12 | 31 | 24 | 15 | 8 | 7 | 47 | 19 | 16 | 22 | 22 | 19 | 10 | 15 | 12 | 6 | 8 | 9 | 4 | 6 | 3 | 7 | 366 | 15 |
| 16 | | 7 | 7 | 4 | 15 | 9 | 15 | 20 | 20 | 9 | 6 | 6 | 13 | 13 | 14 | 19 | 9 | 9 | 8 | 3 | 4 | 26 | 18 | 13 | 23 | 290 | 12 |
| 17 | D | 11 | 15 | 12 | 10 | 2 | 3 | 19 | 12 | 7 | 6 | 11 | 17 | 39 | 38 | 54 | 8 | 23 | 10 | 8 | 13 | 10 | 12 | 12 | 16 | 368 | 15 |
| 18 | | 16 | 13 | 59 | 28 | 8 | 69 | 50 | 35 | 6 | 8 | 10 | 8 | 8 | 6 | 6 | 3 | 2 | 6 | 2 | 8 | 4 | 18 | 9 | 9 | 391 | 16 |
| 19 | Q | 9 | 8 | 4 | 4 | 3 | 2 | 3 | 1 | 3 | 4 | 2 | 2 | 4 | 8 | 6 | 4 | 2 | 2 | 3 | 5 | 4 | 16 | 5 | 9 | 113 | 5 |
| 20 | | 8 | 6 | 7 | 4 | 2 | 1 | 20 | 8 | 6 | 2 | 4 | 3 | 7 | 6 | 5 | 2 | 2 | 2 | 3 | 4 | 6 | 8 | 8 | 5 | 129 | 5 |
| 21 | Q | 12 | 7 | 4 | 2 | 2 | 1 | 9 | 2 | 1 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 8 | 4 | 5 | 86 | 4 |
| 22 | | 3 | 2 | 2 | 1 | 1 | 1 | 4 | 4 | 7 | 12 | 9 | 27 | 21 | 8 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 6 | 4 | 138 | 6 |
| 23 | Q | 2 | 2 | 3 | 2 | 5 | 16 | 16 | 19 | 13 | 2 | 4 | 3 | 17 | 9 | 13 | 4 | 5 | 7 | 4 | 4 | 4 | 4 | 4 | 8 | 170 | 7 |
| 24 | | 8 | 7 | 6 | 6 | 7 | 16 | 19 | 6 | 9 | 3 | 4 | 5 | 4 | 4 | 2 | 3 | 8 | 9 | 4 | 6 | 2 | 5 | 6 | 17 | 166 | 7 |
| 25 | | 17 | 5 | 6 | 4 | 3 | 17 | 24 | 17 | 9 | 4 | 6 | 6 | 8 | 8 | 9 | 8 | 5 | 5 | 3 | 4 | 4 | 4 | 10 | 12 | 198 | 8 |
| 26 | Q | 4 | 8 | 11 | 7 | 1 | 4 | 10 | 8 | 4 | 2 | 6 | 2 | 10 | 7 | 3 | 4 | 8 | 6 | 8 | 6 | 8 | 7 | 7 | 13 | 154 | 6 |
| 27 | | 6 | 16 | 7 | 24 | 16 | 9 | 22 | 16 | 6 | 6 | 49 | 23 | 10 | 10 | 5 | 18 | 5 | 8 | 9 | 7 | 6 | 6 | 4 | 5 | 293 | 12 |
| 28 | D | 2 | 2 | 11 | 4 | 5 | 42 | 19 | 18 | 8 | 14 | 18 | 14 | 37 | 27 | 20 | 26 | 18 | 23 | 10 | 4 | 7 | 5 | 5 | 7 | 346 | 14 |
| 29 | | 10 | 10 | 2 | 2 | 2 | 2 | 2 | 6 | 7 | 4 | 5 | 4 | 7 | 10 | 7 | 8 | 6 | 9 | 8 | 8 | 8 | 15 | 18 | 14 | 174 | 7 |
| 30 | D | 3 | 28 | 47 | 16 | 32 | 37 | 22 | 11 | 10 | 40 | 12 | 15 | 30 | 27 | 27 | 32 | 17 | 9 | 6 | 11 | 13 | 19 | 15 | 6 | 485 | 20 |
| SUMS | | 290 | 435 | 330 | 259 | 235 | 408 | 464 | 389 | 291 | 262 | 290 | 289 | 411 | 379 | 343 | 259 | 236 | 230 | 194 | 246 | 299 | 325 | 287 | 321 | 7472 | |
| MEANS | | 10 | 15 | 11 | 9 | 8 | 14 | 15 | 13 | 10 | 9 | 10 | 10 | 14 | 13 | 11 | 9 | 8 | 8 | 6 | 8 | 10 | 11 | 10 | 11 | | 10 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 53 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

APRIL 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 1 | 1 | 1 | 3 | 11 | 20 | 5 | 12 | 6 | 7 | 2 | 6 | 10 | 4 | 4 | 5 | 13 | 12 | 26 | 9 | 18 | 6 | 14 | 4 | 200 | 8 |
| 2 | | 5 | 3 | 1 | 3 | 4 | 2 | 3 | 1 | 1 | 1 | 3 | 4 | 4 | 9 | 15 | 9 | 15 | 22 | 8 | 19 | 13 | 8 | 11 | 7 | 171 | 7 |
| 3 | | 25 | 61 | 5 | 5 | 4 | 4 | 4 | 2 | 2 | 6 | 2 | 3 | 5 | 4 | 5 | 6 | 6 | 10 | 5 | 8 | 5 | 4 | 3 | 4 | 188 | 8 |
| 4 | | 4 | 8 | 6 | 41 | 32 | 8 | 11 | 5 | 11 | 6 | 11 | 4 | 9 | 4 | 4 | 3 | 2 | 4 | 4 | 8 | 5 | 5 | 2 | 1 | 198 | 8 |
| 5 | | 8 | 6 | 1 | 2 | 1 | 16 | 19 | 14 | 5 | 9 | 8 | 4 | 6 | 2 | 2 | 4 | 3 | 6 | 3 | 2 | 2 | 2 | 1 | 3 | 129 | 5 |
| 6 | | 7 | 5 | 6 | 4 | 10 | 5 | 3 | 23 | 16 | 3 | 1 | 1 | 2 | 5 | 5 | 5 | 5 | 7 | 4 | 5 | 9 | 10 | 6 | 9 | 156 | 7 |
| 7 | | 19 | 9 | 7 | 6 | 3 | 12 | 9 | 11 | 16 | 4 | 2 | 5 | 3 | 11 | 13 | 3 | 8 | 4 | 4 | 11 | 4 | 5 | 3 | 4 | 176 | 7 |
| 8 | | 4 | 6 | 5 | 7 | 6 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 4 | 4 | 6 | 2 | 75 | 3 |
| 9 | | 1 | 0 | 1 | 4 | 5 | 4 | 22 | 11 | 2 | 6 | 16 | 15 | 14 | 20 | 22 | 11 | 8 | 3 | 7 | 6 | 15 | 5 | 1 | 3 | 202 | 8 |
| 10 | Q | 1 | 1 | 1 | 2 | 2 | 15 | 8 | 7 | 4 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 5 | 6 | 4 | 6 | 4 | 3 | 4 | 4 | 98 | 4 |
| 11 | | 5 | 3 | 3 | 5 | 6 | 6 | 2 | 7 | 8 | 5 | 5 | 6 | 18 | 6 | 4 | 2 | 2 | 2 | 4 | 3 | 3 | 1 | 1 | 1 | 108 | 5 |
| 12 | | 1 | 1 | 0 | 1 | 2 | 3 | 3 | 4 | 2 | 2 | 1 | 7 | 5 | 5 | 4 | 1 | 4 | 5 | 5 | 3 | 14 | 14 | 9 | 9 | 105 | 4 |
| 13 | D | 19 | 14 | 10 | 9 | 17 | 11 | 16 | 21 | 17 | 11 | 12 | 8 | 5 | 12 | 10 | 14 | 11 | 8 | 13 | 21 | 19 | 9 | 17 | 15 | 319 | 13 |
| 14 | | 18 | 49 | 20 | 3 | 6 | 8 | 4 | 3 | 8 | 6 | 4 | 7 | 6 | 5 | 9 | 6 | 6 | 8 | 7 | 10 | 13 | 10 | 18 | 10 | 244 | 10 |
| 15 | | 7 | 6 | 13 | 22 | 27 | 11 | 12 | 6 | 32 | 11 | 13 | 10 | 11 | 9 | 9 | 11 | 10 | 7 | 11 | 7 | 2 | 5 | 2 | 3 | 257 | 11 |
| 16 | | 1 | 2 | 5 | 9 | 21 | 16 | 24 | 11 | 9 | 7 | 3 | 6 | 4 | 8 | 16 | 6 | 11 | 8 | 4 | 8 | 17 | 20 | 5 | 8 | 229 | 10 |
| 17 | D | 7 | 36 | 34 | 8 | 6 | 6 | 16 | 16 | 8 | 5 | 4 | 6 | 21 | 22 | 17 | 9 | 12 | 8 | 15 | 15 | 17 | 8 | 6 | 8 | 310 | 13 |
| 18 | | 12 | 7 | 21 | 18 | 6 | 28 | 36 | 11 | 6 | 2 | 7 | 4 | 3 | 2 | 4 | 3 | 2 | 6 | 5 | 3 | 3 | 4 | 5 | 7 | 205 | 9 |
| 19 | Q | 7 | 11 | 3 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 5 | 2 | 4 | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 4 | 72 | 3 |
| 20 | | 4 | 3 | 4 | 2 | 2 | 2 | 12 | 12 | 6 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 5 | 5 | 4 | 7 | 5 | 93 | 4 |
| 21 | Q | 8 | 4 | 4 | 1 | 3 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 2 | 51 | 2 |
| 22 | | 2 | 1 | 1 | 1 | 0 | 2 | 3 | 4 | 4 | 6 | 5 | 10 | 4 | 4 | 2 | 4 | 2 | 4 | 2 | 2 | 1 | 2 | 3 | 2 | 71 | 3 |
| 23 | Q | 2 | 0 | 2 | 2 | 6 | 11 | 15 | 6 | 3 | 1 | 3 | 3 | 7 | 4 | 7 | 3 | 3 | 4 | 2 | 4 | 4 | 2 | 1 | 2 | 97 | 4 |
| 24 | | 2 | 3 | 5 | 4 | 12 | 19 | 4 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 6 | 9 | 3 | 4 | 2 | 2 | 3 | 4 | 102 | 4 |
| 25 | | 5 | 5 | 4 | 3 | 2 | 11 | 18 | 9 | 2 | 2 | 2 | 3 | 5 | 6 | 8 | 6 | 4 | 2 | 2 | 4 | 5 | 2 | 3 | 3 | 116 | 5 |
| 26 | Q | 1 | 3 | 15 | 5 | 0 | 2 | 10 | 5 | 2 | 1 | 3 | 2 | 7 | 5 | 2 | 3 | 6 | 2 | 4 | 8 | 2 | 2 | 2 | 2 | 94 | 4 |
| 27 | | 2 | 6 | 6 | 21 | 14 | 12 | 18 | 9 | 2 | 3 | 11 | 6 | 4 | 6 | 7 | 6 | 3 | 4 | 8 | 6 | 5 | 2 | 1 | 3 | 165 | 7 |
| 28 | D | 2 | 1 | 3 | 7 | 16 | 38 | 20 | 16 | 11 | 12 | 7 | 5 | 19 | 23 | 12 | 10 | 11 | 11 | 5 | 6 | 6 | 2 | 3 | 5 | 251 | 10 |
| 29 | | 5 | 10 | 3 | 2 | 2 | 2 | 2 | 4 | 3 | 1 | 4 | 1 | 4 | 5 | 7 | 8 | 7 | 7 | 5 | 8 | 3 | 6 | 10 | 12 | 121 | 5 |
| 30 | D | 6 | 16 | 16 | 18 | 10 | 16 | 17 | 5 | 18 | 41 | 10 | 6 | 22 | 9 | 24 | 10 | 15 | 4 | 10 | 8 | 4 | 6 | 7 | 4 | 302 | 13 |
| SUMS | | 191 | 281 | 206 | 220 | 238 | 296 | 322 | 241 | 211 | 169 | 149 | 144 | 211 | 206 | 226 | 161 | 189 | 183 | 182 | 205 | 209 | 157 | 158 | 150 | 4905 | |
| MEANS | | 6 | 9 | 7 | 7 | 8 | 10 | 11 | 8 | 7 | 6 | 5 | 5 | 7 | 7 | 8 | 5 | 6 | 6 | 6 | 7 | 7 | 5 | 5 | 5 | | 7 |

HOURLY RANGES

TABLE 54 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

MAY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | | | |
| 1 | | 9 | 11 | 6 | 57 | 58 | 17 | 8 | 19 | 13 | 12 | 8 | 6 | 4 | 3 | 5 | 4 | 5 | 4 | 2 | 5 | 9 | 9 | 5 | 4 | 283 | 12 |
| 2 | D | 5 | 6 | 3 | 34 | 23 | 15 | 8 | 4 | 13 | 29 | 23 | 7 | 20 | 50 | 28 | 13 | 12 | 10 | 22 | 21 | 10 | 17 | 18 | 8 | 399 | 17 |
| 3 | | 8 | 5 | 3 | 3 | 38 | 69 | 19 | 12 | 26 | 24 | 16 | 22 | 23 | 20 | 30 | 9 | 8 | 13 | 5 | 11 | 10 | 15 | 17 | 15 | 421 | 18 |
| 4 | | 5 | 4 | 3 | 7 | 34 | 14 | 5 | 11 | 15 | 8 | 20 | 11 | 7 | 8 | 4 | 8 | 7 | 3 | 6 | 4 | 5 | 6 | 3 | 10 | 208 | 9 |
| 5 | | 10 | 9 | 5 | 2 | 3 | 2 | 12 | 13 | 7 | 8 | 3 | 15 | 12 | 21 | 22 | 7 | 4 | 6 | 5 | 4 | 6 | 9 | 11 | 7 | 203 | 8 |
| 6 | | 8 | 5 | 12 | 18 | 13 | 31 | 21 | 14 | 5 | 3 | 5 | 7 | 8 | 12 | 3 | 2 | 1 | 2 | 4 | 2 | 6 | 5 | 3 | 9 | 199 | 8 |
| 7 | Q | 6 | 4 | 7 | 10 | 9 | 8 | 4 | 9 | 7 | 7 | 6 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 5 | 104 | 4 |
| 8 | | 4 | 2 | 4 | 10 | 18 | 18 | 14 | 4 | 3 | 2 | 3 | 7 | 6 | 3 | 7 | 12 | 2 | 4 | 3 | 2 | 2 | 2 | 14 | 5 | 151 | 6 |
| 9 | | 5 | 3 | 3 | 6 | 13 | 15 | 2 | 3 | 33 | 15 | 17 | 9 | 13 | 8 | 4 | 4 | 2 | 4 | 4 | 7 | 5 | 23 | 11 | 18 | 227 | 9 |
| 10 | | 11 | 4 | 4 | 7 | 27 | 23 | 13 | 5 | 4 | 2 | 8 | 6 | 8 | 11 | 17 | 13 | 4 | 7 | 4 | 4 | 5 | 2 | 2 | 3 | 194 | 8 |
| 11 | Q | 4 | 3 | 7 | 2 | 21 | 17 | 8 | 5 | 5 | 26 | 6 | 3 | 7 | 4 | 5 | 7 | 4 | 4 | 4 | 7 | 2 | 5 | 2 | 1 | 159 | 7 |
| 12 | | 3 | 3 | 3 | 3 | 5 | 1 | 2 | 2 | 11 | 4 | 9 | 5 | 6 | 5 | 1 | 3 | 2 | 5 | 8 | 11 | 8 | 11 | 22 | 12 | 145 | 6 |
| 13 | D | 12 | 14 | 10 | 8 | 21 | 37 | 27 | 31 | 5 | 7 | 32 | 30 | 42 | 23 | 19 | 30 | 23 | 25 | 11 | 12 | 24 | 19 | 20 | 34 | 516 | 22 |
| 14 | D | 12 | 85 | 12 | 10 | 50 | 48 | 16 | 11 | 4 | 26 | 15 | 16 | 18 | 18 | 10 | 12 | 16 | 5 | 6 | 28 | 35 | 38 | 17 | 33 | 541 | 23 |
| 15 | D | 11 | 8 | 76 | 91 | 36 | 16 | 19 | 18 | 17 | 101 | 130 | 69 | 119 | 123 | 36 | 26 | 32 | 19 | 25 | 12 | 20 | 26 | 23 | 14 | 1067 | 44 |
| 16 | D | 55 | 18 | 19 | 50 | 30 | 22 | 30 | 7 | 15 | 49 | 19 | 48 | 34 | 12 | 9 | 3 | 6 | 3 | 4 | 4 | 15 | 4 | 11 | 7 | 474 | 20 |
| 17 | | 4 | 8 | 22 | 19 | 12 | 2 | 7 | 4 | 20 | 15 | 5 | 3 | 17 | 18 | 30 | 4 | 1 | 4 | 2 | 5 | 9 | 18 | 12 | 5 | 246 | 10 |
| 18 | | 37 | 9 | 13 | 3 | 4 | 5 | 19 | 8 | 13 | 39 | 27 | 17 | 12 | 5 | 6 | 9 | 8 | 12 | 13 | 8 | 4 | 10 | 17 | 8 | 306 | 13 |
| 19 | | 13 | 5 | 3 | 4 | 3 | 4 | 10 | 8 | 9 | 5 | 6 | 6 | 9 | 13 | 12 | 14 | 10 | 9 | 3 | 11 | 8 | 1 | 10 | 9 | 185 | 8 |
| 20 | | 12 | 10 | 7 | 10 | 4 | 30 | 35 | 14 | 7 | 10 | 5 | 7 | 7 | 4 | 5 | 7 | 3 | 6 | 2 | 8 | 13 | 6 | 5 | 12 | 229 | 10 |
| 21 | | 7 | 7 | 15 | 11 | 11 | 8 | 17 | 16 | 13 | 10 | 49 | 19 | 27 | 14 | 34 | 20 | 13 | 6 | 7 | 10 | 9 | 16 | 8 | 22 | 369 | 15 |
| 22 | | 7 | 4 | 18 | 22 | 13 | 8 | 2 | 3 | 8 | 13 | 20 | 31 | 33 | 18 | 29 | 12 | 20 | 6 | 6 | 9 | 7 | 5 | 5 | 5 | 304 | 13 |
| 23 | | 6 | 7 | 8 | 11 | 8 | 7 | 2 | 28 | 23 | 8 | 23 | 15 | 24 | 22 | 15 | 8 | 8 | 6 | 6 | 9 | 5 | 4 | 5 | 2 | 260 | 11 |
| 24 | | 5 | 3 | 1 | 2 | 4 | 17 | 18 | 7 | 5 | 8 | 7 | 3 | 16 | 11 | 14 | 18 | 12 | 9 | 8 | 11 | 8 | 13 | 18 | 9 | 227 | 9 |
| 25 | | 38 | 14 | 18 | 14 | 7 | 5 | 5 | 4 | 3 | 4 | 4 | 5 | 3 | 7 | 3 | 2 | 4 | 2 | 3 | 4 | 9 | 8 | 5 | 5 | 176 | 7 |
| 26 | Q | 7 | 3 | 5 | 3 | 6 | 8 | 5 | 2 | 2 | 4 | 12 | 9 | 8 | 6 | 3 | 4 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 104 | 4 |
| 27 | Q | 2 | 4 | 0 | 2 | 3 | 4 | 1 | 1 | 4 | 9 | 7 | 6 | 4 | 7 | 9 | 7 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 5 | 88 | 4 |
| 28 | | 4 | 2 | 1 | 2 | 2 | 22 | 10 | 4 | 12 | 14 | 17 | 15 | 7 | 14 | 14 | 7 | 9 | 6 | 4 | 4 | 2 | 3 | 6 | 5 | 186 | 8 |
| 29 | Q | 4 | 2 | 2 | 1 | 1 | 0 | 4 | 12 | 6 | 4 | 6 | 10 | 8 | 11 | 6 | 2 | 6 | 2 | 4 | 5 | 6 | 8 | 20 | 6 | 136 | 6 |
| 30 | | 8 | 7 | 6 | 2 | 8 | 9 | 4 | 3 | 41 | 28 | 8 | 7 | 15 | 19 | 7 | 10 | 12 | 9 | 4 | 10 | 7 | 11 | 10 | 11 | 256 | 11 |
| 31 | | 9 | 12 | 4 | 6 | 47 | 44 | 8 | 12 | 26 | 19 | 6 | 4 | 29 | 15 | 18 | 11 | 3 | 5 | 2 | 11 | 12 | 10 | 7 | 12 | 332 | 14 |
| SUMS | | 331 | 281 | 300 | 430 | 532 | 526 | 355 | 294 | 375 | 513 | 522 | 422 | 550 | 507 | 407 | 290 | 242 | 200 | 181 | 243 | 267 | 311 | 313 | 303 | 8695 | |
| MEANS | | 11 | 9 | 10 | 14 | 17 | 17 | 11 | 9 | 12 | 17 | 17 | 14 | 18 | 16 | 13 | 9 | 8 | 6 | 6 | 8 | 9 | 10 | 10 | 10 | | 12 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

MAY 1969

TABLE 55 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 7 | 18 | 6 | 13 | 38 | 9 | 6 | 8 | 11 | 11 | 4 | 5 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 167 | 7 |
| 2 | D | 2 | 2 | 2 | 23 | 13 | 14 | 8 | 2 | 6 | 11 | 4 | 4 | 6 | 18 | 12 | 10 | 22 | 19 | 57 | 21 | 10 | 10 | 7 | 5 | 288 | 12 |
| 3 | | 3 | 3 | 3 | 5 | 32 | 22 | 15 | 7 | 20 | 13 | 20 | 21 | 14 | 13 | 16 | 5 | 6 | 6 | 5 | 4 | 3 | 7 | 3 | 7 | 253 | 11 |
| 4 | | 2 | 2 | 1 | 6 | 45 | 11 | 6 | 2 | 8 | 10 | 5 | 4 | 3 | 4 | 3 | 6 | 6 | 6 | 7 | 2 | 2 | 2 | 1 | 4 | 148 | 6 |
| 5 | | 9 | 4 | 3 | 5 | 4 | 2 | 6 | 6 | 10 | 3 | 2 | 5 | 7 | 12 | 8 | 7 | 4 | 5 | 8 | 4 | 3 | 2 | 5 | 6 | 130 | 5 |
| 6 | | 2 | 2 | 3 | 22 | 10 | 24 | 20 | 10 | 2 | 0 | 3 | 2 | 5 | 4 | 2 | 3 | 2 | 3 | 4 | 3 | 1 | 2 | 3 | 3 | 135 | 6 |
| 7 | Q | 5 | 4 | 9 | 5 | 9 | 4 | 2 | 6 | 11 | 4 | 2 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 82 | 3 |
| 8 | | 2 | 2 | 3 | 6 | 6 | 6 | 10 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 6 | 2 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 79 | 3 |
| 9 | | 3 | 1 | 2 | 3 | 8 | 9 | 3 | 4 | 7 | 7 | 11 | 4 | 11 | 7 | 3 | 1 | 3 | 8 | 10 | 9 | 4 | 11 | 14 | 4 | 147 | 6 |
| 10 | | 2 | 1 | 4 | 6 | 35 | 26 | 18 | 8 | 6 | 2 | 5 | 8 | 6 | 6 | 11 | 8 | 4 | 5 | 3 | 4 | 2 | 1 | 1 | 2 | 174 | 7 |
| 11 | Q | 1 | 2 | 4 | 2 | 14 | 24 | 7 | 3 | 4 | 8 | 7 | 5 | 2 | 2 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 2 | 1 | 1 | 113 | 5 |
| 12 | | 1 | 1 | 2 | 3 | 4 | 1 | 2 | 2 | 3 | 2 | 5 | 5 | 3 | 3 | 2 | 2 | 2 | 1 | 5 | 5 | 12 | 5 | 5 | 10 | 86 | 4 |
| 13 | D | 8 | 12 | 9 | 13 | 15 | 10 | 20 | 12 | 7 | 5 | 10 | 22 | 20 | 24 | 28 | 24 | 10 | 20 | 14 | 12 | 21 | 12 | 22 | 16 | 366 | 15 |
| 14 | D | 16 | 68 | 20 | 10 | 26 | 27 | 14 | 8 | 5 | 11 | 6 | 13 | 5 | 12 | 8 | 11 | 9 | 7 | 6 | 40 | 28 | 28 | 22 | 39 | 435 | 18 |
| 15 | D | 15 | 14 | 73 | 31 | 23 | 8 | 6 | 13 | 11 | 54 | 51 | 59 | 51 | 93 | 29 | 27 | 38 | 12 | 29 | 8 | 14 | 18 | 15 | 32 | 724 | 30 |
| 16 | D | 28 | 16 | 22 | 25 | 26 | 17 | 19 | 9 | 7 | 24 | 20 | 24 | 18 | 5 | 4 | 2 | 4 | 3 | 4 | 5 | 7 | 4 | 5 | 3 | 301 | 13 |
| 17 | | 6 | 5 | 7 | 17 | 11 | 3 | 8 | 3 | 4 | 7 | 4 | 4 | 9 | 15 | 11 | 2 | 6 | 4 | 3 | 4 | 3 | 7 | 5 | 7 | 155 | 6 |
| 18 | | 23 | 16 | 5 | 5 | 5 | 9 | 9 | 7 | 7 | 14 | 15 | 7 | 2 | 3 | 5 | 6 | 7 | 10 | 20 | 19 | 3 | 4 | 4 | 2 | 207 | 9 |
| 19 | | 3 | 3 | 1 | 2 | 4 | 6 | 3 | 3 | 2 | 3 | 8 | 11 | 3 | 8 | 13 | 7 | 6 | 7 | 2 | 8 | 7 | 2 | 4 | 2 | 118 | 5 |
| 20 | | 3 | 3 | 9 | 9 | 4 | 21 | 24 | 10 | 4 | 3 | 5 | 4 | 4 | 5 | 3 | 2 | 3 | 3 | 4 | 6 | 10 | 4 | 2 | 2 | 147 | 6 |
| 21 | | 4 | 8 | 10 | 8 | 10 | 5 | 18 | 8 | 2 | 6 | 12 | 23 | 15 | 13 | 13 | 11 | 7 | 4 | 4 | 3 | 6 | 10 | 5 | 7 | 212 | 9 |
| 22 | | 4 | 2 | 7 | 20 | 12 | 4 | 2 | 5 | 4 | 6 | 12 | 28 | 42 | 20 | 13 | 8 | 16 | 5 | 9 | 7 | 2 | 2 | 3 | 2 | 235 | 10 |
| 23 | | 2 | 3 | 5 | 12 | 10 | 7 | 2 | 20 | 13 | 7 | 5 | 12 | 15 | 19 | 9 | 13 | 7 | 9 | 4 | 9 | 4 | 4 | 2 | 2 | 195 | 8 |
| 24 | | 3 | 2 | 2 | 1 | 5 | 13 | 16 | 4 | 3 | 2 | 5 | 6 | 5 | 11 | 12 | 10 | 4 | 3 | 5 | 8 | 6 | 8 | 2 | 5 | 141 | 6 |
| 25 | | 30 | 16 | 6 | 16 | 4 | 4 | 4 | 2 | 1 | 2 | 3 | 1 | 2 | 5 | 2 | 1 | 2 | 3 | 4 | 3 | 5 | 3 | 3 | 2 | 124 | 5 |
| 26 | Q | 2 | 2 | 7 | 5 | 7 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 69 | 3 |
| 27 | Q | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 4 | 3 | 4 | 3 | 3 | 6 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 54 | 2 |
| 28 | | 2 | 2 | 1 | 2 | 2 | 11 | 15 | 5 | 7 | 9 | 15 | 6 | 2 | 10 | 7 | 8 | 12 | 5 | 2 | 2 | 2 | 1 | 2 | 2 | 132 | 6 |
| 29 | Q | 2 | 1 | 1 | 0 | 1 | 1 | 3 | 6 | 6 | 4 | 3 | 6 | 7 | 6 | 4 | 2 | 5 | 5 | 6 | 4 | 4 | 5 | 7 | 6 | 95 | 4 |
| 30 | | 3 | 4 | 3 | 2 | 7 | 9 | 8 | 2 | 8 | 13 | 4 | 4 | 8 | 7 | 5 | 5 | 16 | 4 | 2 | 6 | 4 | 2 | 2 | 6 | 134 | 6 |
| 31 | | 2 | 3 | 2 | 9 | 22 | 32 | 7 | 15 | 16 | 8 | 4 | 4 | 12 | 8 | 9 | 6 | 5 | 2 | 1 | 9 | 8 | 16 | 10 | 10 | 220 | 9 |
| SUMS | | 196 | 223 | 233 | 287 | 414 | 344 | 286 | 196 | 201 | 257 | 258 | 313 | 289 | 344 | 250 | 207 | 220 | 174 | 233 | 217 | 182 | 184 | 164 | 194 | 5866 | |
| MEANS | | 6 | 7 | 8 | 9 | 13 | 11 | 9 | 6 | 6 | 8 | 8 | 10 | 9 | 11 | 8 | 7 | 7 | 6 | 8 | 7 | 6 | 6 | 5 | 6 | 8 | |

HOURLY RANGES

TABLE 56 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

JUNE 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 9 | 13 | 23 | 14 | 16 | 16 | 10 | 4 | 1 | 7 | 7 | 5 | 4 | 6 | 8 | 3 | 1 | 2 | 4 | 12 | 8 | 6 | 6 | 7 | 192 | 8 |
| 2 | | 4 | 4 | 6 | 8 | 27 | 17 | 2 | 24 | 6 | 6 | 5 | 12 | 7 | 12 | 3 | 1 | 2 | 2 | 4 | 5 | 6 | 6 | 8 | 8 | 185 | 8 |
| 3 | | 7 | 5 | 8 | 5 | 6 | 6 | 2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 4 | 3 | 2 | 3 | 3 | 2 | 9 | 8 | 8 | 10 | 112 | 5 |
| 4 | | 7 | 11 | 4 | 12 | 4 | 5 | 5 | 31 | 24 | 7 | 5 | 14 | 11 | 13 | 14 | 4 | 3 | 4 | 1 | 7 | 4 | 4 | 5 | 4 | 203 | 8 |
| 5 | | 2 | 6 | 12 | 7 | 2 | 14 | 12 | 5 | 4 | 10 | 7 | 9 | 3 | 5 | 3 | 2 | 3 | 2 | 4 | 5 | 3 | 1 | 1 | 1 | 123 | 5 |
| 6 | Q | 3 | 1 | 3 | 4 | 4 | 10 | 10 | 3 | 4 | 2 | 4 | 2 | 4 | 4 | 1 | 3 | 4 | 1 | 3 | 4 | 5 | 5 | 4 | 8 | 96 | 4 |
| 7 | | 7 | 12 | 3 | 4 | 15 | 13 | 3 | 2 | 3 | 2 | 15 | 12 | 13 | 13 | 11 | 10 | 5 | 3 | 4 | 1 | 3 | 4 | 8 | 8 | 174 | 7 |
| 8 | | 4 | 10 | 4 | 5 | 4 | 23 | 31 | 19 | 13 | 7 | 8 | 9 | 5 | 12 | 9 | 7 | 4 | 9 | 11 | 10 | 25 | 12 | 13 | 19 | 273 | 11 |
| 9 | | 12 | 12 | 12 | 15 | 10 | 6 | 4 | 4 | 3 | 3 | 5 | 14 | 13 | 21 | 9 | 4 | 5 | 16 | 30 | 36 | 20 | 29 | 19 | 14 | 316 | 13 |
| 10 | | 16 | 15 | 13 | 16 | 6 | 3 | 30 | 20 | 24 | 21 | 5 | 7 | 23 | 22 | 10 | 4 | 5 | 7 | 8 | 6 | 2 | 4 | 2 | 4 | 273 | 11 |
| 11 | | 3 | 8 | 5 | 2 | 3 | 30 | 23 | 10 | 39 | 25 | 5 | 2 | 8 | 10 | 4 | 2 | 2 | 2 | 4 | 3 | 3 | 7 | 16 | 8 | 224 | 9 |
| 12 | D | 9 | 11 | 20 | 16 | 8 | 46 | 19 | 4 | 50 | 20 | 9 | 9 | 8 | 8 | 8 | 5 | 14 | 7 | 8 | 5 | 10 | 8 | 7 | 8 | 317 | 13 |
| 13 | D | 6 | 3 | 8 | 12 | 35 | 20 | 8 | 5 | 4 | 5 | 5 | 8 | 14 | 10 | 17 | 21 | 3 | 5 | 13 | 18 | 14 | 8 | 12 | 16 | 270 | 11 |
| 14 | D | 24 | 6 | 19 | 16 | 25 | 17 | 27 | 73 | 34 | 33 | 9 | 12 | 41 | 37 | 26 | 8 | 23 | 8 | 10 | 6 | 17 | 18 | 23 | 22 | 534 | 22 |
| 15 | | 6 | 12 | 15 | 7 | 15 | 1 | 3 | 3 | 22 | 7 | 4 | 23 | 21 | 16 | 37 | 11 | 8 | 10 | 9 | 11 | 10 | 2 | 2 | 4 | 259 | 11 |
| 16 | D | 3 | 14 | 8 | 4 | 14 | 11 | 23 | 23 | 45 | 36 | 12 | 9 | 8 | 12 | 24 | 22 | 11 | 10 | 9 | 6 | 5 | 19 | 23 | 18 | 369 | 15 |
| 17 | D | 10 | 51 | 56 | 22 | 5 | 6 | 61 | 45 | 12 | 5 | 26 | 12 | 13 | 4 | 6 | 16 | 13 | 8 | 8 | 8 | 6 | 2 | 4 | 6 | 405 | 17 |
| 18 | Q | 10 | 3 | 2 | 2 | 3 | 7 | 1 | 2 | 2 | 4 | 3 | 4 | 3 | 4 | 4 | 2 | 8 | 3 | 4 | 3 | 3 | 2 | 1 | 1 | 83 | 3 |
| 19 | | 1 | 1 | 1 | 5 | 2 | 2 | 4 | 7 | 28 | 8 | 25 | 8 | 7 | 6 | 8 | 6 | 6 | 4 | 4 | 5 | 5 | 5 | 10 | 5 | 163 | 7 |
| 20 | | 14 | 28 | 4 | 7 | 31 | 16 | 22 | 8 | 66 | 30 | 14 | 13 | 11 | 5 | 7 | 7 | 6 | 6 | 4 | 5 | 3 | 3 | 10 | 4 | 324 | 14 |
| 21 | | 6 | 5 | 4 | 2 | 11 | 31 | 23 | 16 | 6 | 6 | 27 | 11 | 14 | 14 | 17 | 6 | 3 | 3 | 3 | 1 | 2 | 3 | 2 | 7 | 223 | 9 |
| 22 | Q | 3 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 3 | 2 | 7 | 4 | 8 | 1 | 4 | 3 | 2 | 3 | 3 | 2 | 4 | 2 | 2 | 1 | 67 | 3 |
| 23 | | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 5 | 10 | 5 | 8 | 6 | 2 | 3 | 3 | 4 | 4 | 6 | 3 | 10 | 8 | 6 | 14 | 111 | 5 |
| 24 | | 7 | 8 | 41 | 41 | 9 | 31 | 37 | 11 | 12 | 11 | 5 | 7 | 12 | 7 | 12 | 10 | 6 | 4 | 8 | 4 | 3 | 15 | 8 | 12 | 321 | 13 |
| 25 | | 6 | 3 | 3 | 4 | 2 | 3 | 6 | 18 | 4 | 12 | 5 | 5 | 6 | 6 | 18 | 4 | 6 | 6 | 15 | 5 | 15 | 6 | 6 | 15 | 179 | 7 |
| 26 | | 14 | 16 | 4 | 2 | 6 | 4 | 12 | 4 | 5 | 5 | 14 | 16 | 12 | 18 | 29 | 14 | 9 | 4 | 2 | 7 | 6 | 6 | 3 | 5 | 217 | 9 |
| 27 | | 4 | 4 | 10 | 22 | 7 | 1 | 14 | 10 | 8 | 6 | 9 | 15 | 13 | 14 | 3 | 4 | 2 | 2 | 1 | 3 | 6 | 8 | 13 | 17 | 196 | 8 |
| 28 | Q | 4 | 3 | 6 | 1 | 1 | 1 | 2 | 1 | 4 | 5 | 6 | 3 | 4 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 6 | 3 | 4 | 2 | 70 | 3 |
| 29 | Q | 5 | 1 | 2 | 4 | 2 | 1 | 3 | 4 | 19 | 9 | 9 | 8 | 14 | 2 | 1 | 2 | 0 | 1 | 3 | 4 | 3 | 7 | 3 | 8 | 115 | 5 |
| 30 | | 4 | 4 | 2 | 5 | 1 | 20 | 15 | 9 | 12 | 8 | 4 | 3 | 3 | 5 | 5 | 2 | 2 | 2 | 3 | 5 | 3 | 4 | 4 | 3 | 128 | 5 |
| SUMS | | 211 | 273 | 300 | 267 | 279 | 366 | 415 | 371 | 464 | 314 | 267 | 267 | 314 | 295 | 308 | 192 | 158 | 148 | 190 | 195 | 219 | 216 | 234 | 259 | 6522 | |
| MEANS | | 7 | 9 | 10 | 9 | 9 | 12 | 14 | 12 | 15 | 10 | 9 | 9 | 10 | 10 | 10 | 6 | 5 | 5 | 6 | 7 | 7 | 7 | 8 | 9 | | 9 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 57 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

JUNE 1969

| HOUR UT DAY | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS | |
|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|----|
| | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | | |
| 1 | 5 | 7 | 22 | 12 | 12 | 13 | 8 | 2 | 2 | 4 | 2 | 1 | 2 | 2 | 4 | 5 | 2 | 4 | 3 | 4 | 4 | 2 | 1 | 1 | 124 | 5 | |
| 2 | 1 | 1 | 1 | 4 | 13 | 7 | 5 | 14 | 4 | 3 | 1 | 7 | 6 | 3 | 2 | 2 | 3 | 4 | 5 | 1 | 2 | 1 | 4 | 3 | 97 | 4 | |
| 3 | 5 | 6 | 2 | 5 | 4 | 4 | 2 | 2 | 4 | 2 | 4 | 3 | 2 | 1 | 2 | 4 | 3 | 5 | 4 | 2 | 4 | 2 | 8 | 10 | 90 | 4 | |
| 4 | 3 | 2 | 2 | 7 | 4 | 7 | 4 | 18 | 10 | 4 | 4 | 6 | 5 | 7 | 8 | 2 | 6 | 3 | 1 | 4 | 2 | 2 | 2 | 2 | 115 | 5 | |
| 5 | 2 | 6 | 17 | 2 | 2 | 14 | 10 | 3 | 4 | 8 | 10 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 1 | 1 | 108 | 5 | |
| 6 | Q | 1 | 1 | 2 | 5 | 6 | 9 | 10 | 4 | 2 | 4 | 3 | 4 | 1 | 2 | 1 | 4 | 3 | 2 | 2 | 1 | 3 | 2 | 5 | 78 | 3 | |
| 7 | | 7 | 2 | 5 | 3 | 15 | 11 | 4 | 2 | 2 | 5 | 6 | 6 | 9 | 8 | 4 | 6 | 3 | 2 | 4 | 2 | 3 | 2 | 1 | 114 | 5 | |
| 8 | | 7 | 10 | 6 | 4 | 5 | 17 | 19 | 9 | 6 | 10 | 9 | 6 | 5 | 5 | 3 | 6 | 13 | 8 | 8 | 11 | 12 | 4 | 4 | 192 | 8 | |
| 9 | | 6 | 4 | 9 | 13 | 10 | 10 | 5 | 2 | 4 | 2 | 4 | 13 | 9 | 13 | 6 | 5 | 9 | 19 | 16 | 17 | 17 | 10 | 12 | 220 | 9 | |
| 10 | | 7 | 9 | 11 | 6 | 7 | 3 | 12 | 9 | 14 | 10 | 8 | 4 | 5 | 10 | 6 | 4 | 5 | 6 | 4 | 3 | 1 | 2 | 1 | 148 | 6 | |
| 11 | | 2 | 4 | 3 | 3 | 3 | 17 | 9 | 4 | 21 | 8 | 3 | 1 | 3 | 4 | 2 | 3 | 1 | 3 | 8 | 2 | 1 | 2 | 5 | 5 | 117 | 5 |
| 12 | D | 4 | 12 | 14 | 14 | 8 | 10 | 8 | 5 | 14 | 32 | 15 | 6 | 4 | 3 | 6 | 4 | 9 | 8 | 8 | 4 | 8 | 7 | 4 | 2 | 209 | 9 |
| 13 | D | 4 | 4 | 6 | 11 | 16 | 14 | 4 | 4 | 2 | 5 | 5 | 2 | 4 | 8 | 10 | 12 | 4 | 4 | 16 | 10 | 11 | 7 | 7 | 7 | 177 | 7 |
| 14 | D | 13 | 5 | 8 | 22 | 10 | 13 | 9 | 35 | 25 | 15 | 4 | 5 | 13 | 26 | 14 | 8 | 15 | 4 | 3 | 3 | 9 | 12 | 10 | 5 | 286 | 12 |
| 15 | | 1 | 2 | 4 | 5 | 17 | 1 | 4 | 1 | 9 | 3 | 4 | 8 | 12 | 10 | 10 | 6 | 3 | 8 | 7 | 6 | 8 | 4 | 2 | 2 | 137 | 6 |
| 16 | D | 2 | 3 | 4 | 4 | 9 | 11 | 18 | 5 | 18 | 23 | 8 | 8 | 5 | 8 | 14 | 11 | 9 | 9 | 10 | 7 | 5 | 8 | 8 | 7 | 214 | 9 |
| 17 | D | 8 | 48 | 47 | 20 | 8 | 2 | 21 | 27 | 8 | 7 | 11 | 11 | 5 | 2 | 5 | 8 | 6 | 6 | 9 | 14 | 5 | 2 | 2 | 3 | 285 | 12 |
| 18 | Q | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 4 | 4 | 2 | 2 | 4 | 2 | 1 | 52 | 2 |
| 19 | | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 5 | 12 | 13 | 8 | 5 | 5 | 3 | 3 | 4 | 4 | 2 | 2 | 5 | 4 | 5 | 5 | 1 | 96 | 4 |
| 20 | | 4 | 21 | 7 | 4 | 33 | 17 | 8 | 5 | 32 | 13 | 18 | 19 | 16 | 4 | 5 | 3 | 1 | 4 | 3 | 4 | 2 | 2 | 4 | 2 | 231 | 10 |
| 21 | | 3 | 4 | 3 | 1 | 6 | 21 | 28 | 8 | 4 | 4 | 9 | 23 | 17 | 10 | 3 | 6 | 3 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 166 | 7 |
| 22 | Q | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 5 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 38 | 2 |
| 23 | | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 6 | 3 | 3 | 1 | 2 | 3 | 3 | 4 | 4 | 4 | 2 | 5 | 8 | 13 | 9 | 80 | 3 |
| 24 | | 8 | 8 | 33 | 45 | 9 | 29 | 25 | 6 | 7 | 4 | 6 | 4 | 6 | 4 | 6 | 8 | 4 | 4 | 9 | 4 | 2 | 4 | 6 | 7 | 248 | 10 |
| 25 | | 2 | 1 | 2 | 2 | 2 | 3 | 3 | 13 | 6 | 6 | 3 | 3 | 5 | 5 | 8 | 3 | 4 | 7 | 15 | 9 | 8 | 5 | 6 | 8 | 129 | 5 |
| 26 | | 6 | 8 | 2 | 4 | 4 | 3 | 7 | 6 | 2 | 2 | 5 | 5 | 3 | 8 | 16 | 4 | 5 | 3 | 1 | 2 | 2 | 3 | 2 | 1 | 104 | 4 |
| 27 | | 3 | 1 | 5 | 14 | 5 | 1 | 7 | 6 | 8 | 2 | 2 | 8 | 15 | 7 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 3 | 4 | 3 | 106 | 4 |
| 28 | Q | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 40 | 2 |
| 29 | Q | 1 | 0 | 1 | 3 | 3 | 2 | 2 | 2 | 8 | 4 | 4 | 5 | 5 | 3 | 2 | 2 | 4 | 5 | 3 | 2 | 2 | 3 | 1 | 4 | 71 | 3 |
| 30 | | 1 | 2 | 1 | 4 | 2 | 9 | 12 | 4 | 6 | 4 | 2 | 1 | 1 | 2 | 2 | 4 | 2 | 5 | 2 | 4 | 2 | 2 | 2 | 2 | 78 | 3 |
| SUMS | | 112 | 177 | 223 | 223 | 219 | 256 | 253 | 207 | 239 | 207 | 168 | 180 | 172 | 167 | 154 | 133 | 125 | 142 | 166 | 133 | 131 | 129 | 122 | 112 | 4150 | |
| MEANS | | 4 | 6 | 7 | 7 | 7 | 9 | 8 | 7 | 8 | 7 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 5 | 6 | 4 | 4 | 4 | 4 | 4 | | 6 |

HOURLY RANGES

TABLE 58 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

JULY 1969

| DAY | HR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 2 | 4 | 4 | 3 | 14 | 9 | 13 | 32 | 15 | 4 | 7 | 15 | 16 | 14 | 13 | 11 | 8 | 6 | 10 | 14 | 15 | 10 | 9 | 6 | 254 | 11 |
| 2 | | 6 | 9 | 9 | 13 | 16 | 11 | 7 | 14 | 6 | 6 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 7 | 3 | 6 | 141 | 6 |
| 3 | | 4 | 4 | 3 | 5 | 4 | 4 | 4 | 3 | 3 | 1 | 2 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 3 | 4 | 67 | 3 |
| 4 | Q | 2 | 3 | 1 | 2 | 2 | 1 | 1 | 7 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 5 | 5 | 5 | 53 | 2 |
| 5 | Q | 2 | 1 | 3 | 4 | 6 | 4 | 10 | 9 | 2 | 2 | 5 | 11 | 4 | 6 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 84 | 4 |
| 6 | | 3 | 2 | 2 | 1 | 2 | 3 | 1 | 6 | 8 | 6 | 2 | 2 | 6 | 4 | 3 | 4 | 6 | 2 | 3 | 1 | 1 | 1 | 2 | 3 | 74 | 3 |
| 7 | | 2 | 1 | 3 | 1 | 4 | 8 | 3 | 2 | 1 | 6 | 9 | 5 | 13 | 4 | 3 | 3 | 5 | 3 | 3 | 2 | 6 | 8 | 7 | 4 | 106 | 4 |
| 8 | | 4 | 5 | 3 | 1 | 2 | 7 | 6 | 1 | 4 | 3 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 3 | 4 | 6 | 5 | 5 | 7 | 9 | 95 | 4 |
| 9 | | 7 | 10 | 10 | 10 | 13 | 12 | 3 | 18 | 13 | 4 | 7 | 5 | 10 | 4 | 11 | 3 | 4 | 2 | 4 | 18 | 11 | 3 | 2 | 7 | 191 | 8 |
| 10 | | 11 | 6 | 11 | 11 | 13 | 2 | 2 | 2 | 3 | 26 | 9 | 5 | 5 | 4 | 9 | 17 | 4 | 2 | 2 | 5 | 3 | 8 | 12 | 6 | 178 | 7 |
| 11 | | 8 | 4 | 3 | 8 | 6 | 1 | 2 | 7 | 21 | 6 | 4 | 2 | 2 | 5 | 3 | 1 | 3 | 5 | 6 | 6 | 10 | 7 | 9 | 4 | 133 | 6 |
| 12 | | 17 | 6 | 10 | 14 | 10 | 13 | 14 | 3 | 22 | 11 | 9 | 3 | 7 | 7 | 9 | 1 | 4 | 5 | 5 | 10 | 7 | 28 | 24 | 12 | 251 | 10 |
| 13 | D | 5 | 11 | 20 | 5 | 3 | 20 | 17 | 4 | 23 | 16 | 23 | 21 | 8 | 7 | 9 | 4 | 3 | 10 | 12 | 7 | 21 | 15 | 5 | 6 | 275 | 11 |
| 14 | D | 5 | 10 | 8 | 17 | 32 | 6 | 6 | 21 | 25 | 23 | 14 | 19 | 24 | 38 | 8 | 9 | 6 | 6 | 9 | 12 | 11 | 8 | 4 | 6 | 327 | 14 |
| 15 | | 3 | 3 | 4 | 5 | 3 | 4 | 2 | 2 | 12 | 7 | 11 | 6 | 14 | 6 | 6 | 4 | 2 | 4 | 3 | 4 | 3 | 6 | 5 | 5 | 124 | 5 |
| 16 | | 5 | 2 | 5 | 18 | 11 | 6 | 8 | 4 | 5 | 5 | 46 | 38 | 3 | 13 | 4 | 7 | 9 | 8 | 4 | 3 | 4 | 12 | 10 | 3 | 233 | 10 |
| 17 | | 8 | 7 | 7 | 3 | 6 | 25 | 10 | 6 | 4 | 5 | 3 | 3 | 3 | 4 | 5 | 5 | 2 | 5 | 3 | 3 | 4 | 3 | 6 | 3 | 133 | 6 |
| 18 | | 1 | 2 | 1 | 1 | 1 | 1 | 8 | 13 | 11 | 7 | 10 | 23 | 11 | 4 | 15 | 3 | 3 | 2 | 2 | 2 | 5 | 7 | 3 | 2 | 138 | 6 |
| 19 | Q | 2 | 2 | 2 | 1 | 2 | 19 | 11 | 25 | 10 | 13 | 14 | 6 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 2 | 3 | 1 | 129 | 5 |
| 20 | Q | 1 | 1 | 3 | 2 | 8 | 9 | 11 | 11 | 7 | 6 | 2 | 3 | 3 | 5 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 95 | 4 |
| 21 | | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 5 | 5 | 4 | 5 | 4 | 3 | 12 | 5 | 6 | 4 | 12 | 6 | 99 | 4 |
| 22 | | 7 | 7 | 8 | 7 | 2 | 13 | 23 | 13 | 7 | 5 | 7 | 5 | 2 | 4 | 4 | 9 | 2 | 4 | 3 | 4 | 5 | 6 | 5 | 4 | 156 | 7 |
| 23 | | 12 | 3 | 2 | 4 | 2 | 2 | 1 | 1 | 1 | 2 | 10 | 6 | 4 | 3 | 2 | 2 | 5 | 6 | 7 | 5 | 4 | 6 | 8 | 5 | 103 | 4 |
| 24 | | 12 | 5 | 1 | 1 | 1 | 15 | 12 | 13 | 10 | 4 | 2 | 3 | 2 | 5 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 4 | 2 | 2 | 116 | 5 |
| 25 | | 3 | 5 | 9 | 13 | 15 | 5 | 20 | 9 | 5 | 4 | 1 | 3 | 2 | 3 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | 4 | 4 | 1 | 120 | 5 |
| 26 | D | 5 | 2 | 15 | 29 | 8 | 11 | 7 | 2 | 2 | 2 | 4 | 17 | 10 | 21 | 38 | 21 | 4 | 3 | 3 | 4 | 11 | 9 | 7 | 19 | 254 | 11 |
| 27 | D | 58 | 34 | 5 | 38 | 24 | 23 | 36 | 38 | 28 | 16 | 17 | 7 | 9 | 19 | 8 | 5 | 8 | 6 | 8 | 12 | 10 | 8 | 7 | 7 | 431 | 18 |
| 28 | | 4 | 3 | 5 | 5 | 7 | 15 | 18 | 27 | 14 | 8 | 3 | 5 | 1 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 138 | 6 |
| 29 | Q | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 13 | 4 | 3 | 5 | 3 | 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 64 | 3 |
| 30 | | 7 | 7 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 4 | 6 | 4 | 6 | 8 | 6 | 9 | 14 | 15 | 13 | 2 | 10 | 13 | 147 | 6 |
| 31 | | 8 | 5 | 4 | 4 | 7 | 6 | 4 | 2 | 2 | 3 | 8 | 6 | 7 | 6 | 7 | 9 | 6 | 7 | 2 | 3 | 5 | 3 | 6 | 4 | 124 | 5 |
| SUMS | | 220 | 169 | 167 | 233 | 229 | 261 | 266 | 312 | 272 | 211 | 249 | 239 | 195 | 208 | 189 | 149 | 114 | 123 | 144 | 160 | 185 | 188 | 190 | 160 | 4833 | |
| MEANS | | 7 | 5 | 5 | 8 | 7 | 8 | 9 | 10 | 9 | 7 | 8 | 8 | 6 | 7 | 6 | 5 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 5 | 6 | |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 59 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

JULY 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 2 | 2 | 3 | 4 | 8 | 6 | 7 | 13 | 9 | 5 | 4 | 3 | 8 | 4 | 8 | 7 | 5 | 4 | 6 | 7 | 8 | 3 | 6 | 3 | 135 | 6 |
| 2 | | 8 | 5 | 3 | 4 | 10 | 12 | 12 | 11 | 1 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 93 | 4 |
| 3 | | 1 | 2 | 3 | 5 | 2 | 4 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 2 | 2 | 3 | 56 | 2 |
| 4 | Q | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 2 | 2 | 1 | 4 | 2 | 1 | 1 | 3 | 1 | 36 | 2 |
| 5 | Q | 1 | 1 | 1 | 1 | 4 | 3 | 9 | 6 | 2 | 2 | 4 | 4 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | 0 | 0 | 1 | 2 | 54 | 2 |
| 6 | | 1 | 1 | 1 | 0 | 3 | 2 | 2 | 6 | 6 | 5 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 1 | 1 | 0 | 2 | 2 | 62 | 3 |
| 7 | | 1 | 1 | 3 | 2 | 7 | 7 | 3 | 1 | 2 | 3 | 4 | 4 | 4 | 3 | 5 | 4 | 8 | 6 | 3 | 2 | 4 | 3 | 4 | 4 | 88 | 4 |
| 8 | | 2 | 2 | 2 | 4 | 3 | 6 | 5 | 3 | 4 | 2 | 2 | 3 | 3 | 2 | 1 | 5 | 3 | 4 | 7 | 4 | 2 | 2 | 6 | 6 | 83 | 3 |
| 9 | | 5 | 6 | 9 | 7 | 14 | 8 | 4 | 8 | 10 | 3 | 5 | 4 | 8 | 4 | 5 | 2 | 7 | 6 | 2 | 6 | 7 | 3 | 2 | 3 | 138 | 6 |
| 10 | | 4 | 5 | 8 | 9 | 9 | 5 | 4 | 2 | 3 | 4 | 5 | 6 | 4 | 3 | 6 | 8 | 4 | 3 | 3 | 4 | 2 | 2 | 5 | 3 | 111 | 5 |
| 11 | | 6 | 2 | 2 | 5 | 2 | 2 | 1 | 2 | 17 | 2 | 2 | 3 | 1 | 3 | 2 | 1 | 3 | 5 | 2 | 4 | 8 | 2 | 3 | 4 | 84 | 4 |
| 12 | | 12 | 12 | 8 | 11 | 10 | 15 | 11 | 4 | 13 | 5 | 6 | 3 | 2 | 1 | 4 | 2 | 3 | 4 | 2 | 6 | 4 | 20 | 12 | 10 | 180 | 8 |
| 13 | D | 1 | 1 | 5 | 8 | 3 | 11 | 14 | 3 | 13 | 11 | 7 | 10 | 5 | 4 | 5 | 2 | 3 | 7 | 12 | 6 | 9 | 7 | 4 | 4 | 155 | 6 |
| 14 | D | 3 | 5 | 3 | 12 | 30 | 4 | 5 | 8 | 25 | 16 | 8 | 6 | 14 | 10 | 5 | 9 | 5 | 7 | 8 | 6 | 7 | 2 | 1 | 1 | 200 | 8 |
| 15 | | 2 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 7 | 3 | 4 | 2 | 4 | 5 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 2 | 2 | 66 | 3 |
| 16 | | 2 | 2 | 6 | 12 | 10 | 4 | 6 | 2 | 2 | 5 | 15 | 11 | 8 | 4 | 4 | 4 | 7 | 7 | 8 | 5 | 4 | 3 | 2 | 2 | 135 | 6 |
| 17 | | 2 | 4 | 4 | 3 | 6 | 12 | 8 | 2 | 4 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 5 | 4 | 4 | 2 | 1 | 3 | 1 | 85 | 4 |
| 18 | | 1 | 1 | 0 | 0 | 0 | 1 | 3 | 10 | 8 | 11 | 7 | 17 | 6 | 4 | 7 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 94 | 4 |
| 19 | Q | 1 | 1 | 1 | 1 | 1 | 13 | 15 | 8 | 8 | 6 | 6 | 3 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 77 | 3 |
| 20 | Q | 1 | 1 | 1 | 3 | 2 | 7 | 7 | 2 | 1 | 1 | 1 | 3 | 4 | 4 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 59 | 2 |
| 21 | | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 2 | 2 | 1 | 3 | 3 | 3 | 6 | 5 | 7 | 5 | 4 | 2 | 2 | 6 | 4 | 66 | 3 |
| 22 | | 9 | 6 | 3 | 2 | 4 | 5 | 15 | 8 | 8 | 1 | 6 | 3 | 2 | 2 | 6 | 5 | 2 | 3 | 2 | 2 | 3 | 3 | 5 | 5 | 110 | 5 |
| 23 | | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 | 2 | 3 | 5 | 5 | 4 | 5 | 2 | 3 | 3 | 4 | 58 | 2 |
| 24 | | 4 | 1 | 1 | 0 | 1 | 9 | 9 | 13 | 6 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 70 | 3 |
| 25 | | 1 | 1 | 10 | 7 | 8 | 6 | 13 | 7 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 1 | 2 | 3 | 2 | 1 | 0 | 2 | 3 | 1 | 86 | 4 |
| 26 | D | 1 | 2 | 14 | 25 | 9 | 11 | 6 | 2 | 1 | 1 | 3 | 10 | 9 | 7 | 18 | 7 | 3 | 3 | 2 | 3 | 3 | 5 | 4 | 12 | 161 | 7 |
| 27 | D | 25 | 19 | 14 | 21 | 30 | 20 | 10 | 62 | 29 | 11 | 13 | 10 | 8 | 8 | 5 | 4 | 8 | 5 | 9 | 5 | 9 | 2 | 2 | 2 | 331 | 14 |
| 28 | | 3 | 5 | 4 | 3 | 6 | 9 | 13 | 7 | 7 | 6 | 3 | 1 | 1 | 0 | 2 | 1 | 3 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 84 | 4 |
| 29 | Q | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 10 | 2 | 3 | 2 | 1 | 1 | 0 | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 42 | 2 |
| 30 | | 4 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 4 | 9 | 12 | 19 | 26 | 17 | 9 | 2 | 3 | 6 | 139 | 6 |
| 31 | | 2 | 3 | 2 | 3 | 5 | 4 | 6 | 1 | 2 | 2 | 4 | 4 | 3 | 2 | 4 | 7 | 4 | 3 | 4 | 4 | 4 | 2 | 2 | 2 | 79 | 3 |
| SUMS | | 111 | 100 | 121 | 160 | 192 | 194 | 199 | 213 | 195 | 131 | 132 | 131 | 115 | 92 | 122 | 113 | 121 | 130 | 139 | 117 | 108 | 90 | 96 | 95 | 3217 | |
| MEANS | | 4 | 3 | 4 | 5 | 6 | 6 | 6 | 7 | 6 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | | 4 |

HOURLY RANGES

TABLE 60 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

AUGUST 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 6 | 1 | 1 | 1 | 2 | 6 | 14 | 5 | 3 | 1 | 5 | 5 | 11 | 8 | 7 | 2 | 1 | 3 | 2 | 2 | 1 | 4 | 1 | 2 | 94 | 4 |
| 2 | | 2 | 2 | 1 | 1 | 1 | 4 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 4 | 2 | 6 | 4 | 4 | 4 | 6 | 4 | 3 | 72 | 3 |
| 3 | D | 2 | 4 | 6 | 6 | 2 | 1 | 2 | 1 | 1 | 16 | 10 | 18 | 7 | 11 | 4 | 5 | 4 | 7 | 7 | 11 | 11 | 15 | 12 | 9 | 172 | 7 |
| 4 | | 13 | 12 | 8 | 6 | 12 | 28 | 14 | 3 | 3 | 28 | 14 | 29 | 10 | 7 | 14 | 5 | 5 | 8 | 4 | 6 | 6 | 4 | 3 | 3 | 245 | 10 |
| 5 | | 5 | 4 | 6 | 29 | 14 | 33 | 5 | 4 | 1 | 3 | 12 | 4 | 22 | 12 | 9 | 5 | 6 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 190 | 8 |
| 6 | | 7 | 6 | 12 | 4 | 7 | 36 | 12 | 7 | 7 | 4 | 5 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 4 | 139 | 6 |
| 7 | | 3 | 2 | 3 | 6 | 4 | 27 | 31 | 29 | 33 | 8 | 6 | 7 | 3 | 8 | 4 | 3 | 1 | 1 | 2 | 3 | 12 | 6 | 9 | 14 | 225 | 9 |
| 8 | | 5 | 7 | 10 | 1 | 3 | 2 | 3 | 14 | 25 | 15 | 11 | 35 | 16 | 19 | 17 | 7 | 8 | 6 | 5 | 3 | 3 | 11 | 2 | 12 | 240 | 10 |
| 9 | | 6 | 6 | 16 | 9 | 8 | 2 | 3 | 16 | 19 | 7 | 9 | 15 | 21 | 16 | 16 | 6 | 9 | 8 | 6 | 2 | 6 | 8 | 8 | 6 | 228 | 10 |
| 10 | | 3 | 1 | 11 | 14 | 12 | 21 | 11 | 20 | 16 | 29 | 16 | 9 | 8 | 9 | 8 | 14 | 3 | 5 | 2 | 1 | 2 | 2 | 2 | 1 | 220 | 9 |
| 11 | Q | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 3 | 4 | 4 | 4 | 2 | 3 | 3 | 6 | 5 | 2 | 5 | 5 | 2 | 6 | 62 | 3 |
| 12 | D | 10 | 12 | 9 | 14 | 7 | 38 | 10 | 6 | 38 | 25 | 11 | 79 | 46 | 20 | 9 | 13 | 10 | 9 | 15 | 6 | 2 | 7 | 7 | 11 | 414 | 17 |
| 13 | | 6 | 6 | 3 | 9 | 5 | 18 | 22 | 5 | 30 | 14 | 10 | 11 | 5 | 7 | 3 | 6 | 5 | 2 | 4 | 5 | 6 | 5 | 7 | 3 | 197 | 8 |
| 14 | | 1 | 3 | 2 | 3 | 10 | 9 | 5 | 27 | 11 | 10 | 14 | 9 | 8 | 15 | 17 | 5 | 5 | 2 | 4 | 3 | 4 | 2 | 2 | 0 | 171 | 7 |
| 15 | | 0 | 1 | 2 | 1 | 0 | 9 | 13 | 6 | 7 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 10 | 6 | 2 | 82 | 3 |
| 16 | | 2 | 2 | 0 | 0 | 1 | 1 | 4 | 8 | 4 | 4 | 18 | 11 | 7 | 2 | 2 | 3 | 7 | 4 | 3 | 4 | 5 | 9 | 9 | 4 | 114 | 5 |
| 17 | | 6 | 17 | 20 | 21 | 19 | 5 | 23 | 9 | 6 | 8 | 5 | 3 | 4 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 4 | 6 | 2 | 173 | 7 |
| 18 | | 3 | 7 | 9 | 5 | 3 | 1 | 1 | 1 | 2 | 5 | 8 | 3 | 5 | 7 | 17 | 17 | 5 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 116 | 5 |
| 19 | D | 9 | 9 | 4 | 2 | 2 | 41 | 30 | 17 | 2 | 16 | 9 | 17 | 16 | 18 | 7 | 3 | 3 | 15 | 4 | 8 | 5 | 12 | 8 | 6 | 263 | 11 |
| 20 | | 4 | 3 | 18 | 42 | 17 | 18 | 31 | 22 | 23 | 13 | 11 | 4 | 6 | 8 | 13 | 2 | 1 | 2 | 2 | 6 | 4 | 3 | 6 | 7 | 266 | 11 |
| 21 | | 3 | 8 | 4 | 37 | 24 | 16 | 6 | 2 | 2 | 1 | 1 | 3 | 6 | 7 | 5 | 6 | 3 | 2 | 7 | 4 | 1 | 2 | 2 | 9 | 161 | 7 |
| 22 | | 6 | 4 | 2 | 1 | 1 | 0 | 0 | 1 | 2 | 3 | 4 | 7 | 9 | 7 | 4 | 3 | 3 | 2 | 3 | 5 | 14 | 5 | 1 | 10 | 97 | 4 |
| 23 | | 15 | 6 | 2 | 5 | 7 | 6 | 2 | 2 | 14 | 8 | 7 | 22 | 15 | 21 | 16 | 17 | 7 | 7 | 3 | 7 | 10 | 8 | 5 | 12 | 224 | 9 |
| 24 | | 8 | 4 | 8 | 14 | 13 | 3 | 1 | 1 | 1 | 9 | 14 | 6 | 9 | 13 | 5 | 2 | 2 | 2 | 3 | 4 | 6 | 4 | 6 | 5 | 143 | 6 |
| 25 | Q | 7 | 10 | 11 | 4 | 3 | 6 | 5 | 4 | 6 | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 78 | 3 |
| 26 | D | 1 | 2 | 1 | 1 | 2 | 1 | 10 | 12 | 10 | 15 | 36 | 18 | 30 | 15 | 17 | 4 | 4 | 3 | 3 | 3 | 4 | 8 | 6 | 12 | 218 | 9 |
| 27 | D | 24 | 26 | 21 | 16 | 50 | 17 | 4 | 4 | 3 | 47 | 42 | 8 | 9 | 4 | 7 | 6 | 5 | 5 | 7 | 5 | 5 | 14 | 8 | 5 | 342 | 14 |
| 28 | | 9 | 6 | 17 | 7 | 26 | 26 | 26 | 8 | 6 | 7 | 10 | 4 | 4 | 10 | 4 | 2 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 201 | 8 |
| 29 | Q | 2 | 2 | 3 | 2 | 1 | 1 | 7 | 5 | 4 | 2 | 2 | 2 | 5 | 4 | 2 | 4 | 2 | 2 | 4 | 2 | 1 | 2 | 2 | 2 | 65 | 3 |
| 30 | Q | 1 | 1 | 1 | 1 | 1 | 1 | 16 | 9 | 5 | 3 | 2 | 6 | 2 | 11 | 4 | 3 | 1 | 1 | 3 | 2 | 5 | 3 | 1 | 1 | 84 | 4 |
| 31 | | 1 | 4 | 2 | 1 | 1 | 2 | 8 | 43 | 19 | 8 | 7 | 5 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 5 | 6 | 2 | 6 | 4 | 143 | 6 |
| SUMS | | 171 | 179 | 214 | 263 | 259 | 380 | 323 | 294 | 306 | 318 | 307 | 355 | 303 | 276 | 230 | 156 | 114 | 121 | 126 | 119 | 144 | 173 | 143 | 165 | 5439 | |
| MEANS | | 6 | 6 | 7 | 8 | 8 | 12 | 10 | 9 | 10 | 10 | 10 | 11 | 10 | 9 | 7 | 5 | 4 | 4 | 4 | 4 | 5 | 6 | 5 | 5 | | 7 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 61 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

AUGUST 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 1 | 1 | 1 | 1 | 0 | 3 | 10 | 5 | 2 | 1 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 1 | 1 | 2 | 1 | 56 | 2 |
| 2 | | 0 | 1 | 1 | 1 | 0 | 3 | 3 | 0 | 0 | 1 | 3 | 1 | 2 | 2 | 3 | 5 | 4 | 4 | 6 | 3 | 3 | 9 | 4 | 1 | 60 | 3 |
| 3 | D | 1 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 7 | 4 | 6 | 5 | 4 | 6 | 5 | 6 | 10 | 12 | 10 | 9 | 8 | 14 | 15 | 140 | 6 |
| 4 | | 9 | 12 | 11 | 2 | 4 | 29 | 13 | 2 | 2 | 7 | 22 | 26 | 6 | 4 | 5 | 7 | 6 | 7 | 2 | 4 | 3 | 4 | 2 | 1 | 190 | 8 |
| 5 | | 2 | 2 | 4 | 21 | 16 | 14 | 10 | 3 | 2 | 3 | 3 | 4 | 8 | 3 | 3 | 4 | 7 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 122 | 5 |
| 6 | | 1 | 3 | 11 | 7 | 4 | 16 | 13 | 4 | 4 | 1 | 1 | 5 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 1 | 85 | 4 |
| 7 | | 1 | 1 | 1 | 1 | 2 | 18 | 15 | 19 | 17 | 2 | 2 | 3 | 2 | 5 | 4 | 2 | 2 | 2 | 4 | 7 | 5 | 5 | 4 | 4 | 128 | 5 |
| 8 | | 2 | 6 | 2 | 1 | 1 | 1 | 1 | 10 | 12 | 6 | 3 | 11 | 20 | 11 | 8 | 3 | 4 | 4 | 5 | 2 | 3 | 6 | 1 | 4 | 127 | 5 |
| 9 | | 2 | 4 | 10 | 15 | 6 | 2 | 1 | 4 | 12 | 2 | 3 | 5 | 9 | 6 | 8 | 3 | 5 | 5 | 5 | 2 | 4 | 2 | 3 | 3 | 121 | 5 |
| 10 | | 3 | 2 | 7 | 11 | 13 | 20 | 13 | 15 | 7 | 15 | 6 | 6 | 7 | 12 | 9 | 5 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 158 | 7 |
| 11 | Q | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 3 | 2 | 1 | 5 | 1 | 3 | 7 | 2 | 4 | 2 | 0 | 2 | 37 | 2 |
| 12 | D | 2 | 9 | 17 | 11 | 12 | 25 | 15 | 6 | 21 | 10 | 5 | 25 | 16 | 14 | 6 | 10 | 14 | 7 | 8 | 2 | 1 | 3 | 2 | 5 | 246 | 10 |
| 13 | | 3 | 3 | 3 | 3 | 4 | 12 | 8 | 3 | 12 | 12 | 5 | 5 | 2 | 5 | 3 | 2 | 3 | 2 | 4 | 2 | 5 | 3 | 4 | 1 | 109 | 5 |
| 14 | | 1 | 2 | 1 | 2 | 11 | 10 | 7 | 26 | 6 | 5 | 7 | 6 | 8 | 8 | 4 | 4 | 4 | 4 | 5 | 2 | 2 | 1 | 0 | 0 | 126 | 5 |
| 15 | | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 6 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 4 | 1 | 1 | 48 | 2 |
| 16 | | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 4 | 1 | 3 | 9 | 6 | 2 | 2 | 1 | 3 | 4 | 2 | 1 | 3 | 3 | 3 | 1 | 1 | 55 | 2 |
| 17 | | 1 | 8 | 17 | 13 | 13 | 7 | 16 | 8 | 4 | 9 | 4 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 119 | 5 |
| 18 | | 1 | 2 | 12 | 3 | 1 | 1 | 0 | 1 | 1 | 3 | 2 | 3 | 2 | 1 | 7 | 6 | 6 | 2 | 2 | 1 | 2 | 2 | 2 | 0 | 63 | 3 |
| 19 | D | 2 | 4 | 4 | 3 | 3 | 13 | 14 | 6 | 4 | 5 | 8 | 20 | 16 | 16 | 6 | 3 | 7 | 9 | 6 | 8 | 4 | 13 | 7 | 5 | 186 | 8 |
| 20 | | 2 | 1 | 6 | 17 | 12 | 12 | 13 | 18 | 14 | 5 | 6 | 4 | 2 | 3 | 7 | 2 | 5 | 1 | 1 | 4 | 3 | 2 | 4 | 5 | 149 | 6 |
| 21 | | 2 | 3 | 4 | 20 | 12 | 13 | 4 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 5 | 5 | 1 | 1 | 1 | 3 | 96 | 4 |
| 22 | | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 5 | 4 | 3 | 3 | 4 | 5 | 4 | 2 | 2 | 5 | 4 | 1 | 1 | 53 | 2 |
| 23 | | 4 | 4 | 2 | 5 | 3 | 7 | 2 | 2 | 7 | 6 | 5 | 17 | 16 | 13 | 10 | 6 | 5 | 4 | 3 | 4 | 9 | 3 | 1 | 3 | 141 | 6 |
| 24 | | 3 | 3 | 3 | 15 | 7 | 5 | 2 | 0 | 2 | 3 | 4 | 10 | 5 | 6 | 5 | 1 | 4 | 5 | 3 | 5 | 7 | 1 | 2 | 6 | 107 | 4 |
| 25 | Q | 5 | 10 | 6 | 3 | 2 | 5 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 49 | 2 |
| 26 | D | 0 | 1 | 1 | 1 | 2 | 1 | 6 | 9 | 3 | 4 | 18 | 20 | 22 | 8 | 10 | 4 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 6 | 134 | 6 |
| 27 | D | 25 | 13 | 19 | 9 | 23 | 6 | 5 | 3 | 5 | 17 | 24 | 4 | 6 | 4 | 8 | 4 | 8 | 6 | 4 | 2 | 2 | 3 | 2 | 2 | 204 | 9 |
| 28 | | 3 | 4 | 6 | 5 | 19 | 17 | 11 | 10 | 3 | 3 | 2 | 1 | 1 | 4 | 2 | 2 | 3 | 2 | 5 | 3 | 2 | 2 | 2 | 1 | 113 | 5 |
| 29 | Q | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 3 | 3 | 2 | 1 | 0 | 1 | 1 | 1 | 39 | 2 |
| 30 | Q | 1 | 0 | 0 | 1 | 1 | 2 | 11 | 11 | 4 | 1 | 2 | 3 | 1 | 5 | 3 | 2 | 2 | 3 | 1 | 2 | 2 | 0 | 1 | 1 | 60 | 3 |
| 31 | | 1 | 1 | 0 | 0 | 1 | 2 | 4 | 16 | 7 | 5 | 2 | 3 | 1 | 2 | 1 | 1 | 3 | 5 | 3 | 2 | 1 | 2 | 3 | 4 | 70 | 3 |
| SUMS | | 82 | 106 | 154 | 175 | 179 | 251 | 211 | 198 | 159 | 141 | 162 | 212 | 179 | 153 | 133 | 111 | 126 | 116 | 113 | 90 | 90 | 94 | 73 | 83 | 3391 | |
| MEANS | | 3 | 3 | 5 | 6 | 6 | 8 | 7 | 6 | 5 | 5 | 5 | 7 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | | 5 |

HOURLY RANGES

TABLE 62 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

SEPTEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 12 | 3 | 3 | 4 | 2 | 6 | 2 | 2 | 6 | 4 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 2 | 1 | 2 | 2 | 69 | 3 |
| 2 | Q | 1 | 2 | 2 | 1 | 4 | 4 | 6 | 10 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 54 | 2 |
| 3 | | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 6 | 11 | 6 | 4 | 2 | 1 | 1 | 3 | 3 | 1 | 4 | 2 | 4 | 5 | 61 | 3 |
| 4 | | 1 | 2 | 5 | 12 | 10 | 10 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 3 | 2 | 2 | 1 | 2 | 4 | 6 | 2 | 8 | 2 | 6 | 102 | 4 |
| 5 | | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 12 | 13 | 8 | 5 | 5 | 31 | 24 | 19 | 27 | 39 | 15 | 11 | 11 | 11 | 8 | 24 | 10 | 281 | 12 |
| 6 | D | 12 | 5 | 16 | 54 | 8 | 58 | 66 | 12 | 8 | 4 | 59 | 52 | 12 | 12 | 7 | 10 | 6 | 6 | 6 | 5 | 12 | 8 | 13 | 4 | 455 | 19 |
| 7 | | 7 | 7 | 3 | 2 | 2 | 9 | 9 | 12 | 38 | 35 | 8 | 16 | 17 | 23 | 11 | 8 | 8 | 8 | 5 | 13 | 10 | 7 | 10 | 9 | 277 | 12 |
| 8 | | 9 | 14 | 33 | 59 | 25 | 31 | 14 | 41 | 16 | 13 | 11 | 9 | 8 | 16 | 13 | 8 | 5 | 4 | 6 | 5 | 1 | 3 | 2 | 3 | 349 | 15 |
| 9 | | 3 | 4 | 2 | 4 | 3 | 22 | 20 | 13 | 7 | 7 | 7 | 13 | 14 | 11 | 12 | 16 | 17 | 6 | 8 | 2 | 2 | 11 | 6 | 3 | 213 | 9 |
| 10 | | 13 | 8 | 8 | 25 | 17 | 3 | 8 | 1 | 2 | 2 | 2 | 2 | 1 | 5 | 7 | 5 | 4 | 3 | 5 | 4 | 10 | 8 | 4 | 6 | 153 | 6 |
| 11 | | 9 | 40 | 29 | 22 | 8 | 23 | 7 | 18 | 14 | 7 | 5 | 10 | 10 | 9 | 14 | 4 | 4 | 4 | 7 | 6 | 8 | 5 | 7 | 4 | 274 | 11 |
| 12 | | 7 | 4 | 2 | 3 | 5 | 38 | 12 | 5 | 4 | 5 | 7 | 3 | 7 | 4 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 0 | 120 | 5 |
| 13 | Q | 0 | 1 | 2 | 7 | 15 | 8 | 3 | 2 | 7 | 12 | 4 | 12 | 12 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 110 | 5 |
| 14 | | 2 | 2 | 16 | 19 | 10 | 3 | 8 | 4 | 3 | 9 | 14 | 3 | 6 | 4 | 6 | 6 | 4 | 7 | 9 | 7 | 14 | 8 | 13 | 8 | 185 | 8 |
| 15 | | 6 | 4 | 25 | 18 | 11 | 8 | 29 | 22 | 8 | 10 | 12 | 11 | 12 | 10 | 9 | 9 | 12 | 19 | 9 | 6 | 4 | 2 | 7 | 5 | 268 | 11 |
| 16 | | 9 | 4 | 29 | 60 | 13 | 36 | 12 | 7 | 10 | 6 | 4 | 11 | 7 | 6 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 5 | 5 | 2 | 239 | 10 |
| 17 | | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 1 | 2 | 3 | 7 | 20 | 19 | 12 | 18 | 15 | 5 | 5 | 8 | 5 | 13 | 11 | 11 | 5 | 170 | 7 |
| 18 | D | 5 | 7 | 22 | 9 | 8 | 10 | 25 | 8 | 12 | 8 | 4 | 15 | 13 | 24 | 40 | 15 | 9 | 10 | 11 | 12 | 13 | 10 | 10 | 12 | 312 | 13 |
| 19 | | 8 | 16 | 10 | 9 | 39 | 28 | 19 | 6 | 2 | 6 | 8 | 5 | 8 | 8 | 6 | 6 | 5 | 3 | 3 | 3 | 2 | 4 | 12 | 5 | 221 | 9 |
| 20 | | 4 | 2 | 4 | 8 | 15 | 27 | 38 | 22 | 33 | 30 | 11 | 10 | 10 | 6 | 7 | 12 | 4 | 10 | 6 | 6 | 4 | 4 | 2 | 3 | 278 | 12 |
| 21 | | 2 | 2 | 3 | 5 | 16 | 12 | 10 | 9 | 6 | 5 | 4 | 5 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 4 | 6 | 112 | 5 |
| 22 | Q | 10 | 4 | 4 | 6 | 10 | 7 | 24 | 11 | 16 | 4 | 10 | 12 | 5 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 1 | 2 | 142 | 6 |
| 23 | | 2 | 1 | 1 | 1 | 1 | 6 | 9 | 3 | 2 | 2 | 2 | 5 | 5 | 18 | 12 | 14 | 5 | 5 | 8 | 5 | 8 | 11 | 7 | 9 | 142 | 6 |
| 24 | | 3 | 3 | 4 | 3 | 11 | 17 | 4 | 2 | 2 | 5 | 14 | 8 | 9 | 2 | 1 | 4 | 5 | 5 | 3 | 3 | 4 | 3 | 6 | 4 | 125 | 5 |
| 25 | | 2 | 4 | 6 | 20 | 12 | 20 | 27 | 25 | 6 | 5 | 4 | 7 | 6 | 5 | 9 | 6 | 11 | 4 | 4 | 6 | 4 | 9 | 11 | 11 | 224 | 9 |
| 26 | Q | 3 | 4 | 3 | 2 | 2 | 2 | 27 | 25 | 13 | 21 | 16 | 5 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 2 | 3 | 1 | 145 | 6 |
| 27 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 2 | 1 | 2 | 5 | 3 | 16 | 21 | 18 | 93 | 4 |
| 28 | D | 10 | 10 | 9 | 6 | 12 | 7 | 4 | 4 | 22 | 16 | 25 | 79 | 61 | 96 | 34 | 17 | 18 | 8 | 6 | 11 | 10 | 18 | 17 | 10 | 510 | 21 |
| 29 | D | 5 | 9 | 11 | 39 | 40 | 53 | 28 | 16 | 49 | 59 | 96 | 23 | 23 | 40 | 56 | 69 | 17 | 15 | 13 | 17 | 10 | 19 | 39 | 15 | 761 | 32 |
| 30 | D | 21 | 19 | 15 | 16 | 35 | 27 | 17 | 11 | 41 | 41 | 34 | 23 | 67 | 40 | 18 | 15 | 24 | 23 | 30 | 14 | 6 | 6 | 9 | 5 | 557 | 23 |
| SUMS | | 172 | 186 | 271 | 420 | 339 | 478 | 435 | 309 | 351 | 335 | 387 | 383 | 383 | 396 | 320 | 284 | 219 | 180 | 181 | 170 | 173 | 195 | 258 | 177 | 7002 | |
| MEANS | | 6 | 6 | 9 | 14 | 11 | 16 | 15 | 10 | 12 | 11 | 13 | 13 | 13 | 13 | 11 | 9 | 7 | 6 | 6 | 6 | 6 | 7 | 9 | 6 | | 10 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 63 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

SEPTEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS | |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|--|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | | |
| 1 | Q | 3 | 1 | 1 | 3 | 2 | 7 | 1 | 2 | 4 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 41 | 2 | |
| 2 | Q | 0 | 0 | 1 | 0 | 3 | 3 | 8 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | 40 | 2 | |
| 3 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 2 | 2 | 3 | 4 | 2 | 4 | 4 | 1 | 2 | 1 | 1 | 1 | 35 | 1 | |
| 4 | | 2 | 1 | 5 | 11 | 11 | 8 | 2 | 3 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 77 | 3 | |
| 5 | | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 4 | 5 | 4 | 2 | 3 | 14 | 18 | 14 | 27 | 8 | 7 | 12 | 8 | 10 | 6 | 6 | 14 | 167 | 7 | |
| 6 | D | 10 | 3 | 8 | 34 | 8 | 37 | 32 | 8 | 2 | 4 | 14 | 20 | 8 | 8 | 6 | 6 | 9 | 3 | 4 | 4 | 3 | 8 | 8 | 1 | 248 | 10 | |
| 7 | | 1 | 2 | 2 | 3 | 2 | 3 | 7 | 2 | 11 | 20 | 7 | 7 | 11 | 17 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 3 | 10 | 5 | 159 | 7 | |
| 8 | | 10 | 5 | 20 | 48 | 22 | 33 | 33 | 49 | 9 | 12 | 6 | 6 | 7 | 6 | 5 | 5 | 4 | 2 | 4 | 2 | 2 | 2 | 1 | 2 | 295 | 12 | |
| 9 | | 1 | 2 | 3 | 4 | 2 | 19 | 23 | 17 | 4 | 4 | 6 | 6 | 7 | 10 | 16 | 12 | 10 | 4 | 6 | 2 | 2 | 4 | 2 | 1 | 167 | 7 | |
| 10 | | 8 | 6 | 11 | 16 | 12 | 5 | 3 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | 2 | 3 | 8 | 3 | 6 | 3 | 2 | 1 | 105 | 4 | |
| 11 | | 2 | 18 | 36 | 13 | 5 | 10 | 13 | 17 | 12 | 6 | 4 | 7 | 3 | 4 | 5 | 5 | 4 | 5 | 3 | 4 | 4 | 3 | 2 | 2 | 187 | 8 | |
| 12 | | 4 | 3 | 2 | 4 | 3 | 34 | 8 | 4 | 1 | 2 | 5 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 91 | 4 | |
| 13 | Q | 0 | 0 | 1 | 3 | 12 | 4 | 2 | 1 | 1 | 4 | 2 | 4 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 56 | 2 | |
| 14 | | 1 | 1 | 8 | 12 | 6 | 2 | 8 | 2 | 2 | 2 | 2 | 5 | 4 | 5 | 3 | 6 | 3 | 10 | 9 | 5 | 6 | 6 | 8 | 7 | 123 | 5 | |
| 15 | | 10 | 8 | 21 | 10 | 7 | 5 | 13 | 16 | 5 | 5 | 8 | 8 | 14 | 19 | 15 | 5 | 9 | 17 | 3 | 6 | 4 | 2 | 4 | 3 | 217 | 9 | |
| 16 | | 4 | 2 | 7 | 37 | 10 | 25 | 21 | 4 | 7 | 3 | 2 | 7 | 5 | 4 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 0 | 153 | 6 | |
| 17 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | 12 | 6 | 8 | 12 | 16 | 6 | 7 | 10 | 9 | 3 | 5 | 3 | 3 | 116 | 5 | |
| 18 | D | 2 | 5 | 11 | 8 | 10 | 5 | 18 | 6 | 7 | 3 | 3 | 5 | 8 | 11 | 29 | 11 | 9 | 5 | 5 | 3 | 7 | 9 | 6 | 10 | 196 | 8 | |
| 19 | | 7 | 6 | 6 | 5 | 58 | 29 | 7 | 2 | 1 | 4 | 3 | 2 | 5 | 5 | 4 | 3 | 4 | 4 | 3 | 2 | 3 | 4 | 5 | 4 | 176 | 7 | |
| 20 | | 2 | 2 | 4 | 5 | 5 | 19 | 32 | 10 | 8 | 16 | 6 | 4 | 5 | 5 | 6 | 4 | 3 | 4 | 5 | 4 | 2 | 2 | 2 | 0 | 155 | 6 | |
| 21 | | 1 | 2 | 2 | 2 | 7 | 8 | 9 | 4 | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 64 | 3 | |
| 22 | Q | 4 | 1 | 2 | 3 | 5 | 3 | 12 | 9 | 5 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 67 | 3 | |
| 23 | | 0 | 0 | 1 | 1 | 1 | 3 | 8 | 2 | 1 | 1 | 1 | 2 | 2 | 5 | 8 | 8 | 4 | 5 | 3 | 5 | 6 | 8 | 4 | 3 | 82 | 3 | |
| 24 | | 1 | 2 | 2 | 2 | 5 | 15 | 4 | 4 | 1 | 2 | 4 | 4 | 2 | 1 | 1 | 2 | 4 | 6 | 2 | 1 | 1 | 1 | 2 | 2 | 71 | 3 | |
| 25 | | 1 | 2 | 3 | 8 | 9 | 13 | 23 | 10 | 2 | 3 | 3 | 4 | 4 | 3 | 5 | 4 | 6 | 4 | 2 | 2 | 2 | 2 | 3 | 4 | 122 | 5 | |
| 26 | Q | 1 | 1 | 1 | 2 | 1 | 1 | 14 | 22 | 10 | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 1 | 0 | 77 | 3 | |
| 27 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 8 | 9 | 7 | 53 | 2 | |
| 28 | D | 7 | 14 | 7 | 2 | 6 | 3 | 4 | 2 | 7 | 17 | 6 | 40 | 66 | 63 | 16 | 11 | 18 | 7 | 7 | 8 | 17 | 8 | 4 | 347 | 14 | | |
| 29 | D | 4 | 5 | 5 | 31 | 15 | 40 | 14 | 15 | 36 | 54 | 41 | 20 | 10 | 16 | 38 | 54 | 20 | 38 | 13 | 14 | 4 | 9 | 12 | 16 | 524 | 22 | |
| 30 | D | 8 | 10 | 20 | 24 | 18 | 32 | 17 | 15 | 40 | 73 | 34 | 17 | 56 | 30 | 9 | 20 | 15 | 24 | 21 | 14 | 16 | 3 | 4 | 2 | 522 | 22 | |
| SUMS | | 96 | 103 | 191 | 294 | 247 | 368 | 339 | 238 | 191 | 255 | 178 | 205 | 255 | 255 | 226 | 236 | 170 | 188 | 146 | 115 | 110 | 117 | 111 | 99 | 4733 | | |
| MEANS | | 3 | 3 | 6 | 10 | 8 | 12 | 11 | 8 | 6 | 9 | 6 | 7 | 9 | 9 | 8 | 8 | 6 | 6 | 5 | 4 | 4 | 4 | 4 | 3 | | 7 | |

HOURLY RANGES

TABLE 64 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

OCTOBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 7 | 17 | 13 | 10 | 16 | 15 | 43 | 37 | 10 | 15 | 16 | 40 | 24 | 19 | 19 | 10 | 12 | 9 | 9 | 11 | 9 | 4 | 10 | 4 | 379 | 16 |
| 2 | D | 28 | 30 | 11 | 4 | 34 | 51 | 46 | 34 | 21 | 46 | 63 | 38 | 42 | 33 | 39 | 19 | 22 | 10 | 7 | 6 | 7 | 6 | 4 | 9 | 610 | 25 |
| 3 | D | 5 | 19 | 37 | 39 | 18 | 19 | 19 | 14 | 11 | 17 | 19 | 23 | 34 | 22 | 23 | 7 | 21 | 6 | 5 | 4 | 3 | 2 | 6 | 3 | 376 | 16 |
| 4 | | 6 | 5 | 4 | 10 | 23 | 15 | 20 | 5 | 7 | 12 | 16 | 17 | 8 | 6 | 8 | 8 | 4 | 2 | 5 | 10 | 8 | 7 | 5 | 3 | 214 | 9 |
| 5 | | 6 | 7 | 4 | 5 | 5 | 28 | 27 | 4 | 17 | 13 | 9 | 20 | 8 | 8 | 5 | 5 | 3 | 2 | 4 | 6 | 6 | 4 | 4 | 4 | 204 | 9 |
| 6 | D | 3 | 3 | 41 | 26 | 15 | 22 | 23 | 18 | 8 | 4 | 8 | 10 | 18 | 16 | 11 | 13 | 9 | 15 | 9 | 12 | 7 | 5 | 3 | 2 | 301 | 13 |
| 7 | | 2 | 4 | 2 | 54 | 5 | 3 | 48 | 11 | 9 | 6 | 5 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 3 | 4 | 4 | 2 | 1 | 1 | 180 | 8 |
| 8 | Q | 1 | 1 | 3 | 1 | 2 | 2 | 11 | 11 | 17 | 5 | 2 | 4 | 2 | 4 | 2 | 3 | 2 | 2 | 1 | 4 | 4 | 5 | 2 | 3 | 94 | 4 |
| 9 | | 3 | 2 | 2 | 1 | 2 | 6 | 13 | 10 | 2 | 3 | 4 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 7 | 7 | 4 | 8 | 7 | 3 | 98 | 4 |
| 10 | D | 16 | 4 | 17 | 11 | 16 | 26 | 14 | 8 | 9 | 4 | 52 | 29 | 12 | 14 | 12 | 9 | 7 | 13 | 8 | 11 | 8 | 13 | 9 | 4 | 326 | 14 |
| 11 | | 4 | 7 | 7 | 4 | 6 | 63 | 29 | 14 | 9 | 9 | 8 | 12 | 15 | 17 | 32 | 5 | 5 | 4 | 3 | 7 | 3 | 6 | 6 | 2 | 277 | 12 |
| 12 | | 6 | 40 | 37 | 6 | 4 | 6 | 7 | 35 | 25 | 9 | 9 | 14 | 31 | 17 | 19 | 10 | 20 | 8 | 6 | 3 | 3 | 1 | 1 | 1 | 318 | 13 |
| 13 | | 2 | 1 | 1 | 1 | 2 | 17 | 9 | 16 | 7 | 7 | 34 | 32 | 10 | 10 | 2 | 1 | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 170 | 7 |
| 14 | Q | 2 | 1 | 1 | 1 | 2 | 5 | 1 | 2 | 1 | 1 | 1 | 1 | 3 | 4 | 4 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 51 | 2 |
| 15 | Q | 1 | 2 | 2 | 2 | 4 | 14 | 17 | 10 | 8 | 6 | 8 | 9 | 12 | 4 | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 110 | 5 |
| 16 | | 1 | 1 | 2 | 3 | 10 | 8 | 19 | 9 | 9 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 4 | 2 | 5 | 4 | 6 | 2 | 3 | 105 | 4 |
| 17 | | 3 | 6 | 2 | 3 | 1 | 4 | 3 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 5 | 4 | 4 | 7 | 8 | 72 | 3 |
| 18 | | 7 | 5 | 4 | 2 | 1 | 3 | 46 | 28 | 16 | 7 | 7 | 10 | 7 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | 5 | 3 | 2 | 2 | 166 | 7 |
| 19 | | 4 | 4 | 4 | 3 | 6 | 4 | 3 | 29 | 18 | 8 | 11 | 12 | 24 | 26 | 17 | 5 | 3 | 4 | 6 | 4 | 4 | 9 | 6 | 3 | 217 | 9 |
| 20 | | 4 | 3 | 2 | 4 | 5 | 5 | 2 | 1 | 3 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 5 | 3 | 4 | 2 | 2 | 64 | 3 |
| 21 | | 3 | 2 | 3 | 2 | 1 | 2 | 5 | 5 | 31 | 21 | 17 | 12 | 11 | 6 | 4 | 4 | 4 | 7 | 7 | 8 | 8 | 7 | 6 | 1 | 177 | 7 |
| 22 | | 3 | 3 | 3 | 5 | 17 | 16 | 9 | 6 | 6 | 23 | 15 | 16 | 16 | 15 | 11 | 4 | 4 | 3 | 8 | 7 | 2 | 6 | 1 | 3 | 202 | 8 |
| 23 | | 1 | 4 | 3 | 4 | 4 | 13 | 20 | 9 | 4 | 3 | 5 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 4 | 3 | 2 | 95 | 4 |
| 24 | | 1 | 4 | 17 | 12 | 45 | 33 | 16 | 23 | 13 | 4 | 8 | 11 | 12 | 8 | 7 | 4 | 3 | 3 | 3 | 2 | 3 | 13 | 6 | 4 | 255 | 11 |
| 25 | | 6 | 3 | 6 | 2 | 3 | 28 | 6 | 2 | 3 | 4 | 6 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 3 | 97 | 4 |
| 26 | Q | 1 | 1 | 1 | 1 | 2 | 2 | 20 | 15 | 9 | 7 | 6 | 4 | 6 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 1 | 1 | 1 | 92 | 4 |
| 27 | | 1 | 1 | 1 | 2 | 3 | 3 | 6 | 6 | 4 | 12 | 14 | 3 | 10 | 7 | 9 | 3 | 4 | 2 | 4 | 7 | 5 | 5 | 7 | 9 | 128 | 5 |
| 28 | | 8 | 10 | 4 | 1 | 9 | 5 | 5 | 7 | 13 | 8 | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 5 | 2 | 7 | 7 | 7 | 6 | 3 | 129 | 5 |
| 29 | | 1 | 2 | 1 | 13 | 16 | 6 | 8 | 3 | 2 | 5 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 81 | 3 |
| 30 | Q | 2 | 1 | 1 | 1 | 1 | 2 | 13 | 5 | 6 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 50 | 2 |
| 31 | | 2 | 2 | 5 | 9 | 13 | 11 | 16 | 25 | 21 | 12 | 11 | 37 | 21 | 9 | 6 | 10 | 2 | 4 | 2 | 2 | 4 | 2 | 3 | 3 | 232 | 10 |
| UMS | | 140 | 195 | 241 | 242 | 291 | 437 | 524 | 403 | 320 | 281 | 366 | 375 | 346 | 266 | 249 | 144 | 150 | 125 | 121 | 154 | 135 | 148 | 123 | 94 | 5870 | |
| MEANS | | 5 | 6 | 8 | 8 | 9 | 14 | 17 | 13 | 10 | 9 | 12 | 12 | 11 | 9 | 8 | 5 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 3 | | 8 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

* HOURLY RANGES

TABLE 65 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

OCTOBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | D | 3 | 4 | 7 | 14 | 26 | 24 | 36 | 20 | 19 | 12 | 10 | 18 | 16 | 13 | 16 | 9 | 8 | 14 | 8 | 6 | 5 | 3 | 3 | 3 | 297 | 12 |
| 2 | D | 36 | 19 | 11 | 7 | 11 | 44 | 33 | 35 | 36 | 48 | 29 | 16 | 8 | 17 | 19 | 7 | 8 | 8 | 6 | 5 | 4 | 4 | 3 | 4 | 418 | 17 |
| 3 | D | 4 | 13 | 38 | 33 | 28 | 34 | 16 | 10 | 5 | 3 | 8 | 12 | 17 | 29 | 20 | 7 | 15 | 8 | 7 | 3 | 3 | 1 | 2 | 2 | 318 | 13 |
| 4 | | 3 | 2 | 5 | 8 | 9 | 28 | 7 | 4 | 2 | 4 | 7 | 11 | 6 | 4 | 3 | 4 | 3 | 6 | 9 | 2 | 2 | 1 | 2 | 2 | 134 | 6 |
| 5 | | 8 | 4 | 2 | 1 | 3 | 17 | 11 | 8 | 8 | 11 | 11 | 11 | 4 | 4 | 5 | 5 | 2 | 4 | 3 | 5 | 3 | 2 | 1 | 1 | 134 | 6 |
| 6 | D | 1 | 1 | 28 | 33 | 18 | 16 | 36 | 11 | 6 | 2 | 4 | 4 | 8 | 8 | 6 | 8 | 5 | 8 | 8 | 7 | 4 | 2 | 2 | 2 | 228 | 10 |
| 7 | | 1 | 3 | 5 | 42 | 6 | 3 | 19 | 7 | 5 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 114 | 5 |
| 8 | Q | 1 | 0 | 1 | 1 | 0 | 1 | 6 | 4 | 8 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 48 | 2 |
| 9 | | 3 | 1 | 1 | 1 | 1 | 3 | 13 | 7 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 6 | 3 | 5 | 2 | 2 | 3 | 2 | 2 | 65 | 3 |
| 10 | D | 10 | 2 | 5 | 4 | 17 | 22 | 17 | 10 | 7 | 3 | 19 | 9 | 8 | 5 | 11 | 5 | 5 | 7 | 7 | 8 | 5 | 5 | 4 | 2 | 197 | 8 |
| 11 | | 4 | 6 | 5 | 4 | 6 | 21 | 27 | 21 | 6 | 3 | 4 | 7 | 14 | 16 | 12 | 5 | 5 | 2 | 3 | 2 | 2 | 2 | 3 | 1 | 181 | 8 |
| 12 | | 1 | 19 | 16 | 4 | 2 | 4 | 2 | 18 | 14 | 6 | 9 | 7 | 36 | 21 | 21 | 12 | 9 | 6 | 4 | 3 | 2 | 2 | 1 | 1 | 220 | 9 |
| 13 | | 1 | 1 | 0 | 1 | 1 | 15 | 7 | 12 | 2 | 2 | 12 | 14 | 4 | 6 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 97 | 4 |
| 14 | Q | 1 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 34 | 1 |
| 15 | Q | 1 | 0 | 1 | 1 | 4 | 10 | 7 | 3 | 2 | 3 | 3 | 6 | 5 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 58 | 2 |
| 16 | | 0 | 0 | 1 | 2 | 4 | 5 | 14 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 4 | 5 | 4 | 4 | 2 | 2 | 3 | 3 | 69 | 3 |
| 17 | | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 4 | 2 | 2 | 2 | 1 | 5 | 4 | 5 | 49 | 2 |
| 18 | | 4 | 3 | 1 | 2 | 1 | 3 | 21 | 18 | 6 | 3 | 2 | 5 | 4 | 2 | 3 | 1 | 1 | 3 | 1 | 1 | 3 | 1 | 1 | 1 | 91 | 4 |
| 19 | | 2 | 1 | 1 | 5 | 6 | 1 | 2 | 16 | 10 | 5 | 6 | 6 | 9 | 8 | 8 | 4 | 6 | 7 | 5 | 2 | 2 | 3 | 3 | 2 | 120 | 5 |
| 20 | | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 37 | 2 |
| 21 | | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 8 | 11 | 5 | 6 | 8 | 6 | 5 | 6 | 6 | 6 | 3 | 4 | 3 | 4 | 2 | 1 | 96 | 4 |
| 22 | | 2 | 2 | 3 | 4 | 13 | 26 | 15 | 5 | 2 | 4 | 4 | 4 | 9 | 5 | 4 | 5 | 4 | 5 | 2 | 3 | 1 | 2 | 1 | 1 | 126 | 5 |
| 23 | | 1 | 2 | 1 | 2 | 3 | 14 | 22 | 13 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 79 | 3 |
| 24 | | 1 | 2 | 9 | 17 | 24 | 26 | 17 | 18 | 11 | 4 | 7 | 5 | 5 | 2 | 5 | 7 | 2 | 3 | 4 | 2 | 1 | 4 | 2 | 2 | 180 | 8 |
| 25 | | 2 | 2 | 2 | 1 | 4 | 25 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 62 | 3 |
| 26 | Q | 1 | 1 | 1 | 0 | 1 | 1 | 14 | 9 | 6 | 2 | 3 | 2 | 4 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 58 | 2 |
| 27 | | 1 | 1 | 1 | 1 | 2 | 2 | 7 | 6 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 5 | 7 | 4 | 2 | 2 | 3 | 3 | 4 | 6 | 74 | 3 |
| 28 | | 4 | 3 | 4 | 2 | 4 | 2 | 1 | 3 | 12 | 3 | 1 | 1 | 2 | 3 | 4 | 5 | 2 | 6 | 3 | 2 | 2 | 3 | 3 | 2 | 77 | 3 |
| 29 | | 0 | 1 | 1 | 12 | 14 | 8 | 5 | 4 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 69 | 3 |
| 30 | Q | 1 | 0 | 0 | 0 | 0 | 2 | 14 | 7 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 42 | 2 |
| 31 | | 1 | 1 | 2 | 8 | 22 | 10 | 9 | 7 | 16 | 5 | 4 | 21 | 15 | 12 | 6 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 155 | 6 |
| SUMS | | 103 | 99 | 156 | 215 | 236 | 375 | 393 | 286 | 205 | 148 | 164 | 182 | 200 | 183 | 171 | 122 | 126 | 130 | 105 | 81 | 68 | 69 | 57 | 53 | 3927 | |
| MEANS | | 3 | 3 | 5 | 7 | 8 | 12 | 13 | 9 | 7 | 5 | 5 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | | 5 |

HOURLY RANGES

TABLE 66 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

NOVEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS | |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|--|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | | |
| 1 | Q | 1 | 4 | 19 | 8 | 5 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 59 | 2 | |
| 2 | | 6 | 9 | 5 | 3 | 5 | 7 | 6 | 6 | 24 | 16 | 8 | 10 | 4 | 5 | 4 | 12 | 14 | 8 | 6 | 4 | 6 | 7 | 15 | 26 | 216 | 9 | |
| 3 | D | 15 | 13 | 10 | 7 | 17 | 22 | 26 | 19 | 18 | 19 | 6 | 6 | 10 | 20 | 6 | 18 | 18 | 6 | 8 | 8 | 3 | 5 | 8 | 4 | 292 | 12 | |
| 4 | | 2 | 2 | 7 | 14 | 15 | 4 | 27 | 28 | 15 | 9 | 22 | 31 | 10 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 5 | 2 | 216 | 9 | |
| 5 | | 7 | 7 | 2 | 4 | 11 | 7 | 4 | 8 | 8 | 12 | 3 | 6 | 5 | 2 | 3 | 7 | 6 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 112 | 5 | |
| 6 | Q | 1 | 1 | 1 | 1 | 2 | 11 | 4 | 8 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 4 | 2 | 3 | 54 | 2 | |
| 7 | | 3 | 6 | 6 | 7 | 12 | 15 | 11 | 9 | 30 | 16 | 11 | 11 | 27 | 23 | 13 | 13 | 4 | 4 | 4 | 5 | 8 | 8 | 4 | 4 | 254 | 11 | |
| 8 | | 7 | 7 | 9 | 15 | 16 | 38 | 17 | 17 | 13 | 8 | 9 | 11 | 6 | 6 | 10 | 12 | 6 | 8 | 23 | 16 | 13 | 17 | 17 | 12 | 313 | 13 | |
| 9 | D | 13 | 4 | 4 | 8 | 11 | 30 | 59 | 36 | 14 | 13 | 34 | 40 | 36 | 18 | 13 | 41 | 24 | 35 | 19 | 12 | 13 | 8 | 6 | 2 | 493 | 21 | |
| 10 | D | 4 | 4 | 3 | 10 | 28 | 16 | 68 | 40 | 6 | 24 | 10 | 41 | 114 | 37 | 44 | 14 | 19 | 21 | 20 | 21 | 15 | 7 | 4 | 8 | 578 | 24 | |
| 11 | | 6 | 5 | 4 | 3 | 10 | 11 | 9 | 16 | 9 | 12 | 12 | 18 | 11 | 9 | 8 | 16 | 6 | 8 | 7 | 9 | 7 | 4 | 5 | 4 | 209 | 9 | |
| 12 | | 8 | 6 | 2 | 3 | 17 | 10 | 3 | 4 | 4 | 14 | 18 | 6 | 6 | 5 | 2 | 4 | 3 | 4 | 4 | 3 | 1 | 4 | 2 | 2 | 135 | 6 | |
| 13 | | 2 | 4 | 4 | 1 | 2 | 2 | 2 | 8 | 19 | 10 | 7 | 10 | 12 | 4 | 4 | 5 | 4 | 2 | 5 | 4 | 3 | 7 | 3 | 3 | 127 | 5 | |
| 14 | Q | 3 | 3 | 6 | 5 | 4 | 2 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 46 | 2 | |
| 15 | Q | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 30 | 1 | |
| 16 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 3 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | 6 | 4 | 1 | 1 | 48 | 2 | |
| 17 | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 3 | 38 | 2 | |
| 18 | | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 2 | 3 | 7 | 5 | 3 | 1 | 4 | 2 | 75 | 3 | |
| 19 | | 2 | 2 | 2 | 2 | 1 | 2 | 20 | 9 | 8 | 3 | 6 | 5 | 4 | 5 | 6 | 4 | 2 | 2 | 4 | 5 | 3 | 3 | 1 | 3 | 104 | 4 | |
| 20 | | 4 | 12 | 10 | 5 | 6 | 2 | 1 | 1 | 5 | 5 | 4 | 3 | 2 | 1 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 76 | 3 | |
| 21 | Q | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 2 | 4 | 3 | 3 | 7 | 5 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 53 | 2 | |
| 22 | | 2 | 1 | 5 | 13 | 12 | 24 | 28 | 7 | 4 | 4 | 4 | 7 | 5 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 4 | 4 | 5 | 154 | 6 | |
| 23 | | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 4 | 3 | 3 | 6 | 3 | 3 | 4 | 6 | 2 | 63 | 3 | |
| 24 | | 2 | 2 | 2 | 3 | 2 | 5 | 12 | 3 | 6 | 12 | 13 | 11 | 5 | 6 | 4 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 5 | 2 | 115 | 5 | |
| 25 | | 2 | 2 | 2 | 1 | 1 | 2 | 32 | 15 | 13 | 8 | 7 | 13 | 17 | 7 | 5 | 6 | 5 | 3 | 2 | 5 | 5 | 2 | 6 | 5 | 166 | 7 | |
| 26 | | 8 | 17 | 8 | 24 | 10 | 18 | 25 | 4 | 2 | 3 | 3 | 6 | 8 | 9 | 3 | 14 | 7 | 14 | 12 | 17 | 13 | 4 | 3 | 2 | 234 | 10 | |
| 27 | D | 2 | 2 | 2 | 4 | 54 | 47 | 16 | 10 | 19 | 19 | 71 | 20 | 26 | 18 | 25 | 20 | 16 | 8 | 11 | 8 | 9 | 6 | 3 | 8 | 424 | 18 | |
| 28 | | 6 | 7 | 6 | 9 | 14 | 8 | 11 | 32 | 10 | 13 | 4 | 9 | 8 | 7 | 6 | 6 | 3 | 3 | 3 | 4 | 5 | 7 | 9 | 4 | 194 | 8 | |
| 29 | | 4 | 3 | 3 | 3 | 2 | 2 | 41 | 22 | 12 | 6 | 9 | 8 | 21 | 24 | 6 | 12 | 5 | 7 | 12 | 7 | 5 | 7 | 5 | 11 | 237 | 10 | |
| 30 | D | 37 | 32 | 17 | 11 | 9 | 11 | 14 | 9 | 13 | 24 | 10 | 24 | 28 | 9 | 13 | 8 | 11 | 12 | 17 | 7 | 9 | 4 | 3 | 3 | 335 | 14 | |
| SUMS | | 155 | 164 | 148 | 171 | 274 | 307 | 448 | 324 | 271 | 272 | 289 | 313 | 386 | 240 | 199 | 243 | 174 | 169 | 191 | 170 | 149 | 134 | 129 | 130 | 5450 | | |
| MEANS | | 5 | 5 | 5 | 6 | 9 | 10 | 15 | 11 | 9 | 9 | 10 | 10 | 13 | 8 | 7 | 8 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | | 8 | |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

NOVEMBER 1969

TABLE 67 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TU 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | Q | 2 | 2 | 14 | 10 | 4 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 47 | 2 |
| 2 | | 4 | 4 | 2 | 1 | 4 | 6 | 4 | 2 | 8 | 4 | 3 | 4 | 3 | 4 | 5 | 3 | 4 | 8 | 4 | 4 | 2 | 1 | 3 | 12 | 99 | 4 |
| 3 | D | 8 | 8 | 7 | 7 | 26 | 28 | 25 | 32 | 10 | 4 | 5 | 6 | 8 | 12 | 4 | 10 | 12 | 4 | 5 | 2 | 2 | 4 | 2 | 2 | 233 | 10 |
| 4 | | 2 | 1 | 4 | 14 | 13 | 5 | 12 | 21 | 9 | 3 | 15 | 20 | 5 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 144 | 6 |
| 5 | | 5 | 3 | 1 | 2 | 18 | 7 | 4 | 3 | 2 | 2 | 2 | 5 | 4 | 2 | 5 | 6 | 6 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 86 | 4 |
| 6 | Q | 1 | 1 | 1 | 1 | 2 | 5 | 4 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 32 | 1 |
| 7 | | 1 | 4 | 5 | 8 | 9 | 11 | 11 | 4 | 10 | 10 | 6 | 7 | 22 | 9 | 10 | 12 | 3 | 4 | 5 | 2 | 2 | 3 | 1 | 3 | 162 | 7 |
| 8 | | 4 | 3 | 3 | 6 | 11 | 25 | 22 | 4 | 3 | 5 | 2 | 3 | 3 | 8 | 8 | 3 | 4 | 4 | 22 | 20 | 12 | 7 | 7 | 10 | 199 | 8 |
| 9 | D | 7 | 2 | 2 | 4 | 10 | 35 | 41 | 22 | 12 | 11 | 27 | 41 | 19 | 9 | 11 | 24 | 14 | 24 | 19 | 7 | 10 | 4 | 5 | 2 | 362 | 15 |
| 10 | D | 3 | 2 | 1 | 4 | 23 | 15 | 36 | 29 | 17 | 31 | 8 | 20 | 45 | 41 | 31 | 12 | 12 | 14 | 14 | 11 | 7 | 4 | 1 | 4 | 385 | 16 |
| 11 | | 4 | 2 | 2 | 2 | 13 | 10 | 11 | 3 | 3 | 12 | 4 | 7 | 11 | 7 | 6 | 7 | 6 | 6 | 3 | 4 | 5 | 2 | 4 | 2 | 136 | 6 |
| 12 | | 4 | 5 | 1 | 2 | 22 | 8 | 3 | 2 | 2 | 3 | 4 | 4 | 3 | 1 | 2 | 3 | 3 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 85 | 4 |
| 13 | | 1 | 2 | 2 | 0 | 1 | 1 | 1 | 5 | 6 | 5 | 2 | 5 | 6 | 2 | 4 | 5 | 6 | 6 | 2 | 2 | 2 | 1 | 1 | 1 | 69 | 3 |
| 14 | Q | 1 | 3 | 4 | 2 | 2 | 1 | 1 | 3 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 33 | 1 |
| 15 | Q | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | 1 |
| 16 | | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 2 | 1 | 1 | 1 | 26 | 1 |
| 17 | | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 3 | 4 | 2 | 2 | 1 | 1 | 1 | 26 | 1 |
| 18 | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 5 | 3 | 2 | 4 | 2 | 2 | 1 | 1 | 1 | 43 | 2 |
| 19 | | 1 | 2 | 1 | 1 | 1 | 2 | 14 | 8 | 6 | 2 | 3 | 3 | 3 | 4 | 5 | 4 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 72 | 3 |
| 20 | | 2 | 13 | 16 | 4 | 6 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 69 | 3 |
| 21 | Q | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | 3 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 36 | 2 |
| 22 | | 1 | 1 | 4 | 10 | 15 | 20 | 19 | 8 | 2 | 2 | 2 | 5 | 4 | 3 | 3 | 2 | 1 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 120 | 5 |
| 23 | | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 4 | 2 | 4 | 3 | 2 | 2 | 2 | 2 | 1 | 37 | 2 |
| 24 | | 1 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 59 | 2 |
| 25 | | 2 | 1 | 1 | 1 | 1 | 1 | 17 | 13 | 4 | 2 | 2 | 3 | 6 | 5 | 3 | 5 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 5 | 88 | 4 |
| 26 | | 4 | 4 | 6 | 9 | 10 | 17 | 21 | 3 | 1 | 1 | 2 | 3 | 6 | 5 | 2 | 10 | 12 | 7 | 9 | 7 | 6 | 3 | 2 | 2 | 152 | 6 |
| 27 | D | 1 | 2 | 1 | 4 | 54 | 40 | 12 | 11 | 9 | 16 | 76 | 17 | 17 | 31 | 11 | 10 | 9 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 346 | 14 |
| 28 | | 2 | 3 | 7 | 3 | 14 | 10 | 7 | 12 | 6 | 4 | 3 | 4 | 4 | 4 | 4 | 7 | 2 | 2 | 3 | 4 | 2 | 6 | 7 | 4 | 124 | 5 |
| 29 | | 1 | 2 | 2 | 2 | 1 | 1 | 26 | 22 | 17 | 4 | 5 | 5 | 12 | 8 | 7 | 9 | 5 | 3 | 6 | 8 | 4 | 3 | 4 | 4 | 161 | 7 |
| 30 | D | 19 | 24 | 15 | 12 | 11 | 12 | 36 | 10 | 7 | 5 | 6 | 12 | 12 | 7 | 9 | 5 | 7 | 6 | 6 | 4 | 3 | 2 | 1 | 1 | 232 | 10 |
| SUMS | | 85 | 101 | 110 | 113 | 278 | 269 | 338 | 226 | 145 | 139 | 190 | 189 | 209 | 181 | 151 | 164 | 135 | 132 | 133 | 103 | 81 | 66 | 62 | 77 | 3677 | |
| MEANS | | 3 | 3 | 4 | 4 | 9 | 9 | 11 | 8 | 5 | 5 | 6 | 6 | 7 | 6 | 5 | 5 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | | 5 |

HOURLY RANGES

TABLE 68 FORT CHURCHILL

NORTH COMPONENT IN TEN GAMMA UNITS

DECEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 19 | 10 | 12 | 9 | 12 | 5 | 4 | 7 | 5 | 6 | 4 | 3 | 5 | 2 | 1 | 3 | 122 | 5 |
| 2 | | 1 | 2 | 2 | 3 | 3 | 7 | 7 | 12 | 16 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 2 | 2 | 4 | 1 | 2 | 2 | 2 | 1 | 114 | 5 |
| 3 | | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 3 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 7 | 7 | 6 | 51 | 2 |
| 4 | | 6 | 2 | 2 | 2 | 8 | 5 | 6 | 2 | 2 | 8 | 4 | 7 | 10 | 14 | 16 | 6 | 4 | 4 | 5 | 7 | 4 | 2 | 3 | 2 | 131 | 5 |
| 5 | D | 3 | 1 | 2 | 2 | 2 | 23 | 16 | 18 | 7 | 9 | 49 | 29 | 19 | 22 | 29 | 11 | 13 | 19 | 24 | 10 | 11 | 12 | 7 | 12 | 350 | 15 |
| 6 | D | 16 | 19 | 15 | 11 | 30 | 42 | 13 | 11 | 9 | 10 | 9 | 15 | 32 | 13 | 33 | 25 | 12 | 3 | 4 | 10 | 7 | 8 | 12 | 4 | 363 | 15 |
| 7 | | 3 | 7 | 3 | 2 | 2 | 6 | 10 | 11 | 4 | 12 | 9 | 12 | 10 | 5 | 4 | 5 | 4 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 123 | 5 |
| 8 | | 3 | 2 | 7 | 6 | 2 | 6 | 11 | 4 | 3 | 4 | 3 | 3 | 3 | 2 | 6 | 6 | 3 | 3 | 2 | 4 | 4 | 3 | 2 | 2 | 94 | 4 |
| 9 | D | 2 | 3 | 22 | 15 | 4 | 4 | 3 | 9 | 5 | 5 | 2 | 8 | 9 | 8 | 10 | 8 | 5 | 7 | 3 | 4 | 5 | 2 | 2 | 2 | 147 | 6 |
| 10 | | 3 | 3 | 3 | 2 | 1 | 1 | 4 | 6 | 7 | 6 | 3 | 4 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 5 | 7 | 11 | 4 | 86 | 4 |
| 11 | | 8 | 6 | 3 | 4 | 3 | 3 | 27 | 37 | 6 | 8 | 5 | 4 | 7 | 8 | 7 | 6 | 5 | 6 | 4 | 4 | 6 | 4 | 5 | 5 | 181 | 8 |
| 12 | | 6 | 3 | 4 | 9 | 9 | 9 | 9 | 5 | 3 | 5 | 7 | 5 | 4 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 4 | 105 | 4 |
| 13 | Q | 2 | 2 | 4 | 2 | 5 | 4 | 12 | 7 | 4 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 73 | 3 |
| 14 | | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 3 | 2 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 6 | 3 | 61 | 3 |
| 15 | | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 7 | 8 | 13 | 8 | 4 | 4 | 3 | 2 | 2 | 1 | 4 | 6 | 5 | 6 | 5 | 97 | 4 |
| 16 | D | 5 | 11 | 7 | 5 | 4 | 2 | 2 | 37 | 20 | 8 | 11 | 10 | 10 | 15 | 15 | 12 | 13 | 9 | 10 | 6 | 5 | 4 | 2 | 2 | 225 | 9 |
| 17 | | 6 | 3 | 4 | 2 | 1 | 1 | 1 | 1 | 2 | 8 | 4 | 10 | 6 | 4 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 2 | 72 | 3 |
| 18 | | 2 | 3 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 36 | 2 |
| 19 | | 2 | 3 | 1 | 1 | 2 | 7 | 5 | 2 | 1 | 2 | 4 | 5 | 7 | 4 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 65 | 3 |
| 20 | Q | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 42 | 2 |
| 21 | Q | 3 | 4 | 4 | 5 | 6 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 52 | 2 |
| 22 | | 2 | 2 | 1 | 1 | 1 | 4 | 8 | 19 | 5 | 4 | 4 | 8 | 5 | 25 | 8 | 5 | 18 | 8 | 4 | 5 | 8 | 4 | 3 | 2 | 154 | 6 |
| 23 | D | 1 | 3 | 2 | 3 | 14 | 8 | 16 | 9 | 5 | 41 | 14 | 27 | 26 | 19 | 20 | 7 | 6 | 4 | 6 | 11 | 8 | 10 | 3 | 6 | 269 | 11 |
| 24 | | 5 | 37 | 16 | 5 | 7 | 2 | 4 | 2 | 3 | 11 | 3 | 28 | 22 | 15 | 7 | 4 | 5 | 4 | 3 | 3 | 4 | 6 | 4 | 4 | 204 | 9 |
| 25 | | 4 | 4 | 3 | 2 | 21 | 44 | 12 | 22 | 22 | 10 | 13 | 16 | 18 | 12 | 15 | 12 | 12 | 4 | 7 | 6 | 5 | 8 | 11 | 4 | 287 | 12 |
| 26 | | 2 | 4 | 3 | 2 | 4 | 21 | 30 | 14 | 19 | 10 | 6 | 7 | 4 | 3 | 2 | 5 | 8 | 5 | 12 | 5 | 8 | 12 | 9 | 11 | 206 | 9 |
| 27 | | 7 | 7 | 8 | 5 | 27 | 12 | 10 | 7 | 4 | 6 | 37 | 23 | 16 | 8 | 4 | 4 | 4 | 6 | 2 | 2 | 2 | 2 | 1 | 2 | 206 | 9 |
| 28 | | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 4 | 7 | 9 | 8 | 3 | 2 | 2 | 3 | 2 | 5 | 4 | 3 | 4 | 2 | 2 | 2 | 73 | 3 |
| 29 | | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 3 | 11 | 16 | 12 | 12 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 95 | 4 |
| 30 | Q | 1 | 1 | 1 | 4 | 18 | 3 | 2 | 2 | 2 | 6 | 5 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 66 | 3 |
| 31 | Q | 1 | 1 | 1 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 15 | 10 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 70 | 3 |
| SUMS | | 110 | 145 | 131 | 106 | 190 | 234 | 230 | 260 | 198 | 226 | 266 | 291 | 264 | 216 | 217 | 160 | 144 | 118 | 123 | 114 | 128 | 124 | 120 | 105 | 4220 | |
| MEANS | | 4 | 5 | 4 | 3 | 6 | 8 | 7 | 8 | 6 | 7 | 9 | 9 | 9 | 7 | 7 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | | 6 |

RECORD OF OBSERVATIONS AT FORT CHURCHILL MAGNETIC OBSERVATORY 1969

HOURLY RANGES

TABLE 69 FORT CHURCHILL

EAST COMPONENT IN TEN GAMMA UNITS

DECEMBER 1969

| DAY | HOUR UT | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | SUMS | MEANS |
|-------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|-------|
| | | TO 1 | TO 2 | TO 3 | TO 4 | TO 5 | TO 6 | TO 7 | TO 8 | TO 9 | TO 10 | TO 11 | TO 12 | TO 13 | TO 14 | TO 15 | TO 16 | TO 17 | TO 18 | TO 19 | TO 20 | TO 21 | TO 22 | TO 23 | TO 24 | | |
| 1 | | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 6 | 5 | 8 | 5 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 2 | 1 | 1 | 1 | 67 | 3 |
| 2 | | 1 | 2 | 2 | 2 | 5 | 5 | 10 | 6 | 8 | 5 | 3 | 2 | 4 | 4 | 4 | 4 | 2 | 3 | 1 | 1 | 0 | 1 | 0 | 1 | 76 | 3 |
| 3 | | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 2 | 3 | 25 | 1 |
| 4 | | 2 | 1 | 1 | 2 | 12 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 3 | 4 | 10 | 7 | 3 | 3 | 2 | 3 | 2 | 1 | 2 | 1 | 71 | 3 |
| 5 | D | 1 | 1 | 1 | 1 | 3 | 15 | 28 | 14 | 2 | 5 | 16 | 18 | 20 | 28 | 21 | 9 | 9 | 14 | 10 | 5 | 6 | 7 | 5 | 6 | 245 | 10 |
| 6 | D | 10 | 5 | 14 | 6 | 40 | 46 | 12 | 8 | 5 | 6 | 6 | 7 | 22 | 7 | 14 | 16 | 8 | 2 | 3 | 6 | 4 | 7 | 6 | 2 | 262 | 11 |
| 7 | | 2 | 4 | 1 | 1 | 1 | 6 | 8 | 3 | 3 | 6 | 4 | 5 | 5 | 2 | 2 | 5 | 4 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 72 | 3 |
| 8 | | 2 | 1 | 6 | 4 | 2 | 6 | 4 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 7 | 5 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 60 | 3 |
| 9 | D | 1 | 2 | 26 | 12 | 4 | 2 | 3 | 5 | 3 | 2 | 1 | 4 | 5 | 5 | 6 | 6 | 4 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 104 | 4 |
| 10 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 49 | 2 |
| 11 | | 6 | 3 | 2 | 3 | 2 | 3 | 19 | 13 | 3 | 4 | 3 | 1 | 3 | 6 | 5 | 6 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 105 | 4 |
| 12 | | 4 | 3 | 3 | 7 | 11 | 14 | 15 | 6 | 2 | 3 | 4 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 89 | 4 |
| 13 | Q | 1 | 2 | 2 | 2 | 6 | 2 | 5 | 6 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 51 | 2 |
| 14 | | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 0 | 1 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 41 | 2 |
| 15 | | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 5 | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 51 | 2 |
| 16 | D | 3 | 6 | 3 | 2 | 3 | 2 | 3 | 17 | 9 | 3 | 4 | 6 | 5 | 10 | 8 | 4 | 9 | 7 | 3 | 3 | 3 | 2 | 2 | 1 | 118 | 5 |
| 17 | | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 43 | 2 |
| 18 | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 28 | 1 |
| 19 | | 1 | 1 | 1 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 0 | 1 | 2 | 47 | 2 |
| 20 | Q | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 31 | 1 |
| 21 | Q | 2 | 3 | 2 | 4 | 7 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 40 | 2 |
| 22 | | 1 | 1 | 1 | 0 | 0 | 2 | 4 | 12 | 4 | 2 | 1 | 3 | 3 | 13 | 7 | 6 | 13 | 9 | 3 | 3 | 4 | 3 | 1 | 1 | 97 | 4 |
| 23 | D | 0 | 1 | 2 | 3 | 12 | 5 | 11 | 13 | 4 | 13 | 22 | 24 | 10 | 11 | 12 | 5 | 6 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 173 | 7 |
| 24 | | 4 | 38 | 16 | 4 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 4 | 10 | 11 | 5 | 5 | 4 | 5 | 2 | 2 | 3 | 3 | 1 | 1 | 129 | 5 |
| 25 | | 1 | 1 | 1 | 1 | 18 | 24 | 16 | 15 | 19 | 5 | 6 | 10 | 8 | 7 | 5 | 12 | 6 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 176 | 7 |
| 26 | | 1 | 2 | 1 | 1 | 3 | 17 | 22 | 11 | 8 | 5 | 4 | 3 | 3 | 2 | 2 | 4 | 8 | 6 | 6 | 4 | 5 | 3 | 7 | 9 | 137 | 6 |
| 27 | | 4 | 8 | 5 | 4 | 12 | 13 | 9 | 4 | 5 | 2 | 13 | 15 | 5 | 5 | 3 | 3 | 4 | 5 | 2 | 2 | 1 | 0 | 1 | 0 | 125 | 5 |
| 28 | | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 33 | 1 |
| 29 | | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 1 | 2 | 4 | 5 | 2 | 5 | 4 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 51 | 2 |
| 30 | Q | 0 | 0 | 0 | 1 | 14 | 3 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 38 | 2 |
| 31 | Q | 1 | 0 | 0 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 34 | 1 |
| SUMS | | 61 | 96 | 102 | 74 | 173 | 201 | 192 | 157 | 100 | 92 | 122 | 134 | 143 | 150 | 140 | 132 | 122 | 102 | 70 | 66 | 63 | 60 | 62 | 54 | 2668 | |
| MEANS | | 2 | 3 | 3 | 2 | 6 | 6 | 6 | 5 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | 4 |

