



Die Bahn des Planeten Uranus 2017

# EPHEMERIDE 2017 – URANUS

| Datum       | RA           | Deklination   | r      | delta  | mag | Elong | Phase | Höhe   | Az.    | Gesch. | PA    | Stb   |
|-------------|--------------|---------------|--------|--------|-----|-------|-------|--------|--------|--------|-------|-------|
| -----       | --           | -----         | -      | -----  | --- | ----- | ----- | -----  | -----  | -----  | ----- | ----- |
| 1 Jan 2017  | 01h15m59.52s | +07 22' 51.6" | 19.940 | 19.750 | 5.8 | 99.8  | 2.8   | 2.51   | 278.92 | 0.37   | 55.8  | Psc   |
| 2 Jan 2017  | 01h16m00.08s | +07 22' 57.3" | 19.940 | 19.767 | 5.8 | 98.8  | 2.8   | 1.91   | 279.70 | 0.50   | 59.0  | Psc   |
| 3 Jan 2017  | 01h16m00.84s | +07 23' 04.3" | 19.940 | 19.784 | 5.8 | 97.8  | 2.8   | 1.32   | 280.47 | 0.63   | 60.9  | Psc   |
| 4 Jan 2017  | 01h16m01.79s | +07 23' 12.4" | 19.940 | 19.801 | 5.8 | 96.7  | 2.8   | 0.72   | 281.24 | 0.76   | 62.2  | Psc   |
| 5 Jan 2017  | 01h16m02.94s | +07 23' 21.8" | 19.940 | 19.818 | 5.8 | 95.7  | 2.8   | 0.13   | 282.01 | 0.89   | 63.0  | Psc   |
| 6 Jan 2017  | 01h16m04.28s | +07 23' 32.3" | 19.940 | 19.835 | 5.8 | 94.7  | 2.8   | -0.45  | 282.79 | 1.02   | 63.7  | Psc   |
| 7 Jan 2017  | 01h16m05.82s | +07 23' 43.9" | 19.940 | 19.852 | 5.8 | 93.7  | 2.8   | -1.04  | 283.56 | 1.16   | 64.2  | Psc   |
| 8 Jan 2017  | 01h16m07.55s | +07 23' 56.8" | 19.940 | 19.869 | 5.8 | 92.7  | 2.8   | -1.62  | 284.34 | 1.29   | 64.6  | Psc   |
| 9 Jan 2017  | 01h16m09.48s | +07 24' 10.8" | 19.940 | 19.886 | 5.8 | 91.7  | 2.8   | -2.20  | 285.11 | 1.42   | 64.9  | Psc   |
| 10 Jan 2017 | 01h16m11.60s | +07 24' 26.0" | 19.940 | 19.904 | 5.8 | 90.7  | 2.8   | -2.78  | 285.89 | 1.55   | 65.2  | Psc   |
| 11 Jan 2017 | 01h16m13.91s | +07 24' 42.3" | 19.939 | 19.921 | 5.8 | 89.7  | 2.8   | -3.35  | 286.67 | 1.68   | 65.4  | Psc   |
| 12 Jan 2017 | 01h16m16.42s | +07 24' 59.8" | 19.939 | 19.938 | 5.8 | 88.7  | 2.8   | -3.92  | 287.45 | 1.80   | 65.6  | Psc   |
| 13 Jan 2017 | 01h16m19.12s | +07 25' 18.5" | 19.939 | 19.955 | 5.8 | 87.7  | 2.8   | -4.49  | 288.24 | 1.93   | 65.8  | Psc   |
| 14 Jan 2017 | 01h16m22.01s | +07 25' 38.2" | 19.939 | 19.972 | 5.8 | 86.7  | 2.8   | -5.05  | 289.02 | 2.06   | 65.9  | Psc   |
| 15 Jan 2017 | 01h16m25.08s | +07 25' 59.2" | 19.939 | 19.989 | 5.8 | 85.7  | 2.8   | -5.62  | 289.81 | 2.19   | 66.1  | Psc   |
| 16 Jan 2017 | 01h16m28.35s | +07 26' 21.3" | 19.939 | 20.007 | 5.8 | 84.6  | 2.8   | -6.17  | 290.60 | 2.32   | 66.2  | Psc   |
| 17 Jan 2017 | 01h16m31.81s | +07 26' 44.5" | 19.939 | 20.024 | 5.8 | 83.6  | 2.8   | -6.73  | 291.39 | 2.44   | 66.3  | Psc   |
| 18 Jan 2017 | 01h16m35.46s | +07 27' 08.8" | 19.939 | 20.041 | 5.8 | 82.6  | 2.8   | -7.28  | 292.19 | 2.57   | 66.4  | Psc   |
| 19 Jan 2017 | 01h16m39.29s | +07 27' 34.2" | 19.939 | 20.058 | 5.8 | 81.6  | 2.8   | -7.82  | 292.99 | 2.70   | 66.5  | Psc   |
| 20 Jan 2017 | 01h16m43.31s | +07 28' 00.8" | 19.939 | 20.075 | 5.8 | 80.6  | 2.8   | -8.37  | 293.79 | 2.82   | 66.5  | Psc   |
| 21 Jan 2017 | 01h16m47.52s | +07 28' 28.5" | 19.938 | 20.092 | 5.8 | 79.6  | 2.8   | -8.90  | 294.59 | 2.95   | 66.6  | Psc   |
| 22 Jan 2017 | 01h16m51.91s | +07 28' 57.3" | 19.938 | 20.109 | 5.8 | 78.6  | 2.8   | -9.44  | 295.40 | 3.07   | 66.7  | Psc   |
| 23 Jan 2017 | 01h16m56.49s | +07 29' 27.2" | 19.938 | 20.126 | 5.8 | 77.7  | 2.8   | -9.97  | 296.21 | 3.20   | 66.8  | Psc   |
| 24 Jan 2017 | 01h17m01.25s | +07 29' 58.1" | 19.938 | 20.142 | 5.8 | 76.7  | 2.8   | -10.49 | 297.02 | 3.32   | 66.8  | Psc   |
| 25 Jan 2017 | 01h17m06.20s | +07 30' 30.2" | 19.938 | 20.159 | 5.8 | 75.7  | 2.7   | -11.01 | 297.84 | 3.44   | 66.9  | Psc   |
| 26 Jan 2017 | 01h17m11.33s | +07 31' 03.3" | 19.938 | 20.176 | 5.8 | 74.7  | 2.7   | -11.53 | 298.66 | 3.56   | 66.9  | Psc   |
| 27 Jan 2017 | 01h17m16.63s | +07 31' 37.5" | 19.938 | 20.192 | 5.8 | 73.7  | 2.7   | -12.04 | 299.48 | 3.68   | 67.0  | Psc   |
| 28 Jan 2017 | 01h17m22.12s | +07 32' 12.8" | 19.938 | 20.209 | 5.8 | 72.7  | 2.7   | -12.55 | 300.31 | 3.80   | 67.0  | Psc   |
| 29 Jan 2017 | 01h17m27.78s | +07 32' 49.1" | 19.938 | 20.225 | 5.8 | 71.7  | 2.7   | -13.05 | 301.14 | 3.92   | 67.1  | Psc   |
| 30 Jan 2017 | 01h17m33.62s | +07 33' 26.5" | 19.938 | 20.241 | 5.8 | 70.7  | 2.7   | -13.54 | 301.98 | 4.04   | 67.1  | Psc   |
| 31 Jan 2017 | 01h17m39.64s | +07 34' 04.8" | 19.937 | 20.258 | 5.8 | 69.7  | 2.7   | -14.03 | 302.82 | 4.16   | 67.1  | Psc   |
| 1 Feb 2017  | 01h17m45.83s | +07 34' 44.2" | 19.937 | 20.274 | 5.8 | 68.7  | 2.6   | -14.52 | 303.66 | 4.27   | 67.2  | Psc   |
| 2 Feb 2017  | 01h17m52.19s | +07 35' 24.6" | 19.937 | 20.290 | 5.8 | 67.7  | 2.6   | -15.00 | 304.51 | 4.39   | 67.2  | Psc   |
| 3 Feb 2017  | 01h17m58.71s | +07 36' 06.0" | 19.937 | 20.306 | 5.8 | 66.8  | 2.6   | -15.47 | 305.36 | 4.50   | 67.2  | Psc   |
| 4 Feb 2017  | 01h18m05.41s | +07 36' 48.4" | 19.937 | 20.321 | 5.8 | 65.8  | 2.6   | -15.94 | 306.22 | 4.61   | 67.3  | Psc   |
| 5 Feb 2017  | 01h18m12.27s | +07 37' 31.8" | 19.937 | 20.337 | 5.8 | 64.8  | 2.6   | -16.41 | 307.08 | 4.72   | 67.3  | Psc   |
| 6 Feb 2017  | 01h18m19.30s | +07 38' 16.1" | 19.937 | 20.353 | 5.9 | 63.8  | 2.5   | -16.86 | 307.95 | 4.83   | 67.3  | Psc   |
| 7 Feb 2017  | 01h18m26.48s | +07 39' 01.3" | 19.937 | 20.368 | 5.9 | 62.8  | 2.5   | -17.31 | 308.82 | 4.94   | 67.4  | Psc   |
| 8 Feb 2017  | 01h18m33.83s | +07 39' 47.5" | 19.937 | 20.383 | 5.9 | 61.8  | 2.5   | -17.76 | 309.70 | 5.04   | 67.4  | Psc   |
| 9 Feb 2017  | 01h18m41.33s | +07 40' 34.6" | 19.937 | 20.398 | 5.9 | 60.9  | 2.5   | -18.20 | 310.58 | 5.15   | 67.4  | Psc   |
| 10 Feb 2017 | 01h18m48.99s | +07 41' 22.6" | 19.936 | 20.413 | 5.9 | 59.9  | 2.5   | -18.63 | 311.46 | 5.25   | 67.4  | Psc   |
| 11 Feb 2017 | 01h18m56.81s | +07 42' 11.5" | 19.936 | 20.428 | 5.9 | 58.9  | 2.4   | -19.05 | 312.36 | 5.35   | 67.5  | Psc   |
| 12 Feb 2017 | 01h19m04.77s | +07 43' 01.3" | 19.936 | 20.443 | 5.9 | 57.9  | 2.4   | -19.47 | 313.25 | 5.45   | 67.5  | Psc   |
| 13 Feb 2017 | 01h19m12.89s | +07 43' 52.0" | 19.936 | 20.457 | 5.9 | 57.0  | 2.4   | -19.88 | 314.15 | 5.55   | 67.5  | Psc   |
| 14 Feb 2017 | 01h19m21.16s | +07 44' 43.5" | 19.936 | 20.472 | 5.9 | 56.0  | 2.4   | -20.29 | 315.06 | 5.65   | 67.5  | Psc   |
| 15 Feb 2017 | 01h19m29.57s | +07 45' 35.9" | 19.936 | 20.486 | 5.9 | 55.0  | 2.3   | -20.69 | 315.97 | 5.75   | 67.6  | Psc   |
| 16 Feb 2017 | 01h19m38.13s | +07 46' 29.1" | 19.936 | 20.500 | 5.9 | 54.0  | 2.3   | -21.08 | 316.89 | 5.85   | 67.6  | Psc   |
| 17 Feb 2017 | 01h19m46.83s | +07 47' 23.1" | 19.936 | 20.514 | 5.9 | 53.1  | 2.3   | -21.46 | 317.81 | 5.94   | 67.6  | Psc   |
| 18 Feb 2017 | 01h19m55.67s | +07 48' 18.0" | 19.936 | 20.527 | 5.9 | 52.1  | 2.2   | -21.84 | 318.74 | 6.04   | 67.6  | Psc   |
| 19 Feb 2017 | 01h20m04.66s | +07 49' 13.6" | 19.936 | 20.541 | 5.9 | 51.1  | 2.2   | -22.20 | 319.67 | 6.13   | 67.6  | Psc   |
| 20 Feb 2017 | 01h20m13.78s | +07 50' 10.0" | 19.935 | 20.554 | 5.9 | 50.2  | 2.2   | -22.56 | 320.61 | 6.22   | 67.7  | Psc   |
| 21 Feb 2017 | 01h20m23.03s | +07 51' 07.2" | 19.935 | 20.567 | 5.9 | 49.2  | 2.2   | -22.92 | 321.55 | 6.31   | 67.7  | Psc   |
| 22 Feb 2017 | 01h20m32.42s | +07 52' 05.1" | 19.935 | 20.580 | 5.9 | 48.2  | 2.1   | -23.26 | 322.50 | 6.40   | 67.7  | Psc   |
| 23 Feb 2017 | 01h20m41.95s | +07 53' 03.8" | 19.935 | 20.593 | 5.9 | 47.3  | 2.1   | -23.60 | 323.45 | 6.48   | 67.7  | Psc   |
| 24 Feb 2017 | 01h20m51.60s | +07 54' 03.3" | 19.935 | 20.606 | 5.9 | 46.3  | 2.1   | -23.92 | 324.41 | 6.57   | 67.7  | Psc   |
| 25 Feb 2017 | 01h21m01.38s | +07 55' 03.4" | 19.935 | 20.618 | 5.9 | 45.3  | 2.0   | -24.24 | 325.37 | 6.65   | 67.8  | Psc   |
| 26 Feb 2017 | 01h21m11.28s | +07 56' 04.2" | 19.935 | 20.630 | 5.9 | 44.4  | 2.0   | -24.55 | 326.34 | 6.73   | 67.8  | Psc   |
| 27 Feb 2017 | 01h21m21.30s | +07 57' 05.7" | 19.935 | 20.642 | 5.9 | 43.4  | 2.0   | -24.86 | 327.31 | 6.81   | 67.8  | Psc   |
| 28 Feb 2017 | 01h21m31.45s | +07 58' 07.9" | 19.935 | 20.654 | 5.9 | 42.5  | 1.9   | -25.15 | 328.29 | 6.89   | 67.8  | Psc   |
| 1 Mar 2017  | 01h21m41.71s | +07 59' 10.8" | 19.935 | 20.666 | 5.9 | 41.5  | 1.9   | -25.43 | 329.28 | 6.97   | 67.8  | Psc   |
| 2 Mar 2017  | 01h21m52.09s | +08 00' 14.3" | 19.934 | 20.677 | 5.9 | 40.5  | 1.9   | -25.71 | 330.26 | 7.04   | 67.9  | Psc   |
| 3 Mar 2017  | 01h22m02.58s | +08 01' 18.4" | 19.934 | 20.688 | 5.9 | 39.6  | 1.8   | -25.98 | 331.26 | 7.12   | 67.9  | Psc   |
| 4 Mar 2017  | 01h22m13.18s | +08 02' 23.1" | 19.934 | 20.699 | 5.9 | 38.6  | 1.8   | -26.23 | 332.25 | 7.19   | 67.9  | Psc   |
| 5 Mar 2017  | 01h22m23.88s | +08 03' 28.4" | 19.934 | 20.710 | 5.9 | 37.7  | 1.7   | -26.48 | 333.26 | 7.26   | 67.9  | Psc   |
| 6 Mar 2017  | 01h22m34.69s | +08 04' 34.2" | 19.934 | 20.720 | 5.9 | 36.7  | 1.7   | -26.72 | 334.26 | 7.33   | 67.9  | Psc   |
| 7 Mar 2017  | 01h22m45.60s | +08 05' 40.7" | 19.934 | 20.731 | 5.9 | 35.8  | 1.7   | -26.95 | 335.27 | 7.39   | 67.9  | Psc   |
| 8 Mar 2017  | 01h22m56.61s | +08 06' 47.6" | 19.934 | 20.741 | 5.9 | 34.8  | 1.6   | -27.17 | 336.29 | 7.46   | 67.9  | Psc   |
| 9 Mar 2017  | 01h23m07.72s | +08 07' 55.1" | 19.934 | 20.750 | 5.9 | 33.9  | 1.6   | -27.38 | 337.31 | 7.52   | 68.0  | Psc   |
| 10 Mar 2017 | 01h23m18.92s | +08 09' 03.1" | 19.934 | 20.760 | 5.9 | 32.9  | 1.6   | -27.58 | 338.33 | 7.58   | 68.0  | Psc   |
| 11 Mar 2017 | 01h23m30.22s | +08 10' 11.6" | 19.934 | 20.769 | 5.9 | 32.0  | 1.5   | -27.77 | 339.36 | 7.64   | 68.0  | Psc   |
| 12 Mar 2017 | 01h23m41.60s | +08 11' 20.6" | 19.933 | 20.778 | 5.9 | 31.0  | 1.5   | -27.95 | 340.39 | 7.70   | 68.0  | Psc   |
| 13 Mar 2017 | 01h23m53.07s | +08 12' 30.0" | 19.933 | 20.787 | 5.9 | 30.1  | 1.4   | -28.12 | 341.42 | 7.75   | 68.0  | Psc   |
| 14 Mar 2017 | 01h24m04.62s | +08 13' 39.9" | 19.933 | 20.796 | 5.9 | 29.1  | 1.4   | -28.28 | 342.46 | 7.81   | 68.0  | Psc   |
| 15 Mar 2017 | 01h24m16.26s | +08 14' 50.2" | 19.933 | 20.804 | 5.9 | 28.2  | 1.4   | -28.43 | 343.50 | 7.86   | 68.1  | Psc   |

# EPHEMERIDE 2017 – URANUS

| Datum       | RA           | Deklination   | r      | delta  | mag | Elong | Phase | Höhe   | Az.    | Gesch. | PA    | Stb   |
|-------------|--------------|---------------|--------|--------|-----|-------|-------|--------|--------|--------|-------|-------|
| -----       | --           | -----         | -      | -----  | --- | ----- | ----- | -----  | -----  | -----  | ----- | ----- |
| 16 Mar 2017 | 01h24m27.98s | +08 16' 00.9" | 19.933 | 20.812 | 5.9 | 27.3  | 1.3   | -28.57 | 344.54 | 7.91   | 68.1  | Psc   |
| 17 Mar 2017 | 01h24m39.77s | +08 17' 12.1" | 19.933 | 20.820 | 5.9 | 26.3  | 1.3   | -28.70 | 345.59 | 7.96   | 68.1  | Psc   |
| 18 Mar 2017 | 01h24m51.64s | +08 18' 23.6" | 19.933 | 20.828 | 5.9 | 25.4  | 1.2   | -28.82 | 346.64 | 8.01   | 68.1  | Psc   |
| 19 Mar 2017 | 01h25m03.59s | +08 19' 35.5" | 19.933 | 20.835 | 5.9 | 24.4  | 1.2   | -28.93 | 347.69 | 8.06   | 68.1  | Psc   |
| 20 Mar 2017 | 01h25m15.60s | +08 20' 47.8" | 19.933 | 20.842 | 5.9 | 23.5  | 1.1   | -29.03 | 348.74 | 8.10   | 68.1  | Psc   |
| 21 Mar 2017 | 01h25m27.68s | +08 22' 00.4" | 19.933 | 20.849 | 5.9 | 22.5  | 1.1   | -29.11 | 349.79 | 8.15   | 68.1  | Psc   |
| 22 Mar 2017 | 01h25m39.83s | +08 23' 13.3" | 19.932 | 20.855 | 5.9 | 21.6  | 1.1   | -29.19 | 350.85 | 8.19   | 68.2  | Psc   |
| 23 Mar 2017 | 01h25m52.04s | +08 24' 26.5" | 19.932 | 20.862 | 5.9 | 20.7  | 1.0   | -29.26 | 351.90 | 8.23   | 68.2  | Psc   |
| 24 Mar 2017 | 01h26m04.32s | +08 25' 40.1" | 19.932 | 20.868 | 5.9 | 19.7  | 1.0   | -29.31 | 352.96 | 8.27   | 68.2  | Psc   |
| 25 Mar 2017 | 01h26m16.65s | +08 26' 53.9" | 19.932 | 20.874 | 5.9 | 18.8  | 0.9   | -29.36 | 354.02 | 8.30   | 68.2  | Psc   |
| 26 Mar 2017 | 01h26m29.03s | +08 28' 08.0" | 19.932 | 20.879 | 5.9 | 17.9  | 0.9   | -29.39 | 355.08 | 8.34   | 68.2  | Psc   |
| 27 Mar 2017 | 01h26m41.47s | +08 29' 22.3" | 19.932 | 20.884 | 5.9 | 16.9  | 0.8   | -29.41 | 356.14 | 8.37   | 68.2  | Psc   |
| 28 Mar 2017 | 01h26m53.96s | +08 30' 36.9" | 19.932 | 20.889 | 5.9 | 16.0  | 0.8   | -29.43 | 357.20 | 8.40   | 68.3  | Psc   |
| 29 Mar 2017 | 01h27m06.50s | +08 31' 51.6" | 19.932 | 20.894 | 5.9 | 15.1  | 0.7   | -29.43 | 358.26 | 8.43   | 68.3  | Psc   |
| 30 Mar 2017 | 01h27m19.08s | +08 33' 06.6" | 19.932 | 20.899 | 5.9 | 14.1  | 0.7   | -29.42 | 359.32 | 8.46   | 68.3  | Psc   |
| 31 Mar 2017 | 01h27m31.70s | +08 34' 21.8" | 19.931 | 20.903 | 5.9 | 13.2  | 0.7   | -29.40 | 0.38   | 8.48   | 68.3  | Psc   |
| 1 Apr 2017  | 01h27m44.36s | +08 35' 37.1" | 19.931 | 20.907 | 5.9 | 12.3  | 0.6   | -29.37 | 1.44   | 8.50   | 68.3  | Psc   |
| 2 Apr 2017  | 01h27m56.66s | +08 36' 52.6" | 19.931 | 20.910 | 5.9 | 11.3  | 0.6   | -29.33 | 2.49   | 8.53   | 68.3  | Psc   |
| 3 Apr 2017  | 01h28m09.79s | +08 38' 08.2" | 19.931 | 20.914 | 5.9 | 10.4  | 0.5   | -29.28 | 3.55   | 8.55   | 68.3  | Psc   |
| 4 Apr 2017  | 01h28m22.55s | +08 39' 23.9" | 19.931 | 20.917 | 5.9 | 9.5   | 0.5   | -29.22 | 4.60   | 8.56   | 68.4  | Psc   |
| 5 Apr 2017  | 01h28m35.33s | +08 40' 39.7" | 19.931 | 20.920 | 5.9 | 8.6   | 0.4   | -29.15 | 5.66   | 8.58   | 68.4  | Psc   |
| 6 Apr 2017  | 01h28m48.14s | +08 41' 55.6" | 19.931 | 20.922 | 5.9 | 7.6   | 0.4   | -29.06 | 6.71   | 8.59   | 68.4  | Psc   |
| 7 Apr 2017  | 01h29m00.98s | +08 43' 11.6" | 19.931 | 20.925 | 5.9 | 6.7   | 0.3   | -28.97 | 7.75   | 8.61   | 68.4  | Psc   |
| 8 Apr 2017  | 01h29m13.83s | +08 44' 27.6" | 19.931 | 20.927 | 5.9 | 5.8   | 0.3   | -28.87 | 8.80   | 8.62   | 68.4  | Psc   |
| 9 Apr 2017  | 01h29m26.70s | +08 45' 43.6" | 19.931 | 20.928 | 5.9 | 4.9   | 0.2   | -28.75 | 9.84   | 8.63   | 68.4  | Psc   |
| 10 Apr 2017 | 01h29m39.59s | +08 46' 59.7" | 19.930 | 20.930 | 5.9 | 3.9   | 0.2   | -28.63 | 10.88  | 8.63   | 68.4  | Psc   |
| 11 Apr 2017 | 01h29m52.49s | +08 48' 15.8" | 19.930 | 20.931 | 5.9 | 3.0   | 0.2   | -28.49 | 11.92  | 8.64   | 68.4  | Psc   |
| 12 Apr 2017 | 01h30m05.39s | +08 49' 31.8" | 19.930 | 20.932 | 5.9 | 2.1   | 0.1   | -28.35 | 12.95  | 8.64   | 68.5  | Psc   |
| 13 Apr 2017 | 01h30m18.31s | +08 50' 47.9" | 19.930 | 20.933 | 5.9 | 1.3   | 0.1   | -28.19 | 13.99  | 8.65   | 68.5  | Psc   |
| 14 Apr 2017 | 01h30m31.23s | +08 52' 03.9" | 19.930 | 20.933 | 5.9 | 0.6   | 0.0   | -28.03 | 15.01  | 8.65   | 68.5  | Psc   |
| 15 Apr 2017 | 01h30m44.16s | +08 53' 19.9" | 19.930 | 20.933 | 5.9 | 0.9   | 0.0   | -27.85 | 16.04  | 8.65   | 68.5  | Psc   |
| 16 Apr 2017 | 01h30m57.09s | +08 54' 35.8" | 19.930 | 20.933 | 5.9 | 1.7   | 0.1   | -27.67 | 17.05  | 8.64   | 68.5  | Psc   |
| 17 Apr 2017 | 01h31m10.01s | +08 55' 51.6" | 19.930 | 20.932 | 5.9 | 2.6   | 0.1   | -27.48 | 18.07  | 8.64   | 68.5  | Psc   |
| 18 Apr 2017 | 01h31m22.93s | +08 57' 07.3" | 19.930 | 20.932 | 5.9 | 3.5   | 0.2   | -27.27 | 19.08  | 8.63   | 68.6  | Psc   |
| 19 Apr 2017 | 01h31m35.84s | +08 58' 22.9" | 19.930 | 20.931 | 5.9 | 4.4   | 0.2   | -27.06 | 20.09  | 8.63   | 68.6  | Psc   |
| 20 Apr 2017 | 01h31m48.75s | +08 59' 38.4" | 19.929 | 20.930 | 5.9 | 5.3   | 0.3   | -26.84 | 21.09  | 8.62   | 68.6  | Psc   |
| 21 Apr 2017 | 01h32m01.64s | +09 00' 53.8" | 19.929 | 20.928 | 5.9 | 6.3   | 0.3   | -26.60 | 22.09  | 8.61   | 68.6  | Psc   |
| 22 Apr 2017 | 01h32m14.52s | +09 02' 09.0" | 19.929 | 20.926 | 5.9 | 7.2   | 0.4   | -26.36 | 23.08  | 8.59   | 68.6  | Psc   |
| 23 Apr 2017 | 01h32m27.37s | +09 03' 24.0" | 19.929 | 20.924 | 5.9 | 8.1   | 0.4   | -26.11 | 24.07  | 8.58   | 68.6  | Psc   |
| 24 Apr 2017 | 01h32m40.22s | +09 04' 38.9" | 19.929 | 20.922 | 5.9 | 9.0   | 0.5   | -25.85 | 25.05  | 8.56   | 68.6  | Psc   |
| 25 Apr 2017 | 01h32m53.03s | +09 05' 53.5" | 19.929 | 20.919 | 5.9 | 9.9   | 0.5   | -25.59 | 26.03  | 8.55   | 68.6  | Psc   |
| 26 Apr 2017 | 01h33m05.82s | +09 07' 08.0" | 19.929 | 20.916 | 5.9 | 10.8  | 0.5   | -25.31 | 27.00  | 8.53   | 68.7  | Psc   |
| 27 Apr 2017 | 01h33m18.59s | +09 08' 22.2" | 19.929 | 20.913 | 5.9 | 11.8  | 0.6   | -25.03 | 27.97  | 8.51   | 68.7  | Psc   |
| 28 Apr 2017 | 01h33m31.32s | +09 09' 36.1" | 19.929 | 20.910 | 5.9 | 12.7  | 0.6   | -24.73 | 28.93  | 8.48   | 68.7  | Psc   |
| 29 Apr 2017 | 01h33m44.02s | +09 10' 49.8" | 19.929 | 20.906 | 5.9 | 13.6  | 0.7   | -24.43 | 29.88  | 8.46   | 68.7  | Psc   |
| 30 Apr 2017 | 01h33m56.68s | +09 12' 03.3" | 19.928 | 20.902 | 5.9 | 14.5  | 0.7   | -24.12 | 30.84  | 8.43   | 68.7  | Psc   |
| 1 Mai 2017  | 01h34m09.30s | +09 13' 16.4" | 19.928 | 20.898 | 5.9 | 15.4  | 0.8   | -23.80 | 31.78  | 8.40   | 68.7  | Psc   |
| 2 Mai 2017  | 01h34m21.89s | +09 14' 29.3" | 19.928 | 20.893 | 5.9 | 16.3  | 0.8   | -23.48 | 32.72  | 8.37   | 68.7  | Psc   |
| 3 Mai 2017  | 01h34m34.42s | +09 15' 41.8" | 19.928 | 20.889 | 5.9 | 17.2  | 0.9   | -23.14 | 33.66  | 8.34   | 68.8  | Psc   |
| 4 Mai 2017  | 01h34m46.91s | +09 16' 54.0" | 19.928 | 20.884 | 5.9 | 18.2  | 0.9   | -22.80 | 34.59  | 8.30   | 68.8  | Psc   |
| 5 Mai 2017  | 01h34m59.35s | +09 18' 05.8" | 19.928 | 20.878 | 5.9 | 19.1  | 0.9   | -22.45 | 35.51  | 8.27   | 68.8  | Psc   |
| 6 Mai 2017  | 01h35m11.74s | +09 19' 17.3" | 19.928 | 20.873 | 5.9 | 20.0  | 1.0   | -22.09 | 36.43  | 8.23   | 68.8  | Psc   |
| 7 Mai 2017  | 01h35m24.08s | +09 20' 28.4" | 19.928 | 20.867 | 5.9 | 20.9  | 1.0   | -21.73 | 37.34  | 8.19   | 68.8  | Psc   |
| 8 Mai 2017  | 01h35m36.36s | +09 21' 39.1" | 19.928 | 20.861 | 5.9 | 21.8  | 1.1   | -21.36 | 38.25  | 8.15   | 68.8  | Psc   |
| 9 Mai 2017  | 01h35m48.58s | +09 22' 49.4" | 19.928 | 20.855 | 5.9 | 22.7  | 1.1   | -20.98 | 39.15  | 8.11   | 68.8  | Psc   |
| 10 Mai 2017 | 01h36m00.74s | +09 23' 59.3" | 19.927 | 20.848 | 5.9 | 23.6  | 1.2   | -20.60 | 40.05  | 8.07   | 68.9  | Psc   |
| 11 Mai 2017 | 01h36m12.84s | +09 25' 08.8" | 19.927 | 20.842 | 5.9 | 24.5  | 1.2   | -20.20 | 40.94  | 8.03   | 68.9  | Psc   |
| 12 Mai 2017 | 01h36m24.88s | +09 26' 17.8" | 19.927 | 20.835 | 5.9 | 25.5  | 1.2   | -19.81 | 41.82  | 7.98   | 68.9  | Psc   |
| 13 Mai 2017 | 01h36m36.85s | +09 27' 26.4" | 19.927 | 20.827 | 5.9 | 26.4  | 1.3   | -19.40 | 42.70  | 7.93   | 68.9  | Psc   |
| 14 Mai 2017 | 01h36m48.74s | +09 28' 34.5" | 19.927 | 20.820 | 5.9 | 27.3  | 1.3   | -18.99 | 43.58  | 7.89   | 68.9  | Psc   |
| 15 Mai 2017 | 01h37m00.57s | +09 29' 42.2" | 19.927 | 20.812 | 5.9 | 28.2  | 1.4   | -18.57 | 44.45  | 7.84   | 68.9  | Psc   |
| 16 Mai 2017 | 01h37m12.33s | +09 30' 49.4" | 19.927 | 20.804 | 5.9 | 29.1  | 1.4   | -18.15 | 45.31  | 7.78   | 68.9  | Psc   |
| 17 Mai 2017 | 01h37m24.00s | +09 31' 56.1" | 19.927 | 20.796 | 5.9 | 30.0  | 1.5   | -17.72 | 46.17  | 7.73   | 69.0  | Psc   |
| 18 Mai 2017 | 01h37m35.60s | +09 33' 02.2" | 19.927 | 20.787 | 5.9 | 30.9  | 1.5   | -17.28 | 47.03  | 7.68   | 69.0  | Psc   |
| 19 Mai 2017 | 01h37m47.12s | +09 34' 07.9" | 19.927 | 20.779 | 5.9 | 31.8  | 1.5   | -16.84 | 47.88  | 7.62   | 69.0  | Psc   |
| 20 Mai 2017 | 01h37m58.56s | +09 35' 13.0" | 19.926 | 20.770 | 5.9 | 32.8  | 1.6   | -16.39 | 48.72  | 7.56   | 69.0  | Psc   |
| 21 Mai 2017 | 01h38m09.91s | +09 36' 17.6" | 19.926 | 20.761 | 5.9 | 33.7  | 1.6   | -15.94 | 49.56  | 7.50   | 69.0  | Psc   |
| 22 Mai 2017 | 01h38m21.17s | +09 37' 21.6" | 19.926 | 20.751 | 5.9 | 34.6  | 1.7   | -15.48 | 50.39  | 7.44   | 69.0  | Psc   |
| 23 Mai 2017 | 01h38m32.34s | +09 38' 25.0" | 19.926 | 20.742 | 5.9 | 35.5  | 1.7   | -15.01 | 51.22  | 7.38   | 69.0  | Psc   |
| 24 Mai 2017 | 01h38m43.42s | +09 39' 27.9" | 19.926 | 20.732 | 5.9 | 36.4  | 1.7   | -14.54 | 52.05  | 7.32   | 69.0  | Psc   |
| 25 Mai 2017 | 01h38m54.40s | +09 40' 30.2" | 19.926 | 20.722 | 5.9 | 37.3  | 1.8   | -14.07 | 52.87  | 7.25   | 69.1  | Psc   |
| 26 Mai 2017 | 01h39m05.29s | +09 41' 31.8" | 19.926 | 20.712 | 5.9 | 38.2  | 1.8   | -13.59 | 53.69  | 7.18   | 69.1  | Psc   |
| 27 Mai 2017 | 01h39m16.07s | +09 42' 32.8" | 19.926 | 20.701 | 5.9 | 39.1  | 1.8   | -13.11 | 54.50  | 7.11   | 69.1  | Psc   |
| 28 Mai 2017 | 01h39m26.76s | +09 43' 33.2" | 19.926 | 20.691 | 5.9 | 40.1  | 1.9   | -12.62 | 55.31  | 7.04   | 69.1  | Psc   |

# EPHEMERIDE 2017 – URANUS

| Datum       | RA           | Deklination   | r      | delta  | mag | Elong | Phase | Höhe   | Az.    | Gesch. | PA    | Stb   |
|-------------|--------------|---------------|--------|--------|-----|-------|-------|--------|--------|--------|-------|-------|
| -----       | --           | -----         | -      | -----  | --- | ----- | ----- | -----  | -----  | -----  | ----- | ----- |
| 29 Mai 2017 | 01h39m37.33s | +09 44' 32.9" | 19.925 | 20.680 | 5.9 | 41.0  | 1.9   | -12.12 | 56.11  | 6.97   | 69.1  | Psc   |
| 30 Mai 2017 | 01h39m47.80s | +09 45' 32.0" | 19.925 | 20.669 | 5.9 | 41.9  | 1.9   | -11.63 | 56.91  | 6.90   | 69.1  | Psc   |
| 31 Mai 2017 | 01h39m58.16s | +09 46' 30.4" | 19.925 | 20.657 | 5.9 | 42.8  | 2.0   | -11.12 | 57.71  | 6.82   | 69.1  | Psc   |
| 1 Jun 2017  | 01h40m08.41s | +09 47' 28.1" | 19.925 | 20.646 | 5.9 | 43.7  | 2.0   | -10.62 | 58.50  | 6.75   | 69.2  | Psc   |
| 2 Jun 2017  | 01h40m18.55s | +09 48' 25.1" | 19.925 | 20.634 | 5.9 | 44.6  | 2.0   | -10.10 | 59.29  | 6.67   | 69.2  | Psc   |
| 3 Jun 2017  | 01h40m28.57s | +09 49' 21.4" | 19.925 | 20.622 | 5.9 | 45.5  | 2.1   | -9.59  | 60.08  | 6.59   | 69.2  | Psc   |
| 4 Jun 2017  | 01h40m38.48s | +09 50' 17.0" | 19.925 | 20.610 | 5.9 | 46.5  | 2.1   | -9.07  | 60.86  | 6.51   | 69.2  | Psc   |
| 5 Jun 2017  | 01h40m48.26s | +09 51' 11.9" | 19.925 | 20.598 | 5.9 | 47.4  | 2.1   | -8.55  | 61.64  | 6.43   | 69.2  | Psc   |
| 6 Jun 2017  | 01h40m57.92s | +09 52' 06.1" | 19.925 | 20.585 | 5.9 | 48.3  | 2.2   | -8.02  | 62.41  | 6.35   | 69.2  | Psc   |
| 7 Jun 2017  | 01h41m07.47s | +09 52' 59.5" | 19.925 | 20.573 | 5.9 | 49.2  | 2.2   | -7.49  | 63.19  | 6.26   | 69.2  | Psc   |
| 8 Jun 2017  | 01h41m16.88s | +09 53' 52.1" | 19.924 | 20.560 | 5.9 | 50.1  | 2.2   | -6.95  | 63.96  | 6.18   | 69.3  | Psc   |
| 9 Jun 2017  | 01h41m26.18s | +09 54' 44.0" | 19.924 | 20.547 | 5.9 | 51.0  | 2.3   | -6.41  | 64.72  | 6.09   | 69.3  | Psc   |
| 10 Jun 2017 | 01h41m35.34s | +09 55' 35.1" | 19.924 | 20.534 | 5.9 | 51.9  | 2.3   | -5.87  | 65.49  | 6.01   | 69.3  | Psc   |
| 11 Jun 2017 | 01h41m44.37s | +09 56' 25.4" | 19.924 | 20.521 | 5.9 | 52.9  | 2.3   | -5.33  | 66.25  | 5.92   | 69.3  | Psc   |
| 12 Jun 2017 | 01h41m53.28s | +09 57' 15.0" | 19.924 | 20.507 | 5.9 | 53.8  | 2.4   | -4.78  | 67.01  | 5.83   | 69.3  | Psc   |
| 13 Jun 2017 | 01h42m02.04s | +09 58' 03.8" | 19.924 | 20.494 | 5.9 | 54.7  | 2.4   | -4.23  | 67.77  | 5.74   | 69.3  | Psc   |
| 14 Jun 2017 | 01h42m10.68s | +09 58' 51.7" | 19.924 | 20.480 | 5.9 | 55.6  | 2.4   | -3.67  | 68.52  | 5.65   | 69.3  | Psc   |
| 15 Jun 2017 | 01h42m19.18s | +09 59' 38.8" | 19.924 | 20.466 | 5.9 | 56.5  | 2.4   | -3.12  | 69.27  | 5.56   | 69.4  | Psc   |
| 16 Jun 2017 | 01h42m27.53s | +10 00' 25.1" | 19.924 | 20.452 | 5.9 | 57.4  | 2.5   | -2.56  | 70.02  | 5.46   | 69.4  | Psc   |
| 17 Jun 2017 | 01h42m35.75s | +10 01' 10.6" | 19.924 | 20.438 | 5.9 | 58.4  | 2.5   | -2.00  | 70.77  | 5.37   | 69.4  | Psc   |
| 18 Jun 2017 | 01h42m43.83s | +10 01' 55.2" | 19.923 | 20.423 | 5.9 | 59.3  | 2.5   | -1.43  | 71.52  | 5.27   | 69.4  | Psc   |
| 19 Jun 2017 | 01h42m51.76s | +10 02' 39.0" | 19.923 | 20.409 | 5.9 | 60.2  | 2.5   | -0.86  | 72.27  | 5.17   | 69.4  | Psc   |
| 20 Jun 2017 | 01h42m59.54s | +10 03' 21.9" | 19.923 | 20.394 | 5.9 | 61.1  | 2.6   | -0.29  | 73.01  | 5.07   | 69.4  | Psc   |
| 21 Jun 2017 | 01h43m07.17s | +10 04' 04.0" | 19.923 | 20.379 | 5.9 | 62.0  | 2.6   | 0.28   | 73.76  | 4.97   | 69.5  | Psc   |
| 22 Jun 2017 | 01h43m14.66s | +10 04' 45.2" | 19.923 | 20.364 | 5.9 | 63.0  | 2.6   | 0.86   | 74.50  | 4.87   | 69.5  | Psc   |
| 23 Jun 2017 | 01h43m21.99s | +10 05' 25.4" | 19.923 | 20.349 | 5.8 | 63.9  | 2.6   | 1.43   | 75.24  | 4.77   | 69.5  | Psc   |
| 24 Jun 2017 | 01h43m29.17s | +10 06' 04.8" | 19.923 | 20.334 | 5.8 | 64.8  | 2.6   | 2.01   | 75.98  | 4.67   | 69.5  | Psc   |
| 25 Jun 2017 | 01h43m36.19s | +10 06' 43.3" | 19.923 | 20.319 | 5.8 | 65.7  | 2.7   | 2.59   | 76.72  | 4.56   | 69.5  | Psc   |
| 26 Jun 2017 | 01h43m43.06s | +10 07' 20.8" | 19.923 | 20.303 | 5.8 | 66.7  | 2.7   | 3.18   | 77.47  | 4.45   | 69.5  | Psc   |
| 27 Jun 2017 | 01h43m49.76s | +10 07' 57.5" | 19.922 | 20.288 | 5.8 | 67.6  | 2.7   | 3.76   | 78.21  | 4.35   | 69.6  | Psc   |
| 28 Jun 2017 | 01h43m56.31s | +10 08' 33.2" | 19.922 | 20.272 | 5.8 | 68.5  | 2.7   | 4.35   | 78.95  | 4.24   | 69.6  | Psc   |
| 29 Jun 2017 | 01h44m02.69s | +10 09' 07.9" | 19.922 | 20.257 | 5.8 | 69.4  | 2.7   | 4.94   | 79.69  | 4.13   | 69.6  | Psc   |
| 30 Jun 2017 | 01h44m08.91s | +10 09' 41.7" | 19.922 | 20.241 | 5.8 | 70.4  | 2.8   | 5.53   | 80.43  | 4.02   | 69.6  | Psc   |
| 1 Jul 2017  | 01h44m14.97s | +10 10' 14.6" | 19.922 | 20.225 | 5.8 | 71.3  | 2.8   | 6.12   | 81.17  | 3.91   | 69.6  | Psc   |
| 2 Jul 2017  | 01h44m20.86s | +10 10' 46.5" | 19.922 | 20.209 | 5.8 | 72.2  | 2.8   | 6.71   | 81.91  | 3.80   | 69.7  | Psc   |
| 3 Jul 2017  | 01h44m26.58s | +10 11' 17.5" | 19.922 | 20.193 | 5.8 | 73.1  | 2.8   | 7.31   | 82.65  | 3.69   | 69.7  | Psc   |
| 4 Jul 2017  | 01h44m32.14s | +10 11' 47.5" | 19.922 | 20.177 | 5.8 | 74.1  | 2.8   | 7.90   | 83.39  | 3.58   | 69.7  | Psc   |
| 5 Jul 2017  | 01h44m37.53s | +10 12' 16.5" | 19.922 | 20.161 | 5.8 | 75.0  | 2.8   | 8.50   | 84.14  | 3.47   | 69.7  | Psc   |
| 6 Jul 2017  | 01h44m42.75s | +10 12' 44.5" | 19.922 | 20.144 | 5.8 | 75.9  | 2.8   | 9.10   | 84.88  | 3.35   | 69.8  | Psc   |
| 7 Jul 2017  | 01h44m47.80s | +10 13' 11.6" | 19.921 | 20.128 | 5.8 | 76.9  | 2.8   | 9.70   | 85.63  | 3.24   | 69.8  | Psc   |
| 8 Jul 2017  | 01h44m52.68s | +10 13' 37.6" | 19.921 | 20.111 | 5.8 | 77.8  | 2.9   | 10.30  | 86.38  | 3.12   | 69.8  | Psc   |
| 9 Jul 2017  | 01h44m57.38s | +10 14' 02.7" | 19.921 | 20.095 | 5.8 | 78.7  | 2.9   | 10.90  | 87.13  | 3.01   | 69.8  | Psc   |
| 10 Jul 2017 | 01h45m01.91s | +10 14' 26.8" | 19.921 | 20.078 | 5.8 | 79.7  | 2.9   | 11.50  | 87.88  | 2.89   | 69.9  | Psc   |
| 11 Jul 2017 | 01h45m06.27s | +10 14' 49.9" | 19.921 | 20.062 | 5.8 | 80.6  | 2.9   | 12.10  | 88.63  | 2.78   | 69.9  | Psc   |
| 12 Jul 2017 | 01h45m10.45s | +10 15' 12.0" | 19.921 | 20.045 | 5.8 | 81.5  | 2.9   | 12.70  | 89.39  | 2.66   | 70.0  | Psc   |
| 13 Jul 2017 | 01h45m14.46s | +10 15' 33.1" | 19.921 | 20.029 | 5.8 | 82.5  | 2.9   | 13.30  | 90.15  | 2.54   | 70.0  | Psc   |
| 14 Jul 2017 | 01h45m18.28s | +10 15' 53.2" | 19.921 | 20.012 | 5.8 | 83.4  | 2.9   | 13.90  | 90.91  | 2.42   | 70.0  | Psc   |
| 15 Jul 2017 | 01h45m21.93s | +10 16' 12.3" | 19.921 | 19.995 | 5.8 | 84.3  | 2.9   | 14.51  | 91.67  | 2.30   | 70.1  | Psc   |
| 16 Jul 2017 | 01h45m25.40s | +10 16' 30.3" | 19.921 | 19.978 | 5.8 | 85.3  | 2.9   | 15.11  | 92.44  | 2.18   | 70.1  | Psc   |
| 17 Jul 2017 | 01h45m28.69s | +10 16' 47.3" | 19.920 | 19.962 | 5.8 | 86.2  | 2.9   | 15.71  | 93.21  | 2.06   | 70.2  | Psc   |
| 18 Jul 2017 | 01h45m31.80s | +10 17' 03.3" | 19.920 | 19.945 | 5.8 | 87.2  | 2.9   | 16.31  | 93.98  | 1.94   | 70.2  | Psc   |
| 19 Jul 2017 | 01h45m34.72s | +10 17' 18.3" | 19.920 | 19.928 | 5.8 | 88.1  | 2.9   | 16.91  | 94.76  | 1.82   | 70.3  | Psc   |
| 20 Jul 2017 | 01h45m37.47s | +10 17' 32.2" | 19.920 | 19.911 | 5.8 | 89.0  | 2.9   | 17.51  | 95.54  | 1.70   | 70.4  | Psc   |
| 21 Jul 2017 | 01h45m40.02s | +10 17' 45.1" | 19.920 | 19.894 | 5.8 | 90.0  | 2.9   | 18.12  | 96.33  | 1.58   | 70.5  | Psc   |
| 22 Jul 2017 | 01h45m42.40s | +10 17' 57.0" | 19.920 | 19.877 | 5.8 | 90.9  | 2.9   | 18.72  | 97.12  | 1.45   | 70.6  | Psc   |
| 23 Jul 2017 | 01h45m44.58s | +10 18' 07.8" | 19.920 | 19.861 | 5.8 | 91.9  | 2.9   | 19.31  | 97.91  | 1.33   | 70.7  | Psc   |
| 24 Jul 2017 | 01h45m46.59s | +10 18' 17.5" | 19.920 | 19.844 | 5.8 | 92.8  | 2.9   | 19.91  | 98.71  | 1.21   | 70.9  | Psc   |
| 25 Jul 2017 | 01h45m48.40s | +10 18' 26.2" | 19.920 | 19.827 | 5.8 | 93.8  | 2.9   | 20.51  | 99.51  | 1.08   | 71.0  | Psc   |
| 26 Jul 2017 | 01h45m50.03s | +10 18' 33.9" | 19.919 | 19.810 | 5.8 | 94.7  | 2.9   | 21.11  | 100.32 | 0.96   | 71.3  | Psc   |
| 27 Jul 2017 | 01h45m51.47s | +10 18' 40.5" | 19.919 | 19.793 | 5.8 | 95.7  | 2.9   | 21.70  | 101.14 | 0.83   | 71.6  | Psc   |
| 28 Jul 2017 | 01h45m52.73s | +10 18' 46.1" | 19.919 | 19.777 | 5.8 | 96.6  | 2.9   | 22.29  | 101.95 | 0.71   | 72.0  | Psc   |
| 29 Jul 2017 | 01h45m53.79s | +10 18' 50.6" | 19.919 | 19.760 | 5.8 | 97.6  | 2.9   | 22.89  | 102.78 | 0.59   | 72.5  | Psc   |
| 30 Jul 2017 | 01h45m54.67s | +10 18' 54.0" | 19.919 | 19.743 | 5.8 | 98.5  | 2.9   | 23.48  | 103.61 | 0.46   | 73.4  | Psc   |
| 31 Jul 2017 | 01h45m55.37s | +10 18' 56.4" | 19.919 | 19.727 | 5.8 | 99.5  | 2.9   | 24.07  | 104.45 | 0.34   | 74.9  | Psc   |
| 1 Aug 2017  | 01h45m55.88s | +10 18' 57.8" | 19.919 | 19.710 | 5.8 | 100.4 | 2.9   | 24.65  | 105.29 | 0.22   | 78.1  | Psc   |
| 2 Aug 2017  | 01h45m56.20s | +10 18' 58.1" | 19.919 | 19.693 | 5.8 | 101.4 | 2.9   | 25.24  | 106.15 | 0.10   | 89.4  | Psc   |
| 3 Aug 2017  | 01h45m56.34s | +10 18' 57.4" | 19.919 | 19.677 | 5.8 | 102.3 | 2.9   | 25.82  | 107.00 | 0.05   | 203.6 | Psc   |
| 4 Aug 2017  | 01h45m56.29s | +10 18' 55.6" | 19.919 | 19.661 | 5.8 | 103.3 | 2.8   | 26.40  | 107.87 | 0.16   | 237.3 | Psc   |
| 5 Aug 2017  | 01h45m56.05s | +10 18' 52.8" | 19.918 | 19.644 | 5.8 | 104.3 | 2.8   | 26.97  | 108.74 | 0.28   | 242.5 | Psc   |
| 6 Aug 2017  | 01h45m55.63s | +10 18' 49.0" | 19.918 | 19.628 | 5.8 | 105.2 | 2.8   | 27.55  | 109.62 | 0.40   | 244.6 | Psc   |
| 7 Aug 2017  | 01h45m55.03s | +10 18' 44.1" | 19.918 | 19.612 | 5.8 | 106.2 | 2.8   | 28.12  | 110.51 | 0.52   | 245.7 | Psc   |
| 8 Aug 2017  | 01h45m54.24s | +10 18' 38.2" | 19.918 | 19.596 | 5.8 | 107.1 | 2.8   | 28.69  | 111.41 | 0.65   | 246.4 | Psc   |
| 9 Aug 2017  | 01h45m53.27s | +10 18' 31.2" | 19.918 | 19.580 | 5.8 | 108.1 | 2.8   | 29.25  | 112.32 | 0.77   | 246.9 | Psc   |
| 10 Aug 2017 | 01h45m52.11s | +10 18' 23.3" | 19.918 | 19.564 | 5.8 | 109.1 | 2.8   | 29.81  | 113.23 | 0.89   | 247.2 | Psc   |

# EPHEMERIDE 2017 – URANUS

| Datum       | RA           | Deklination   | r      | delta  | mag | Elong | Phase | Höhe  | Az.    | Gesch. | PA    | Stb   |
|-------------|--------------|---------------|--------|--------|-----|-------|-------|-------|--------|--------|-------|-------|
| -----       | --           | -----         | -      | -----  | --- | ----- | ----- | ----- | -----  | -----  | ----- | ----- |
| 11 Aug 2017 | 01h45m50.77s | +10 18' 14.3" | 19.918 | 19.548 | 5.8 | 110.0 | 2.7   | 30.37 | 114.16 | 1.01   | 247.5 | Psc   |
| 12 Aug 2017 | 01h45m49.25s | +10 18' 04.3" | 19.918 | 19.532 | 5.8 | 111.0 | 2.7   | 30.92 | 115.09 | 1.13   | 247.7 | Psc   |
| 13 Aug 2017 | 01h45m47.54s | +10 17' 53.3" | 19.918 | 19.516 | 5.8 | 112.0 | 2.7   | 31.47 | 116.03 | 1.25   | 247.8 | Psc   |
| 14 Aug 2017 | 01h45m45.66s | +10 17' 41.3" | 19.918 | 19.501 | 5.8 | 112.9 | 2.7   | 32.02 | 116.99 | 1.37   | 248.0 | Psc   |
| 15 Aug 2017 | 01h45m43.59s | +10 17' 28.2" | 19.917 | 19.485 | 5.8 | 113.9 | 2.7   | 32.56 | 117.95 | 1.49   | 248.1 | Psc   |
| 16 Aug 2017 | 01h45m41.34s | +10 17' 14.2" | 19.917 | 19.470 | 5.8 | 114.9 | 2.6   | 33.10 | 118.93 | 1.61   | 248.2 | Psc   |
| 17 Aug 2017 | 01h45m38.91s | +10 16' 59.1" | 19.917 | 19.455 | 5.8 | 115.8 | 2.6   | 33.63 | 119.91 | 1.73   | 248.3 | Psc   |
| 18 Aug 2017 | 01h45m36.30s | +10 16' 43.1" | 19.917 | 19.440 | 5.7 | 116.8 | 2.6   | 34.15 | 120.91 | 1.85   | 248.4 | Psc   |
| 19 Aug 2017 | 01h45m33.51s | +10 16' 26.1" | 19.917 | 19.425 | 5.7 | 117.8 | 2.6   | 34.67 | 121.92 | 1.97   | 248.4 | Psc   |
| 20 Aug 2017 | 01h45m30.55s | +10 16' 08.1" | 19.917 | 19.410 | 5.7 | 118.8 | 2.6   | 35.19 | 122.94 | 2.08   | 248.5 | Psc   |
| 21 Aug 2017 | 01h45m27.41s | +10 15' 49.1" | 19.917 | 19.395 | 5.7 | 119.7 | 2.5   | 35.70 | 123.97 | 2.20   | 248.5 | Psc   |
| 22 Aug 2017 | 01h45m24.09s | +10 15' 29.1" | 19.917 | 19.381 | 5.7 | 120.7 | 2.5   | 36.20 | 125.01 | 2.32   | 248.6 | Psc   |
| 23 Aug 2017 | 01h45m20.60s | +10 15' 08.1" | 19.917 | 19.366 | 5.7 | 121.7 | 2.5   | 36.70 | 126.07 | 2.43   | 248.6 | Psc   |
| 24 Aug 2017 | 01h45m16.94s | +10 14' 46.2" | 19.916 | 19.352 | 5.7 | 122.7 | 2.4   | 37.19 | 127.13 | 2.54   | 248.7 | Psc   |
| 25 Aug 2017 | 01h45m13.10s | +10 14' 23.4" | 19.916 | 19.338 | 5.7 | 123.7 | 2.4   | 37.67 | 128.22 | 2.66   | 248.7 | Psc   |
| 26 Aug 2017 | 01h45m09.10s | +10 13' 59.6" | 19.916 | 19.324 | 5.7 | 124.7 | 2.4   | 38.15 | 129.31 | 2.77   | 248.7 | Psc   |
| 27 Aug 2017 | 01h45m04.93s | +10 13' 34.9" | 19.916 | 19.311 | 5.7 | 125.6 | 2.4   | 38.62 | 130.42 | 2.88   | 248.7 | Psc   |
| 28 Aug 2017 | 01h45m00.60s | +10 13' 09.2" | 19.916 | 19.297 | 5.7 | 126.6 | 2.3   | 39.08 | 131.54 | 2.99   | 248.8 | Psc   |
| 29 Aug 2017 | 01h44m56.10s | +10 12' 42.7" | 19.916 | 19.284 | 5.7 | 127.6 | 2.3   | 39.53 | 132.67 | 3.09   | 248.8 | Psc   |
| 30 Aug 2017 | 01h44m51.44s | +10 12' 15.3" | 19.916 | 19.270 | 5.7 | 128.6 | 2.3   | 39.98 | 133.82 | 3.20   | 248.8 | Psc   |
| 31 Aug 2017 | 01h44m46.62s | +10 11' 46.9" | 19.916 | 19.257 | 5.7 | 129.6 | 2.2   | 40.41 | 134.99 | 3.30   | 248.8 | Psc   |
| 1 Sep 2017  | 01h44m41.64s | +10 11' 17.7" | 19.916 | 19.245 | 5.7 | 130.6 | 2.2   | 40.84 | 136.16 | 3.41   | 248.8 | Psc   |
| 2 Sep 2017  | 01h44m36.51s | +10 10' 47.7" | 19.916 | 19.232 | 5.7 | 131.6 | 2.2   | 41.26 | 137.35 | 3.51   | 248.9 | Psc   |
| 3 Sep 2017  | 01h44m31.22s | +10 10' 16.7" | 19.915 | 19.219 | 5.7 | 132.5 | 2.1   | 41.66 | 138.56 | 3.61   | 248.9 | Psc   |
| 4 Sep 2017  | 01h44m25.79s | +10 09' 45.0" | 19.915 | 19.207 | 5.7 | 133.5 | 2.1   | 42.06 | 139.78 | 3.71   | 248.9 | Psc   |
| 5 Sep 2017  | 01h44m20.20s | +10 09' 12.4" | 19.915 | 19.195 | 5.7 | 134.5 | 2.1   | 42.45 | 141.02 | 3.81   | 248.9 | Psc   |
| 6 Sep 2017  | 01h44m14.46s | +10 08' 39.0" | 19.915 | 19.183 | 5.7 | 135.5 | 2.0   | 42.83 | 142.26 | 3.91   | 248.9 | Psc   |
| 7 Sep 2017  | 01h44m08.58s | +10 08' 04.8" | 19.915 | 19.172 | 5.7 | 136.5 | 2.0   | 43.20 | 143.53 | 4.00   | 248.9 | Psc   |
| 8 Sep 2017  | 01h44m02.56s | +10 07' 29.7" | 19.915 | 19.160 | 5.7 | 137.5 | 2.0   | 43.55 | 144.81 | 4.10   | 248.9 | Psc   |
| 9 Sep 2017  | 01h43m56.40s | +10 06' 54.0" | 19.915 | 19.149 | 5.7 | 138.5 | 1.9   | 43.90 | 146.10 | 4.19   | 248.9 | Psc   |
| 10 Sep 2017 | 01h43m50.10s | +10 06' 17.4" | 19.915 | 19.138 | 5.7 | 139.5 | 1.9   | 44.23 | 147.41 | 4.28   | 249.0 | Psc   |
| 11 Sep 2017 | 01h43m43.66s | +10 05' 40.1" | 19.915 | 19.127 | 5.7 | 140.5 | 1.8   | 44.55 | 148.73 | 4.37   | 249.0 | Psc   |
| 12 Sep 2017 | 01h43m37.08s | +10 05' 02.0" | 19.914 | 19.117 | 5.7 | 141.5 | 1.8   | 44.86 | 150.06 | 4.46   | 249.0 | Psc   |
| 13 Sep 2017 | 01h43m30.38s | +10 04' 23.3" | 19.914 | 19.106 | 5.7 | 142.5 | 1.8   | 45.15 | 151.41 | 4.54   | 249.0 | Psc   |
| 14 Sep 2017 | 01h43m23.54s | +10 03' 43.7" | 19.914 | 19.096 | 5.7 | 143.5 | 1.7   | 45.43 | 152.77 | 4.63   | 249.0 | Psc   |
| 15 Sep 2017 | 01h43m16.58s | +10 03' 03.5" | 19.914 | 19.087 | 5.7 | 144.5 | 1.7   | 45.70 | 154.14 | 4.71   | 249.0 | Psc   |
| 16 Sep 2017 | 01h43m09.49s | +10 02' 22.7" | 19.914 | 19.077 | 5.7 | 145.5 | 1.6   | 45.96 | 155.53 | 4.79   | 249.0 | Psc   |
| 17 Sep 2017 | 01h43m02.28s | +10 01' 41.1" | 19.914 | 19.068 | 5.7 | 146.5 | 1.6   | 46.20 | 156.93 | 4.87   | 249.0 | Psc   |
| 18 Sep 2017 | 01h42m54.95s | +10 00' 58.9" | 19.914 | 19.059 | 5.7 | 147.6 | 1.6   | 46.43 | 158.34 | 4.95   | 249.0 | Psc   |
| 19 Sep 2017 | 01h42m47.51s | +10 00' 16.0" | 19.914 | 19.050 | 5.7 | 148.6 | 1.5   | 46.64 | 159.76 | 5.02   | 249.0 | Psc   |
| 20 Sep 2017 | 01h42m39.95s | +09 59' 32.5" | 19.914 | 19.041 | 5.7 | 149.6 | 1.5   | 46.84 | 161.19 | 5.10   | 249.0 | Psc   |
| 21 Sep 2017 | 01h42m32.29s | +09 58' 48.4" | 19.914 | 19.033 | 5.7 | 150.6 | 1.4   | 47.02 | 162.64 | 5.17   | 249.0 | Psc   |
| 22 Sep 2017 | 01h42m24.52s | +09 58' 03.8" | 19.913 | 19.025 | 5.7 | 151.6 | 1.4   | 47.19 | 164.09 | 5.24   | 249.0 | Psc   |
| 23 Sep 2017 | 01h42m16.64s | +09 57' 18.5" | 19.913 | 19.017 | 5.7 | 152.6 | 1.3   | 47.34 | 165.55 | 5.30   | 249.0 | Psc   |
| 24 Sep 2017 | 01h42m08.67s | +09 56' 32.7" | 19.913 | 19.009 | 5.7 | 153.6 | 1.3   | 47.48 | 167.02 | 5.37   | 249.1 | Psc   |
| 25 Sep 2017 | 01h42m00.60s | +09 55' 46.4" | 19.913 | 19.002 | 5.7 | 154.6 | 1.2   | 47.60 | 168.49 | 5.43   | 249.1 | Psc   |
| 26 Sep 2017 | 01h41m52.44s | +09 54' 59.6" | 19.913 | 18.995 | 5.7 | 155.7 | 1.2   | 47.70 | 169.98 | 5.49   | 249.1 | Psc   |
| 27 Sep 2017 | 01h41m44.20s | +09 54' 12.3" | 19.913 | 18.989 | 5.7 | 156.7 | 1.1   | 47.79 | 171.46 | 5.55   | 249.1 | Psc   |
| 28 Sep 2017 | 01h41m35.86s | +09 53' 24.5" | 19.913 | 18.982 | 5.7 | 157.7 | 1.1   | 47.86 | 172.96 | 5.60   | 249.1 | Psc   |
| 29 Sep 2017 | 01h41m27.45s | +09 52' 36.3" | 19.913 | 18.976 | 5.7 | 158.7 | 1.0   | 47.92 | 174.45 | 5.65   | 249.1 | Psc   |
| 30 Sep 2017 | 01h41m18.96s | +09 51' 47.6" | 19.913 | 18.970 | 5.7 | 159.7 | 1.0   | 47.96 | 175.95 | 5.70   | 249.1 | Psc   |
| 1 Okt 2017  | 01h41m10.39s | +09 50' 58.6" | 19.912 | 18.965 | 5.7 | 160.7 | 1.0   | 47.98 | 177.46 | 5.75   | 249.1 | Psc   |
| 2 Okt 2017  | 01h41m01.75s | +09 50' 09.1" | 19.912 | 18.959 | 5.7 | 161.8 | 0.9   | 47.99 | 178.96 | 5.80   | 249.1 | Psc   |
| 3 Okt 2017  | 01h40m53.05s | +09 49' 19.3" | 19.912 | 18.954 | 5.7 | 162.8 | 0.9   | 47.97 | 180.46 | 5.84   | 249.1 | Psc   |
| 4 Okt 2017  | 01h40m44.28s | +09 48' 29.1" | 19.912 | 18.950 | 5.7 | 163.8 | 0.8   | 47.95 | 181.97 | 5.88   | 249.1 | Psc   |
| 5 Okt 2017  | 01h40m35.45s | +09 47' 38.7" | 19.912 | 18.945 | 5.7 | 164.8 | 0.8   | 47.90 | 183.47 | 5.92   | 249.1 | Psc   |
| 6 Okt 2017  | 01h40m26.56s | +09 46' 47.9" | 19.912 | 18.941 | 5.7 | 165.9 | 0.7   | 47.84 | 184.97 | 5.96   | 249.1 | Psc   |
| 7 Okt 2017  | 01h40m17.63s | +09 45' 56.8" | 19.912 | 18.937 | 5.7 | 166.9 | 0.7   | 47.77 | 186.47 | 5.99   | 249.1 | Psc   |
| 8 Okt 2017  | 01h40m08.64s | +09 45' 05.4" | 19.912 | 18.934 | 5.7 | 167.9 | 0.6   | 47.67 | 187.96 | 6.02   | 249.1 | Psc   |
| 9 Okt 2017  | 01h39m59.60s | +09 44' 13.8" | 19.912 | 18.930 | 5.7 | 168.9 | 0.6   | 47.56 | 189.44 | 6.05   | 249.1 | Psc   |
| 10 Okt 2017 | 01h39m50.53s | +09 43' 22.0" | 19.912 | 18.927 | 5.7 | 170.0 | 0.5   | 47.44 | 190.93 | 6.08   | 249.1 | Psc   |
| 11 Okt 2017 | 01h39m41.41s | +09 42' 30.0" | 19.911 | 18.925 | 5.7 | 171.0 | 0.5   | 47.30 | 192.40 | 6.10   | 249.1 | Psc   |
| 12 Okt 2017 | 01h39m32.26s | +09 41' 37.8" | 19.911 | 18.922 | 5.7 | 172.0 | 0.4   | 47.14 | 193.87 | 6.12   | 249.1 | Psc   |
| 13 Okt 2017 | 01h39m23.07s | +09 40' 45.4" | 19.911 | 18.920 | 5.7 | 173.0 | 0.3   | 46.96 | 195.33 | 6.14   | 249.1 | Psc   |
| 14 Okt 2017 | 01h39m13.86s | +09 39' 52.9" | 19.911 | 18.919 | 5.7 | 174.1 | 0.3   | 46.78 | 196.78 | 6.16   | 249.1 | Psc   |
| 15 Okt 2017 | 01h39m04.63s | +09 39' 00.2" | 19.911 | 18.917 | 5.7 | 175.1 | 0.2   | 46.57 | 198.22 | 6.17   | 249.1 | Psc   |
| 16 Okt 2017 | 01h38m55.37s | +09 38' 07.5" | 19.911 | 18.916 | 5.7 | 176.1 | 0.2   | 46.35 | 199.65 | 6.18   | 249.1 | Psc   |
| 17 Okt 2017 | 01h38m46.10s | +09 37' 14.7" | 19.911 | 18.915 | 5.7 | 177.1 | 0.1   | 46.12 | 201.07 | 6.19   | 249.1 | Psc   |
| 18 Okt 2017 | 01h38m36.82s | +09 36' 21.8" | 19.911 | 18.915 | 5.7 | 178.1 | 0.1   | 45.87 | 202.48 | 6.20   | 249.1 | Psc   |
| 19 Okt 2017 | 01h38m27.53s | +09 35' 29.0" | 19.911 | 18.915 | 5.7 | 179.0 | 0.0   | 45.61 | 203.87 | 6.20   | 249.1 | Psc   |
| 20 Okt 2017 | 01h38m18.24s | +09 34' 36.1" | 19.910 | 18.915 | 5.7 | 179.3 | 0.0   | 45.33 | 205.26 | 6.20   | 249.1 | Psc   |
| 21 Okt 2017 | 01h38m08.95s | +09 33' 43.2" | 19.910 | 18.915 | 5.7 | 178.5 | 0.1   | 45.04 | 206.63 | 6.20   | 249.1 | Psc   |
| 22 Okt 2017 | 01h37m59.66s | +09 32' 50.4" | 19.910 | 18.916 | 5.7 | 177.6 | 0.1   | 44.74 | 207.99 | 6.19   | 249.1 | Psc   |
| 23 Okt 2017 | 01h37m50.39s | +09 31' 57.6" | 19.910 | 18.917 | 5.7 | 176.6 | 0.2   | 44.42 | 209.34 | 6.18   | 249.1 | Psc   |

# EPHEMERIDE 2017 – URANUS

| Datum       | RA           | Deklination   | r      | delta  | mag | Elong | Phase | Höhe  | Az.    | Gesch. | PA    | Stb   |
|-------------|--------------|---------------|--------|--------|-----|-------|-------|-------|--------|--------|-------|-------|
| -----       | --           | -----         | -      | -----  | --- | ----- | ----- | ----- | -----  | -----  | ----- | ----- |
| 24 Okt 2017 | 01h37m41.12s | +09 31' 05.0" | 19.910 | 18.918 | 5.7 | 175.5 | 0.2   | 44.09 | 210.67 | 6.17   | 249.1 | Psc   |
| 25 Okt 2017 | 01h37m31.88s | +09 30' 12.5" | 19.910 | 18.920 | 5.7 | 174.5 | 0.3   | 43.75 | 211.99 | 6.16   | 249.2 | Psc   |
| 26 Okt 2017 | 01h37m22.66s | +09 29' 20.1" | 19.910 | 18.922 | 5.7 | 173.5 | 0.3   | 43.39 | 213.29 | 6.14   | 249.2 | Psc   |
| 27 Okt 2017 | 01h37m13.46s | +09 28' 27.9" | 19.910 | 18.924 | 5.7 | 172.4 | 0.4   | 43.03 | 214.59 | 6.12   | 249.2 | Psc   |
| 28 Okt 2017 | 01h37m04.30s | +09 27' 35.8" | 19.910 | 18.927 | 5.7 | 171.4 | 0.4   | 42.65 | 215.86 | 6.10   | 249.2 | Psc   |
| 29 Okt 2017 | 01h36m55.17s | +09 26' 44.0" | 19.910 | 18.929 | 5.7 | 170.4 | 0.5   | 42.26 | 217.13 | 6.08   | 249.2 | Psc   |
| 30 Okt 2017 | 01h36m46.08s | +09 25' 52.5" | 19.909 | 18.933 | 5.7 | 169.3 | 0.5   | 41.86 | 218.37 | 6.05   | 249.2 | Psc   |
| 31 Okt 2017 | 01h36m37.03s | +09 25' 01.1" | 19.909 | 18.936 | 5.7 | 168.3 | 0.6   | 41.45 | 219.61 | 6.02   | 249.2 | Psc   |
| 1 Nov 2017  | 01h36m28.02s | +09 24' 10.1" | 19.909 | 18.940 | 5.7 | 167.2 | 0.6   | 41.03 | 220.83 | 5.99   | 249.2 | Psc   |
| 2 Nov 2017  | 01h36m19.07s | +09 23' 19.4" | 19.909 | 18.944 | 5.7 | 166.2 | 0.7   | 40.60 | 222.03 | 5.95   | 249.2 | Psc   |
| 3 Nov 2017  | 01h36m10.17s | +09 22' 29.0" | 19.909 | 18.948 | 5.7 | 165.2 | 0.7   | 40.16 | 223.23 | 5.91   | 249.2 | Psc   |
| 4 Nov 2017  | 01h36m01.32s | +09 21' 38.9" | 19.909 | 18.953 | 5.7 | 164.1 | 0.8   | 39.71 | 224.40 | 5.87   | 249.2 | Psc   |
| 5 Nov 2017  | 01h35m52.54s | +09 20' 49.2" | 19.909 | 18.958 | 5.7 | 163.1 | 0.8   | 39.25 | 225.57 | 5.83   | 249.2 | Psc   |
| 6 Nov 2017  | 01h35m43.82s | +09 19' 59.9" | 19.909 | 18.963 | 5.7 | 162.0 | 0.9   | 38.79 | 226.72 | 5.79   | 249.2 | Psc   |
| 7 Nov 2017  | 01h35m35.17s | +09 19' 11.0" | 19.909 | 18.969 | 5.7 | 161.0 | 0.9   | 38.31 | 227.86 | 5.74   | 249.2 | Psc   |
| 8 Nov 2017  | 01h35m26.59s | +09 18' 22.5" | 19.908 | 18.975 | 5.7 | 160.0 | 1.0   | 37.83 | 228.98 | 5.69   | 249.2 | Psc   |
| 9 Nov 2017  | 01h35m18.08s | +09 17' 34.5" | 19.908 | 18.981 | 5.7 | 158.9 | 1.0   | 37.34 | 230.09 | 5.64   | 249.2 | Psc   |
| 10 Nov 2017 | 01h35m09.65s | +09 16' 47.0" | 19.908 | 18.987 | 5.7 | 157.9 | 1.1   | 36.84 | 231.19 | 5.59   | 249.2 | Psc   |
| 11 Nov 2017 | 01h35m01.30s | +09 15' 59.9" | 19.908 | 18.994 | 5.7 | 156.8 | 1.1   | 36.34 | 232.27 | 5.53   | 249.3 | Psc   |
| 12 Nov 2017 | 01h34m53.04s | +09 15' 13.4" | 19.908 | 19.001 | 5.7 | 155.8 | 1.2   | 35.82 | 233.34 | 5.47   | 249.3 | Psc   |
| 13 Nov 2017 | 01h34m44.87s | +09 14' 27.4" | 19.908 | 19.008 | 5.7 | 154.8 | 1.2   | 35.30 | 234.40 | 5.41   | 249.3 | Psc   |
| 14 Nov 2017 | 01h34m36.80s | +09 13' 41.9" | 19.908 | 19.016 | 5.7 | 153.7 | 1.3   | 34.78 | 235.45 | 5.35   | 249.3 | Psc   |
| 15 Nov 2017 | 01h34m28.81s | +09 12' 57.1" | 19.908 | 19.024 | 5.7 | 152.7 | 1.3   | 34.25 | 236.49 | 5.28   | 249.3 | Psc   |
| 16 Nov 2017 | 01h34m20.94s | +09 12' 12.8" | 19.908 | 19.032 | 5.7 | 151.6 | 1.4   | 33.71 | 237.51 | 5.21   | 249.3 | Psc   |
| 17 Nov 2017 | 01h34m13.16s | +09 11' 29.1" | 19.907 | 19.040 | 5.7 | 150.6 | 1.4   | 33.17 | 238.53 | 5.14   | 249.3 | Psc   |
| 18 Nov 2017 | 01h34m05.49s | +09 10' 46.1" | 19.907 | 19.049 | 5.7 | 149.6 | 1.4   | 32.62 | 239.53 | 5.06   | 249.3 | Psc   |
| 19 Nov 2017 | 01h33m57.94s | +09 10' 03.8" | 19.907 | 19.058 | 5.7 | 148.5 | 1.5   | 32.07 | 240.52 | 4.99   | 249.3 | Psc   |
| 20 Nov 2017 | 01h33m50.50s | +09 09' 22.1" | 19.907 | 19.067 | 5.7 | 147.5 | 1.5   | 31.51 | 241.50 | 4.91   | 249.4 | Psc   |
| 21 Nov 2017 | 01h33m43.18s | +09 08' 41.2" | 19.907 | 19.076 | 5.7 | 146.4 | 1.6   | 30.95 | 242.47 | 4.83   | 249.4 | Psc   |
| 22 Nov 2017 | 01h33m35.98s | +09 08' 01.0" | 19.907 | 19.086 | 5.7 | 145.4 | 1.6   | 30.38 | 243.43 | 4.74   | 249.4 | Psc   |
| 23 Nov 2017 | 01h33m28.90s | +09 07' 21.5" | 19.907 | 19.096 | 5.7 | 144.3 | 1.7   | 29.81 | 244.39 | 4.66   | 249.4 | Psc   |
| 24 Nov 2017 | 01h33m21.96s | +09 06' 42.7" | 19.907 | 19.106 | 5.7 | 143.3 | 1.7   | 29.23 | 245.33 | 4.57   | 249.4 | Psc   |
| 25 Nov 2017 | 01h33m15.14s | +09 06' 04.8" | 19.907 | 19.117 | 5.7 | 142.3 | 1.7   | 28.66 | 246.26 | 4.48   | 249.4 | Psc   |
| 26 Nov 2017 | 01h33m08.46s | +09 05' 27.7" | 19.907 | 19.128 | 5.7 | 141.2 | 1.8   | 28.07 | 247.19 | 4.39   | 249.5 | Psc   |
| 27 Nov 2017 | 01h33m01.92s | +09 04' 51.3" | 19.906 | 19.138 | 5.7 | 140.2 | 1.8   | 27.49 | 248.10 | 4.30   | 249.5 | Psc   |
| 28 Nov 2017 | 01h32m55.51s | +09 04' 15.8" | 19.906 | 19.150 | 5.7 | 139.1 | 1.9   | 26.90 | 249.01 | 4.20   | 249.5 | Psc   |
| 29 Nov 2017 | 01h32m49.25s | +09 03' 41.1" | 19.906 | 19.161 | 5.7 | 138.1 | 1.9   | 26.31 | 249.91 | 4.11   | 249.5 | Psc   |
| 30 Nov 2017 | 01h32m43.14s | +09 03' 07.3" | 19.906 | 19.173 | 5.7 | 137.1 | 1.9   | 25.71 | 250.80 | 4.01   | 249.6 | Psc   |
| 1 Dez 2017  | 01h32m37.17s | +09 02' 34.4" | 19.906 | 19.185 | 5.7 | 136.0 | 2.0   | 25.11 | 251.69 | 3.91   | 249.6 | Psc   |
| 2 Dez 2017  | 01h32m31.35s | +09 02' 02.4" | 19.906 | 19.197 | 5.7 | 135.0 | 2.0   | 24.51 | 252.56 | 3.81   | 249.6 | Psc   |
| 3 Dez 2017  | 01h32m25.68s | +09 01' 31.3" | 19.906 | 19.209 | 5.7 | 133.9 | 2.0   | 23.91 | 253.44 | 3.71   | 249.7 | Psc   |
| 4 Dez 2017  | 01h32m20.17s | +09 01' 01.0" | 19.906 | 19.222 | 5.7 | 132.9 | 2.1   | 23.31 | 254.30 | 3.60   | 249.7 | Psc   |
| 5 Dez 2017  | 01h32m14.81s | +09 00' 31.7" | 19.906 | 19.234 | 5.7 | 131.9 | 2.1   | 22.70 | 255.16 | 3.50   | 249.7 | Psc   |
| 6 Dez 2017  | 01h32m09.61s | +09 00' 03.4" | 19.905 | 19.247 | 5.7 | 130.8 | 2.1   | 22.10 | 256.01 | 3.39   | 249.8 | Psc   |
| 7 Dez 2017  | 01h32m04.57s | +08 59' 36.0" | 19.905 | 19.260 | 5.7 | 129.8 | 2.2   | 21.49 | 256.85 | 3.28   | 249.8 | Psc   |
| 8 Dez 2017  | 01h31m59.69s | +08 59' 09.5" | 19.905 | 19.274 | 5.7 | 128.8 | 2.2   | 20.87 | 257.69 | 3.17   | 249.9 | Psc   |
| 9 Dez 2017  | 01h31m54.98s | +08 58' 44.1" | 19.905 | 19.287 | 5.7 | 127.7 | 2.2   | 20.26 | 258.53 | 3.06   | 249.9 | Psc   |
| 10 Dez 2017 | 01h31m50.44s | +08 58' 19.6" | 19.905 | 19.301 | 5.7 | 126.7 | 2.3   | 19.65 | 259.36 | 2.95   | 250.0 | Psc   |
| 11 Dez 2017 | 01h31m46.07s | +08 57' 56.1" | 19.905 | 19.315 | 5.7 | 125.7 | 2.3   | 19.04 | 260.18 | 2.83   | 250.0 | Psc   |
| 12 Dez 2017 | 01h31m41.86s | +08 57' 33.7" | 19.905 | 19.329 | 5.7 | 124.6 | 2.3   | 18.42 | 261.00 | 2.71   | 250.1 | Psc   |
| 13 Dez 2017 | 01h31m37.83s | +08 57' 12.2" | 19.905 | 19.343 | 5.7 | 123.6 | 2.4   | 17.80 | 261.82 | 2.60   | 250.2 | Psc   |
| 14 Dez 2017 | 01h31m33.98s | +08 56' 51.8" | 19.905 | 19.358 | 5.7 | 122.5 | 2.4   | 17.19 | 262.63 | 2.48   | 250.2 | Psc   |
| 15 Dez 2017 | 01h31m30.31s | +08 56' 32.5" | 19.905 | 19.372 | 5.7 | 121.5 | 2.4   | 16.57 | 263.44 | 2.36   | 250.3 | Psc   |
| 16 Dez 2017 | 01h31m26.81s | +08 56' 14.2" | 19.904 | 19.387 | 5.7 | 120.5 | 2.4   | 15.95 | 264.24 | 2.24   | 250.4 | Psc   |
| 17 Dez 2017 | 01h31m23.50s | +08 55' 57.0" | 19.904 | 19.402 | 5.7 | 119.4 | 2.5   | 15.34 | 265.04 | 2.12   | 250.5 | Psc   |
| 18 Dez 2017 | 01h31m20.37s | +08 55' 40.9" | 19.904 | 19.417 | 5.7 | 118.4 | 2.5   | 14.72 | 265.84 | 1.99   | 250.7 | Psc   |
| 19 Dez 2017 | 01h31m17.42s | +08 55' 25.8" | 19.904 | 19.432 | 5.7 | 117.4 | 2.5   | 14.10 | 266.63 | 1.87   | 250.8 | Psc   |
| 20 Dez 2017 | 01h31m14.66s | +08 55' 11.9" | 19.904 | 19.448 | 5.7 | 116.4 | 2.5   | 13.49 | 267.42 | 1.74   | 251.0 | Psc   |
| 21 Dez 2017 | 01h31m12.09s | +08 54' 59.0" | 19.904 | 19.463 | 5.8 | 115.3 | 2.6   | 12.87 | 268.21 | 1.62   | 251.1 | Psc   |
| 22 Dez 2017 | 01h31m09.70s | +08 54' 47.3" | 19.904 | 19.479 | 5.8 | 114.3 | 2.6   | 12.25 | 268.99 | 1.49   | 251.4 | Psc   |
| 23 Dez 2017 | 01h31m07.51s | +08 54' 36.6" | 19.904 | 19.494 | 5.8 | 113.3 | 2.6   | 11.64 | 269.78 | 1.36   | 251.6 | Psc   |
| 24 Dez 2017 | 01h31m05.50s | +08 54' 27.1" | 19.904 | 19.510 | 5.8 | 112.2 | 2.6   | 11.02 | 270.56 | 1.24   | 252.0 | Psc   |
| 25 Dez 2017 | 01h31m03.69s | +08 54' 18.8" | 19.903 | 19.526 | 5.8 | 111.2 | 2.6   | 10.41 | 271.34 | 1.11   | 252.4 | Psc   |
| 26 Dez 2017 | 01h31m02.07s | +08 54' 11.5" | 19.903 | 19.542 | 5.8 | 110.2 | 2.7   | 9.80  | 272.11 | 0.98   | 252.9 | Psc   |
| 27 Dez 2017 | 01h31m00.64s | +08 54' 05.4" | 19.903 | 19.559 | 5.8 | 109.2 | 2.7   | 9.18  | 272.89 | 0.85   | 253.5 | Psc   |
| 28 Dez 2017 | 01h30m59.40s | +08 54' 00.5" | 19.903 | 19.575 | 5.8 | 108.1 | 2.7   | 8.57  | 273.66 | 0.72   | 254.4 | Psc   |
| 29 Dez 2017 | 01h30m58.36s | +08 53' 56.6" | 19.903 | 19.591 | 5.8 | 107.1 | 2.7   | 7.96  | 274.43 | 0.59   | 255.7 | Psc   |
| 30 Dez 2017 | 01h30m57.52s | +08 53' 54.0" | 19.903 | 19.608 | 5.8 | 106.1 | 2.7   | 7.35  | 275.21 | 0.46   | 257.7 | Psc   |
| 31 Dez 2017 | 01h30m56.87s | +08 53' 52.4" | 19.903 | 19.624 | 5.8 | 105.1 | 2.7   | 6.75  | 275.98 | 0.33   | 261.3 | Psc   |
| 1 Jan 2018  | 01h30m56.41s | +08 53' 52.0" | 19.903 | 19.641 | 5.8 | 104.1 | 2.7   | 6.14  | 276.75 | 0.21   | 269.3 | Psc   |