

BBSAG Bulletin 122

Nr Design. Star Type O e. O-C n Obs Remarks

BBSAG

BULLETIN

122

May 15, 2000

155. LIST OF MINIMA OF ECLIPSING BINARIES

The following table lists 56 electronically recorded (CCD; underlined) and 195 visual timings of minima of eclipsing binaries obtained primarily between January and April 2000 by the following observers:

| | |
|-----|--|
| EBl | Ernst Blaettler, Wald, Switzerland, blaettler-wald@bluewin.ch |
| RD | Roger Diethelm, R. Szafraniec Observatory, Metzerlen, Switzerland, diethelm@astro.unibas.ch |
| MKo | Michael Kohl, Laupen, Switzerland, mike.kohl@gmx.ch |
| KL | Kurt Locher, Grÿt, Switzerland, locher@tommasi.ch |
| APs | Anton Paschke, Rÿti, Switzerland, Anton@Paschke.com |
| KT | Kari A. Tikkanen, Oulu, Finland, ktikkane@mail.student.oulu.fi |
| JVe | Jean-Paul Verrot, Valence, France, jp-verrot@wanadoo.fr |

The O-C values given in the table below generally refer to the linear elements of the GCVS 1985, with the remarked exceptions. For the determination of the time of the minima, the tracing paper method was employed. For the reduction of some of the electronic observations, the Kwee-van Woerden algorithm was used. All times are UTC.

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|---------------|------|-------------------|--------|---------|----|-----|--------------------------|
| 35980 | 0058+378 | WZ And | p | 51551.367 | 0.005 | +0.041 | 7 | MKo | |
| 35981 | 0153+418 | XZ And | p | 51569.395 | 0.004 | +0.099 | 6 | KL | |
| 35982 | 0017+399 | CN And | p | <u>51558.3419</u> | 0.0013 | -0.0743 | 12 | RD | CCD |
| 35983 | 0154+378 | DS And | s | <u>51547.258</u> | 0.003 | 0.000 | 13 | RD | CCD; see note p. 7 |
| 35984 | 0139+445 | EP And | p | 51557.240 | 0.006 | +0.065 | 6 | KL | |
| 35985 | 0031+410 | HS And | p | <u>51434.479</u> | 0.005 | +0.218 | 42 | APs | CCD |
| 35986 | 0302+283 | TX Ari | p | 51576.365 | 0.003 | -0.048 | 16 | JVe | |
| 35987 | 0514+382 | RY Aur | p | 51518.635 | 0.003 | +0.024 | 7 | KL | |
| 35988 | 0629+324 | WW Aur | p | 51244.361 | 0.005 | +0.007 | 22 | KT | |
| 35989 | 0515+337 | AR Aur | p | 51273.405 | 0.007 | -0.084 | 88 | KT | normal min. |
| 35990 | 0509+334 | CL Aur | p | 51569.365 | 0.009 | +0.098 | 5 | KL | |
| 35991 | 0549+523 | IZ Aur | p | <u>51556.5184</u> | 0.0007 | -0.1233 | 22 | EBl | CCD; elem. IBVS No. 4586 |
| 35992 | 0602+483 | KO Aur | p | 51580.494 | 0.008 | -0.042 | 6 | MKo | elem. IBVS No. 3410 |
| 35993 | 0624+304 | KU Aur | p | 51547.367 | 0.005 | +0.043 | 5 | KL | |
| 35994 | 1402+302 | TU Boo | s | 51578.715 | 0.005 | 0.000 | 6 | KL | elem. A&AS, 117, 105 |
| 35995 | 1506+401 | TZ Boo | s | <u>51642.5744</u> | 0.0010 | +0.0789 | 12 | RD | CCD |
| 35996 | 1454+465 | AC Boo | p | <u>51610.5671</u> | 0.0010 | +0.0016 | 17 | RD | CCD |
| 35997 | 1345+175 | AQ Boo | p | <u>51602.3928</u> | 0.0009 | +0.0006 | 28 | EBl | CCD; elem IBVS No. 4871 |
| 35998 | | | s | <u>51602.5585</u> | 0.0003 | -0.0003 | 27 | EBl | CCD |
| 35999 | 1300+568 | BI CVn | p | 51656.343 | 0.004 | +0.002 | 11 | JVe | elem. IBVS No. 4554 |
| 36000 | 0711-180 | RX CMa | p | 51614.302 | 0.004 | -0.098 | 10 | KL | |
| 36001 | 0244+694 | RZ Cas | p | 51170.248 | 0.001 | +0.035 | 17 | KT | |
| 36002 | | | p | 51171.439 | 0.002 | +0.030 | 19 | KT | |
| 36003 | | | p | 51188.175 | 0.003 | +0.033 | 13 | KT | |
| 36004 | | | p | 51189.368 | 0.002 | +0.031 | 16 | KT | |
| 36005 | | | p | 51207.297 | 0.003 | +0.031 | 10 | KT | |
| 36006 | | | p | 51220.445 | 0.002 | +0.031 | 15 | KT | |
| 36007 | | | p | 51226.421 | 0.002 | +0.031 | 13 | KT | |
| 36008 | | | p | 51244.351 | 0.003 | +0.032 | 14 | KT | |
| 36009 | | | p | 51250.328 | 0.002 | +0.033 | 14 | KT | |
| 36010 | | | p | 51251.521 | 0.002 | +0.031 | 13 | KT | |
| 36011 | | | p | 51263.474 | 0.002 | +0.031 | 18 | KT | |
| 36012 | | | p | 51281.404 | 0.002 | +0.033 | 20 | KT | |
| 36013 | | | p | 51293.358 | 0.003 | +0.034 | 12 | KT | |
| 36014 | | | p | 51416.467 | 0.003 | +0.033 | 21 | KT | |
| 36015 | | | p | 51428.418 | 0.004 | +0.031 | 18 | KT | |
| 36016 | | | p | 51434.396 | 0.003 | +0.033 | 16 | KT | |
| 36017 | | | p | 51458.303 | 0.003 | +0.035 | 9 | KT | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|---------|------|------|-----------|-------|--------|----|-----|---------|
| 36018 | | | p | 51470.254 | 0.003 | +0.034 | 16 | KT | |
| 36019 | | | p | 51514.479 | 0.002 | +0.035 | 10 | KT | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|-----------------|------|-------------------|---------------|----------------|----|-----|--------------------------------|
| 36020 | 0244+694 | RZ Cas | p | 51520.454 | 0.003 | +0.033 | 6 | KT | |
| 36021 | | | p | 51543.162 | 0.002 | +0.032 | 9 | KT | |
| 36022 | 0016+588 | TV Cas | p | 51171.287 | 0.010 | -0.013 | 18 | KT | |
| 36023 | | | p | 51247.421 | 0.009 | -0.009 | 15 | KT | |
| 36024 | 0232+710 | AB Cas | p | 51551.362 | 0.007 | +0.060 | 7 | MKo | |
| 36025 | | | p | 51641.572 | 0.003 | +0.056 | 8 | KL | |
| 36026 | 0135+631 | BW Cas | p | <u>51575.3398</u> | <u>0.0009</u> | <u>-0.1125</u> | 15 | RD | CCD; e. IBVS No. 4531, s. p. 8 |
| 36027 | 0042+628 | CW Cas | p | <u>51597.3101</u> | <u>0.0005</u> | <u>-0.0158</u> | 35 | EBl | CCD; elem JAAVSO 21, 34 |
| 36028 | | | s | <u>51597.4706</u> | <u>0.0005</u> | <u>-0.0147</u> | 37 | EBl | CCD |
| 36029 | | | p | <u>51598.5856</u> | <u>0.0004</u> | <u>-0.0158</u> | 44 | EBl | CCD |
| 36030 | 2304+538 | IR Cas | p | 51659.531 | 0.006 | +0.037 | 5 | KL | |
| 36031 | 0009+598 | MS Cas | p | <u>51558.3634</u> | <u>0.0004</u> | <u>+0.0357</u> | 15 | RD | CCD |
| 36032 | 0019+572 | NN Cas | p | <u>51575.217</u> | <u>0.003</u> | <u>-0.306</u> | 8 | RD | CCD |
| 36033 | 0045+605 | OR Cas | p | 51623.604 | 0.004 | -0.015 | 6 | KL | |
| 36034 | 0111+487 | V389 Cas | p | 51434.461 | 0.003 | +0.128 | 7 | MKo | |
| 36035 | 0037+499 | V523 Cas | p | 51597.380 | 0.003 | +0.042 | 5 | KL | |
| 36036 | 0057+816 | U Cep | p | 50871.539 | 0.004 | +0.088 | 32 | KT | |
| 36037 | | | p | 50906.446 | 0.004 | +0.093 | 30 | KT | |
| 36038 | | | p | 51250.493 | 0.003 | +0.099 | 19 | KT | |
| 36039 | | | p | 51437.473 | 0.003 | +0.101 | 15 | KT | |
| 36040 | | | p | 51457.420 | 0.004 | +0.103 | 11 | KT | |
| 36041 | | | p | 51492.323 | 0.003 | +0.104 | 13 | KT | |
| 36042 | 2038+754 | VW Cep | s | 51171.237 | 0.007 | +0.014 | 11 | KT | elem. IBVS No. 4117 |
| 36043 | | | p | 51171.376 | 0.008 | +0.014 | 8 | KT | |
| 36044 | | | s | 51187.376 | 0.012 | +0.011 | 16 | KT | |
| 36045 | | | s | 51247.494 | 0.007 | +0.015 | 9 | KT | |
| 36046 | | | s | 51263.354 | 0.007 | +0.011 | 7 | KT | |
| 36047 | | | p | 51292.431 | 0.007 | +0.005 | 10 | KT | |
| 36048 | | | s | 51411.414 | 0.004 | +0.011 | 14 | KT | |
| 36049 | | | s | 51431.443 | 0.010 | +0.003 | 11 | KT | |
| 36050 | | | s | 51497.407 | 0.007 | +0.008 | 9 | KT | |
| 36051 | 2140+694 | EK Cep | p | 51409.404 | 0.003 | +0.005 | 16 | KT | |
| 36052 | 2130+706 | GK Cep | p | 51427.471 | 0.005 | +0.093 | 51 | KT | norm. minimum |
| 36053 | | | s | 51435.427 | 0.007 | +0.092 | 24 | KT | norm. minimum |
| 36054 | 2024+614 | HI Cep | p | 51626.657 | 0.008 | +0.003 | 8 | KL | elem. BBSAG Bull. 114, 12 |
| 36055 | 2109+575 | IO Cep | p | 51656.433 | 0.004 | -0.008 | 6 | KL | |
| 36056 | 0220+809 | V358 Cep | p | 51571.251 | 0.005 | +0.020 | 6 | KL | elem. BBSAG Bull. 96, 10 |
| 36057 | 0212-124 | RW Cet | p | 51551.356 | 0.002 | +0.023 | 7 | MKo | |
| 36058 | 0246+015 | SS Cet | p | <u>51459.507</u> | <u>0.004</u> | <u>+0.005</u> | 73 | APs | CCD |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|------------------|------|-------------------|--------|---------|-----|-----|-----------------------------|
| 36059 | 0146-211 | TW Cet | p | 51551.287 | 0.004 | -0.023 | 6 | KL | |
| 36060 | 0147-198 | VY Cet | p | 51549.311 | 0.004 | -0.008 | 5 | KL | |
| 36061 | 0156-231 | AA Cet | p | 51557.227 | 0.009 | -0.028 | 5 | KL | |
| 36062 | 1230+269 | RW Com | p | <u>51660.4104</u> | 0.0009 | -0.0248 | 16 | RD | CCD |
| 36063 | 1156+172 | VY Com | p | <u>51660.429</u> | 0.003 | +0.017 | 9 | RD | CCD; see note p. 7 |
| 36064 | 1226+220 | DD Com | s | <u>51660.3991</u> | 0.0010 | +0.0496 | 16 | RD | CCD |
| 36065 | 1227+212 | DG Com | p | <u>51654.442</u> | 0.003 | -0.039 | 15 | RD | CCD |
| 36066 | 1516+318 | UCrB | p | 51432.323 | 0.010 | +0.084 | 27 | KT | normal minimum |
| 36067 | 1604+274 | TW CrB | s | <u>51659.4790</u> | 0.0008 | +0.0259 | 14 | RD | CCD |
| 36068 | 1205-128 | W Crv | p | 51602.607 | 0.003 | +0.011 | 6 | KL | |
| 36069 | 1121-164 | V Crf | p | 51546.667 | 0.008 | -0.001 | 6 | KL | |
| 36070 | 2051+386 | WZ Cyg | p | 51435.342 | 0.003 | +0.057 | 5 | MKo | |
| 36071 | 2022+467 | ZZ Cyg | p | 51660.511 | 0.004 | -0.037 | 6 | KL | |
| 36072 | 1939+466 | BR Cyg | p | 51601.645 | 0.007 | -0.012 | 5 | KL | |
| 36073 | 2046+391 | V367 Cyg | p | 51413.49 | 0.12 | -0.05 | 133 | KT | normal minimum |
| 36074 | | | s | 51422.97 | 0.15 | +0.13 | 65 | KT | normal minimum |
| 36075 | 1941+326 | V370 Cyg | p | 51606.676 | 0.002 | -0.014 | 6 | KL | |
| 36076 | 2025+586 | V728 Cyg | p | 51625.539 | 0.005 | +0.038 | 5 | KL | |
| 36077 | 1937+575 | V940 Cyg | s | <u>51549.372</u> | 0.002 | 0.000 | 29 | EBl | CCD; elem. see page 8 |
| 36078 | | | s | <u>51551.364</u> | 0.002 | -0.003 | 32 | EBl | CCD |
| 36079 | | | p | <u>51551.5341</u> | 0.0006 | +0.0005 | 21 | EBl | CCD |
| 36080 | 1937+548 | V1143 Cyg | p | 51427.513 | 0.005 | -0.010 | 47 | KT | normal minimum |
| 36081 | 2101+130 | TY Del | p | 51434.366 | 0.002 | +0.053 | 7 | MKo | |
| 36082 | 2014+157 | EX Del | s | <u>51508.916</u> | 0.005 | +0.001 | 46 | APs | CCD; n, e. BBSAG B. 114, 11 |
| 36083 | 1142+725 | Z Dra | p | 51610.404 | 0.004 | -0.131 | 10 | KL | |
| 36084 | 1841+626 | RR Dra | p | 51615.550 | 0.004 | +0.060 | 7 | KL | |
| 36085 | 1822+588 | RZ Dra | p | 51430.403 | 0.003 | +0.043 | 8 | MKo | |
| 36086 | | | p | 51435.357 | 0.002 | +0.039 | 7 | MKo | |
| 36087 | 1533+640 | TW Dra | p | 51619.370 | 0.009 | +0.021 | 6 | KL | |
| 36088 | 1214+651 | AR Dra | p | 51563.568 | 0.004 | +0.007 | 7 | KL | |
| 36089 | 1735+686 | AU Dra | p | <u>51556.6078</u> | 0.0011 | -0.0005 | 18 | EBl | CCD; elem. IBVS No. 4587 |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|--------|----------|-----------------|------|-------------------|--------|---------|----|-----|------------------------------|
| 36090 | 1922+698 | DW Dra | p | 51619.501 | 0.008 | +0.016 | 10 | KL | elem. BBSAG Bull. 118, 7 |
| 36091 | 1906+592 | KK Dra | p | 51557.407 | 0.004 | -0.021 | 5 | KL | elem. BBSAG Bull. 120, 7 |
| 36092 | | LD282 Dra | p | 51570.532 | 0.003 | -0.018 | 7 | KL | |
| 36093 | | | p | 51619.437 | 0.003 | -0.023 | 10 | KL | |
| 36094 | | | p | 51626.593 | 0.002 | -0.024 | 11 | KL | |
| 36095 | | | p | 51650.452 | 0.002 | -0.023 | 13 | KL | |
| .36096 | 2054+048 | S Equ | p | 51434.452 | 0.005 | +0.067 | 11 | MKo | |
| 36097 | 0409-105 | YY Eri | p | <u>51496.427</u> | 0.004 | -0.077 | 26 | APs | CCD |
| 36098 | 0650+160 | AH Gem | s | <u>51616.4544</u> | 0.0007 | | 32 | EBl | CCD; GCVS el. not sufficient |
| 36099 | 0651+161 | Al Gem | p | <u>51616.324</u> | 0.004 | | 58 | EBl | CCD; GCVS el. not sufficient |
| 36100 | 0631+155 | BD Gem | p | 51602.356 | 0.003 | -0.028 | 6 | KL | |
| 36101 | 0637+218 | CX Gem | p | 51603.293 | 0.004 | +0.001 | 4 | KL | |
| 36102 | 0702+107 | GM Gem | p | <u>51654.364</u> | 0.003 | -0.006 | 5 | RD | CCD |
| 36103 | 0706+130 | GP Gem | s | <u>51602.3452</u> | 0.0007 | +0.0746 | 16 | RD | CCD |
| 36104 | 0642+344 | GX Gem | | <u>51563.5046</u> | 0.0006 | | 33 | EBl | CCD; GCVS elements wrong |
| 36105 | | | | <u>51575.6061</u> | 0.0012 | | 28 | EBl | CCD |
| 36106 | | | | <u>51656.3746</u> | 0.0004 | | 44 | EBl | CCD |
| 36107 | 1737+329 | SZ Her | p | 51434.402 | 0.002 | -0.017 | 9 | MKo | |
| 36108 | | | p | 51563.647 | 0.005 | -0.031 | 7 | KL | |
| 36109 | 1711+307 | TU Her | p | 51619.549 | 0.003 | -0.093 | 7 | KL | |
| 36110 | 1615+090 | CC Her | p | 51636.558 | 0.002 | +0.108 | 10 | KL | |
| 36111 | 1819+144 | MT Her | p | 51654.573 | 0.007 | +0.013 | 7 | KL | |
| 36112 | 1714+209 | V381 Her | p | 51578.669 | 0.004 | +0.145 | 6 | KL | |
| 36113 | 0926+057 | TY Hya | p | 51570.641 | 0.009 | +0.004 | 5 | KL | |
| 36114 | 1017-229 | VY Hya | p | 51650.316 | 0.007 | -0.076 | 6 | KL | |
| 36115 | 0928-187 | AS Hya | p | 51575.531 | 0.003 | -0.024 | 7 | KL | elem. BBSAG Bull. 83, 5 |
| 36116 | 0932+055 | AV Hya | p | <u>51602.3271</u> | 0.0014 | -0.0045 | 14 | RD | CCD; elem. BAV Rb. 43, 108 |
| 36117 | 2238+380 | VX Lac | p | 51430.396 | 0.002 | +0.032 | 8 | MKo | |
| 36118 | 2244+565 | CO Lac | p | <u>51549.3114</u> | 0.0006 | -0.0166 | 16 | RD | CCD |
| 36119 | 2226+535 | DG Lac | p | 51638.520 | 0.008 | -0.178 | 6 | KL | |
| 36120 | 0933+264 | Y Leo | p | 51575.562 | 0.003 | +0.014 | 9 | KL | |
| 36121 | 1037+092 | RW Leo | p | 51636.515 | 0.003 | -0.045 | 5 | KL | |
| 36122 | 1142+250 | BL Leo | s | 51606.654 | 0.005 | -0.008 | 5 | KL | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|-----------|------|-------------------|---------------|----------------|----|-----|---------------------------|
| 36123 | 0946+346 | RT LMi | s | <u>51654.3948</u> | <u>0.0008</u> | <u>-0.0025</u> | 13 | RD | CCD |
| 36124 | 0507-149 | Z Lep | p | 51596.279 | 0.005 | +0.040 | 6 | KL | elem. JAAVSO 21, 111 |
| 36125 | 0851+466 | RY Lyn | p | 51629.349 | 0.006 | -0.041 | 5 | KL | |
| 36126 | 1831+377 | EW Lyr | p | 51636.517 | 0.003 | +0.242 | 8 | KL | |
| 36127 | 0632+088 | RW Mon | p | 51580.541 | 0.005 | -0.037 | 5 | KL | |
| 36128 | 0757-033 | BO Mon | p | 51598.417 | 0.003 | -0.077 | 9 | KL | |
| 36129 | 0755-070 | FW Mon | p | 51609.437 | 0.009 | -0.032 | 5 | KL | |
| 36130 | 0654+118 | IX Mon | p | <u>51575.3311</u> | <u>0.0008</u> | <u>-0.0274</u> | 15 | RD | CCD |
| 36131 | 0633+079 | NS Mon | s | <u>51609.3316</u> | <u>0.0007</u> | <u>+0.005</u> | 13 | RD | CCD; elem. IBVS No. 4143 |
| 36132 | 0627+097 | V479 Mon | | <u>51558.377</u> | <u>0.003</u> | | 8 | RD | CCD; no e. in GCVS |
| 36133 | | | | <u>51580.399</u> | <u>0.004</u> | | 9 | RD | CCD |
| 36134 | | | | <u>51602.415</u> | <u>0.004</u> | | 9 | RD | CCD |
| 36135 | 1732+072 | RV Oph | p | 51606.553 | 0.009 | -0.001 | 6 | KL | |
| 36136 | 1728+106 | V449 Oph | p | 51642.538 | 0.007 | +0.055 | 8 | KL | |
| 36137 | 1756+135 | V508 Oph | s | 51601.707 | 0.004 | +0.007 | 6 | KL | |
| 36138 | 0608+163 | EG Ori | p | <u>51509.622</u> | <u>0.007</u> | <u>-0.076</u> | 40 | APs | CCD |
| 36139 | 0454-036 | EQ Ori | p | 51546.325 | 0.003 | -0.011 | 6 | KL | |
| 36140 | 0610+214 | FT Ori | s | <u>51580.3032</u> | <u>0.0008</u> | <u>+0.6470</u> | 14 | RD | CCD; displ. secondary |
| 36141 | 0552-093 | V640 Ori | p | 51602.291 | 0.003 | -0.084 | 7 | KL | |
| 36142 | 0554+140 | V641 Ori | p | <u>51625.3532</u> | <u>0.0007</u> | <u>-0.0288</u> | 37 | EBl | CCD |
| 36143 | 0618+031 | V647 Ori | p | 51579.358 | 0.004 | +0.223 | 16 | JVe | |
| 36144 | 0545-105 | V1031 Ori | s | 51572.315 | 0.021 | -0.327 | 70 | KT | normal minimum; note p. 7 |
| 36145 | | | p | 51577.402 | 0.012 | -0.348 | 40 | KT | |
| 36146 | 2250+153 | BG Peg | p | <u>51510.356</u> | <u>0.005</u> | <u>+0.083</u> | 68 | APs | CCD; elem. Brno Contr. 28 |
| 36147 | 2357+184 | DM Peg | p | <u>51549.3301</u> | <u>0.0007</u> | <u>+0.1244</u> | 17 | RD | CCD |
| 36148 | 0320+463 | RT Per | p | 51580.449 | 0.002 | +0.043 | 7 | MKo | |
| 36149 | 0407+341 | RV Per | p | <u>51547.3080</u> | <u>0.0007</u> | <u>-0.0064</u> | 15 | RD | CCD |
| 36150 | 0405+464 | XZ Per | p | 51557.356 | 0.003 | -0.044 | 5 | KL | |
| 36151 | | | p | 51580.391 | 0.003 | -0.042 | 7 | MKo | |
| 36152 | | | p | 51625.296 | 0.004 | -0.050 | 6 | KL | |
| 36153 | 0220+577 | DK Per | p | 51569.237 | 0.008 | -0.023 | 5 | KL | elem. IBVS No. 3875 |
| 36154 | 0156+529 | KW Per | p | 51549.298 | 0.005 | +0.004 | 6 | KL | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|-----------------|-----------|-------------------|---------------|----------------|----|-----|------------------------------|
| 36155 | 0302+470 | QT Per | s | <u>51580.3774</u> | <u>0.0010</u> | <u>-0.0329</u> | 18 | RD | CCD; e. MVS 11, 66; see p. 7 |
| 36156 | 0307+368 | V457 Per | p | <u>51580.349</u> | <u>0.002</u> | <u>+0.018</u> | 9 | RD | CCD |
| 36157 | 0304+407 | Beta Per | p | 50312.383 | 0.006 | +0.031 | 22 | KT | norm. min. |
| 36158 | p | | 51092.285 | 0.005 | +0.026 | 10 | KT | | |
| 36159 | p | | 51155.366 | 0.005 | +0.026 | 24 | KT | | |
| 36160 | p | | 51241.383 | 0.004 | +0.024 | 7 | KT | | |
| 36161 | 0126+193 | SU Psc | p | 51547.245 | 0.005 | -0.201 | 12 | JVe | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|---------------|------|-------------------|---------------|----------------|----|-----|----------------------------|
| 36162 | 0054+120 | SX Psc | p | 51551.297 | 0.004 | +0.004 | 5 | KL | |
| 36163 | 0739-151 | GK Pup | p | 51570.572 | 0.006 | +0.039 | 5 | KL | |
| 36164 | 1916+195 | U Sge | p | 50676.287 | 0.007 | -0.010 | 38 | KT | normal minimum |
| 36165 | | | p | 51058.297 | 0.004 | -0.010 | 8 | KT | normal minimum |
| 36166 | | | p | 51423.401 | 0.004 | -0.013 | 14 | KT | |
| 36167 | 1556+173 | AO Ser | p | 51610.509 | 0.006 | +0.014 | 6 | KL | |
| 36168 | 1554+224 | AU Ser | s | 51563.668 | 0.007 | -0.065 | 6 | KL | |
| 36169 | 1521+027 | CX Ser | p | <u>51610.5291</u> | <u>0.0011</u> | <u>+0.4272</u> | 16 | RD | CCD |
| 36170 | 0400+279 | RW Tau | p | 51609.364 | 0.003 | -0.148 | 9 | KL | |
| 36171 | 0344+249 | AH Tau | p | 51549.227 | 0.007 | -0.098 | 5 | KL | |
| 36172 | 0549+162 | AM Tau | p | 51575.268 | 0.003 | -0.012 | 10 | JVe | |
| 36173 | | | p | 51579.323 | 0.004 | -0.045 | 18 | JVe | |
| 36174 | | | p | 51581.371 | 0.005 | -0.040 | 5 | KL | |
| 36175 | 0940+561 | W UMa | p | 50571.427 | 0.007 | -0.026 | 10 | KT | |
| 36176 | | | s | 50686.366 | 0.003 | -0.025 | 10 | KT | |
| 36177 | | | s | 50690.369 | 0.005 | -0.026 | 11 | KT | |
| 36178 | | | s | 50707.388 | 0.009 | -0.022 | 12 | KT | |
| 36179 | | | p | 50920.407 | 0.004 | -0.031 | 10 | KT | |
| 36180 | | | s | 51083.390 | 0.006 | -0.030 | 12 | KT | |
| 36181 | | | p | 51088.558 | 0.003 | -0.033 | 20 | KT | |
| 36182 | | | p | 51111.243 | 0.003 | -0.036 | 8 | KT | |
| 36183 | | | s | 51144.446 | 0.003 | -0.030 | 14 | KT | |
| 36184 | | | p | 51187.311 | 0.006 | -0.037 | 10 | KT | |
| 36185 | | | p | 51250.371 | 0.003 | -0.034 | 10 | KT | |
| 36186 | | | p | 51272.394 | 0.003 | -0.032 | 11 | KT | |
| 36187 | 1334+521 | UX UMa | p | 51574.669 | 0.001 | +0.004 | 6 | KL | |
| 36188 | 0928+496 | XZ UMa | p | 51551.477 | 0.005 | -0.047 | 6 | KL | |
| 36189 | 1026+620 | ZZ UMa | p | 51655.438 | 0.004 | +0.008 | 7 | KL | |
| 36190 | 1312-172 | UW Vir | p | 51606.588 | 0.005 | -0.035 | 7 | KL | |
| 36191 | 1239-015 | BS Vir | p | <u>51610.504</u> | <u>0.005</u> | <u>-0.056</u> | 9 | RD | CCD; e. AJ 109, 1239; p. 7 |
| 36192 | 1502+045 | CG Vir | p | <u>51642.5752</u> | <u>0.0014</u> | <u>-0.2528</u> | 12 | RD | CCD |
| 36193 | 1241-084 | HW Vir | p | 51542.722 | 0.001 | -0.002 | 5 | KL | elem. IBVS No. 4109 |
| 36194 | | | p | 51545.640 | 0.001 | -0.002 | 6 | KL | |
| 36195 | | | p | 51545.756 | 0.001 | -0.003 | 7 | KL | |
| 36196 | | | p | 51546.690 | 0.001 | -0.003 | 7 | KL | |
| 36197 | | | p | 51547.740 | 0.001 | -0.003 | 6 | KL | |
| 36198 | | | p | 51551.709 | 0.001 | -0.003 | 5 | KL | |
| 36199 | | | p | 51560.698 | 0.001 | -0.001 | 6 | KL | |
| 36200 | | | p | 51563.613 | 0.001 | -0.004 | 6 | KL | |
| 36201 | | | p | 51563.732 | 0.001 | -0.002 | 6 | KL | |
| 36202 | | | p | 51571.551 | 0.001 | -0.003 | 5 | KL | |
| 36203 | | | p | 51574.703 | 0.001 | -0.002 | 6 | KL | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|---------|------|------|-----------|-------|--------|---|-----|---------|
| 36204 | | | p | 51575.520 | 0.001 | -0.002 | 6 | KL | |
| 36205 | | | p | 51578.671 | 0.001 | -0.003 | 6 | KL | |
| 36206 | | | p | 51580.538 | 0.001 | -0.003 | 5 | KL | |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|-------|----------|--------|------|-------------------|--------|----------------|----|-----|---------------------------|
| 36207 | 1241-084 | HW Vir | p | 51588.710 | 0.001 | -0.002 | 6 | KL | |
| 36208 | | | p | 51595.596 | 0.001 | -0.002 | 6 | KL | |
| 36209 | | | p | 51601.665 | 0.001 | -0.002 | 5 | KL | |
| 36210 | | | p | 51602.599 | 0.001 | -0.002 | 6 | KL | elem. IBVS No. 4109 |
| 36211 | | | p | 51606.568 | 0.001 | -0.002 | 5 | KL | |
| 36212 | | | p | 51609.486 | 0.001 | -0.002 | 4 | KL | |
| 36213 | | | p | 51610.535 | 0.001 | -0.003 | 6 | KL | |
| 36214 | | | p | 51614.505 | 0.001 | -0.002 | 6 | KL | |
| 36215 | | | p | 51616.605 | 0.001 | -0.003 | 6 | KL | |
| 36216 | | | p | 51625.593 | 0.001 | -0.002 | 4 | KL | |
| 36217 | | | p | 51636.448 | 0.001 | -0.002 | 6 | KL | |
| 36218 | | | p | 51636.564 | 0.001 | -0.003 | 6 | KL | |
| 36219 | | | p | 51638.548 | 0.001 | -0.003 | 6 | KL | |
| 36220 | | | p | 51641.584 | 0.001 | -0.001 | 5 | KL | |
| 36221 | | | p | 51642.516 | 0.001 | -0.003 | 6 | KL | |
| 36222 | | | p | <u>51654.4223</u> | 0.0002 | <u>-0.0024</u> | 26 | EBl | CCD |
| 36223 | | | p | <u>51655.3560</u> | 0.0002 | <u>-0.0025</u> | 14 | EBl | CCD |
| 36224 | | | s | <u>51655.4143</u> | 0.0011 | <u>-0.0025</u> | 10 | EBl | CCD |
| 36225 | | | p | 51656.406 | 0.001 | -0.003 | 5 | KL | |
| 36226 | | | p | 51657.340 | 0.001 | -0.003 | 5 | KL | |
| 36227 | | | p | 51660.491 | 0.001 | -0.003 | 6 | KL | |
| 36228 | 1336-017 | NY Vir | p | <u>51660.4205</u> | 0.0013 | <u>-0.0145</u> | 12 | EBl | CCD; elem. MNRAS 296, 329 |
| 36229 | 1954+237 | BO Vul | p | 51659.522 | 0.004 | +0.008 | 6 | KL | |
| 36230 | 2044+280 | BU Vul | p | 51435.364 | 0.003 | +0.020 | 9 | MKo | |

Notes on observations given in table above

DS And

CCD observations of the secondary minimum of DS And yield a time of totality $D = 0.038^d \pm 0.010^d$.

VY Com

VY Com was observed for the first time with electronic means. Our data show that VY Com has a duration of totality amounting to $d = 0.079^d \pm 0.010^d$.

V1031 Ori

The duration of the minimum given in the GCVS ($D = 0.13^p$) is in error. The correct value should read $d = 0.013^p$ (observed by K. Tikkanen).

QT Per

This is one more variable for which the GCVS gives no information on the duration of totality. We find $d = 0.026^d \pm 0.006^d$ from CCD photometry.

BS Vir

The observed minimum of this little studied variable exhibits a constant phase of minimum light of about 0.075^d .

Erratum

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|----|---------|------|------|---|----|-----|---|-----|---|
| | | | | | | | | | On page 6 of the BBSAG Bulletin 121 , the designation of the variable whose provisional elements have been found, was given wrongly due to an editorial error. It should read NSV 25050 Cyg , as given correctly in the table of observations. |
| | | | | | | | | | R. Diethelm |

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| Nr | Design. | Star | Type | O | e. | O-C | n | Obs | Remarks |
|----|---------|------|------|---|----|-----|---|-----|---------|
|----|---------|------|------|---|----|-----|---|-----|---------|

Revised elements of variation for BW Cas

In IBVS No. 4531, we gave provisional elements for BW Cas. In the meantime, a number of additional minimum timings have been published in the BBSAG Bulletins. From these data we can refine the elements to

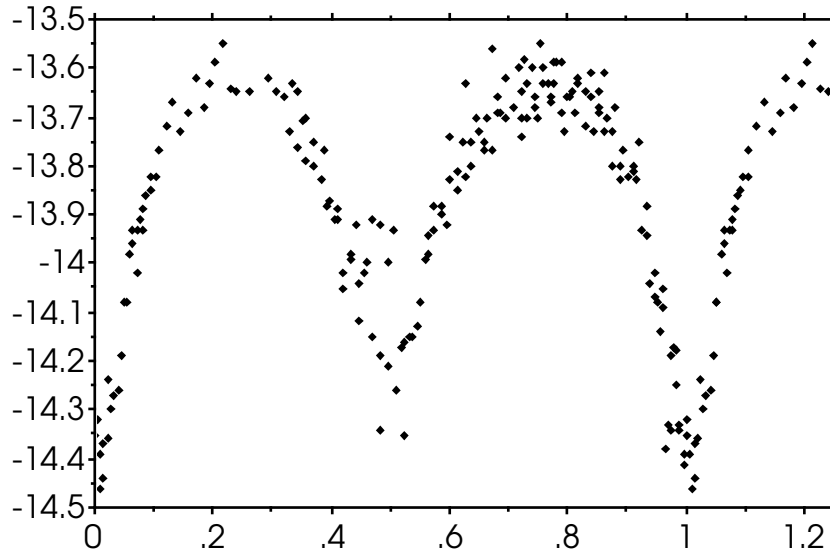
$$\text{Min}(\text{JD, hel}) = 2450710.303 + 1.26283 * E.$$

R. Diethelm

CCD light curve of V940 Cyg

With our CCD equipment (ST-7 camera, no filter, 15cm refractor) we have secured the complete light curve of another little studied EW type eclipsing binary: V940 Cyg. The following figure shows this light curve folded with the elements

$$\text{Min}(\text{JD, hel}) = 2451551.5336(6) + 0.332507(10) * E.$$



E. Blaettler