

## Occultations table

Observation point: VladimirNebotov  
EMail: nebotov@ukr.net  
Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')  
Maximal Distance = 250.0  
Maximal Mv = 14.00  
Minimal Duration = 0.5s  
Maximal Sun Elevation = 0.0  
Minimal drop: 0.5  
Minimal probability: 0.0  
Minimal probability in nearest point: 0.5  
Minimal star elevation: 0.0  
Program: LinOccult 2.2.0 BETA  
Author: Plekhanov Andrey andyplekhanov@gmail.com  
Events number: 129

Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'')

Sorted by date/time.

Table 1

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LinOccult 2.2.0 BETA

| Date Time<br>(UTC)     | Asteroid             |              |       | Nearest point |              |                | Star                   |     |             |                   | Sun           |   |             | Moon       |               |                |               |               |              |            |
|------------------------|----------------------|--------------|-------|---------------|--------------|----------------|------------------------|-----|-------------|-------------------|---------------|---|-------------|------------|---------------|----------------|---------------|---------------|--------------|------------|
|                        | Number<br>Name       | Diam<br>(km) | Mag   | Drop          | Dist<br>(km) | Durat<br>(sec) | Longitude<br>Latitude  | Az  | Prob<br>(%) | Catalog<br>Number | Mag           | RA Dec  | Alt         | Az         | Dist          | Alt            | Phase<br>(%)  | $\sigma_{km}$ |              |            |
| 2015/03/01<br>00:34:53 | 6031 Ryokan          | 15.8         | 17.33 | 4.64          | 134          | 0.7            | 37°30'41"<br>50°58'07" | 40  | 2.1<br>2.3  | UCAC2<br>24161603 | 12.70<br>9.19 | 17 <sup>h</sup> 35 <sup>m</sup> 14.061 <sup>s</sup><br>−19°47′41.747″ | 2.3<br>40.2 | 125<br>167 | 75.8<br>111.7 | −35.3<br>−13.7 | 156.0<br>27.7 | 10.1<br>46.9  | 81.0<br>85.7 | 273<br>120 |
| 2015/03/01<br>16:35:19 | 19318 So-<br>manah   | 5.8          | 17.27 | 8.08          | 57           | 0.8            | 36°16'45"<br>49°32'10" | 181 | 1.7<br>1.9  | TYC<br>13200712   | 13.89         | 6 <sup>h</sup> 15 <sup>m</sup> 27.122 <sup>s</sup><br>0°45′57.278″    | 49.0        | 144        | 142.5         | −24.0          | 6.8           | 53.3          | 86.0         | 87         |
| 2015/03/01<br>17:40:54 | 823 Sisigam-<br>bis  | 16.7         | 13.88 | 0.75          | 10           | 5.5            | 36°20'31"<br>50°07'55" | 23  | 7.6<br>7.6  | UCAC2<br>36640263 | 11.46         | 8 <sup>h</sup> 17 <sup>m</sup> 45.396 <sup>s</sup><br>13°41′15.866″   | 43.6        | 271        | 130.9         | −46.1          | 17.5          | 33.7          | 87.4         | 189        |
| 2015/03/01<br>22:41:23 | 15451 1998<br>XK42   | 11.0         | 17.53 | 6.07          | 92           | 2.4            | 35°43'55"<br>49°18'27" | 206 | 2.1<br>2.3  | TYC<br>245800261  | 11.84         | 7 <sup>h</sup> 47 <sup>m</sup> 07.403 <sup>s</sup><br>32°34′07.417″   | 7.4         | 7          | 89.7          | −4.4           | 58.3          | −12.3         | 88.7         | 197        |
| 2015/03/02<br>03:54:17 | 10357 1993<br>SL3    | 9.1          | 18.01 | 6.17          | 86           | 0.5            | 35°09'29"<br>49°46'35" | 249 | 1.7<br>1.9  | UCAC2<br>47613927 | 12.51         | 4 <sup>h</sup> 15 <sup>m</sup> 41.211 <sup>s</sup><br>47°02′22.892″   | 33.1        | 104        | 157.4         | −12.6          | 12.4          | 38.3          | 91.7         | 158        |
| 2015/03/02<br>16:29:57 | 2929 Harris          | 15.1         | 16.05 | 3.58          | 170          | 1.3            | 36°47'44"<br>51°32'09" | 12  | 2.1<br>3.8  | TYC<br>140300654  | 10.98         | 9 <sup>h</sup> 27 <sup>m</sup> 34.079 <sup>s</sup><br>16°31′27.000″   | 75.7        | 133        | 130.0         | −26.8          | 27.1          | 49.0          | 92.0         | 197        |
| 2015/03/02<br>18:00:45 | 119525 2001<br>UC169 | 6.3          | 18.51 | 7.53          | 252          | 0.7            | 33°18'40"<br>51°18'13" | 303 | 0.6<br>1.3  | TYC<br>297300866  | 13.41         | 8 <sup>h</sup> 01 <sup>m</sup> 03.293 <sup>s</sup><br>39°10′51.660″   | 52.4        | 206        | 169.6         | −42.9          | 36.6          | 32.7          | 93.1         | 171        |
| 2015/03/02<br>23:20:46 | 6553 Seehaus         | 11.0         | 16.87 | 3.51          | 106          | 0.8            | 37°26'32"<br>50°38'51" | 51  | 2.1<br>2.6  | UCAC2<br>37005648 | 8.78          | 11 <sup>h</sup> 22 <sup>m</sup> 10.830 <sup>s</sup><br>14°38′12.824″  | 13.7        | 292        | 117.0         | −38.5          | 33.5          | 26.2          | 93.2         | 123        |
| 2015/03/03<br>00:03:42 | 74524 1999<br>GG16   | 5.2          | 18.92 | 10.14         | 29           | 1.6            | 36°32'48"<br>50°14'54" | 40  | 1.7<br>1.7  | TYC<br>188401257  | 8.80          | 6 <sup>h</sup> 38 <sup>m</sup> 58.966 <sup>s</sup><br>24°32′10.375″   | 25.8        | 237        | 167.0         | −37.0          | 21.8          | 24.3          | 93.3         | 125        |
| 2015/03/03<br>00:16:21 | 32484 2000<br>TV29   | 8.3          | 16.22 | 7.42          | 223          | 0.7            | 36°23'00"<br>48°02'56" | 178 | 0.5<br>2.7  | HIP<br>49558      | 12.26         | 10 <sup>h</sup> 07 <sup>m</sup> 06.325 <sup>s</sup><br>0°56′14.624″   | 18.6        | 167        | 109.6         | −28.9          | 99.4          | 14.8          | 93.5         | 188        |
| 2015/03/03<br>01:16:21 | 5117 Moko-<br>toyama | 11.5         | 17.49 | 5.24          | 10           | 1.5            | 36°18'39"<br>50°08'19" | 10  | 2.4<br>2.4  | UCAC2<br>23886341 | 11.92         | 15 <sup>h</sup> 17 <sup>m</sup> 21.484 <sup>s</sup><br>−20°28′12.249″ | 7.6         | 243        | 152.0         | −8.2           | 54.9          | −5.3          | 93.9         | 206        |
| 2015/03/03<br>03:28:56 | 17840 1998<br>HG96   | 11.0         | 17.74 | 5.83          | 151          | 0.9            | 38°15'30"<br>50°33'40" | 68  | 1.6<br>2.1  | UCAC2<br>28023423 | 12.10         | 12 <sup>h</sup> 19 <sup>m</sup> 51.776 <sup>s</sup><br>−10°51′37.838″ | 31.1        | 236        | 46.9          | −5.9           | 110.1         | 23.8          | 96.0         | 245        |
| 2015/03/03<br>15:50:13 | 347 Pariana          | 51.3         | 14.72 | 2.71          | 28           | 1.4            | 36°31'46"<br>49°50'45" | 142 | 8.3<br>8.3  | UCAC2<br>33507920 | 13.22         | 1 <sup>h</sup> 57 <sup>m</sup> 14.359 <sup>s</sup><br>5°04′15.671″    | 48.8        | 194        | 100.5         | −17.2          | 57.0          | 34.1          | 96.2         | 145        |
| 2015/03/03<br>17:00:26 | 714 Ulula            | 39.2         | 13.53 | 0.92          | 220          | 3.3            | 37°04'56"<br>48°08'31" | 165 | 3.4<br>10.7 | UCAC2<br>34970219 | 11.94         | 5 <sup>h</sup> 34 <sup>m</sup> 01.429 <sup>s</sup><br>9°21′41.386″    | 56.0        | 145        | 139.8         | −24.6          | 18.9          | 40.3          | 96.3         | 178        |
| 2015/03/03<br>17:48:09 | 40934 1999<br>TJ194  | 5.8          | 18.78 | 6.84          | 134          | 0.7            | 35°53'57"<br>51°13'48" | 348 | 1.0<br>1.3  | UCAC2<br>38789895 | 12.69         | 8 <sup>h</sup> 18 <sup>m</sup> 58.174 <sup>s</sup><br>19°50′36.018″   | 30.1        | 242        | 88.6          | −34.7          | 69.8          | 47.4          | 96.5         | 403        |
| 2015/03/03<br>18:59:31 | 99328 2001<br>UY123  | 11.5         | 19.85 | 7.16          | 203          | 0.7            | 35°03'51"<br>51°41'44" | 335 | 1.0<br>1.1  | UCAC2<br>34225588 | 10.78         | 4 <sup>h</sup> 46 <sup>m</sup> 54.620 <sup>s</sup><br>7°09′25.869″    | 36.8        | 271        | 120.8         | −46.5          | 40.1          | 44.6          | 96.9         | 163        |
| 2015/03/03<br>22:12:27 | 74495 1999<br>CD127  | 5.5          | 18.16 | 7.38          | 233          | 1.1            | 35°37'01"<br>52°05'60" | 348 | 0.5<br>1.3  | TYC<br>190301738  | 13.90         | 7 <sup>h</sup> 02 <sup>m</sup> 23.301 <sup>s</sup><br>27°58′46.744″   | 13.0        | 170        | 92.2          | −15.8          | 105.2         | 6.4           | 97.5         | 200        |
| 2015/03/04<br>02:39:17 | 793 Arizona          | 28.9         | 15.72 | 2.00          | 114          | 1.7            | 34°46'08"<br>49°44'32" | 253 | 4.9<br>5.8  | UCAC2<br>21118391 | 11.00         | 16 <sup>h</sup> 33 <sup>m</sup> 51.433 <sup>s</sup><br>−26°25′32.914″ | 37.0        | 257        | 132.1         | −45.9          | 39.0          | 44.5          | 99.3         | 110        |
| 2015/03/04<br>22:19:54 | 1528 Conrada         | 15.1         | 15.19 | 4.22          | 74           | 3.9            | 37°13'23"<br>49°46'01" | 115 | 4.4<br>5.5  | TYC<br>137001603  | 11.81         | 7 <sup>h</sup> 50 <sup>m</sup> 40.281 <sup>s</sup><br>20°01′14.594″   | 61.2        | 142        | 105.6         | −1.6           | 73.3          | 1.6           | 99.9         | 203        |
| 2015/03/05<br>15:26:20 | 40099 1998<br>OB15   | 5.5          | 19.26 | 7.45          | 148          | 0.7            | 36°18'23"<br>51°22'31" | 1   | 0.8<br>1.1  | TYC<br>186800343  | 13.90         | 6 <sup>h</sup> 00 <sup>m</sup> 35.915 <sup>s</sup><br>25°10′52.631″   | 37.0        | 257        | 132.1         | −45.9          | 39.0          | 44.5          | 99.3         | 110        |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                    |           |       |      |               |             |                     |      |          | Sorted by date/time. |       |   | Table 1 |      | Page 2 |       | LinOccult 2.2.0 BETA |       |           |               |
|--|--------------------|-----------|-------|------|---------------|-------------|---------------------|------|----------|----------------------|-------|---|---------|------|--------|-------|----------------------|-------|-----------|---------------|
|  |                    | Asteroid  |       |      | Nearest point |             |                     | Star |          |                      | Sun   |   |         | Moon |        |       |                      |       |           |               |
| Date Time (UTC)  | Number Name        | Diam (km) | Mag   | Drop | Dist (km)     | Durat (sec) | Longitude Latitude  | Az   | Prob (%) | Catalog Number       | Mag   | RA Dec  | Alt     | Az   | Dist   | Alt   | Dist                 | Alt   | Phase (%) | $\sigma_{km}$ |
| 2015/03/05 17:07:29  | 2155 Wodan         | 29.5      | 17.41 | 3.89 | 77            | 3.7         | 36°05'25" 49°22'11" | 191  | 6.0 6.6  | UCAC2 40994411       | 13.55 | 6 <sup>h</sup> 07 <sup>m</sup> 42.247 <sup>s</sup> 26°18'47.870"    | 66.3    | 190  | 107.1  | -17.8 | 72.6                 | 17.1  | 100.0     | 179           |
| 2015/03/05 17:07:54  | 10048 Gron-bech    | 11.0      | 18.06 | 4.46 | 61            | 1.0         | 37°00'34" 50°20'26" | 58   | 1.9 2.0  | UCAC2 45805729       | 13.62 | 6 <sup>h</sup> 05 <sup>m</sup> 40.289 <sup>s</sup> 40°08'14.895"    | 79.8    | 201  | 105.8  | -17.8 | 74.5                 | 17.1  | 100.0     | 219           |
| 2015/03/05 19:20:18  | 10096 RK5          | 11.5      | 17.22 | 5.73 | 231           | 0.8         | 36°09'15" 47°58'42" | 182  | 1.1 2.4  | TYC 142400628        | 11.50 | 10 <sup>h</sup> 39 <sup>m</sup> 14.784 <sup>s</sup> 18°04'35.185"   | 50.1    | 132  | 166.5  | -36.6 | 15.4                 | 34.8  | 100.0     | 188           |
| 2015/03/05 19:29:45  | 82953 QSI26        | 6.3       | 18.92 | 6.54 | 83            | 1.0         | 37°03'41" 50°36'04" | 42   | 1.1 1.1  | TYC 131900730        | 12.38 | 6 <sup>h</sup> 19 <sup>m</sup> 53.846 <sup>s</sup> 18°41'15.853"    | 47.2    | 237  | 110.0  | -37.7 | 70.5                 | 35.8  | 100.0     | 222           |
| 2015/03/05 20:23:40  | 51100 HQ10         | 6.3       | 18.77 | 7.11 | 105           | 0.7         | 35°46'03" 49°09'58" | 201  | 1.1 1.3  | UCAC2 38971967       | 11.66 | 8 <sup>h</sup> 57 <sup>m</sup> 13.500 <sup>s</sup> 20°07'01.770"    | 59.0    | 201  | 146.2  | -42.9 | 35.1                 | 40.6  | 100.0     | 193           |
| 2015/03/05 22:49:53  | 6315 1990 TS       | 5.2       | 17.04 | 6.86 | 171           | 0.9         | 35°51'09" 48°32'22" | 190  | 0.5 2.0  | TYC 140701832        | 10.19 | 9 <sup>h</sup> 08 <sup>m</sup> 22.279 <sup>s</sup> 21°24'35.857"    | 44.7    | 248  | 148.0  | -44.1 | 34.5                 | 41.7  | 99.9      | 107           |
| 2015/03/06 03:38:14  | 4507 Peter-collins | 13.8      | 17.33 | 4.09 | 47            | 0.9         | 36°03'06" 49°39'29" | 201  | 2.3 2.4  | UCAC2 22728903       | 13.26 | 16 <sup>h</sup> 44 <sup>m</sup> 51.530 <sup>s</sup> -22°34'15.396"  | 17.4    | 183  | 92.3   | -5.7  | 83.4                 | 5.2   | 99.8      | 231           |
| 2015/03/06 19:07:13  | 31659 HT10         | 6.6       | 18.93 | 7.29 | 169           | 0.8         | 34°50'46" 48°51'14" | 218  | 0.9 1.2  | TYC 241900293        | 11.64 | 6 <sup>h</sup> 00 <sup>m</sup> 55.356 <sup>s</sup> 30°15'19.370"    | 56.1    | 249  | 104.4  | -34.8 | 86.9                 | 24.9  | 99.0      | 217           |
| 2015/03/07 15:26:39  | 753 Tiflis         | 23.6      | 15.53 | 2.36 | 236           | 2.0         | 36°02'55" 52°09'42" | 356  | 2.3 5.1  | UCAC2 42197212       | 13.31 | 5 <sup>h</sup> 12 <sup>m</sup> 28.161 <sup>s</sup> 29°59'07.910"    | 69.8    | 167  | 93.1   | -1.1  | 107.2                | -17.2 | 96.9      | 186           |
| 2015/03/07 16:30:42  | 1954 Kukarkin      | 18.2      | 17.00 | 3.20 | 193           | 1.3         | 35°41'40" 48°21'37" | 193  | 2.2 3.1  | UCAC2 31681780       | 13.85 | 9 <sup>h</sup> 17 <sup>m</sup> 11.681 <sup>s</sup> 0° - 3'11.050"   | 24.3    | 123  | 151.2  | -11.4 | 47.6                 | -7.4  | 96.7      | 236           |
| 2015/03/07 18:26:34  | 21687 Filopanti    | 5.5       | 18.87 | 8.01 | 124           | 1.7         | 38°00'27" 50°10'53" | 83   | 1.0 1.2  | TYC 190401142        | 10.86 | 7 <sup>h</sup> 13 <sup>m</sup> 06.480 <sup>s</sup> 27°22'35.926"    | 66.4    | 202  | 119.4  | -29.1 | 82.4                 | 10.2  | 96.4      | 176           |
| 2015/03/07 20:25:21  | 1929 Kollaa        | 10.0      | 16.81 | 3.00 | 131           | 0.8         | 37°14'13" 51°03'33" | 31   | 1.8 2.9  | UCAC2 42378081       | 13.88 | 5 <sup>h</sup> 40 <sup>m</sup> 21.176 <sup>s</sup> 30°16'18.488"    | 39.9    | 272  | 98.9   | -42.3 | 103.6                | 25.9  | 96.2      | 138           |
| 2015/03/07 20:38:22  | 1676 Kariba        | 12.3      | 17.23 | 3.54 | 37            | 2.3         | 36°42'29" 50°14'11" | 55   | 3.0 3.1  | UCAC2 42389008       | 13.73 | 6 <sup>h</sup> 22 <sup>m</sup> 17.195 <sup>s</sup> 30°04'32.896"    | 44.4    | 266  | 108.0  | -43.2 | 94.6                 | 27.3  | 96.1      | 157           |
| 2015/03/07 20:40:16  | 1067 Lunaria       | 21.0      | 15.90 | 2.66 | 191           | 1.1         | 34°36'21" 48°43'12" | 219  | 2.6 4.6  | UCAC2 40473132       | 13.33 | 5 <sup>h</sup> 00 <sup>m</sup> 08.549 <sup>s</sup> 24°45'25.528"    | 27.2    | 277  | 89.7   | -43.3 | 113.1                | 27.5  | 96.1      | 181           |
| 2015/03/07 21:56:08  | 28708 GR95         | 6.6       | 19.45 | 8.39 | 27            | 0.5         | 36°06'32" 49°49'48" | 208  | 1.1 1.1  | TYC 129601561        | 11.06 | 5 <sup>h</sup> 25 <sup>m</sup> 00.862 <sup>s</sup> 16°01'28.184"    | 12.6    | 280  | 94.7   | -45.3 | 108.5                | 33.7  | 95.9      | 240           |
| 2015/03/08 16:28:10  | 2889 Brno          | 17.4      | 16.38 | 4.13 | 13            | 1.3         | 36°14'36" 49°55'52" | 193  | 3.4 3.4  | UCAC2 31505220       | 12.28 | 10 <sup>h</sup> 05 <sup>m</sup> 50.839 <sup>s</sup> 0° - 54'38.002" | 16.8    | 113  | 162.0  | -10.7 | 47.0                 | -17.3 | 92.5      | 204           |
| 2015/03/08 18:54:14  | 8003 Kelvin        | 6.3       | 17.87 | 8.18 | 143           | 0.7         | 36°57'43" 51°15'27" | 20   | 1.1 1.8  | HIP 29967            | 9.69  | 6 <sup>h</sup> 18 <sup>m</sup> 29.857 <sup>s</sup> 25°53'42.281"    | 56.1    | 237  | 106.5  | -32.5 | 106.4                | 5.0   | 92.0      | 140           |
| 2015/03/08 19:15:01  | 6038 1989 EQ       | 10.5      | 17.39 | 4.83 | 139           | 0.6         | 35°12'33" 49°00'41" | 214  | 1.7 2.3  | UCAC2 41499464       | 12.57 | 5 <sup>h</sup> 13 <sup>m</sup> 34.892 <sup>s</sup> 27°41'53.415"    | 44.5    | 261  | 92.0   | -35.1 | 120.9                | 8.0   | 91.9      | 184           |
| 2015/03/08 19:34:52  | 1099 Figneria      | 29.4      | 15.84 | 4.76 | 34            | 2.7         | 36°19'34" 49°44'30" | 175  | 5.6 5.7  | TYC 249201102        | 11.10 | 9 <sup>h</sup> 11 <sup>m</sup> 12.779 <sup>s</sup> 30°25'28.052"    | 70.6    | 176  | 141.2  | -37.3 | 70.3                 | 10.9  | 91.8      | 206           |
| 2015/03/08 21:36:03  | 3768 Monroe        | 16.6      | 17.01 | 3.76 | 68            | 1.6         | 36°15'49" 50°39'26" | 359  | 2.7 2.9  | UCAC2 36607262       | 13.29 | 6 <sup>h</sup> 15 <sup>m</sup> 37.054 <sup>s</sup> 13°44'26.272"    | 21.6    | 266  | 105.8  | -44.9 | 108.0                | 25.4  | 91.4      | 231           |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                       |           |       |      |               |             |                          |      |          | Sorted by date/time. |       |   | Table 1 |      | Page 3 |       | LinOccult 2.2.0 BETA |       |           |               |  |
|--|-----------------------|-----------|-------|------|---------------|-------------|--------------------------|------|----------|----------------------|-------|---|---------|------|--------|-------|----------------------|-------|-----------|---------------|--|
|  |                       | Asteroid  |       |      | Nearest point |             |                          | Star |          |                      | Sun   |   |         | Moon |        |       |                      |       |           |               |  |
| Date Time (UTC)  | Number Name           | Diam (km) | Mag   | Drop | Dist (km)     | Durat (sec) | Longitude Latitude       | Az   | Prob (%) | Catalog Number       | Mag   | RA Dec  | Alt     | Az   | Dist   | Alt   | Dist                 | Alt   | Phase (%) | $\sigma_{km}$ |  |
| 2015/03/08 22:43:33  | 5222 Ioffe            | 22.0      | 15.79 | 2.42 | 222           | 1.6         | 38°39'36''<br>51°21'33'' | 49   | 2.2      | UCAC2 23156855       | 13.49 | 16 <sup>h</sup> 04 <sup>m</sup> 16.318 <sup>s</sup><br>−21°32'13.276''  | 2.3     | 128  | 104.6  | −43.3 | 40.8                 | 30.4  | 91.1      | 170           |  |
| 2015/03/08 22:58:10  | 2352 Kurchatov        | 16.6      | 17.21 | 3.30 | 77            | 2.9         | 36°05'02''<br>50°43'36'' | 349  | 2.3      | UCAC2 34250782       | 13.96 | 6 <sup>h</sup> 38 <sup>m</sup> 37.093 <sup>s</sup><br>7°20'44.123''     | 7.2     | 273  | 111.3  | −42.4 | 102.4                | 31.1  | 91.1      | 272           |  |
| 2015/03/09 00:44:11  | 18978 QH232           | 2000      | 17.10 | 5.88 | 207           | 0.7         | 37°48'27''<br>48°28'47'' | 148  | 0.4      | TYC 610501489        | 11.22 | 12 <sup>h</sup> 17 <sup>m</sup> 07.963 <sup>s</sup><br>−19°45'26.067''  | 15.6    | 209  | 151.1  | −31.3 | 21.1                 | 31.3  | 90.6      | 115           |  |
| 2015/03/09 19:29:55  | 11059 Nullius-inverba | 5.8       | 18.11 | 6.15 | 14            | 0.7         | 36°19'16''<br>49°55'21'' | 170  | 1.6      | UCAC2 30544447       | 11.96 | 13 <sup>h</sup> 59 <sup>m</sup> 30.026 <sup>s</sup><br>−3°50'01.314''   | 7.3     | 105  | 138.9  | −36.5 | 6.8                  | 1.0   | 85.9      | 145           |  |
| 2015/03/09 21:12:20  | 7198 Mon-telupo       | 12.0      | 16.65 | 4.06 | 126           | 1.1         | 37°32'34''<br>50°51'11'' | 45   | 2.2      | UCAC2 39145719       | 12.62 | 9 <sup>h</sup> 42 <sup>m</sup> 48.598 <sup>s</sup><br>20°31'26.692''    | 58.1    | 209  | 151.7  | −44.1 | 72.6                 | 14.9  | 85.4      | 162           |  |
| 2015/03/09 22:09:38  | 4286 Rubtsov          | 13.8      | 17.20 | 3.33 | 65            | 1.2         | 36°42'57''<br>50°33'48'' | 28   | 2.6      | UCAC2 39451468       | 13.92 | 5 <sup>h</sup> 52 <sup>m</sup> 05.279 <sup>s</sup><br>21°57'27.300''    | 17.9    | 283  | 99.4   | −44.3 | 126.1                | 21.2  | 85.1      | 199           |  |
| 2015/03/09 22:45:16  | 4186 Tamashima        | 27.2      | 16.43 | 3.72 | 250           | 2.7         | 37°32'21''<br>47°57'26'' | 159  | 2.6      | UCAC2 36103502       | 12.75 | 7 <sup>h</sup> 30 <sup>m</sup> 13.956 <sup>s</sup><br>12°29'35.429''    | 20.9    | 265  | 123.0  | −42.8 | 102.5                | 24.3  | 84.9      | 223           |  |
| 2015/03/10 02:00:51  | 89662 YF4             | 2001      | 17.66 | 6.67 | 148           | 0.6         | 34°52'02''<br>49°05'13'' | 223  | 1.0      | TYC 243700178        | 11.00 | 6 <sup>h</sup> 56 <sup>m</sup> 32.431 <sup>s</sup><br>31°43'22.752''    | 3.0     | 319  | 112.9  | −19.8 | 113.3                | 26.5  | 84.0      | 155           |  |
| 2015/03/10 16:27:11  | 14855 SP9             | 1989      | 17.44 | 6.19 | 178           | 0.5         | 38°42'06''<br>50°27'06'' | 75   | 0.9      | TYC 493100484        | 11.25 | 11 <sup>h</sup> 48 <sup>m</sup> 54.753 <sup>s</sup><br>0° − 25°07.374'' | 2.2     | 93   | 171.8  | −10.0 | 46.2                 | −35.8 | 79.4      | 146           |  |
| 2015/03/10 17:56:23  | 2543 Machado          | 20.9      | 17.14 | 4.21 | 207           | 1.0         | 37°31'23''<br>51°44'05'' | 25   | 2.2      | UCAC2 43229262       | 12.96 | 4 <sup>h</sup> 24 <sup>m</sup> 31.214 <sup>s</sup><br>32°39'27.185''    | 51.3    | 262  | 80.3   | −23.9 | 151.2                | −22.6 | 78.9      | 306           |  |
| 2015/03/10 18:00:45  | 1231 Auricula         | 22.5      | 18.03 | 5.00 | 87            | 0.7         | 36°52'35''<br>50°44'09'' | 29   | 3.1      | UCAC2 40129478       | 13.04 | 2 <sup>h</sup> 19 <sup>m</sup> 03.339 <sup>s</sup><br>23°48'36.244''    | 24.4    | 279  | 51.4   | −24.5 | 166.9                | −21.9 | 78.9      | 271           |  |
| 2015/03/10 20:57:53  | 656 Beagle            | 53.2      | 13.75 | 1.83 | 204           | 5.3         | 37°43'56''<br>51°38'02'' | 30   | 4.8      | TYC 83901544         | 12.15 | 10 <sup>h</sup> 41 <sup>m</sup> 02.365 <sup>s</sup><br>8°00'38.813''    | 48.2    | 178  | 169.0  | −43.2 | 67.2                 | 4.6   | 77.9      | 130           |  |
| 2015/03/11 00:32:05  | 77740 OP88            | 2001      | 17.90 | 5.92 | 153           | 0.6         | 37°04'36''<br>51°19'30'' | 22   | 1.0      | UCAC2 33222143       | 11.99 | 10 <sup>h</sup> 06 <sup>m</sup> 39.617 <sup>s</sup><br>4°05'20.097''    | 21.5    | 250  | 161.0  | −32.1 | 76.2                 | 25.0  | 76.6      | 173           |  |
| 2015/03/11 00:54:25  | 2386 Nikonov          | 12.7      | 16.08 | 2.26 | 157           | 1.0         | 37°06'16''<br>51°21'42'' | 22   | 1.9      | UCAC2 31869180       | 13.96 | 12 <sup>h</sup> 11 <sup>m</sup> 57.593 <sup>s</sup><br>0°18'09.434''    | 32.0    | 223  | 167.2  | −29.2 | 45.4                 | 25.7  | 76.5      | 180           |  |
| 2015/03/11 16:56:38  | 2666 Gramme           | 39.3      | 16.61 | 5.59 | 49            | 3.4         | 35°49'28''<br>50°22'13'' | 317  | 7.8      | TYC 14500224         | 11.03 | 6 <sup>h</sup> 28 <sup>m</sup> 16.265 <sup>s</sup><br>7°25'54.061''     | 47.6    | 184  | 106.1  | −14.5 | 138.0                | −40.4 | 70.6      | 195           |  |
| 2015/03/11 17:45:12  | 20647 TQ155           | 1999      | 16.94 | 5.58 | 28            | 0.6         | 36°39'60''<br>50°06'59'' | 74   | 1.9      | UCAC2 29460744       | 11.37 | 11 <sup>h</sup> 45 <sup>m</sup> 17.054 <sup>s</sup><br>−6°33'18.520''   | 10.7    | 114  | 168.6  | −22.0 | 58.4                 | −33.5 | 70.3      | 129           |  |
| 2015/03/11 19:35:42  | 31530 CQ128           | 1999      | 17.80 | 5.92 | 143           | 0.8         | 35°01'37''<br>49°03'05'' | 219  | 1.0      | UCAC2 44822328       | 11.88 | 6 <sup>h</sup> 56 <sup>m</sup> 03.141 <sup>s</sup><br>37°13'49.431''    | 61.8    | 257  | 110.1  | −36.5 | 132.9                | −16.5 | 69.6      | 146           |  |
| 2015/03/11 19:56:03  | 3960 Chaliu-bieju     | 11.5      | 16.12 | 2.46 | 21            | 0.6         | 36°19'43''<br>50°14'06'' | 8    | 3.6      | UCAC2 42720960       | 13.78 | 5 <sup>h</sup> 20 <sup>m</sup> 48.625 <sup>s</sup><br>31°16'45.984''    | 39.6    | 274  | 90.8   | −38.5 | 153.4                | −13.4 | 69.5      | 124           |  |
| 2015/03/11 21:44:32  | 418 Alemania          | 34.1      | 14.27 | 4.90 | 64            | 7.8         | 37°06'08''<br>50°16'45'' | 66   | 8.7      | TYC 79900146         | 9.38  | 8 <sup>h</sup> 20 <sup>m</sup> 18.508 <sup>s</sup><br>10°15'12.435''    | 34.9    | 241  | 133.5  | −43.8 | 114.2                | 2.4   | 68.8      | 142           |  |
| 2015/03/11 22:02:45  | 83170 QZ281           | 2001      | 18.30 | 8.49 | 92            | 0.6         | 35°23'50''<br>49°26'52'' | 224  | 1.2      | TYC 604501656        | 9.81  | 9 <sup>h</sup> 55 <sup>m</sup> 46.924 <sup>s</sup><br>−15°40'25.578''   | 20.1    | 208  | 150.4  | −43.6 | 84.5                 | 4.9   | 68.6      | 222           |  |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                      |           |       |       |               |             |                          |      |              | Sorted by date/time. |       | Table 1   |      | Page 4 |       | LinOccult 2.2.0 BETA |       |       |           |               |
|--|----------------------|-----------|-------|-------|---------------|-------------|--------------------------|------|--------------|----------------------|-------|---|------|--------|-------|----------------------|-------|-------|-----------|---------------|
|  |                      | Asteroid  |       |       | Nearest point |             |                          | Star |              |                      | Sun   |   |      | Moon   |       |                      |       |       |           |               |
| Date Time (UTC)  | Number Name          | Diam (km) | Mag   | Drop  | Dist (km)     | Durat (sec) | Longitude Latitude       | Az   | Prob (%)     | Catalog Number       | Mag   | RA Dec  | Alt  | Az     | Dist  | Alt                  | Dist  | Alt   | Phase (%) | $\sigma_{km}$ |
| 2015/03/12 20:47:50  | 9414 Masamimu-rakami | 11.0      | 17.75 | 3.90  | 106           | 0.5         | 37°04'24''<br>50°51'42'' | 32   | 1.9<br>2.2   | UCAC2<br>41839858    | 13.88 | 4 <sup>h</sup> 28 <sup>m</sup> 21.078 <sup>s</sup><br>28°51'19.876''    | 20.9 | 290    | 78.3  | -41.9                | 168.2 | -14.5 | 59.3      | 202           |
| 2015/03/12 22:04:28  | 2898 Neuvo           | 14.5      | 16.84 | 3.05  | 165           | 0.9         | 37°21'01''<br>51°22'12'' | 27   | 2.0<br>2.8   | UCAC2<br>38750002    | 13.85 | 5 <sup>h</sup> 27 <sup>m</sup> 13.457 <sup>s</sup><br>19°56'46.443''    | 11.5 | 287    | 90.5  | -43.2                | 169.4 | -3.1  | 58.8      | 206           |
| 2015/03/12 22:52:30  | 27500 Man-delbrot    | 7.6       | 18.81 | 8.51  | 55            | 8.1         | 36°27'55''<br>50°31'41'' | 13   | 1.4<br>1.4   | TYC<br>192500217     | 10.30 | 7 <sup>h</sup> 49 <sup>m</sup> 21.723 <sup>s</sup><br>22°48'45.191''    | 28.5 | 272    | 123.2 | -41.2                | 137.4 | 3.4   | 57.9      | 211           |
| 2015/03/12 23:54:00  | 13166 1995 WU1       | 10.5      | 17.07 | 3.31  | 88            | 0.6         | 35°13'59''<br>49°38'26'' | 239  | 2.2<br>2.6   | UCAC2<br>43755717    | 13.82 | 5 <sup>h</sup> 08 <sup>m</sup> 49.122 <sup>s</sup><br>34°12'18.981''    | 5.9  | 319    | 87.4  | -35.8                | 162.7 | 10.8  | 58.0      | 163           |
| 2015/03/12 23:56:28  | 9324 1989 CH4        | 5.5       | 18.21 | 10.57 | 51            | 0.6         | 36°42'15''<br>50°25'22'' | 36   | 2.2<br>2.7   | HIP<br>30102         | 7.64  | 6 <sup>h</sup> 20 <sup>m</sup> 04.948 <sup>s</sup><br>24°34'00.330''    | 6.4  | 301    | 102.7 | -35.6                | 157.4 | 11.1  | 58.0      | 81            |
| 2015/03/13 02:53:42  | 20639 Michel-louie   | 5.8       | 18.75 | 6.86  | 100           | 0.8         | 37°40'52''<br>50°09'13'' | 83   | 1.1<br>1.3   | UCAC2<br>18441738    | 11.90 | 15 <sup>h</sup> 50 <sup>m</sup> 30.294 <sup>s</sup><br>-31°59'00.614''  | 7.3  | 191    | 109.2 | -10.5                | 20.4  | 22.3  | 56.6      | 175           |
| 2015/03/13 17:36:22  | 19732 1999 XF165     | 8.7       | 17.64 | 6.05  | 132           | 1.2         | 35°56'38''<br>51°12'36'' | 349  | 1.5<br>2.1   | TYC<br>249201669     | 11.59 | 9 <sup>h</sup> 06 <sup>m</sup> 17.608 <sup>s</sup><br>31°16'30.327''    | 63.7 | 126    | 135.3 | -20.1                | 129.3 | -50.6 | 50.2      | 165           |
| 2015/03/13 17:58:57  | 12920 1998 VM15      | 22.9      | 17.87 | 4.64  | 36            | 0.7         | 36°40'46''<br>50°14'45'' | 52   | 2.7<br>2.7   | UCAC2<br>37119906    | 13.24 | 3 <sup>h</sup> 00 <sup>m</sup> 17.332 <sup>s</sup><br>15°17'22.598''    | 23.2 | 266    | 54.4  | -23.4                | 144.3 | -47.9 | 50.1      | 340           |
| 2015/03/13 20:26:24  | 4077 Asuka           | 20.9      | 16.89 | 3.19  | 154           | 1.7         | 37°33'37''<br>51°09'57'' | 36   | 2.8<br>3.5   | UCAC2<br>42379478    | 13.76 | 5 <sup>h</sup> 46 <sup>m</sup> 25.107 <sup>s</sup><br>30°21'23.896''    | 36.9 | 275    | 94.3  | -40.3                | 167.5 | -26.5 | 49.0      | 239           |
| 2015/03/14 02:51:32  | 32390 2000 QA203     | 7.6       | 15.72 | 5.20  | 93            | 0.8         | 36°07'10''<br>49°12'54'' | 187  | 1.9<br>2.9   | TYC<br>85601107      | 10.53 | 11 <sup>h</sup> 29 <sup>m</sup> 55.166 <sup>s</sup><br>9°22'27.964''    | 14.8 | 267    | 173.3 | -10.5                | 97.8  | 20.3  | 46.0      | 103           |
| 2015/03/14 17:54:19  | 2350 von Lude        | 14.7      | 17.01 | 5.76  | 255           | 1.0         | 36°08'02''<br>47°45'32'' | 182  | 0.8<br>4.2   | TYC<br>132601204     | 11.25 | 6 <sup>h</sup> 08 <sup>m</sup> 38.486 <sup>s</sup><br>21°13'54.031''    | 55.4 | 223    | 98.4  | -22.5                | 174.8 | -54.2 | 39.3      | 141           |
| 2015/03/14 21:35:26  | 26577 2000 EC91      | 7.6       | 17.94 | 6.82  | 87            | 1.1         | 35°04'17''<br>50°08'39'' | 277  | 1.5<br>1.8   | TYC<br>22301280      | 11.12 | 8 <sup>h</sup> 40 <sup>m</sup> 33.167 <sup>s</sup><br>6°33'46.251''     | 34.2 | 234    | 135.8 | -42.6                | 147.2 | -24.1 | 37.7      | 172           |
| 2015/03/15 02:34:30  | 28926 2000 QE231     | 7.6       | 18.53 | 7.88  | 30            | 0.8         | 35°59'43''<br>49°51'17'' | 224  | 1.5<br>1.5   | TYC<br>732901423     | 10.65 | 16 <sup>h</sup> 01 <sup>m</sup> 56.145 <sup>s</sup><br>-30°16'36.228''  | 9.6  | 186    | 109.2 | -12.8                | 39.5  | 15.9  | 35.4      | 200           |
| 2015/03/15 20:56:34  | 549 Jessonda         | 18.8      | 15.00 | 2.33  | 250           | 1.0         | 34°24'37''<br>48°10'07'' | 213  | 0.8<br>5.9   | UCAC2<br>39812633    | 12.81 | 5 <sup>h</sup> 55 <sup>m</sup> 51.462 <sup>s</sup><br>22°53'17.778''    | 27.1 | 274    | 94.3  | -41.2                | 156.8 | -37.5 | 27.4      | 126           |
| 2015/03/15 22:02:51  | 28059 Kiliaan        | 8.7       | 18.64 | 7.32  | 7             | 1.1         | 36°11'08''<br>50°02'35'' | 266  | 1.6<br>1.6   | UCAC2<br>37693657    | 11.32 | 6 <sup>h</sup> 48 <sup>m</sup> 58.312 <sup>s</sup><br>16°46'06.639''    | 20.5 | 272    | 106.9 | -42.0                | 169.4 | -27.4 | 27.0      | 219           |
| 2015/03/15 22:12:02  | 324 Bam-berga        | 229.4     | 11.86 | 1.25  | 211           | 19.1        | 37°14'19''<br>51°50'41'' | 19   | 25.7<br>50.8 | TYC<br>83100491      | 11.03 | 9 <sup>h</sup> 48 <sup>m</sup> 44.675 <sup>s</sup><br>11°26'02.760''    | 41.9 | 229    | 150.6 | -41.8                | 147.0 | -26.0 | 26.8      | 167           |
| 2015/03/15 23:10:52  | 33544 Jerold         | 5.8       | 17.88 | 6.36  | 107           | 0.9         | 36°47'21''<br>50°57'17'' | 20   | 1.2<br>1.7   | TYC<br>497500773     | 11.52 | 14 <sup>h</sup> 02 <sup>m</sup> 52.369 <sup>s</sup><br>0° - 26°01.146'' | 38.4 | 163    | 144.5 | -38.7                | 83.5  | -16.8 | 26.5      | 136           |
| 2015/03/16 02:22:24  | 2415 Ganesa          | 12.0      | 16.07 | 3.32  | 26            | 1.1         | 35°59'21''<br>49°54'39'' | 234  | 3.5<br>3.6   | UCAC2<br>35937625    | 12.80 | 10 <sup>h</sup> 47 <sup>m</sup> 13.291 <sup>s</sup><br>11°32'50.452''   | 13.0 | 273    | 163.5 | -14.4                | 135.5 | 10.3  | 25.1      | 135           |
| 2015/03/16 02:54:47  | 37259 2000 XF4       | 5.2       | 19.99 | 8.68  | 173           | 0.9         | 33°52'31''<br>50°09'29'' | 274  | 0.6<br>0.8   | TYC<br>732900832     | 11.31 | 15 <sup>h</sup> 56 <sup>m</sup> 41.422 <sup>s</sup><br>-31°34'53.323''  | 7.5  | 192    | 111.0 | -9.3                 | 54.1  | 14.0  | 24.8      | 261           |
| 2015/03/16 16:13:42  | 2898 Neuvo           | 14.5      | 16.88 | 3.51  | 136           | 0.8         | 36°58'33''<br>48°54'27'' | 159  | 2.2<br>2.7   | UCAC2<br>38930219    | 13.42 | 5 <sup>h</sup> 30 <sup>m</sup> 48.545 <sup>s</sup><br>20°17'09.618''    | 59.2 | 200    | 87.6  | -6.3                 | 139.8 | -46.8 | 19.5      | 210           |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                  |           |       |      |               |             |                     |      |          | Sorted by date/time. |       |  | Table 1 |      | Page 5 |       | LinOccult 2.2.0 BETA |       |           |               |
|--|------------------|-----------|-------|------|---------------|-------------|---------------------|------|----------|----------------------|-------|--|---------|------|--------|-------|----------------------|-------|-----------|---------------|
|  |                  | Asteroid  |       |      | Nearest point |             |                     | Star |          |                      | Sun   |  |         | Moon |        |       |                      |       |           |               |
| Date Time (UTC)  | Number Name      | Diam (km) | Mag   | Drop | Dist (km)     | Durat (sec) | Longitude Latitude  | Az   | Prob (%) | Catalog Number       | Mag   | RA Dec   | Alt     | Az   | Dist   | Alt   | Dist                 | Alt   | Phase (%) | $\sigma_{km}$ |
| 2015/03/17 01:31:35  | 2799 Justus      | 18.1      | 18.71 | 5.41 | 77            | 0.6         | 35°23'03" 49°40'27" | 237  | 3.9      | UCAC2 21870570       | 13.31 | 18 <sup>h</sup> 59 <sup>m</sup> 06.849 <sup>s</sup> -24°59'18.893" | 2.4     | 135  | 72.6   | -21.7 | 26.6                 | -2.0  | 16.0      | 166           |
| 2015/03/17 15:55:47  | 4803 Birkle      | 11.5      | 17.89 | 6.08 | 75            | 0.7         | 36°13'14" 49°22'39" | 184  | 2.0      | UCAC2 40818254       | 11.82 | 5 <sup>h</sup> 38 <sup>m</sup> 11.919 <sup>s</sup> 25°58'03.071"   | 65.8    | 192  | 88.6   | -3.2  | 126.8                | -34.6 | 11.1      | 217           |
| 2015/03/17 18:29:27  | 37385 2001 WP27  | 6.3       | 18.73 | 8.23 | 195           | 0.6         | 35°51'40" 51°46'31" | 351  | 0.7      | TYC 251200269        | 10.50 | 10 <sup>h</sup> 44 <sup>m</sup> 23.991 <sup>s</sup> 31°14'34.771"  | 59.6    | 116  | 146.5  | -26.6 | 152.3                | -50.0 | 10.3      | 245           |
| 2015/03/17 22:55:38  | 1613 Smiley      | 21.2      | 15.30 | 4.27 | 98            | 3.5         | 34°55'13" 50°02'13" | 269  | 5.1      | TYC 137501609        | 11.05 | 7 <sup>h</sup> 58 <sup>m</sup> 28.027 <sup>s</sup> 20°43'23.134"   | 24.8    | 273  | 120.7  | -39.0 | 155.0                | -31.9 | 9.0       | 118           |
| 2015/03/18 02:52:03  | 2433 Sootiyo     | 17.4      | 15.45 | 1.97 | 57            | 0.9         | 36°38'43" 49°35'20" | 153  | 4.4      | UCAC2 26708326       | 13.67 | 17 <sup>h</sup> 33 <sup>m</sup> 20.067 <sup>s</sup> -14°24'42.899" | 25.2    | 171  | 93.5   | -9.0  | 61.0                 | 4.4   | 7.8       | 146           |
| 2015/03/18 21:10:56  | 49594 1999 EM13  | 5.0       | 19.63 | 7.98 | 76            | 0.6         | 36°28'43" 50°42'57" | 10   | 0.9      | UCAC2 38417728       | 11.65 | 6 <sup>h</sup> 56 <sup>m</sup> 37.485 <sup>s</sup> 18°39'28.942"   | 29.6    | 264  | 105.7  | -40.6 | 127.4                | -45.2 | 3.6       | 216           |
| 2015/03/18 22:00:51  | 6676 Monet       | 7.6       | 17.18 | 9.16 | 172           | 1.0         | 37°47'19" 51°15'43" | 38   | 0.5      | HIP 50110            | 8.02  | 10 <sup>h</sup> 13 <sup>m</sup> 50.387 <sup>s</sup> 10°50'31.387"  | 44.2    | 222  | 153.7  | -40.9 | 174.0                | -41.6 | 3.4       | 90            |
| 2015/03/19 16:12:56  | 3721 Widorn      | 14.5      | 17.07 | 3.20 | 144           | 0.9         | 36°53'58" 51°16'54" | 18   | 2.2      | UCAC2 41338302       | 13.93 | 6 <sup>h</sup> 03 <sup>m</sup> 12.596 <sup>s</sup> 27°04'08.567"   | 66.9    | 193  | 92.2   | -5.4  | 102.3                | -13.7 | 0.8       | 201           |
| 2015/03/19 18:17:40  | 45576 2000 CD75  | 5.8       | 18.98 | 7.07 | 238           | 0.8         | 33°17'17" 49°08'59" | 245  | 0.6      | UCAC2 43264633       | 11.91 | 7 <sup>h</sup> 36 <sup>m</sup> 43.055 <sup>s</sup> 32°59'07.330"   | 70.5    | 215  | 111.4  | -24.4 | 119.8                | -30.7 | 0.6       | 200           |
| 2015/03/20 16:10:38  | 7743 1986 JA     | 6.9       | 15.99 | 6.15 | 201           | 0.6         | 36°42'48" 51°49'46" | 9    | 0.3      | TYC 28700077         | 9.85  | 12 <sup>h</sup> 11 <sup>m</sup> 50.138 <sup>s</sup> 6°56'15.276"   | 7.8     | 88   | 172.4  | -4.8  | 171.2                | -1.1  | 0.1       | 98            |
| 2015/03/20 19:16:06  | 77708 2001 OS31  | 5.0       | 19.63 | 9.68 | 96            | 1.1         | 36°35'15" 50°53'10" | 13   | 0.8      | HIP 44387            | 9.95  | 9 <sup>h</sup> 02 <sup>m</sup> 30.504 <sup>s</sup> 25°53'18.974"   | 65.4    | 197  | 130.3  | -31.4 | 124.7                | -26.7 | 0.2       | 222           |
| 2015/03/20 23:29:37  | 1061 Paeonia     | 12.6      | 17.48 | 5.08 | 32            | 0.8         | 36°00'29" 49°49'04" | 218  | 2.3      | UCAC2 40325035       | 12.41 | 6 <sup>h</sup> 17 <sup>m</sup> 50.727 <sup>s</sup> 24°26'56.304"   | 5.4     | 302  | 94.2   | -35.1 | 86.1                 | -34.2 | 0.5       | 216           |
| 2015/03/21 19:03:01  | 1833 Shmakova    | 13.3      | 15.98 | 2.34 | 71            | 1.2         | 35°49'53" 49°29'09" | 207  | 3.4      | UCAC2 32042632       | 13.77 | 13 <sup>h</sup> 24 <sup>m</sup> 02.133 <sup>s</sup> 0°35'13.945"   | 19.3    | 114  | 159.5  | -29.6 | 172.2                | -14.2 | 2.9       | 136           |
| 2015/03/22 02:02:36  | 19630 Janebell   | 5.2       | 18.78 | 7.85 | 210           | 0.6         | 38°45'17" 49°03'21" | 122  | 0.6      | TYC 505300082        | 10.93 | 16 <sup>h</sup> 43 <sup>m</sup> 27.828 <sup>s</sup> -2°33'06.435"  | 37.4    | 174  | 110.0  | -15.3 | 132.2                | -20.9 | 4.2       | 174           |
| 2015/03/22 15:48:07  | 2358 Bahner      | 20.0      | 16.66 | 5.47 | 122           | 1.1         | 36°46'47" 51°05'39" | 17   | 3.1      | TYC 240600574        | 11.20 | 5 <sup>h</sup> 51 <sup>m</sup> 36.436 <sup>s</sup> 31°51'06.507"   | 71.7    | 194  | 86.7   | -0.7  | 56.1                 | 26.1  | 7.4       | 218           |
| 2015/03/22 22:24:19  | 1216 Askania     | 6.6       | 18.30 | 7.99 | 125           | 0.6         | 35°17'03" 49°07'48" | 215  | 1.2      | TYC 188000916        | 10.32 | 6 <sup>h</sup> 40 <sup>m</sup> 32.926 <sup>s</sup> 23°13'11.566"   | 16.2    | 287  | 97.5   | -38.6 | 62.5                 | -25.4 | 9.2       | 163           |
| 2015/03/22 23:47:36  | 543 Charlotte    | 34.4      | 15.45 | 2.24 | 261           | 5.2         | 39°40'34" 50°57'51" | 67   | 3.1      | UCAC2 18953031       | 13.35 | 16 <sup>h</sup> 52 <sup>m</sup> 55.257 <sup>s</sup> -30°31'54.259" | 2.1     | 146  | 106.2  | -32.6 | 141.0                | -28.4 | 9.6       | 224           |
| 2015/03/23 00:34:05  | 63641 2001 QE97  | 6.6       | 18.34 | 8.34 | 97            | 1.4         | 37°35'36" 49°50'11" | 104  | 1.3      | TYC 675901577        | 10.00 | 14 <sup>h</sup> 55 <sup>m</sup> 08.517 <sup>s</sup> -28°52'57.605" | 11.2    | 181  | 131.0  | -27.3 | 161.7                | -27.9 | 9.9       | 178           |
| 2015/03/23 03:35:32  | 18721 1998 HC146 | 6.3       | 18.30 | 6.90 | 128           | 0.6         | 34°59'02" 49°15'39" | 227  | 1.1      | UCAC2 31872474       | 11.41 | 13 <sup>h</sup> 45 <sup>m</sup> 32.238 <sup>s</sup> 0°10'18.246"   | 16.5    | 250  | 155.4  | -0.3  | 162.7                | -13.0 | 10.7      | 182           |
| 2015/03/23 17:17:01  | 1612 Hirose      | 22.9      | 16.48 | 3.29 | 243           | 1.5         | 33°54'49" 48°30'50" | 225  | 2.3      | UCAC2 42736383       | 13.25 | 6 <sup>h</sup> 26 <sup>m</sup> 17.950 <sup>s</sup> 31°07'02.267"   | 66.2    | 226  | 93.1   | -14.4 | 48.7                 | 23.7  | 15.1      | 230           |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                      |           |       |       |               |             |                     |      |          | Sorted by date/time. |       |   | Table 1 |     | Page 6 |       | LinOccult 2.2.0 BETA |       |           |               |  |
|--|----------------------|-----------|-------|-------|---------------|-------------|---------------------|------|----------|----------------------|-------|---|---------|-----|--------|-------|----------------------|-------|-----------|---------------|--|
|  |                      | Asteroid  |       |       | Nearest point |             |                     | Star |          |                      |       | Sun   |         |     | Moon   |       |                      |       |           |               |  |
| Date Time (UTC)  | Number Name          | Diam (km) | Mag   | Drop  | Dist (km)     | Durat (sec) | Longitude Latitude  | Az   | Prob (%) | Catalog Number       | Mag   | RA Dec  | Alt     | Az  | Dist   | Alt   | Dist                 | Alt   | Phase (%) | $\sigma_{km}$ |  |
| 2015/03/24 00:03:52  | 5034 Joechar-rington | 6.6       | 16.83 | 5.52  | 101           | 1.2         | 35°03'32" 49°36'10" | 241  | 1.6      | UCAC2 20877038       | 11.31 | 15 <sup>h</sup> 43 <sup>m</sup> 37.016 <sup>s</sup> -26°32'02.518"  | 12.0    | 164 | 122.9  | -30.5 | 167.3                | -24.4 | 17.6      | 103           |  |
| 2015/03/24 03:22:37  | 16009 CM8            | 14.5      | 16.41 | 2.73  | 107           | 1.3         | 37°14'27" 50°47'20" | 40   | 2.8      | UCAC2 42582820       | 13.77 | 10 <sup>h</sup> 27 <sup>m</sup> 28.978 <sup>s</sup> 30°51'56.234"   | 11.1    | 305 | 139.6  | -2.0  | 93.9                 | -17.8 | 18.8      | 167           |  |
| 2015/03/24 19:32:56  | 1551 Arge-lander     | 23.3      | 17.20 | 3.50  | 62            | 0.9         | 36°05'40" 49°30'29" | 193  | 4.7      | UCAC2 39620372       | 13.75 | 4 <sup>h</sup> 55 <sup>m</sup> 58.504 <sup>s</sup> 22°01'44.692"    | 24.6    | 275 | 71.6   | -31.9 | 12.5                 | 13.0  | 24.9      | 189           |  |
| 2015/03/24 20:12:00  | 4278 Harvey          | 6.3       | 17.39 | 6.38  | 213           | 0.5         | 37°34'43" 51°46'44" | 26   | 0.5      | TYC 495900154        | 11.01 | 13 <sup>h</sup> 26 <sup>m</sup> 17.157 <sup>s</sup> -2°10'43.126"   | 27.5    | 133 | 161.8  | -35.3 | 137.3                | 7.2   | 25.1      | 128           |  |
| 2015/03/24 20:21:01  | 226691 JA22          | 10.0      | 20.19 | 9.91  | 105           | 0.6         | 35°50'28" 49°09'02" | 198  | 0.7      | TYC 495900579        | 10.28 | 13 <sup>h</sup> 27 <sup>m</sup> 17.074 <sup>s</sup> 0° - 16°11.368" | 30.2    | 134 | 161.5  | -35.9 | 136.6                | 5.9   | 25.2      | 550           |  |
| 2015/03/24 21:13:24  | 7641 TT6             | 45.7      | 16.57 | 3.56  | 251           | 3.0         | 39°39'48" 50°42'42" | 73   | 3.3      | UCAC2 16178983       | 13.05 | 12 <sup>h</sup> 57 <sup>m</sup> 55.544 <sup>s</sup> -36°55'04.451"  | 1.7     | 166 | 143.0  | -38.3 | 132.8                | -1.5  | 25.6      | 473           |  |
| 2015/03/25 02:35:06  | 22278 Pro-titch      | 6.3       | 18.94 | 7.27  | 28            | 0.6         | 36°39'28" 50°08'17" | 69   | 1.2      | TYC 737200219        | 11.67 | 17 <sup>h</sup> 05 <sup>m</sup> 50.056 <sup>s</sup> -36°33'22.006"  | 3.5     | 181 | 104.6  | -9.2  | 158.5                | -22.3 | 27.8      | 205           |  |
| 2015/03/25 21:57:09  | 353 Ruperto-Carola   | 21.9      | 15.02 | 1.44  | 128           | 1.5         | 37°24'55" 50°56'46" | 39   | 4.1      | UCAC2 40844646       | 13.91 | 7 <sup>h</sup> 18 <sup>m</sup> 42.380 <sup>s</sup> 25°58'56.445"    | 26.5    | 280 | 102.9  | -38.1 | 30.9                 | 0.8   | 35.8      | 136           |  |
| 2015/03/26 00:18:39  | 12576 Oresme         | 5.0       | 18.62 | 11.43 | 122           | 0.9         | 36°26'31" 48°57'33" | 175  | 0.9      | HIP 72501            | 7.19  | 14 <sup>h</sup> 49 <sup>m</sup> 27.654 <sup>s</sup> -19°54'12.815"  | 20.2    | 182 | 138.8  | -28.1 | 145.6                | -15.5 | 36.8      | 90            |  |
| 2015/03/26 18:14:24  | 569 Misa             | 73.0      | 14.70 | 2.35  | 270           | 3.0         | 34°56'26" 47°47'31" | 201  | 4.5      | UCAC2 40150725       | 12.48 | 5 <sup>h</sup> 45 <sup>m</sup> 39.896 <sup>s</sup> 23°36'02.582"    | 45.0    | 252 | 81.2   | -21.9 | 5.9                  | 42.3  | 44.4      | 161           |  |
| 2015/03/26 23:05:04  | 2194 Arpola          | 10.0      | 16.91 | 3.59  | 49            | 0.9         | 36°15'29" 49°36'20" | 182  | 2.7      | UCAC2 21818919       | 13.36 | 17 <sup>h</sup> 19 <sup>m</sup> 46.026 <sup>s</sup> -24°49'58.203"  | 1.6     | 133 | 104.9  | -34.7 | 167.2                | -1.2  | 46.5      | 137           |  |
| 2015/03/27 16:20:54  | 8284 Cranach         | 11.0      | 16.34 | 6.25  | 223           | 1.2         | 37°44'03" 51°50'02" | 27   | 1.0      | TYC 550600294        | 10.10 | 10 <sup>h</sup> 59 <sup>m</sup> 30.559 <sup>s</sup> -12°39'14.664"  | 9.2     | 123 | 156.8  | -4.7  | 70.0                 | 57.6  | 53.7      | 148           |  |
| 2015/03/27 18:29:29  | 4537 Valgri-rasp     | 16.6      | 17.30 | 3.78  | 132           | 0.7         | 36°34'17" 51°12'57" | 9    | 2.4      | UCAC2 37663619       | 13.56 | 5 <sup>h</sup> 08 <sup>m</sup> 35.968 <sup>s</sup> 16°40'58.285"    | 31.1    | 259 | 71.2   | -23.6 | 24.0                 | 46.6  | 54.6      | 236           |  |
| 2015/03/28 00:59:03  | 20520 RC38           | 11.0      | 17.97 | 4.62  | 36            | 0.5         | 36°38'01" 49°48'33" | 137  | 2.1      | UCAC2 28433138       | 13.36 | 18 <sup>h</sup> 59 <sup>m</sup> 51.497 <sup>s</sup> -9°35'33.306"   | 16.9    | 129 | 81.9   | -22.2 | 172.2                | -9.9  | 57.3      | 210           |  |
| 2015/03/28 20:44:14  | 1021 Flam-mario      | 99.4      | 14.05 | 1.50  | 152           | 6.5         | 37°05'60" 51°18'26" | 23   | 15.5     | UCAC2 36477874       | 12.86 | 13 <sup>h</sup> 36 <sup>m</sup> 48.602 <sup>s</sup> 13°29'04.696"   | 45.8    | 134 | 156.2  | -35.8 | 84.5                 | 33.2  | 65.1      | 174           |  |
| 2015/03/28 23:18:47  | 10765 UZ             | 15.1      | 17.26 | 3.35  | 211           | 1.0         | 39°05'08" 49°27'53" | 108  | 1.7      | UCAC2 23699369       | 13.96 | 18 <sup>h</sup> 10 <sup>m</sup> 56.450 <sup>s</sup> -20°42'00.345"  | 1.4     | 125 | 95.2   | -32.9 | 155.9                | 9.2   | 66.2      | 207           |  |
| 2015/03/29 16:38:06  | 29260 FG12           | 6.6       | 17.86 | 6.60  | 53            | 0.7         | 36°40'45" 50°26'53" | 32   | 1.4      | TYC 25900845         | 11.26 | 10 <sup>h</sup> 35 <sup>m</sup> 49.178 <sup>s</sup> 6°24'41.597"    | 31.8    | 122 | 149.6  | -6.9  | 33.0                 | 52.7  | 72.5      | 178           |  |
| 2015/03/29 19:53:23  | 31610 GC6            | 9.1       | 16.26 | 4.13  | 166           | 0.8         | 36°18'44" 51°32'34" | 1    | 1.2      | TYC 145000014        | 12.15 | 13 <sup>h</sup> 05 <sup>m</sup> 56.818 <sup>s</sup> 15°49'11.468"   | 45.8    | 128 | 158.9  | -32.1 | 65.9                 | 44.9  | 73.7      | 126           |  |
| 2015/03/29 21:18:18  | 3247 Di Mar-tino     | 13.7      | 17.69 | 4.86  | 192           | 0.6         | 37°54'50" 51°25'56" | 37   | 1.7      | UCAC2 41335334       | 12.84 | 5 <sup>h</sup> 54 <sup>m</sup> 54.466 <sup>s</sup> 27°11'43.475"    | 18.0    | 291 | 80.2   | -36.5 | 39.6                 | 33.4  | 74.2      | 171           |  |
| 2015/03/29 22:06:58  | 4592 Alkissia        | 10.0      | 18.45 | 5.07  | 222           | 0.7         | 38°17'03" 51°35'21" | 40   | 1.1      | UCAC2 40003565       | 13.39 | 6 <sup>h</sup> 56 <sup>m</sup> 54.883 <sup>s</sup> 23°08'14.362"    | 17.0    | 286 | 94.4   | -36.4 | 25.4                 | 26.0  | 74.5      | 226           |  |

| Longitude = 36.287(36°17'11.5'') Latitude = 50.047(50°02'50.8'') |                         |              |       |      |               |                |                          |      |             | Sorted by date/time. |       |  | Table 1 |      | Page 7 |       | LinOccult 2.2.0 BETA |      |              |               |
|--|-------------------------|--------------|-------|------|---------------|----------------|--------------------------|------|-------------|----------------------|-------|--|---------|------|--------|-------|----------------------|------|--------------|---------------|
|  |                         | Asteroid     |       |      | Nearest point |                |                          | Star |             |                      |       | Sun  |         | Moon |        |       |                      |      |              |               |
| Date Time<br>(UTC)   | Number<br>Name          | Diam<br>(km) | Mag   | Drop | Dist<br>(km)  | Durat<br>(sec) | Longitude<br>Latitude    | Az   | Prob<br>(%) | Catalog<br>Number    | Mag   | RA Dec   | Alt     | Az   | Dist   | Alt   | Dist                 | Alt  | Phase<br>(%) | $\sigma_{km}$ |
| 2015/03/30<br>17:27:16   | 17168 1999<br>NP3       | 8.7          | 16.94 | 6.68 | 13            | 1.0            | 36°13'58''<br>50°09'35'' | 343  | 2.5         | TYC<br>19300025      | 10.26 | 7 <sup>h</sup> 58 <sup>m</sup> 52.228 <sup>s</sup><br>7°27'45.586''    | 47.3    | 189  | 110.2  | -14.1 | 19.2                 | 50.3 | 80.8         | 137           |
| 2015/03/30<br>20:04:09   | 25799 An-<br>maschlegel | 5.8          | 18.42 | 7.00 | 113           | 0.7            | 35°41'37''<br>49°06'25'' | 202  | 1.1         | TYC<br>84501080      | 11.42 | 10 <sup>h</sup> 39 <sup>m</sup> 14.872 <sup>s</sup><br>13°06'03.575''  | 53.0    | 189  | 146.6  | -32.6 | 19.5                 | 46.1 | 81.6         | 172           |
| 2015/03/30<br>21:26:19   | 1129 Neu-<br>jmina      | 34.8         | 15.89 | 2.97 | 138           | 1.2            | 38°04'51''<br>50°30'24'' | 68   | 5.0         | UCAC2<br>39620458    | 13.00 | 4 <sup>h</sup> 56 <sup>m</sup> 30.706 <sup>s</sup><br>22°01'04.845''   | 3.8     | 300  | 65.7   | -36.3 | 64.2                 | 36.4 | 82.1         | 230           |
| 2015/03/30<br>22:03:21   | 195258 2002<br>EN52     | 6.9          | 20.06 | 8.40 | 18            | 0.5            | 36°05'31''<br>49°56'55'' | 232  | 0.8         | UCAC2<br>28027399    | 11.66 | 13 <sup>h</sup> 55 <sup>m</sup> 49.331 <sup>s</sup><br>-10°45'01.339'' | 28.2    | 165  | 158.9  | -36.0 | 71.0                 | 31.1 | 82.2         | 353           |
| 2015/03/31<br>17:17:02   | 174 Phaetra             | 69.2         | 14.32 | 1.41 | 147           | 4.5            | 37°35'35''<br>51°04'30'' | 39   | 10.1        | UCAC2<br>42219008    | 13.25 | 6 <sup>h</sup> 40 <sup>m</sup> 44.156 <sup>s</sup><br>29°34'24.089''   | 62.8    | 231  | 88.4   | -12.3 | 51.3                 | 43.3 | 87.7         | 217           |
| 2015/03/31<br>17:32:08   | 51043 2000<br>GY134     | 5.0          | 19.59 | 8.99 | 167           | 0.5            | 37°38'52''<br>48°49'52'' | 144  | 0.7         | TYC<br>78200757      | 10.60 | 7 <sup>h</sup> 43 <sup>m</sup> 18.619 <sup>s</sup><br>10°38'58.587''   | 49.5    | 199  | 105.1  | -14.5 | 34.1                 | 44.6 | 87.7         | 226           |
| 2015/03/31<br>21:55:07   | 52006 2002<br>EK31      | 6.0          | 17.40 | 8.91 | 135           | 0.7            | 37°38'46''<br>49°12'51'' | 134  | 1.1         | HIP<br>47588         | 8.49  | 9 <sup>h</sup> 42 <sup>m</sup> 11.979 <sup>s</sup><br>-7°46'16.877''   | 18.7    | 231  | 135.9  | -35.8 | 17.1                 | 35.6 | 88.8         | 117           |
| 2015/03/31<br>22:41:04   | 22870 Rosing            | 11.5         | 16.98 | 3.83 | 153           | 0.8            | 36°42'00''<br>51°23'35'' | 11   | 1.8         | UCAC2<br>24119126    | 13.18 | 13 <sup>h</sup> 33 <sup>m</sup> 32.613 <sup>s</sup><br>-19°54'21.978'' | 20.1    | 182  | 159.4  | -34.2 | 56.9                 | 29.3 | 89.0         | 167           |
| 2015/04/01<br>00:02:53   | 19445 1998<br>FE112     | 10.0         | 17.45 | 4.59 | 48            | 1.2            | 35°37'19''<br>50°03'53'' | 272  | 2.3         | UCAC2<br>23913352    | 12.88 | 17 <sup>h</sup> 18 <sup>m</sup> 33.423 <sup>s</sup><br>-20°11'21.339'' | 13.8    | 148  | 110.4  | -27.5 | 107.8                | 16.9 | 89.3         | 167           |