

COMMISSION 27 OF THE I.A.U.
INFORMATION BULLETIN ON VARIABLE STARS
NUMBER III

Konkoly Observatory
 Budapest
 27 October 1965

MINIMA OF ECLIPSING VARIABLES

Given are 78 observed minima for 27 eclipsing variable stars. All are visual timings reduced by the tracing-paper method, except where noted. Elements in the 1958 General Catalogue of Variable Stars were used to compute O - C's unless otherwise specified. The number of estimates used for each minimum is given under n.

| J.D.O | E | O - C | n | Observer |
|------------------------|----------|--------|----|-------------|
| <u>RT Andromedae</u> | | | | |
| 2438252.584 | +22,472 | -0.023 | 18 | J. Ashbrook |
| 38931.834 | +23,552 | -0.020 | 8 | D. Williams |
| <u>KO Aquilae</u> | | | | |
| 38931.800 | +1.761 | -0.009 | 13 | D. Williams |
| <u>OO Aquilae</u> | | | | |
| 38927.687 | +9,276.5 | -0.017 | 9 | C. Ricker |
| 38928.704 | +9,278.5 | -0.014 | 14 | D. Williams |
| 38931.745 | +9,284.5 | -0.013 | 9 | D. Williams |
| 38935.806 | +9,292.5 | -0.007 | 11 | M. Murphy |
| 38936.813 | +9,294.5 | -0.013 | 11 | R. Monske |
| 38937.824 | +9,296.5 | -0.016 | 12 | R. Monske |
| 38938.840 | +9,298.5 | -0.014 | 12 | R. Monske |
| 38964.674 | +9,349.5 | -0.026 | 8 | D. Williams |
| 38966.715 | +9,353.5 | -0.012 | 8 | D. Williams |
| <u>V342 Aquilae</u> 1/ | | | | |
| 38955.750 | + 980 | +0.009 | 33 | R. Monske |
| 38972.707 | + 985 | +0.011 | 33 | R. Monske |
| <u>V346 Aquilae</u> | | | | |
| 38967.712 | +6,904 | -0.018 | 10 | D. Williams |

- 2 -

| J.D. | E | O - C | n | Observer |
|---------------------------|---------|---------|------|---------------------|
| <u>IV Aurigae</u> | | | | |
| 24 38755.618 | + 2,175 | +0.011 | 20 | D. Friedman |
| 38770.759 | + 2,181 | -0.001 | 20 | M. Baldwin |
| 38808.630 | + 2,196 | -0.003 | 11 | M. Baldwin |
| 38813.679 | + 2,198 | -0.004 | 17 | M. Baldwin |
| 38851.567 | + 2,213 | +0.009 | 8 | T. Hering |
| <u>SV Camelopardalis</u> | | | | |
| 38892.665 | +11,137 | -0.022 | 16 | M. Murphy |
| 38927.673 | +11,196 | -0.005 | 17 | M. Murphy |
| <u>R Canis Maioris</u> | | | | |
| 38817.533 | + 2,907 | +0.001 | 16 | H. Marraco |
| 38818.668 2/ | + 2,908 | +0.0006 | 27pe | J. Ruiz, D. Taboada |
| <u>RZ Cassiopeiae</u> | | | | |
| 38770.721 | +17,917 | -0.031 | 17 | M. Baldwin |
| 38782.669 | +17,927 | -0.035 | 18 | M. Baldwin |
| 38788.645 | +17,932 | -0.035 | 16 | M. Baldwin |
| 38794.625 | +17,937 | -0.032 | 13 | M. Baldwin |
| 38966.740 | +18,081 | -0.033 | 8 | D. Williams |
| <u>U Cephei</u> | | | | |
| 38727.781 | +12,370 | +0.729 | 44 | M. Baldwin |
| <u>IX Cephei</u> | | | | |
| 38727.708 | + 5,832 | -0.076 | 15 | M. Baldwin |
| <u>U Coronae Borealis</u> | | | | |
| 38938.736 | + 6,428 | +0.006 | 35 | D. Friedman |
| 38938.742 | + 6,428 | +0.010 | 17 | R. Monske |
| <u>Z Draconis</u> | | | | |
| 38881.727 | + 4,135 | +0.015 | 20 | D. Williams |
| 38915.658 | + 4,160 | +0.010 | 16 | R. Monske |
| 38938.739 | + 4,177 | +0.015 | 11 | R. Monske |
| 38953.672 | + 4,188 | +0.016 | 12 | R. Monske |
| <u>AI Draconis</u> | | | | |
| 38902.765 | +11,899 | +0.012 | 9 | D. Williams |
| 38938.729 | +11,929 | +0.012 | 11 | D. Williams |
| 38938.744 | +11,929 | +0.027 | 34 | D. Friedman |

| J.D. G | E | O - C | n | Observer |
|-----------------------|-----------|---------|------|-------------|
| <u>Z Herculis</u> | | | | |
| 2438931.752 | + 1,285 | +0.007 | 16 | D. Williams |
| 38967.680 | + 1,294 | 0.000 | 13 | D. Williams |
| 38971.684 | + 1,295 | +0.011 | 9 | D. Williams |
| <u>SZ Herculis</u> 3/ | | | | |
| 38879.885 | + 2,143 | +0.010 | 20 | M. Baldwin |
| 38888.883 | + 2,154 | +0.009 | 13 | M. Baldwin |
| 38902.795 | + 2,171 | +0.014 | 14 | T. Cragg |
| 38902.795 | + 2,171 | +0.014 | 16 | D. Williams |
| 38916.702 | + 2,188 | +0.013 | 11 | R. Monske |
| 38920.792 | + 2,193 | +0.013 | 15 | M. Murphy |
| 38925.699 | + 2,199 | +0.011 | 13 | R. Monske |
| 38938.782 | + 2,215 | +0.004 | 16 | G. Brown |
| 38938.790 | + 2,215 | +0.012 | 12 | R. Monske |
| 38943.702 | + 2,221 | +0.016 | 11 | R. Monske |
| 38952.697 | + 2,232 | +0.012 | 10 | R. Monske |
| 38956.787 | + 2,237 | +0.011 | 16 | R. Swanberg |
| 38961.692 | + 2,243 | +0.008 | 9 | W. Hampton |
| 38965.788 | + 2,248 | +0.013 | 16 | R. Swanberg |
| 38988.701 | + 2,276 | +0.020 | 15 | R. Swanberg |
| <u>u Herculis</u> | | | | |
| 38937.745 | +16,142 | +0.037 | 10 | D. Williams |
| <u>SW Lacertae</u> | | | | |
| 38967.740 | +48,625.5 | +0.024 | 10 | D. Williams |
| 38979.663 | +48,631.5 | +0.022 | 7 | D. Williams |
| <u>SS Librae</u> | | | | |
| 38916.681 | +12,980 | +0.006 | 13 | R. Monske |
| 38952.638 | +13,005 | +0.013 | 13 | R. Monske |
| <u>Delta Librae</u> | | | | |
| 38880.842 | + 1,901 | +0.001 | 23 | M. Baldwin |
| 38920.4050 4/ | + 1,918 | -0.0007 | 33pe | L. Kalish |
| 38943.670 | + 1,928 | -0.009 | 18 | R. Monske |
| <u>PL Lyrae</u> | | | | |
| 38173.640 | + 1,982 | +0.004 | 17 | J. Ashbrook |
| <u>U Ophiuchi</u> | | | | |
| 38919.725 | +18,267 | +0.005 | 8 | T. Cragg |
| 38966.684 | +18,295 | -0.002 | 13 | D. Williams |
| 38971.707 | +18,298 | -0.011 | 7 | D. Williams |

- 4 -

| J.D. | E | O - C | n | Observer |
|--|--------------------|------------------|----------|--------------------------|
| <u>RV Ophiuchi</u> 24 38911.787 | + 4,045 | -0.017 | 7 | T. Cragg |
| <u>RT Persei</u> 38770.603 | + 6,572 | -0.012 | 8 | M. Baldwin |
| <u>U Sagittae</u> 38938.796 38955.696 | + 6,451 + 6,456 | +0.012 +0.009 | 23 21 | R. Monske R. Monske |
| <u>V505 Sagittarii</u> 38938.760 38958.774 | + 4,585 + 4,585 | -0.035 -0.021 | 12 8 | R. Monske D. Williams |
| <u>BV 312 Tauri</u> 5/ 38770.754 38805.696 | + 6,385 + 6,402 | +0.013 -0.002 | 20 22 | M. Baldwin M. Baldwin |

These results continue the lists published in "Sky and Telescope" (27, 58, 1964; 29, 254, 1965) from amateur observations. Expansion of this program has led to sponsorship by the American Association of Variable Star Observers, with David B. Williams as coordinator. The reductions are made by the writer, in collaboration with Joseph Ashbrook, except in a few cases which were only checked.

L.J. ROBINSON

"Sky and Telescope"
49 Bay State Rd.
Cambridge, Mass. 02138
U.S.A.

Notes to Table

1/ O - C's were computed from the elements given in I.B.V.S.,
No. 92, Min = JD₀ 2435632.603 + 3.3909547 E.

2/ Reduced by Kwee - van Woerden method. The probable error of the time of minimum is ± 0.0014 .

3/ O - C's were computed from the elements given in Sky and Tele.,
25, 5, 277

4/ Time of minimum determined from 19 observations on J.D. 38908⁺
and 14 observations on 38929⁺.

5/ O - C's were computed from the elements given in Sky and Tele.,
26, 5, 264.