

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS— SOLAR DIVISION

Peter O. Taylor, Editor
 P.O. Box 8115
 Gainesville, FL 32605-8115 USA



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November 1987

Relative Sunspot Numbers for November 1987

| R_a final | | | $*R_i$ provisional | | |
|-------------|--------|--------|--------------------|--------|--------|
| 1) 62 | 11) 28 | 21) 57 | 1) 56 | 11) 28 | 21) 51 |
| 2) 54 | 12) 23 | 22) 77 | 2) 57 | 12) 22 | 22) 70 |
| 3) 53 | 13) 20 | 23) 89 | 3) 57 | 13) 15 | 23) 89 |
| 4) 50 | 14) 21 | 24) 76 | 4) 46 | 14) 23 | 24) 71 |
| 5) 41 | 15) 22 | 25) 48 | 5) 47 | 15) 19 | 25) 42 |
| 6) 32 | 16) 35 | 26) 47 | 6) 27 | 16) 33 | 26) 50 |
| 7) 31 | 17) 47 | 27) 27 | 7) 31 | 17) 46 | 27) 27 |
| 8) 43 | 18) 52 | 28) 26 | 8) 43 | 18) 48 | 28) 20 |
| 9) 43 | 19) 51 | 29) 21 | 9) 42 | 19) 51 | 29) 20 |
| 10) 31 | 20) 50 | 30) 17 | 10) 30 | 20) 49 | 30) 20 |

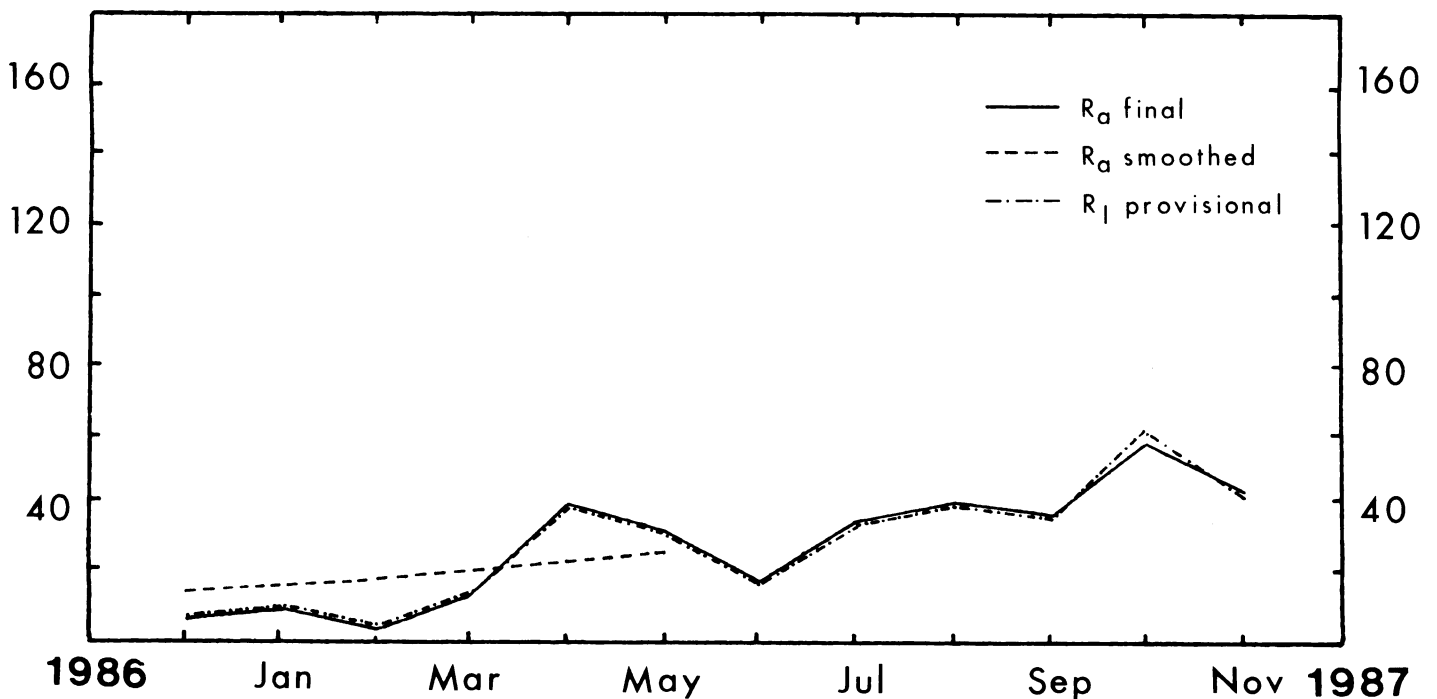
Mean = 42.5

Mean = 40.9

.....
 : The smoothed mean American Relative Sunspot Number (Waldmeier equation) is 25.9 for :
 : May 1987.

: R_a final was computed from the reports of fifty members of the international
 : network of American Sunspot Program contributors.

: *Sunspot Bulletin, 1987, No. 11.
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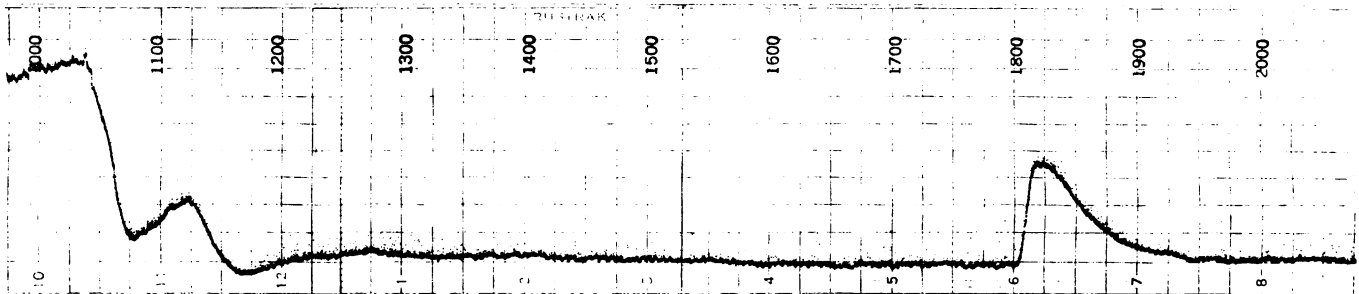
Sudden Ionospheric Disturbances Recorded During November 1987
 Records were received from A1, 9, 19, 26, 46, 49, 50, 52, 59

| <u>Day</u> | <u>Max</u> | <u>Imp</u> | <u>Def</u> | <u>Observer(s)</u> |
|------------|------------|------------|------------|------------------------|
| 01 | 17:23 | 1 | 5 | A19, 49, 50 |
| 01 | 19:38 | 1 | 5 | A50 |
| 02 | 13:56 | 1+ | 5 | A19, 26, 49, 50 |
| 02 | 18:10 | 1- | 5 | A19, 49 |
| 03 | 09:30 | 2+ | 5 | A52 |
| 04 | 17:15 | 2 | 5 | A1, 9, 19, 49, 50, 59 |
| 05 | 05:10 | 2+ | 5 | A52 |
| 05 | 10:18 | 2+ | 5 | A52 |
| 06 | 20:43 | 2 | 5 | A50 |
| 12 | 16:39 | 1 | 5 | A1, 59 |
| 12 | 17:51 | 1- | 5 | A1, 50 |
| 13 | 19:13 | 2 | 5 | A50 |
| 19 | 07:45 | 2+ | 5 | A52 |
| 19 | 15:00 | 2 | 5 | A50, 59 |
| 19 | 16:15 | 1- | 5 | A50 |
| 20 | 04:42 | 2+ | 5 | A52 |
| 21 | 18:02 | 2+ | 5 | A9, 19, 26, 49, 50, 59 |
| 26 | 03:17 | 1+ | 5 | A52 |
| 29 | 16:15 | 2+ | 5 | A50 |

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Sunspot Analyst
 Peter O. Taylor

SID Analyst
 Bruce Wingate



Recording of the event of 21 November 1987 by A-19.