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NEW FLARE STARS IN ORION

In our first note there were described 22 flare stars discovered in Orion [1]. This program was continued during the period of 22 Dec. 1970 - 19 Jan. 1972. The observations were made on ORWO ZU-2 emulsion without filter. 48 plates with five successive exposures on each one were obtained; the exposures varied from 6^m to 7^m20^s, so that the sum of exposures was equal to 33^m20^s.

Table I gives the coordinates, pg magnitudes at minimum, pg amplitudes, date of the flares for 26 stars and identification with Tonantzintla Catalogue [2] (noted with H), or that of Rosino and Pigatto (noted with R) [3].

Table I also gives new data of star No.19 from [1], which was erroneously identified.

Only one from these stars (No.43 in Table I) is a slow flare, the brightness of which increased more than for 40 minutes.

Table I

| No | α1900 | δ1900 | magn. | Δm _{pg} ^m | date | ident. | |
|----|--|----------------------|--------|-------------------------------|------------|--------|----|
| | | | | | | H | R |
| 19 | 5 ^h 29 ^m 41 ^s | -4 ^o 23.5 | (20.5) | 4.7 | 06.01.1970 | | |
| 23 | 34 20 | -7 04.5 | 17.9 | 2.8 | 22.12 | 184 | |
| 24 | 26 33 | -4 29.4 | 17.5 | 0.7 | 22.12 | | |
| 25 | 30 49 | -4 22.5 | 16.9 | 1.5 | 22.12 | | |
| 26 | 35 19 | -7 13.1 | (18.7) | 2.8 | 22.12 | | |
| 27 | 31 55 | -6 12.1 | 18.1 | 1.8 | 23.12 | | |
| 28 | 32 29 | -5 47.0 | 17.4 | 0.8 | 23.12 | | |
| 29 | 29 12 | -3 13.5 | 17.0 | 0.5 | 23.12 | | |
| 30 | 39 07 | -5 39.4 | 16.6 | 0.7 | 23.12 | | |
| 31 | 37 42 | -6 43.3 | 17.1 | 0.9 | 29.12 | | |
| 32 | 29 47 | -6 11.2 | 17.4 | 1.5 | 29.12 | | |
| 33 | 31 57 | -5 12.3 | 16.7 | 1.9 | 29.12 | 101 | |
| 34 | 30 31 | -6 05.7 | 17.7 | 1.3 | 30.12 | 157 | 17 |
| 35 | 30 38 | -6 02.5 | 17.0 | 2.5 | 30.12 | | |
| 36 | 26 07 | -5 46.7 | 17.2 | 1.0 | 30.12 | | |
| 37 | 30 39 | -7 14.2 | (22.0) | 5.1 | 30.12 | | |
| 38 | 30 27 | -4 26.0 | (17.9) | 1.3 | 30.12 | | |

Table I. (cont.)

| No | α 1900 | δ 1900 | magn. | Δm_{pg} | date | ident. |
|----|--|---------------|--------|-----------------|------------|--------|
| | | | | | | H R |
| 39 | 5 ^h 30 ^m 30 ^s | -6 05.4 | 16.4 | 2.4 | 09.12.1971 | H R |
| 40 | 23 02 | -5 04.5 | (19.8) | 3.7 | 09.12 | |
| 41 | 29 47 | -5 50.2 | 18.0 | 3.2 | 17.12 | |
| 42 | 29 13 | -5 05.8 | 17.5 | 2.1 | 17.12 | |
| 43 | 28 17 | -4 55.8 | 17.2 | 2.0 | 17.12 | |
| 44 | 28 33 | -5 09.0 | (19.6) | 3.8 | 17.12 | |
| 45 | 29 54 | -5 50.5 | 16.6 | 2.7 | 10.01.1972 | 218 |
| 46 | 28 47 | -4 59.9 | 18.3 | 2.5 | 19.01 | |
| 47 | 30 39 | -5 55.0 | 16.2 | 1.0 | 19.01 | |
| 48 | 23 59 | -4 46.7 | 17.1 | 2.2 | 19.01 | 56 |

The details of observations will be published later.

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