# Solar Bulletin

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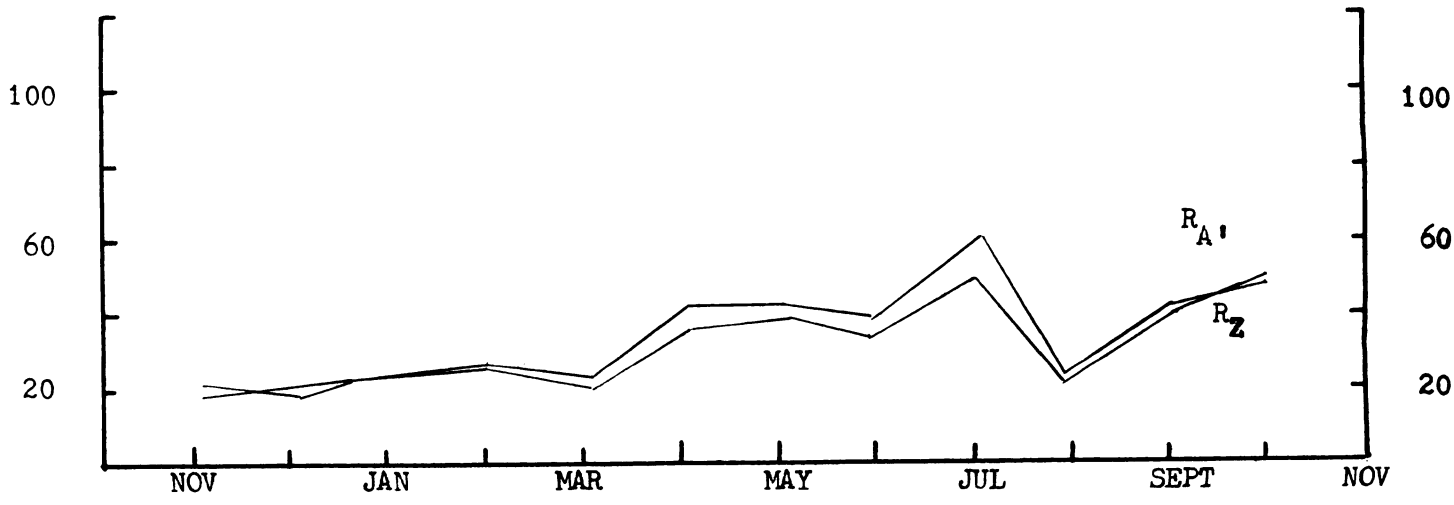
## SOLAR ACTIVITY DURING OCTOBER

Sunspot activity increased during October with the mean of the American Sunpost number rising to 48.4. There were no spotless days this month. Sunspot counts ran well over 100 early in the month. These higher counts were associated with the return of the active region of last month which again produced a gamma-type sunspot group which grew large enough to be seen with the unaided eye.

Ionispheric disturbances were also much more numerous with forty-one separate events recorded by A A V S O observers. These were spread over almost the entire month with many of them occuring in conjunction with the passage of the gamma group mentioned above. Eleven October was the most active day with six events. Some of October's ionispheric activity is shown on the charts reproduced on page two. Many of these disturbances were also detected by the SEA method which is less sensitive than the SES method. The most intense event of October occured on the very last day of the month.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN ($R_A$) AND ZURICH ($R_Z$) RELATIVE SUNSPOT NUMBERS FOR OCTOBER 1974

| Day | $R_A$ | $R_Z$ |
|---|---|---|
| 1. | 58 | 61 |
| 2. | 48 | 53 |
| 3. | 43 | 46 |
| 4. | 58 | 60 |
| 5. | 84 | 85 |
| 6. | 87 | 83 |
| 7. | 85 | 81 |
| 8. | 108 | 91 |
| 9. | 111 | 102 |
| 10. | 113 | 114 |
| 11. | 116 | 110 |
| 12. | 92 | 92 |
| 13. | 83 | 76 |
| 14. | 66 | 63 |
| 15. | 50 | 48 |
| 16. | 43 | 41 |
| 17. | 33 | 28 |
| 18. | 6 | 14 |
| 19. | 10 | 7 |
| 20. | 12 | 11 |
| 21. | 13 | 12 |
| 22. | 9 | 9 |
| 23. | 9 | 7 |
| 24. | 7 | 7 |
| 25. | 9 | 8 |
| 26. | 20 | 16 |
| 27. | 37 | 30 |
| 28. | 26 | 27 |
| 29. | 21 | 22 |
| 30. | 26 | 22 |
| 31. | 18 | 16 |
| Means | 48.4 | 46.5 |

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING OCTOBER 1974

| Day | Max. | SEA | SES | Def. | Observers |
|---|---|---|---|---|---|
| 2 | 14:48 | | 1- | 5 | A19 |
| 2 | 15:40 | | 2 | 5 | A19 |
| 2 | 21:29 | | 1+ | 4 | A19,29,31,37 |
| 6 | 01:36 | | 2 | 5 | A31 |
| 6 | 02:43 | | 2 | 5 | A31 |
| 6 | 21:40 | | 2+ | 5 | A30,31,37 |
| 8 | 14:52 | 1- | 1 | 5 | A1,4,19,29,31,37 |
| 8 | 17:47 | 2 | 1 | 5 | A1,4,19,29,31,37 |
| 10 | 15:15 | | 1- | 2 | A4,19,29,31 |
| 10 | 18:12 | | 1 | 5 | A1,4,19,29,31,32,36,37 |
| 10 | 18:39 | | 2 | 5 | A1,19,29,31,36,37 |
| 11 | 03:33 | | 1+ | 5 | A31 |
| 11 | 08:38 | | 2 | 5 | A31 |
| 11 | 14:31 | 1 | 1 | 5 | A1,4,19,29,31,32,36 |
| 11 | 14:51 | 1 | 2 | 5 | A1,4,19,29,31,32,36,37 |
| 11 | 17:35 | 1- | 1+ | 5 | A1,4,19,29,31,32,36,37 |
| 11 | 18:37 | | 1- | 5 | A1,19,29,31,36,37 |
| 12 | 17:40 | | 1 | 5 | A1,4,19,29,30,31,36,37 |
| 12 | 19:16 | | 1 | 4 | A1,4,19,29,30,31,37 |
| 13 | 05:50 | | 1 | 4 | A31 |
| 14 | 16:34 | 1- | 1- | 4 | A1,19,29,31,36,37 |
| 15 | 13:37 | | 2 | 5 | A1,19,31,32,36 |
| 15 | 20:22 | | 1 | 5 | A1,19,31,37 |
| 17 | 04:25 | | 1 | 4 | A31 |
| 17 | 08:14 | | 1+ | 5 | A31 |
| 17 | 17:07 | | 1+ | 4 | A31,37 |
| 17 | 18:15 | | 1+ | 3 | A37 |
| 18 | 21:31 | | 1- | 3 | A31,37 |
| 19 | 01:29 | | 3 | 5 | A31 |
| 19 | 17:27 | 1 | 2 | 3+ | A1,36,37 |
| 19 | 18:04 | | 1+ | 4+ | A1,19,29,31,36,37 |
| 20 | 16:20 | | 1- | 3 | A19 |
| 25 | 15:08 | | 2- | 3+ | A19 |
| 25 | 15:30 | | 1+ | 3+ | A19 |
| 25 | 17:00 | | 1+ | 3+ | A19 |
| 26 | 15:37 | | 1 | 5 | A1,31,37 |
| 26 | 16:07 | | 1 | 5 | A1,29,31,37 |
| 27 | 14:41 | | 1- | 5 | A19 |
| 28 | 13:47 | | 1 | 4 | A29 |
| 28 | 14:19 | | 1 | 3 | A19,29 |
| 31 | 16:00 | | 3 | 5 | A1,4,19,29,31,32,37,40** |

**A-40 is a new observer this month.