Sky this Month

January 2025

By David Mills

MOON

NEW MOON

Moon

- The New Moon is on January 29th at 7:36 a.m.

- The Moon is south of the sun. Mercury is west of the sun.

Moon

Type: **moon**
Magnitude: **-1.80**
Absolute Magnitude: 42.78
RA/Dec (J2000.0): 20h55m7.44s/-22°16'11.0"
RA/Dec (on date): 20h56m34.49s/-22°10'29.0"
Hour angle/DE: 19h04m6.96s/-22°10'29.0"
Az/Alt: +116°45'17.7"/-4°37'23.5"
Ecliptic longitude/latitude (J2000.0): +309°58'30.3"/-4°41'57.5"
Ecliptic longitude/latitude (on date): +310°19'31.3"/-4°42'12.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +24°18'19.2"/-36°35'08.1"
Mean Sidereal Time: 16h0m41.3s
Apparent Sidereal Time: 16h0m41.4s
Distance: 0.002505AU (374717.705 km)
Apparent diameter: +0°31'52.7"
Sidereal period: 27.32 days (0.075 a)
Sidereal day: 655h43m11.5s
Mean solar day: 708h44m2.8s
Phase Angle: +175°15'58"
Elongation: +4°43'18"
Phase: 0.00
Illuminated: 0.2%

E

Mercury

Sun

Moon

Date and Time

Date and Time | Julian Day

2025 / 1 / 29 7 : 37 : 53

Earth, Peterborough, 188m | FOV 43° | 34.6 FPS | 2025-01-29 07:37:53 UTC-05:00

FULL MOON

Moon

- The full Moon is on January 13th at 5:27 p.m.
- Moonrise is at 4:30 p.m. on January 13th.
- This month's Full Moon called the Wolf Moon.

Moon

Type: **moon**
Magnitude: -**12.31** (extincted to: -**8.01**)
Absolute Magnitude: 32.23
RA/Dec (J2000.0): 7h46m12.10s/+25°15'16.5"
RA/Dec (on date): 7h47m43.22s/+25°11'38.6"
Hour angle/DE: 16h11m11.37s/+25°34'33.9" (apparent)
Az/Alt: +53°20'48.1"/+0°22'00.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +113°54'23.5"/+3°59'31.2"
Ecliptic longitude/latitude (on date): +114°15'22.4"/+3°59'49.4"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -164°51'58.6"/+22°38'49.6"
Mean Sidereal Time: 0h2m29.0s
Apparent Sidereal Time: 0h2m29.0s
Distance: 0.002548AU (381241.170 km)
Apparent diameter: +0°31'20.0"
Sidereal period: 27.32 days (0.075 a)
Sidereal day: 655h43m11.5s
Mean solar day: 708h44m2.8s
Phase Angle: +3°59'37"
Elongation: +175°59'45"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 13 16 : 36 : 19

MERCURY

Mercury

- On January 1st, Mercury rises at 6:21 a.m. in the morning twilight sky.

- Mercury is now in retrograde motion moving east.

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 6 : 21 : 20

Earth, Peterborough, 188m FOV 30.8° 18.7 FPS 2025-01-01 06:21:20 UTC-05:00

Mercury

- On January 17th, Mercury rises at 7:07 a.m. in the eastern sky.
- The planet is now getting lost in the solar glare at sunrise.
- No longer visible.

Mercury

Type: **planet**
Magnitude: **0.40** (extincted to: **4.33**)
Absolute Magnitude: 31.32
RA/Dec (J2000.0): 18h56m56.91s/-23°45'27.7"
RA/Dec (on date): 18h58m28.18s/-23°43'31.3"
Hour angle/DE: 19h43m55.47s/-23°22'40.4" (apparent)
Az/Alt: +124°23'32.2"/+0°36'39.0" (apparent)
Ecliptic longitude/latitude (J2000.0): +283°00'37.0"/-0°57'32.8"
Ecliptic longitude/latitude (on date): +283°21'35.7"/-0°57'52.6"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +12°04'49.4"/-11°43'45.0"
Mean Sidereal Time: 14h41m6.9s
Apparent Sidereal Time: 14h41m7.0s
Distance: 1.351AU (202.099 Mio km)
Apparent diameter: +0°00'05.0"
Sidereal period: 87.97 days (0.241 a)
Sidereal day: 1407h30m33.8s
Mean solar day: 4222h27m52.5s
Phase Angle: +31°26'24"
Elongation: +14°18'27"
Phase: 0.93
Illuminated: 92.7%

Mercury

Date and Time

Date and Time | Julian Day

2025 / 1 / 17 7 : 5 : 42

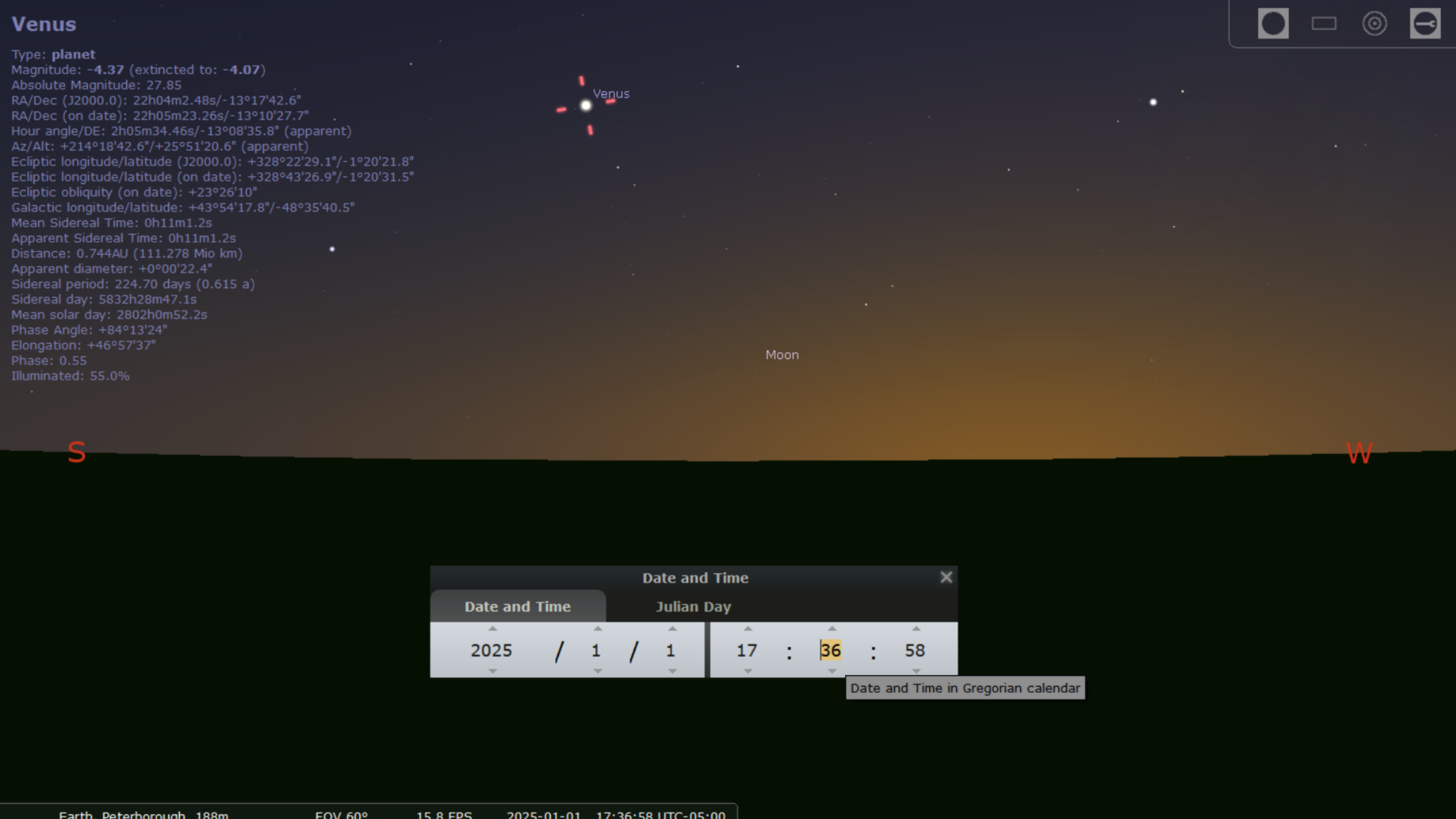
Earth, Peterborough, 188m FOV 30.8° 15.5 FPS 2025-01-17 07:05:42 UTC-05:00

VENUS

Venus

- On January 1st, Venus is well placed in the southwestern sky at sunset.

- Later this month Venus and Saturn are moving towards each other and a close conjunction at sunset on January 16th and 17th.


Venus
Type: planet
Magnitude: -4.37 (extincted to: -4.07)
Absolute Magnitude: 27.85
RA/Dec (J2000.0): 22h04m2.48s/-13°17'42.6"
RA/Dec (on date): 22h05m23.26s/-13°10'27.7"
Hour angle/DE: 2h05m34.46s/-13°08'35.8" (apparent)
Az/Alt: +214°18'42.6"/+25°51'20.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +328°22'29.1"/-1°20'21.8"
Ecliptic longitude/latitude (on date): +328°43'26.9"/-1°20'31.5"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +43°54'17.8"/-48°35'40.5"
Mean Sidereal Time: 0h11m1.2s
Apparent Sidereal Time: 0h11m1.2s
Distance: 0.744AU (111.278 Mio km)
Apparent diameter: +0°00'22.4"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +84°13'24"
Elongation: +46°57'37"
Phase: 0.55
Illuminated: 55.0%
Venus
Moon
S
W
Date and Time
Date and Time
Julian Day
2025 / 1 / 1
17 : 36 : 58
Date and Time in Gregorian calendar
Earth, Peterborough, 188m
FOV 60°
15.8 FPS
2025-01-01 17:36:58 UTC-05:00

Venus

- On January 1st, Venus sets at 8:37 p.m. in the western sky.
- Venus is also in retrograde motion moving east. Same as Mercury.

Venus

Type: **planet**
Magnitude: **-4.37** (extincted to: **-0.49**)
Absolute Magnitude: 27.85
RA/Dec (J2000.0): 22h04m32.42s/-13°14'23.1"
RA/Dec (on date): 22h05m53.17s/-13°07'07.7"
Hour angle/DE: 5h04m58.37s/-12°47'47.0" (apparent)
Az/Alt: +251°18'25.5"/+0°38'45.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +328°30'28.5"/-1°19'47.0"
Ecliptic longitude/latitude (on date): +328°51'26.2"/-1°19'56.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +44°03'40.5"/-48°40'44.8"
Mean Sidereal Time: 3h12m8.4s
Apparent Sidereal Time: 3h12m8.4s
Distance: 0.743AU (111.142 Mio km)
Apparent diameter: +0°00'22.5"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +84°17'31"
Elongation: +46°57'54"
Phase: 0.55
Illuminated: 55.0%

Saturn

Venus

W

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 20 : 37 : 35

Earth, Peterborough, 188m | FOV 60° | 35.5 FPS | 2025-01-01 20:37:35 UTC-05:00

Venus

- On January 3rd, Venus and a crescent Moon share a close conjunction at sunset.

- Venus and the Moon are less than 2 degrees apart in the western evening sky.

Venus

Type: **planet**
Magnitude: **-4.38** (extincted to: **-4.06**)
Absolute Magnitude: 27.88
RA/Dec (J2000.0): 22h12m3.76s/-12°24'08.3"
RA/Dec (on date): 22h13m24.06s/-12°16'45.0"
Hour angle/DE: 2h29m30.50s/-12°14'47.8" (apparent)
Az/Alt: +220°31'00.8"/+24°03'23.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +330°31'09.9"/-1°11'25.2"
Ecliptic longitude/latitude (on date): +330°52'07.8"/-1°11'34.3"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +46°28'48.2"/-49°56'05.9"
Mean Sidereal Time: 0h42m58.9s
Apparent Sidereal Time: 0h42m58.9s
Distance: 0.729AU (109.050 Mio km)
Apparent diameter: +0°00'22.9"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +85°19'18"
Elongation: +47°02'45"
Phase: 0.54
Illuminated: 54.1%

Date and Time

Date and Time | Julian Day

2025 / 1 / 3 | 18 : 0 : 58

Venus

- On January 17th, Venus and Saturn share a very close conjunction at sunset in the western sky.

- Both planets have an angle of separation of less than 2 degrees.

Venus

Type: **planet**
Magnitude: **-4.48** (extincted to: **-4.21**)
Absolute Magnitude: 28.11
RA/Dec (J2000.0): 23h03m26.67s/-5°54'37.4"
RA/Dec (on date): 23h04m44.51s/-5°46'32.8"
Hour angle/DE: 2h44m37.83s/-5°44'56.9" (apparent)
Az/Alt: +227°44'44.6"/+27°47'10.1" (apparent)
Ecliptic longitude/latitude (J2000.0): +344°41'57.2"/+0°07'28.5"
Ecliptic longitude/latitude (on date): +345°02'55.9"/+0°07'24.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +67°36'58.3"/-56°41'32.8"
Mean Sidereal Time: 1h49m26.3s
Apparent Sidereal Time: 1h49m26.4s
Distance: 0.625AU (93.522 Mio km)
Apparent diameter: +0°00'26.7"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +93°42'04"
Elongation: +46°56'44"
Phase: 0.47
Illuminated: 46.8%

Date and Time

Date and Time | Julian Day

2025 / 1 / 17 18 : 12 : 12

Venus

- On January 31st, Venus is still moving east in western twilight sky at sunset.

- On the same night Venus, Saturn and a very young Moon form a short, curved line at sunset.

Venus

Type: **planet**
Magnitude: **-4.58** (extincted to: **-4.31**)
Absolute Magnitude: 28.40
RA/Dec (J2000.0): 23h46m11.06s/+0°36'44.6"
RA/Dec (on date): 23h47m28.09s/+0°45'05.4"
Hour angle/DE: 3h11m53.95s/+0°46'30.0" (apparent)
Az/Alt: +238°21'03.9"/+29°14'38.0" (apparent)
Ecliptic longitude/latitude (J2000.0): +357°04'25.8"/+1°56'06.7"
Ecliptic longitude/latitude (on date): +357°25'25.3"/+1°56'06.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +90°47'41.9"/-58°07'42.6"
Mean Sidereal Time: 2h59m26.3s
Apparent Sidereal Time: 2h59m26.4s
Distance: 0.523AU (78.194 Mio km)
Apparent diameter: +0°00'31.9"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +103°54'10"
Elongation: +45°06'22"
Phase: 0.38
Illuminated: 38.0%

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 18 : 12 : 58

Earth, Peterborough, 188m FOV 60° 15.1 FPS 2025-01-31 18:26:58 UTC-05:00

Venus

- On January 31st, Venus now sets at 9:13 p.m. in the western sky.

Venus

Type: **planet**
Magnitude: **-4.58** (extincted to: **-1.41**)
Absolute Magnitude: 28.40
RA/Dec (J2000.0): 23h46m29.39s/+0°39'51.3"
RA/Dec (on date): 23h47m46.41s/+0°48'12.2"
Hour angle/DE: 5h57m13.39s/+1°03'43.0" (apparent)
Az/Alt: +270°16'31.0"/+1°14'18.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +357°09'52.4"/+1°57'08.9"
Ecliptic longitude/latitude (on date): +357°30'51.9"/+1°57'08.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +90°58'07.7"/-58°07'07.8"
Mean Sidereal Time: 5h46m3.3s
Apparent Sidereal Time: 5h46m3.4s
Distance; 0.522AU (78.073 Mio km)
Apparent diameter: +0°00'32.0"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +103°59'52"
Elongation: +45°04'47"
Phase: 0.38
Illuminated: 37.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 21 : 13 : 8

MARS

Mars

- On January 1st, Mars rises at 6:07 p.m. in the northeastern midnight sky.

- Now visible all night. Mars is now 2 weeks away from opposition.


Mars
Type: planet
Magnitude: -1.21 (extincted to: 2.30)
Absolute Magnitude: 31.29
RA/Dec (J2000.0): 8h17m41.88s/+23°43'33.8"
RA/Dec (on date): 8h19m10.96s/+23°38'56.2"
Hour angle/DE: 16h23m26.67s/+23°57'31.6" (apparent)
Az/Alt: +56°30'56.8"/+0°55'31.1" (apparent)
Ecliptic longitude/latitude (J2000.0): +121°14'58.5"/+3°56'37.9"
Ecliptic longitude/latitude (on date): +121°35'56.6"/+3°56'54.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -160°35'05.2"/+28°52'40.3"
Mean Sidereal Time: 0h41m27.7s
Apparent Sidereal Time: 0h41m27.7s
Distance: 0.654AU (97.906 Mio km)
Apparent diameter: +0°00'14.3"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +12°07'56"
Elongation: +159°49'38"
Phase: 0.99
Illuminated: 98.9%
Pollux
Mars
E
Date and Time
Date and Time
Julian Day
2025 / 1 / 1
18 : 7 : 19
Date and Time in Gregorian calendar

Mars

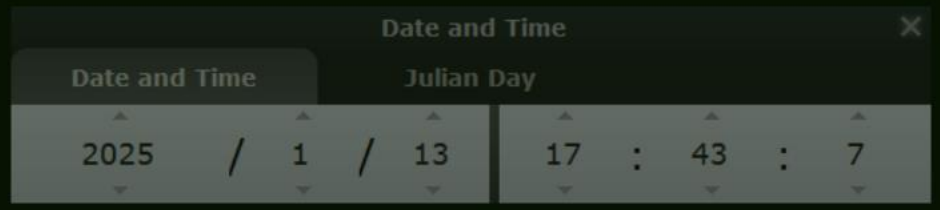
- On January 1st, Mars remains high above the western horizon at sunrise.


Mars
Type: planet
Magnitude: -1.20 (extincted to: -0.87)
Absolute Magnitude: 31.29
RA/Dec (J2000.0): 8h18m18.75s/+23°40'35.3"
RA/Dec (on date): 8h19m47.78s/+23°35'56.6"
Hour angle/DE: 5h19m48.23s/+23°37'25.5" (apparent)
Az/Alt: +280°59'12.7"/+23°13'18.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +121°23'53.4"/+3°55'38.4"
Ecliptic longitude/latitude (on date): +121°44'51.5"/+3°55'55.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -160°28'43.7"/+28°59'40.7"
Mean Sidereal Time: 13h39m43.7s
Apparent Sidereal Time: 13h39m43.7s
Distance: 0.656AU (98.062 Mio km)
Apparent diameter: +0°00'14.3"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +12°29'05"
Elongation: +159°13'47"
Phase: 0.99
Illuminated: 98.8%
Mars
Capella
W
Date and Time
Date and Time
Julian Day
2025 / 1 / 1
7 : 7 : 24

Mars

- On January 13th, Mars and the Moon rise together in a close conjunction.

- Both objects are visible at 5:43 p.m. in the northeastern sky.



Earth, Peterborough, 188m FOV 83.7° 55.4 FPS 2025-01-13 17:43:07 UTC-05:00

Mars

- On January 13th, at 9:17 p.m. Mars is eclipsed by the full Moon in full lunar occultation. First Contact
- 2nd contact or full eclipse is 3 minutes after first contact.
- Over an hour later Mars pops out of the other side of Moon moving northwest.

Mars

Type: **planet**
Magnitude: **-1.38** (extincted to: **-1.20**)
Absolute Magnitude: 31.16
RA/Dec (J2000.0): 7h58m22.09s/+24°59'50.1"
RA/Dec (on date): 7h59m52.67s/+24°55'48.6"
Hour angle/DE: 20h40m35.47s/+24°56'25.5" (apparent)
Az/Alt: +98°44'16.6"/+45°28'23.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +116°40'00.5"/+4°15'21.6"
Ecliptic longitude/latitude (on date): +117°00'59.5"/+4°15'39.3"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -163°34'06.0"/+25°08'43.6"
Mean Sidereal Time: 4h40m24.7s
Apparent Sidereal Time: 4h40m24.7s
Distance: 0.643AU (96.118 Mio km)
Apparent diameter: +0°00'14.6"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +3°05'59"
Elongation: +174°52'34"
Phase: 1.00
Illuminated: 99.9%

Moon

Date and Time

Date and Time | Julian Day

2025 / 1 / 13 21 : 18 : 26

Earth, Peterborough, 188m FOV 0.667° 36.8 FPS 2025-01-13 21:18:26 UTC-05:00

Mars

- On January 13th, at 10:29 p.m. Mars makes 3rd contact re-emerging from behind the Moon.

- 4th contact is 3 minutes later. Mars is back in full view.

Mars

Type: **planet**
Magnitude: **-1.38** (extincted to: **-1.22**)
Absolute Magnitude: 31.16
RA/Dec (J2000.0): 7h58m16.85s/+25°00'07.6"
RA/Dec (on date): 7h59m47.43s/+24°56'06.2"
Hour angle/DE: 21h51m59.19s/+24°56'33.1" (apparent)
Az/Alt: +116°04'51.2"/+57°39'17.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +116°38'47.0"/+4°
Ecliptic longitude/latitude (on date): +116°59'46.0"/+
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -163°34'50.8"/+25°07
Mean Sidereal Time: 5h51m44.6s
Apparent Sidereal Time: 5h51m44.6s
Distance: 0.643AU (96.120 Mio km)
Apparent diameter: +0°00'14.6"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +3°04'35"
Elongation: +174°54'52"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 13 | 22 : 29 : 34

Mars

- On January 16th, Mars is at official opposition to Earth.
- Earth is now between Mars and the Sun. This opposition is not a close one. Mars is at its furthest point from Earth.
- Mars rises at 4:45 p.m. in eastern sky and low on the eastern horizon at sunset. Mars is visible all night.

Mars

Type: **planet**
Magnitude: **-1.37** (extincted to: **-0.55**)
Absolute Magnitude: 31.15
RA/Dec (J2000.0): 7h53m29.44s/+25°15'04.8"
RA/Dec (on date): 7h55m0.35s/+25°11'12.8"
Hour angle/DE: 17h07m29.65s/+25°15'33.1" (apparent)
Az/Alt: +62°59'46.3"/+8°41'11.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +115°31'52.8"/+4°17'30.9"
Ecliptic longitude/latitude (on date): +115°52'52.1"/+4°17'48.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -164°14'35.1"/+24°11'34.1"
Mean Sidereal Time: 1h2m10.9s
Apparent Sidereal Time: 1h2m10.9s
Distance: 0.644AU (96.400 Mio km)
Apparent diameter: +0°00'14.5"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +2°41'22"
Elongation: +175°32'58"
Phase: 1.00
Illuminated: 99.9%

Date and Time

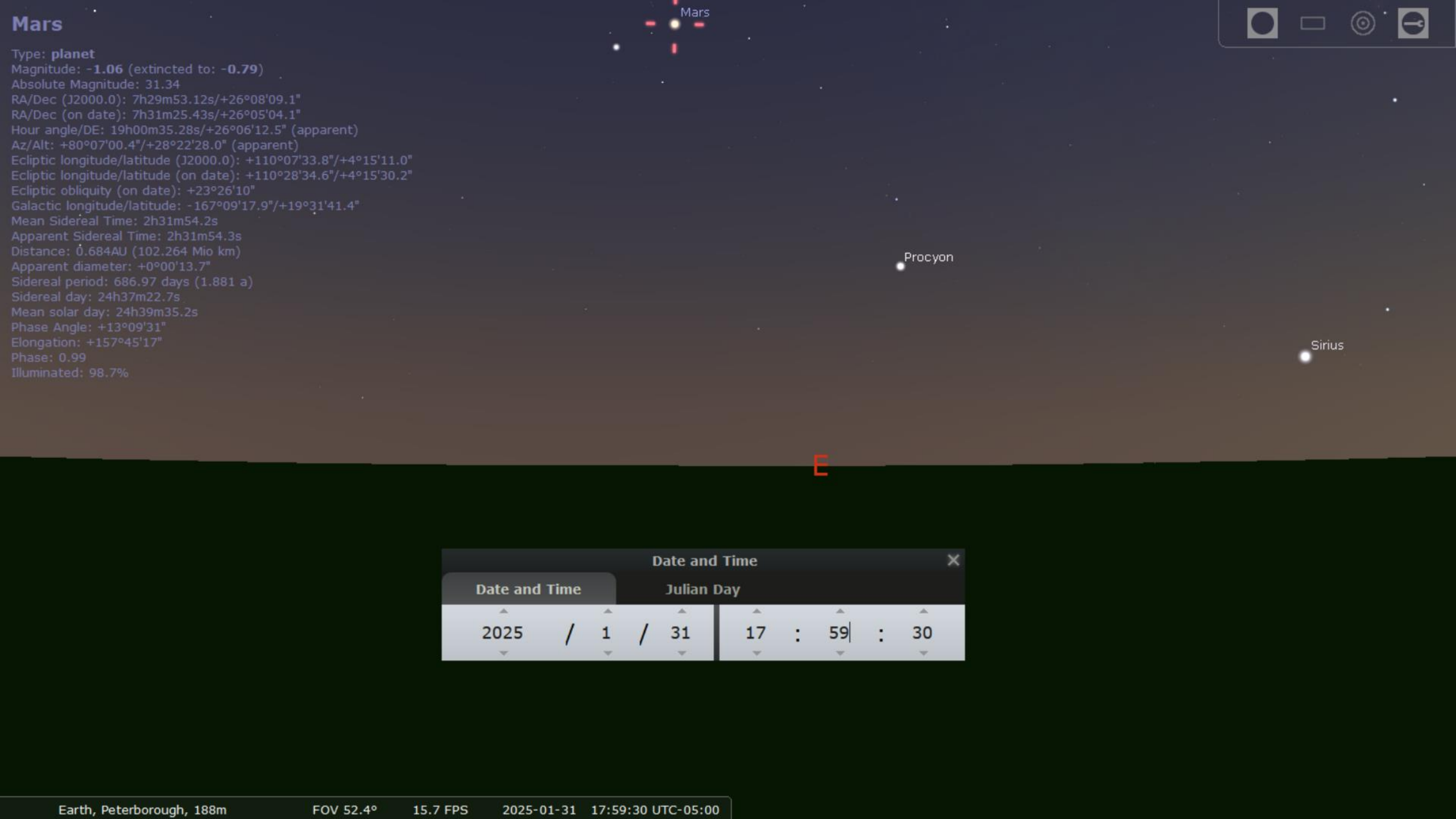
Date and Time | Julian Day

2025 / 1 / 16 17 : 29 : 0

Earth, Peterborough, 188m FOV 44.4° 16 FPS 2025-01-16 17:29:00 UTC-05:00

Mars

- On January 31st, Mars is well placed in the eastern sky at sunset.


Mars
Mars
Type: planet
Magnitude: -1.06 (extincted to: -0.79)
Absolute Magnitude: 31.34
RA/Dec (J2000.0): 7h29m53.12s/+26°08'09.1"
RA/Dec (on date): 7h31m25.43s/+26°05'04.1"
Hour angle/DE: 19h00m35.28s/+26°06'12.5" (apparent)
Az/Alt: +80°07'00.4"/+28°22'28.0" (apparent)
Ecliptic longitude/latitude (J2000.0): +110°07'33.8"/+4°15'11.0"
Ecliptic longitude/latitude (on date): +110°28'34.6"/+4°15'30.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -167°09'17.9"/+19°31'41.4"
Mean Sidereal Time: 2h31m54.2s
Apparent Sidereal Time: 2h31m54.3s
Distance: 0.684AU (102.264 Mio km)
Apparent diameter: +0°00'13.7"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +13°09'31"
Elongation: +157°45'17"
Phase: 0.99
Illuminated: 98.7%
Procyon
Sirius
E
Date and Time
Date and Time
Julian Day
2025 / 1 / 31
17 : 59 : 30
Earth, Peterborough, 188m
FOV 52.4°
15.7 FPS
2025-01-31 17:59:30 UTC-05:00

Mars

- On January 31st, Mars sets at 6:55 a.m. in the western sky right at sunrise.

- Visible all night.

Mars

Type: **planet**
Magnitude: **-1.07** (extincted to: **2.95**)
Absolute Magnitude: 31.33
RA/Dec (J2000.0): 7h30m28.45s/+26°07'13.4"
RA/Dec (on date): 7h32m0.73s/+26°04'07.1"
Hour angle/DE: 7h52m12.26s/+26°25'46.4" (apparent)
Az/Alt: +307°47'03.0"/+0°32'35.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +110°15'33.9"/+4°15'28.6"
Ecliptic longitude/latitude (on date): +110°36'34.6"/+4°15'47.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -167°05'18.7"/+19°38'44.2"
Mean Sidereal Time: 15h25m31.4s
Apparent Sidereal Time: 15h25m31.5s
Distance: 0.682AU (101.982 Mio km)
Apparent diameter: +0°00'13.7"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +12°49'30"
Elongation: +158°20'27"
Phase: 0.99
Illuminated: 98.8%

Mars

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 6 : 54 : 57

Earth, Peterborough, 188m FOV 37.6° 60.5 FPS 2025-01-31 06:54:57 UTC-05:00

JUPITER

Jupiter

- On January 1st, Jupiter is well placed in the eastern sky at sunset.

Jupiter

Type: **planet**
Magnitude: **-2.73** (extincted to: **-2.41**)
Absolute Magnitude: 25.73
RA/Dec (J2000.0): 4h45m36.79s/+21°43'53.8"
RA/Dec (on date): 4h47m6.24s/+21°46'40.1"
Hour angle/DE: 18h50m13.60s/+21°48'07.1" (apparent)
Az/Alt: +82°09'26.7"/+23°49'10.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +72°46'01.6"/-0°36'07.2"
Ecliptic longitude/latitude (on date): +73°06'58.9"/-0°35'47.6"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +178°08'25.2"/-15°13'27.2"
Mean Sidereal Time: 0h22m47.6s
Apparent Sidereal Time: 0h22m47.6s
Distance: 4.198AU (628.007 Mio km)
Apparent diameter: +0°00'47.0"
Sidereal period: 4331.87 days (11.860 a)
Sidereal day: 9h55m29.7s
Mean solar day: 9h55m33.1s
Phase Angle: +5°19'16"
Elongation: +151°21'22"
Phase: 1.00
Illuminated: 99.8%

E

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 17 : 3 : 15

Earth, Peterborough, 188m | FOV 60° | 59.9 FPS | 2025-01-01 17:03:15 UTC-05:00

Jupiter

- On January 1st, Jupiter sets at 5:45 a.m. in the western sky.

Jupiter

Type: **planet**
Magnitude: **-2.73** (extincted to: **1.28**)
Absolute Magnitude: 25.73
RA/Dec (J2000.0): 4h45m49.27s/+21°44'10.4"
RA/Dec (on date): 4h47m18.73s/+21°46'56.3"
Hour angle/DE: 7h29m53.50s/+22°07'48.1" (apparent)
Az/Alt: +301°07'36.2"/+0°33'17.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +72°48'56.2"/-0°36'12.8"
Ecliptic longitude/latitude (on date): +73°09'53.5"/-0°35'53.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +178°10'02.9"/-15°11'00.1"
Mean Sidereal Time: 12h18m31.4s
Apparent Sidereal Time: 12h18m31.4s
Distance: 4.194AU (627.451 Mio km)
Apparent diameter: +0°00'47.0"
Sidereal period: 4331.87 days (11.860 a)
Sidereal day: 9h55m29.7s
Mean solar day: 9h55m33.1s
Phase Angle: +5°13'55"
Elongation: +151°52'49"
Phase: 1.00
Illuminated: 99.8%

Capella

Jupiter

W

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 5 : 46 : 25

Earth, Peterborough, 188m FOV 50.8° 15.7 FPS 2025-01-01 05:46:25 UTC-05:00

Jupiter

- On January 10th, Jupiter and a Gibbous Moon appear together in close conjunction at sunset over the eastern horizon.

- Jupiter is also in a close conjunction with the Hyades.

Date and Time

Date and Time | Julian Day

2025 / 1 / 10 17 : 29 : 30

Earth, Peterborough, 188m FOV 70.9° 23.9 FPS 2025-01-10 17:29:30 UTC-05:00

Jupiter

- On January 31st, Jupiter is high in the eastern sky at sunset.


Jupiter
Type: planet
Magnitude: -2.53 (extincted to: -2.37)
Absolute Magnitude: 25.76
RA/Dec (J2000.0): 4h37m47.51s/+21°35'40.9"
RA/Dec (on date): 4h39m16.92s/+21°38'44.3"
Hour angle/DE: 21h52m31.46s/+21°39'15.3" (apparent)
Az/Alt: +120°20'15.2"/+55°20'56.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +70°56'52.0"/-0°29'43.9"
Ecliptic longitude/latitude (on date): +71°17'52.3"/-0°29'23.8"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +177°04'18.6"/-16°43'46.2"
Mean Sidereal Time: 2h31m46.3s
Apparent Sidereal Time: 2h31m46.4s
Distance: 4.542AU (679.492 Mio km)
Apparent diameter: +0°00'43.4"
Sidereal period: 4331.87 days (11.860 a)
Sidereal day: 9h55m29.7s
Mean solar day: 9h55m33.1s
Phase Angle: +9°44'46"
Elongation: +118°57'56"
Phase: 0.99
Illuminated: 99.3%
Jupiter
Mars
Sirius
E
S
Date and Time
Date and Time
Julian Day
2025 / 1 / 31
17 : 59 : 23
Earth, Peterborough, 188m
FOV 117°
53.5 FPS
2025-01-31 17:59:23 UTC-05:00

Jupiter

- On January 31st, Jupiter sets at 3:38 a.m. in the northwestern sky.

Jupiter

Type: **planet**
Magnitude: **-2.53** (extincted to: **1.22**)
Absolute Magnitude: 25.76
RA/Dec (J2000.0): 4h37m49.40s/+21°35'36.4"
RA/Dec (on date): 4h39m18.80s/+21°38'39.7"
Hour angle/DE: 7h27m55.78s/+21°58'12.8" (apparent)
Az/Alt: +300°40'49.0"/+0°44'10.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +70°57'17.4"/-0°29'52.0"
Ecliptic longitude/latitude (on date): +71°18'17.6"/-0°29'31.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +177°04'39.6"/-16°43'28.6"
Mean Sidereal Time: 12h8m29.1s
Apparent Sidereal Time: 12h8m29.2s
Distance: 4.534AU (678.227 Mio km)
Apparent diameter: +0°00'43.5"
Sidereal period: 4331.87 days (11.860 a)
Sidereal day: 9h55m29.7s
Mean solar day: 9h55m33.1s
Phase Angle: +9°41'14"
Elongation: +119°34'36"
Phase: 0.99
Illuminated: 99.3%

W

Jupiter

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 3 : 38 : 27

Earth, Peterborough, 188m FOV 36.4° 33.4 FPS 2025-01-31 03:38:27 UTC-05:00

SATURN

Saturn

- On January 1st, Saturn is high in the southern sky at sunset.

Saturn

Type: **planet**
Magnitude: **1.08** (extincted to: **1.31**)
Absolute Magnitude: 27.65
RA/Dec (J2000.0): 23h05m2.81s/-8°01'11.8"
RA/Dec (on date): 23h06m20.86s/-7°53'06.7"
Hour angle/DE: 1h14m23.28s/-7°51'45.2" (apparent)
Az/Alt: +202°44'33.9"/+35°11'52.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +344°15'04.8"/-1°58'29.6"
Ecliptic longitude/latitude (on date): +344°36'02.8"/-1°58'34.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +65°10'01.8"/-58°23'24.3"
Mean Sidereal Time: 0h20m45.7s
Apparent Sidereal Time: 0h20m45.7s
Distance: 10.039AU (1501.860 Mio km)
Apparent diameter: +0°00'16.6", with rings: +0°00'38.6"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +5°12'44"
Elongation: +62°49'59"
Phase: 1.00
Illuminated: 99.8%

Saturn
Venus
Moon
S

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 17 : 46 : 41

Earth, Peterborough, 188m FOV 70.9° 29.9 FPS 2025-01-01 17:46:41 UTC-05:00

Saturn

- On January 1st, Saturn sets at 9:54 p.m. in the western sky.

Saturn

Type: **planet**
Magnitude: **1.09** (extincted to: **4.14**)
Absolute Magnitude: 27.65
RA/Dec (J2000.0): 23h05m5.71s/-8°00'52.0"
RA/Dec (on date): 23h06m23.76s/-7°52'46.9"
Hour angle/DE: 5h22m17.25s/-7°37'34.1" (apparent)
Az/Alt: +257°58'10.3"/+1°20'50.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +344°15'52.2"/-1°58'28.0"
Ecliptic longitude/latitude (on date): +344°36'50.2"/-1°58'32.5"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +65°11'24.0"/-58°23'44.2"
Mean Sidereal Time: 4h29m42.3s
Apparent Sidereal Time: 4h29m42.3s
Distance: 10.042AU (1502.244 Mio km)
Apparent diameter: +0°00'16.6", with rings: +0°00'38.6"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +5°12'17"
Elongation: +62°40'11"
Phase: 1.00
Illuminated: 99.8%

W

Date and Time

Date and Time | Julian Day

2025 / 1 / 1 21 : 54 : 56

Saturn

- On January 4th, Saturn and a crescent Moon share a close conjunction in the southwestern at sunset.

- Saturn and the Moon have an angle of separation of less than 3 degrees. Saturn is southwest of the Moon.

- Over the next 10 days Saturn and Venus move closer together.

Date and Time

Date and Time | Julian Day

2025 / 1 / 4 17 : 58 : 59

Earth, Peterborough, 188m FOV 70.9° 22 FPS 2025-01-04 17:58:59 UTC-05:00

Saturn

- On January 16th, Saturn and Venus share a very close planetary conjunction.
- Both planets sit next to each other with less than 2 degrees of separation between them.
- On January 17th, the two planets remain close together at evening twilight in the western sky.

Saturn

Type: **planet**
Magnitude: **1.12** (extincted to: **1.40**)
Absolute Magnitude: 27.64
RA/Dec (J2000.0): 23h09m48.91s/-7°29'29.5"
RA/Dec (on date): 23h11m6.87s/-7°21'21.6"
Hour angle/DE: 2h38m8.53s/-7°19'42.3" (apparent)
Az/Alt: +225°15'56.0"/+27°16'54.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +345°32'44.7"/-1°56'44.1"
Ecliptic longitude/latitude (on date): +345°53'43.9"/-1°56'48.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +67°25'51.7"/-58°55'36.4"
Mean Sidereal Time: 1h49m19.3s
Apparent Sidereal Time: 1h49m19.4s
Distance: 10.245AU (1532.570 Mio km)
Apparent diameter: +0°00'16.2", with rings: +0°00'37.8"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +4°24'46"
Elongation: +48°50'10"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 16 | 18 : 16 : 1

Earth, Peterborough, 188m | FOV 50.8° | 45.5 FPS | 2025-01-16 18:16:01 UTC-05:00

Saturn

- On January 31st, Saturn is just 18 degrees above the western horizon at sunset.

- On the same evening Saturn and a very young Moon share a wide conjunction at sunset.

Saturn

Type: **planet**
Magnitude: **1.14** (extincted to: **1.50**)
Absolute Magnitude: 27.62
RA/Dec (J2000.0): 23h15m27.51s/-6°52'36.5"
RA/Dec (on date): 23h16m45.40s/-6°44'25.2"
Hour angle/DE: 3h29m5.95s/-6°42'20.4" (apparent)
Az/Alt: +237°06'37.0"/+20°41'35.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +347°04'31.0"/-1°55'28.8"
Ecliptic longitude/latitude (on date): +347°25'31.9"/-1°55'32.4"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +70°11'00.1"/-59°31'19.5"
Mean Sidereal Time: 2h45m57.6s
Apparent Sidereal Time: 2h45m57.7s
Distance: 10.410AU (1557.347 Mio km)
Apparent diameter: +0°00'16.0", with rings: +0°00'37.2"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +3°22'43"
Elongation: +35°07'50"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 18 : 13 : 32

Earth, Peterborough, 188m | FOV 36.4° | 22.8 FPS | 2025-01-31 18:13:32 UTC-05:00

Saturn

- On January 31st, Saturn now sets at 8:20 p.m. in the western sky.

Saturn

Type: **planet**
Magnitude: **1.14** (extincted to: **6.04**)
Absolute Magnitude: 27.62
RA/Dec (J2000.0): 23h15m29.62s/-6°52'22.7"
RA/Dec (on date): 23h16m47.51s/-6°44'11.4"
Hour angle/DE: 5h34m51.21s/-6°20'45.0" (apparent)
Az/Alt: +261°04'35.6"/+0°02'23.2" (apparent)
Ecliptic longitude/latitude (J2000.0): +347°05'05.3"/-1°55'28.3"
Ecliptic longitude/latitude (on date): +347°26'06.3"/-1°55'32.0"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +70°12'03.0"/-59°31'32.3"
Mean Sidereal Time: 4h53m14.2s
Apparent Sidereal Time: 4h53m14.3s
Distance: 10.411AU (1557.475 Mio km)
Apparent diameter: +0°00'16.0", with rings: +0°00'37.2"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +3°22'20"
Elongation: +35°03'01"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 20 : 20 : 27

Earth, Peterborough, 188m FOV 2.99° 54.1 FPS 2025-01-31 20:20:27 UTC-05:00

URANUS

Uranus

- On January 1st, Uranus is high above the eastern horizon at sunset.

- Uranus sits just a few degrees west of M45


Uranus
Capella
Type: planet
Magnitude: 5.65 (extincted to: 5.84)
Absolute Magnitude: 30.84
RA/Dec (J2000.0): 3h23m44.83s/+18°20'28.4"
RA/Dec (on date): 3h25m10.23s/+18°25'49.6"
Hour angle/DE: 20h38m43.91s/+18°26'37.1" (apparent)
Az/Alt: +105°04'27.8"/+40°52'49.5" (apparent)
Ecliptic longitude/latitude (J2000.0): +53°15'39.8"/-0°15'18.9"
Ecliptic longitude/latitude (on date): +53°36'37.1"/-0°15'02.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +166°15'08.0"/-31°25'59.4"
Mean Sidereal Time: 0h3m50.6s
Apparent Sidereal Time: 0h3m50.6s
Distance: 18.884AU (2824.933 Mio km)
Apparent diameter: +0°00'03.7", with rings: +0°00'14.3"
Sidereal period: 30685.00 days (84.011 a)
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Phase Angle: +2°08'50"
Elongation: +131°50'12"
Phase: 1.00
Illuminated: 100.0%
Uranus
Jupiter
Aldebaran
E
Date and Time
Date and Time
Julian Day
2025 / 1 / 1
17 : 29 : 48
Earth, Peterborough, 188m
FOV 60°
59.8 FPS
2025-01-01 17:29:48 UTC-05:00

Uranus

- On January 1st, Uranus is sets at 4:10 a.m. in western sky.

Uranus

Type: **planet**
Magnitude: **5.65** (extincted to: **9.94**)
Absolute Magnitude: 30.84
RA/Dec (J2000.0): 3h23m48.05s/+18°20'39.7"
RA/Dec (on date): 3h25m13.46s/+18°26'00.7"
Hour angle/DE: 7h15m17.10s/+18°47'50.5" (apparent)
Az/Alt: +296°21'16.2"/+0°22'13.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +53°16'27.0"/-0°15'19.5"
Ecliptic longitude/latitude (on date): +53°37'24.3"/-0°15'02.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +166°15'40.6"/-31°25'21.3"
Mean Sidereal Time: 10h41m55.2s
Apparent Sidereal Time: 10h41m55.2s
Distance: 18.876AU (2823.884 Mio km)
Apparent diameter: +0°00'03.7", with rings: +0°00'14.3"
Sidereal period: 30685.00 days (84.011 a)
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Phase Angle: +2°07'41"
Elongation: +132°24'45"
Phase: 1.00
Illuminated: 100.0%

Date and Time

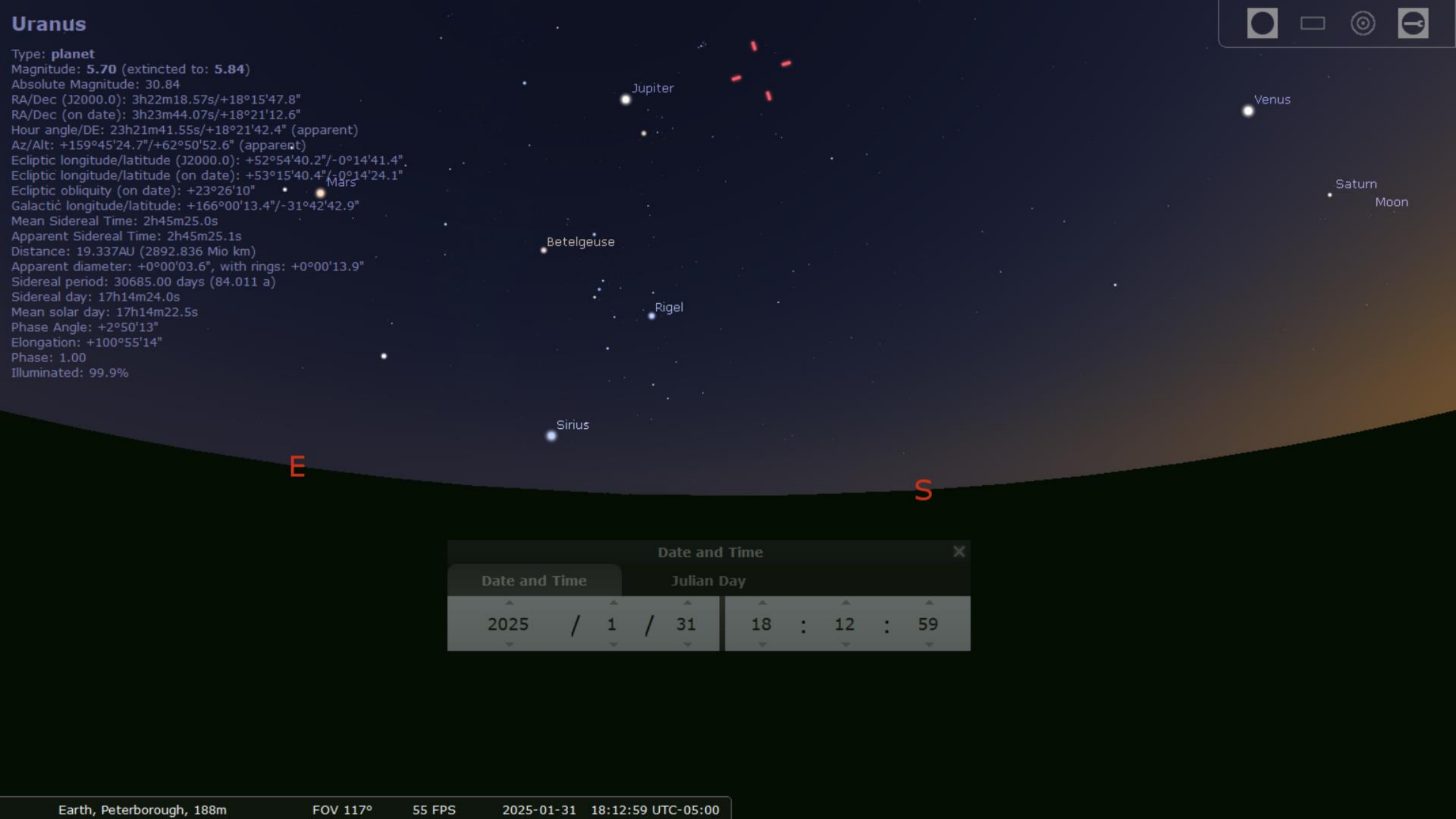
Date and Time | Julian Day

2025 / 1 / 1 4 : 10 : 4

Earth, Peterborough, 188m FOV 9.59° 59.8 FPS 2025-01-01 04:10:04 UTC-05:00

Uranus

- On January 31st, Uranus is high in the southern sky at sunset.


Uranus
Type: planet
Magnitude: 5.70 (extincted to: 5.84)
Absolute Magnitude: 30.84
RA/Dec (J2000.0): 3h22m18.57s/+18°15'47.8"
RA/Dec (on date): 3h23m44.07s/+18°21'12.6"
Hour angle/DE: 23h21m41.55s/+18°21'42.4" (apparent)
Az/Alt: +159°45'24.7"/+62°50'52.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +52°54'40.2"/-0°14'41.4"
Ecliptic longitude/latitude (on date): +53°15'40.4"/-0°14'24.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +166°00'13.4"/-31°42'42.9"
Mean Sidereal Time: 2h45m25.0s
Apparent Sidereal Time: 2h45m25.1s
Distance: 19.337AU (2892.836 Mio km)
Apparent diameter: +0°00'03.6", with rings: +0°00'13.9"
Sidereal period: 30685.00 days (84.011 a)
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Phase Angle: +2°50'13"
Elongation: +100°55'14"
Phase: 1.00
Illuminated: 99.9%
Jupiter
Venus
Mars
Saturn
Moon
Betelgeuse
Rigel
Sirius
E
S
Date and Time
Date and Time
Julian Day
2025 / 1 / 31
18 : 12 : 59
Earth, Peterborough, 188m
FOV 117°
55 FPS
2025-01-31 18:12:59 UTC-05:00

Uranus

- On January 31st, Uranus sets at 2:09 a.m. in the western sky.

Uranus

Type: **planet**
Magnitude: **5.70** (extincted to: **9.90**)
Absolute Magnitude: 30.84
RA/Dec (J2000.0): 3h22m18.41s/+18°15'46.3"
RA/Dec (on date): 3h23m43.90s/+18°21'11.0"
Hour angle/DE: 7h14m31.42s/+18°42'33.2" (apparent)
Az/Alt: +296°09'44.1"/+0°25'40.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +52°54'37.6"/-0°14'42.3"
Ecliptic longitude/latitude (on date): +53°15'37.7"/-0°14'25.0"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +166°00'12.5"/-31°42'45.5"
Mean Sidereal Time: 10h39m38.3s
Apparent Sidereal Time: 10h39m38.4s
Distance: 19.326AU (2891.167 Mio km)
Apparent diameter: +0°00'03.7", with rings: +0°00'13.9"
Sidereal period: 30685.00 days (84.011 a)
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Phase Angle: +2°49'49"
Elongation: +101°35'47"
Phase: 1.00
Illuminated: 99.9%

Date and Time

Date and Time | Julian Day

2025 / 1 / 31 2 : 9 : 50

NEPTUNE

Neptune

- On January 1st, Neptune is high in the southern sky at evening twilight.

- Neptune is northeast of Saturn.

Neptune

Type: **planet**
Magnitude: **7.90** (extincted to: **8.09**)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h50m54.09s/-2°23'10.1"
RA/Dec (on date): 23h52m11.04s/-2°14'49.7"
Hour angle/DE: 0h07m44.80s/-2°13'46.4" (apparent)
Az/Alt: +182°39'56.0"/+43°26'17.1" (apparent)
Ecliptic longitude/latitude (J2000.0): +356°57'51.7"/-1°17'05.8"
Ecliptic longitude/latitude (on date): +357°18'49.5"/-1°17'05.8"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +90°00'01.9"/-61°19'32.1"
Mean Sidereal Time: 0h0m4.0s
Apparent Sidereal Time: 0h0m4.0s
Distance: 30.124AU (4506.556 Mio km)
Apparent diameter: +0°00'02.3", with rings: +0°00'05.8"
Sidereal period: 60189.00 days (164.789 a)
Sidereal day: 16h6m36.0s
Mean solar day: 16h6m36.6s
Phase Angle: +1°49'31"
Elongation: +75°32'49"
Phase: 1.00
Illuminated: 100.0%

Saturn

Venus

Moon

S

Date and Time

Date and Time | Julian Day

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Earth, Peterborough, 188m FOV 98.9° 53.7 FPS 2025-01-01 17:25:54 UTC-05:00

Neptune

- On January 1st, Neptune sets at 11:08 p.m. in the western sky.

Neptune

Type: **planet**
Magnitude: **7.90** (extincted to: **12.10**)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h50m54.82s/-2°23'04.7"
RA/Dec (on date): 23h52m11.77s/-2°14'44.3"
Hour angle/DE: 5h50m9.38s/-1°54'25.9" (apparent)
Az/Alt: +266°54'59.2"/+0°25'40.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +356°58'03.8"/-1°17'05.2"
Ecliptic longitude/latitude (on date): +357°19'01.6"/-1°17'05.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +90°00'27.3"/-61°19'32.6"
Mean Sidereal Time: 5h43m44.3s
Apparent Sidereal Time: 5h43m44.3s
Distance: 30.128AU (4507.159 Mio km)
Apparent diameter: +0°00'02.3", with rings: +0°00'05.8"
Sidereal period: 60189.00 days (164.789 a)
Sidereal day: 16h6m36.0s
Mean solar day: 16h6m36.6s
Phase Angle: +1°49'24"
Elongation: +75°18'23"
Phase: 1.00
Illuminated: 100.0%

W

Date and Time

Date and Time | Julian Day

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Neptune

- On January 31st, Neptune and Venus share a close conjunction at sunset in the western sky.

- Neptune is less than 2 degrees southeast of Venus at sunset.


Neptune
Type: planet
Magnitude: 7.93 (extincted to: 8.20)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h53m17.46s/-2°06'39.3"
RA/Dec (on date): 23h54m34.57s/-1°58'17.5"
Hour angle/DE: 2h54m59.54s/-1°56'50.8" (apparent)
Az/Alt: +232°35'26.2"/+29°32'10.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +357°37'17.9"/-1°16'11.1"
Ecliptic longitude/latitude (on date): +357°58'18.6"/-1°16'10.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +91°22'06.9"/-61°22'01.5"
Mean Sidereal Time: 2h49m38.0s
Apparent Sidereal Time: 2h49m38.1s
Distance: 30.574AU (4573.810 Mio km)
Apparent diameter: +0°00'02.2", with rings: +0°00'05.7"
Sidereal period: 60189.00 days (164.789 a)
Sidereal day: 16h6m36.0s
Mean solar day: 16h6m36.6s
Phase Angle: +1°21'02"
Elongation: +45°38'31"
Phase: 1.00
Illuminated: 100.0%
Venus
Saturn
Moon
W
Date and Time
Date and Time
Julian Day
2025 / 1 / 31
18 : 17 : 11
Earth, Peterborough, 188m
FOV 50.8°
39.9 FPS
2025-01-31 18:17:11 UTC-05:00

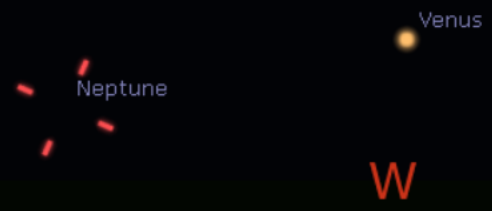
Neptune

- On January 31st, Neptune sets at 9:12 p.m. in the western sky.

- Both Neptune and Venus set together.

Neptune

Type: **planet**
Magnitude: **7.93** (extincted to: **11.76**)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h53m18.22s/-2°06'34.1"
RA/Dec (on date): 23h54m35.33s/-1°58'12.4"
Hour angle/DE: 5h49m42.25s/-1°39'36.5" (apparent)
Az/Alt: +267°00'50.8"/+0°40'53.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +357°37'30.4"/-1°16'10.9"
Ecliptic longitude/latitude (on date): +357°58'31.1"/-1°16'10.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +91°22'33.0"/-61°22'02.3"
Mean Sidereal Time: 5h45m33.6s
Apparent Sidereal Time: 5h45m33.7s
Distance: 30.576AU (4574.040 Mio km)
Apparent diameter: +0°00'02.2", with rings: +0°00'05.7"
Sidereal period: 60189.00 days (164.789 a)
Sidereal day: 16h6m36.0s
Mean solar day: 16h6m36.6s
Phase Angle: +1°20'52"
Elongation: +45°31'17"
Phase: 1.00
Illuminated: 100.0%



Date and Time

Date and Time | Julian Day

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That is the Sky this Month

By David Mills