Sky this Month

January 2026

By David Mills

MOON

FULL MOON

Moon

- The full Moon is on January 3rd at 5:03 a.m.
- The moon rises at 4: 58 p.m. on January 3rd, in the northeastern sky.
- This month’s full moon is the Super Wolf Moon
- The 4th of 4 supermoons for the year 2025 and January 2026.

Moon

Type: **moon**
Magnitude: **-12.69** (reduced to **-8.43** by **33.32** Airmasses)
Absolute Magnitude: 0.21
Mean Opposition Magnitude: -12.74
RA/Dec (J2000.0): 7h32m20.30s/+25°01'00.5"
RA/Dec (on date): 7h33m55.69s/+24°57'41.0"
HA/Dec: 16h12m37.29s/+25°20'21.8" (apparent)
Az./Alt.: +53°44'48.0"/+0°23'25.9" (apparent)
Gal. long./lat.: +194°09'55.0"/+19°37'58.7"
Supergal. long./lat.: +39°12'07.6"/-48°16'15.1"
Ecl. long./lat. (J2000.0): +110°50'48.7"/+3°13'58.0"
Ecl. long./lat. (on date): +111°12'43.2"/+3°14'16.5"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 23h45m09.7s
Apparent Sidereal Time: 23h45m10.0s
Rise: 16h59m
Transit: 0h07m
Set: 8h25m
Parallactic Angle: -39°41'09.5"
IAU Constellation: Gem
Zodiac: ♋ 23°28'
Hourly motion: +0°41'26" towards 94.6°
Hourly motion: dα=+0°45'31" dδ=-0°03'40"
Elongation: 171°41'04.2"
Elong. in Ecl.Long.: W172°20'06"
Phase angle: +8°17'42.2"
Illuminated: 99.5%
Distance from Sun: 0.986 AU (147.460 M km)
Distance: 0.002432 AU (363775.510 km)
Light time: 0h00m01.2s
Orbital velocity: 1.084 km/s
Heliocentric velocity: 31.364 km/s
Sidereal period: 27.32 days (0.075 a)
Synodic period: 29.53 days (0.081 a)
Apparent diameter: +0°32'50.24"
Diameter: 3474.8 km
Sidereal day: 655h43m11.6s
Mean solar day: 708h44m02.9s
Equatorial rotation velocity: 4.624 m/s
Moon age: 15.3 days old (Waning Gibbous)
Position angle of bright limb: +76°23'21"
Position Angle of axis: +7°54'48"
Libration: +6°30'49" towards +38°49'26" (SW!!)
Libration: +4°05'01"/-5°04'29"
Subsolar point: -2°52'18"/-1°17'43"
Colongitude: +92°52'18"
Albedo: 0.12
Solar Az./Alt.: +241°14'04"/-3°12'15"

Date and Time

Date and Time | Julian Day

2026 – 1 – 3 | 17 : 4 : 16

NEW MOON

Moon

- The New Moon is on January 18th , at 2:51 p.m.
- This month’s moon is the New Snow Moon
- The Moon is southeast of the sun.

Moon

Type: **moon**
Magnitude: **-2.97**
Absolute Magnitude: 0.21
Mean Opposition Magnitude: -12.74
RA/Dec (J2000.0): 20h03m16.97s/-24°34'07.8"
RA/Dec (on date): 20h04m51.29s/-24°29'44.5"
HA/Dec: 2h32m25.73s/-24°29'44.5"
Az./Alt.: +215°10'30.7"/+12°52'41.4"
Gal. long./lat.: +17°17'39.8"/-26°03'08.5"
Supergal. long./lat.: +229°13'40.9"/+46°24'58.1"
Ecl. long./lat. (J2000.0): +297°50'55.3"/-4°03'36.5"
Ecl. long./lat. (on date): +298°12'52.8"/-4°03'54.0"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 22h37m16.6s
Apparent Sidereal Time: 22h37m17.0s
Rise: 8h00m
Transit: 12h22m
Set: 16h50m
Parallactic Angle: +26°55'36.0"
IAU Constellation: Sgr
Zodiac: ♒ 1°12'
Hourly motion: +0°24'34" towards 65.1°
Hourly motion: dα=+0°24'03" dδ=+0°11'10"
Elongation: 4°05'41.6"
Elong. in Ecl.Long.: W0°31'32"
Phase angle: +175°53'38.9"
Illuminated: 0.1%
Distance from Sun: 0.981 AU (146.801 M km)
Distance: 0.002633 AU (393919.463 km)
Light time: 0h00m01.3s
Orbital velocity: 1.000 km/s
Heliocentric velocity: 29.271 km/s
Sidereal period: 27.32 days (0.075 a)
Synodic period: 29.53 days (0.081 a)
Apparent diameter: +0°30'19.47"
Diameter: 3474.8 km
Sidereal day: 655h43m11.6s
Mean solar day: 708h44m02.9s
Equatorial rotation velocity: 4.624 m/s
Moon age: 0.0 days old (New Moon)
Position angle of bright limb: -4°32'36"
Position Angle of axis: +349°03'49"
Libration: +6°02'19" towards +222°37'48" (NE!!)
Libration: -4°05'23"/+4°26'34"
Subsolar point: +175°48'15"/-1°04'17"
Colongitude: +274°11'45"
Albedo: 0.12
Solar Az./Alt.: +217°24'10"/+16°21'36"

Date and Time

Date and Time			Julian Day		
2026	1	18	14	57	35

Moon

- The planet Venus is east of the sun and slightly north.
- Mars and Mercury are directly south of the sun.
- Both planets are in solar conjunction.

Moon

Type: **moon**
Magnitude: **-2.97**
Absolute Magnitude: 0.21
Mean Opposition Magnitude: -12.74
RA/Dec (J2000.0): 20h03m10.07s/-24°34'55.5"
RA/Dec (on date): 20h04m44.41s/-24°30'32.5"
HA/Dec: 2h28m14.57s/-24°30'32.5"
Az./Alt.: +214°17'42.4"/+13°17'34.8"
Gal. long./lat.: +17°16'14.7"/-26°01'55.8"
Supergal. long./lat.: +229°11'08.1"/+46°24'53.1"
Ecl. long./lat. (J2000.0): +297°49'13.2"/-4°04'04.0"
Ecl. long./lat. (on date): +298°11'10.7"/-4°04'21.5"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 22h32m58.6s
Apparent Sidereal Time: 22h32m59.0s
Rise: 8h00m
Transit: 12h22m
Set: 16h50m
Parallactic Angle: +26°17'38.8"
IAU Constellation: Sgr
Zodiac: ♒ 1°11'
Hourly motion: +0°24'25" towards 65.1°
Hourly motion: dα=+0°23'55" dδ=+0°11'05"
Elongation: 4°06'20.8"
Elong. in Ecl.Long.: W0°33'03"
Phase angle: +175°52'59.6"
Illuminated: 0.1%
Distance from Sun: 0.981 AU (146.801 M km)
Distance: 0.002633 AU (393884.170 km)
Light time: 0h00m01.3s
Orbital velocity: 1.000 km/s
Heliocentric velocity: 29.271 km/s
Sidereal period: 27.32 days (0.075 a)
Synodic period: 29.53 days (0.081 a)
Apparent diameter: +0°30'19.63"
Diameter: 3474.8 km
Sidereal day: 655h43m11.6s
Mean solar day: 708h44m02.9s
Equatorial rotation velocity: 4.624 m/s
Moon age: 0.0 days old (New Moon)
Position angle of bright limb: -4°11'46"
Position Angle of axis: +349°04'36"
Libration: +6°02'23" towards +222°35'42" (NE!!)
Libration: -4°05'16"/+4°26'46"
Subsolar point: +175°50'26"/-1°04'17"
Colongitude: +274°09'34"
Albedo: 0.12
Solar Az./Alt.: +216°28'16"/+16°49'14"

Date and Time

Date and Time					Julian Day				
2026	–	1	–	18	14	:	53	:	18

MERCURY

Mercury

- On January 1st, Mercury rises just 30 minutes before official sunrise in the southeastern sky.
- Mercury is moving east towards solar conjunction.
- No longer visible this month. Mercury remains low in the solar glare at sunset by month end in the western twilight sky.

Mercury

Type: **planet**
Magnitude: **-0.60** (reduced to **4.03** by **36.64** Airmasses)
Absolute Magnitude: -0.60
RA/Dec (J2000.0): 17h55m55.89s/-24°03'36.6"
RA/Dec (on date): 17h57m31.75s/-24°03'52.1"
HA/Dec: 19h42m28.39s/-23°39'39.2" (apparent)
Az./Alt.: +124°19'12.9"/+0°10'48.2" (apparent)
Gal. long./lat.: +5°22'08.7"/+0°30'56.4"
Supergal. long./lat.: +186°12'51.0"/+47°41'43.9"
Ecl. long./lat. (J2000.0): +269°04'16.3"/-0°37'27.0"
Ecl. long./lat. (on date): +269°26'09.4"/-0°37'47.2"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 13h38m30.1s
Apparent Sidereal Time: 13h38m30.4s
Rise: 7h06m
Transit: 11h27m
Set: 15h47m
Parallactic Angle: -40°11'27.7"
IAU Constellation: Sgr
Zodiac: ♑ 29°22'
Hourly motion: +0°03'49" towards 94.1°
Hourly motion: dα=+0°04'10" dδ=-0°00'18"
Elongation: 11°40'15.7"
Elong. in Ecl.Long.: W11°39'16"
Phase angle: +25°25'39.4"
Illuminated: 95.2%

Distance from Sun: 0.463 AU (69.306 M km)
Distance: 1.381 AU (206.654 M km)
Light time: 0h11m29.3s
Orbital velocity: 39.218 km/s
Sidereal period: 87.97 days (0.241 a)
Synodic period: 115.88 days (0.317 a)
Apparent diameter: +0°00'04.87"
Equatorial diameter: 4881.1 km
Sidereal day: 1407h30m27.0s
Mean solar day: 4222h26m51.1s
Equatorial rotation velocity: 3.026 m/s
Position Angle of axis: +5°34'24"
Center point: L_e=+228°03'53" ϕ_e: -3°58'36"
Subsolar point: L_s=+253°12'07" ϕ_s: -0°01'12"
Albedo: 0.06
Solar Az./Alt.: +115°00'48"/-7°25'38"
Lunar Az./Alt.: +318°45'40"/-7°00'02"

Date and Time

Date and Time | Julian Day

2026 – 1 – 1 | 7 : 7 : 7

VENUS

Venus

- On January 1st, Venus is approaching solar conjunction and not visible until late January.

Venus

- On January 27th, Venus reappears in the western sky at sunset.

- The planet is only 15 minutes east of the sun at sunset. Stil low in the solar glare at sunset. Nearly impossible to see.

Venus - Evening Star

Type: **planet**
Magnitude: **-3.91** (reduced to **-0.69** by **24.60** Airmasses)
Absolute Magnitude: -5.18
Color Index (B-V): **0.91**
RA/Dec (J2000.0): 21h22m30.88s/-16°48'21.9"
RA/Dec (on date): 21h23m58.33s/-16°41'39.9"
HA/Dec: 4h45m52.83s/-16°25'06.8" (apparent)
Az./Alt.: +245°27'45.5"/+1°11'22.9" (apparent)
Gal. long./lat.: +33°41'28.2"/-40°49'05.2"
Supergal. long./lat.: +256°14'12.0"/+41°12'57.3"
Ecl. long./lat. (J2000.0): +317°45'07.2"/-1°21'34.0"
Ecl. long./lat. (on date): +318°07'06.7"/-1°21'47.1"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 2h10m54.6s
Apparent Sidereal Time: 2h10m55.1s
Rise: 7h57m
Transit: 12h52m
Set: 17h48m
Parallactic Angle: +42°44'41.4"
IAU Constellation: Cap
Zodiac: ♒ 20°59'
Hourly motion: +0°03'08" towards 73.3°
Hourly motion: dα=+0°03'07" dδ=+0°00'56"
Elongation: 6°11'50.9"
Elong. in Ecl.Long.: E6°02'48"
Phase angle: +8°24'02.0"
Illuminated: 99.5%
Distance from Sun: 0.728 AU (108.919 M km)
Distance: 1.700 AU (254.287 M km)
Light time: 0h14m08.2s
Orbital velocity: 34.792 km/s
Sidereal period: 224.70 days (0.615 a)
Synodic period: 583.92 days (1.599 a)
Apparent diameter: +0°00'09.82"
Equatorial diameter: 12103.6 km
Sidereal day: 5832h26m37.0s
Mean solar day: 2802h00m22.2s
Equatorial rotation velocity: 1.811 m/s
Position Angle of axis: +343°10'19"
Center point: L_s=+48°41'56" ϕ_s:+0°59'04"
Subsolar point: L_s=+56°56'19" ϕ_s:+2°38'15"
Albedo: 0.77
Solar Az./Alt.: +249°35'54"/-3°32'39"
Lunar Az./Alt.: +73°04'37"/+15°50'53"

Earth, Peterborough, 188 m FOV 4.3° 31.53 FPS 2026-01-31 17:39:31 UTC-05:00

Venus

- On January 31st, Venus is low on the western horizon at sunset.

- Still deep in the solar glare at sunset as the days get longer.

Venus - Evening Star

Type: **planet**
Magnitude: **-3.91** (reduced to **-0.83** by **23.48** Airmasses)
Absolute Magnitude: -5.18
Color Index (B-V): **0.91**
RA/Dec (J2000.0): 21h02m16.74s/-18°13'51.4"
RA/Dec (on date): 21h03m45.47s/-18°07'41.0"
HA/Dec: 4h38m24.20s/-17°51'40.6" (apparent)
Az./Alt.: +243°10'13.2"/+1°19'50.6" (apparent)
Gal. long./lat.: +29°45'09.7"/-36°49'50.7"
Supergal. long./lat.: +250°23'09.2"/+43°48'29.1"
Ecl. long./lat. (J2000.0): +312°43'15.8"/-1°17'31.7"
Ecl. long./lat. (on date): +313°05'14.1"/-1°17'46.1"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 1h43m10.3s
Apparent Sidereal Time: 1h43m10.7s
Rise: 7h59m
Transit: 12h48m
Set: 17h37m
Parallactic Angle: +42°08'36.4"
IAU Constellation: Cap
Zodiac: ♒ 15°56'
Hourly motion: +0°03'08" towards 74.9°
Hourly motion: dα=+0°03'10" dδ=+0°00'51"
Elongation: 5°14'49.2"
Elong. in Ecl.Long.: E5°05'07"
Phase angle: +7°06'15.2"
Illuminated: 99.6%
Distance from Sun: 0.728 AU (108.936 M km)
Distance: 1.703 AU (254.805 M km)
Light time: 0h14m09.9s
Orbital velocity: 34.786 km/s
Sidereal period: 224.70 days (0.615 a)
Synodic period: 583.92 days (1.599 a)
Apparent diameter: +0°00'09.80"
Equatorial diameter: 12103.6 km
Sidereal day: 5832h26m37.0s
Mean solar day: 2802h00m22.2s
Equatorial rotation velocity: 1.811 m/s
Position Angle of axis: +344°35'48"
Center point: L_s=+37°43'50" ϕ_s: +1°01'20"
Subsolar point: L_s=+44°39'26" ϕ_s: +2°36'45"
Albedo: 0.77
Solar Az./Alt.: +246°54'28"/-2°06'27"
Lunar Az./Alt.: +115°43'13"/+57°33'34"

Date and Time

Date and Time	Julian Day
2026 – 1 – 27	17 : 27 : 35

Earth, Peterborough, 188 m FOV 4.3° 46.86 FPS 2026-01-27 17:27:35 UTC-05:00

MARS

Mars

- Mars is in total solar conjunction not visible this month.

JUPITER

Jupiter

- On January 1st, Jupiter is well placed in the western sky at sunrise.

Jupiter

Type: **planet**
Magnitude: **-2.67** (reduced to **-2.03** by **5.01** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h30m38.34s/+22°02'43.7"
RA/Dec (on date): 7h32m11.71s/+21°59'27.9"
HA/Dec: 6h22m34.55s/+22°02'44.6" (apparent)
Az./Alt.: +289°48'42.6"/+11°21'22.6" (apparent)
Gal. long./lat.: +196°55'11.4"/+18°09'12.3"
Supergal. long./lat.: +39°42'10.6"/-51°15'00.4"
Ecl. long./lat. (J2000.0): +110°55'18.4"/+0°14'13.1"
Ecl. long./lat. (on date): +111°17'11.6"/+0°14'31.5"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 13h55m00.9s
Apparent Sidereal Time: 13h55m01.2s
Rise: 17h22m
Transit: 1h02m
Set: 8h37m
Parallactic Angle: +46°35'20.9"
IAU Constellation: Gem
Zodiac: ♋ 23°2'
Hourly motion: +0°00'20" towards 278.9°
Hourly motion: dα=-0°00'21" dδ=+0°00'03"
Elongation: 169°48'45.8"
Elong. in Ecl.Long.: W169°48'55"
Phase angle: +1°54'43.9"
Illuminated: 100.0%
Distance from Sun: 5.212 AU (779.716 M km)
Distance: 4.241 AU (634.498 M km)
Light time: 0h35m16.5s
Orbital velocity: 13.040 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'46.48"

Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +10°28'23"
Center point: L_{IIe}=+178°24'58" ϕ_e: +1°23'08"
Subsolar point: L_{IIs}=+180°19'37" ϕ_s: +1°28'49"
Albedo: 0.51
Solar Az./Alt.: +117°44'52"/-4°44'30"
Lunar Az./Alt.: +321°46'57"/-8°46'48"

Date and Time

Date and Time	Julian Day
2026 – 1 – 1	7 : 23 : 35

Jupiter

- On January 1st, Jupiter rises at 5:23 p.m. in the northeastern sky at sunset.

- Jupiter is now 9 days away from opposition to Earth

Jupiter

Type: **planet**
Magnitude: **-2.67** (reduced to **1.99** by **36.93** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h30m24.58s/+22°03'17.3"
RA/Dec (on date): 7h31m57.98s/+22°00'01.9"
HA/Dec: 16h26m11.70s/+22°24'08.4" (apparent)
Az./Alt.: +58°00'46.2"/+0°09'46.9" (apparent)
Gal. long./lat.: +196°53'21.3"/+18°06'28.8"
Supergal. long./lat.: +39°37'01.0"/-51°15'13.2"
Ecl. long./lat. (J2000.0): +110°52'04.3"/+0°14'17.0"
Ecl. long./lat. (on date): +111°13'57.6"/+0°14'35.5"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 23h56m38.9s
Apparent Sidereal Time: 23h56m39.2s
Rise: 17h22m
Transit: 1h02m
Set: 8h37m
Parallactic Angle: -41°02'21.7"
IAU Constellation: Gem
Zodiac: ♋ 22°59'
Hourly motion: +0°00'20" towards 279.7°
Hourly motion: dα=-0°00'21" dδ=+0°00'04"
Elongation: 170°17'15.1"
Elong. in Ecl.Long.: W170°17'25"
Phase angle: +1°49'25.9"
Illuminated: 100.0%
Distance from Sun: 5.212 AU (779.739 M km)
Distance: 4.240 AU (634.350 M km)
Light time: 0h35m16.0s
Orbital velocity: 13.040 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'46.49"
Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +10°27'00"
Center point: L_{IIe}=+181°04'59" ϕ_e: +1°23'09"
Subsolar point: L_{IIs}=+182°54'17" ϕ_s: +1°28'43"
Albedo: 0.51
Solar Az./Alt.: +244°29'11"/-6°53'05"
Lunar Az./Alt.: +74°56'28"/+24°52'00"

Date and Time

Date and Time | Julian Day

2026 – 1 – 1 | 17 : 23 : 35

Earth, Peterborough, 188 m | FOV 9.9° | 17.86 FPS | 2026-01-01 17:23:35 UTC-05:00

Jupiter

- On December 7th, Jupiter and the Gibbous Moon share a wide conjunction.

- Both rise together at 7:30 p.m. in the northeastern sky.

Jupiter

Type: **planet**
Magnitude: **-2.58** (reduced to **-1.15** by **10.95** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h42m12.07s/+21°32'24.9"
RA/Dec (on date): 7h43m44.53s/+21°28'45.7"
HA/Dec: 16h58m37.66s/+21°36'13.6" (apparent)
Az./Alt.: +64°06'08.7"/+4°39'02.2" (apparent)
Gal. long./lat.: +198°29'48.1"/+20°26'36.4"
Supergal. long./lat.: +44°02'09.3"/-50°59'45.0"
Ecl. long./lat. (J2000.0): +113°39'07.7"/+0°10'28.0"
Ecl. long./lat. (on date): +114°00'56.4"/+0°10'46.2"
Ecliptic obliquity (on date): +23°26'09.3"
Mean Sidereal Time: 0h41m51.1s
Apparent Sidereal Time: 0h41m51.4s
Rise: 19h15m
Transit: 2h52m
Set: 10h25m
Parallactic Angle: -43°49'31.4"
IAU Constellation: Gem
Zodiac: ♋ 25°56'
Hourly motion: +0°00'13" towards 281.7°
Hourly motion: dα=-0°00'13" dδ=+0°00'03"
Elongation: 142°09'36.2"
Elong. in Ecl.Long.: W142°09'37"
Phase angle: +6°40'11.2"
Illuminated: 99.7%
Distance from Sun: 5.203 AU (778.384 M km)
Distance: 4.390 AU (656.732 M km)
Light time: 0h36m30.6s
Orbital velocity: 13.063 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'44.91"
Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +11°36'26"
Center point: L_{IIe}=+107°26'42" ϕ_e: +1°22'27"
Subsolar point: L_{IIs}=+114°06'49" ϕ_s: +1°34'38"
Albedo: 0.51
Solar Az./Alt.: +270°02'46"/-33°37'25"
Lunar Az./Alt.: +58°34'41"/+1°53'46"

Date and Time

Date and Time | Julian Day

2025 – 12 – 7 | 19 : 46 : 57

Jupiter

- On January 10th, Jupiter is at full opposition to Earth and at maximum brightness of -2.50 Magnitude.
- Jupiter is well placed in the northeastern sky at sunset.
- Visible all night.

Jupiter

Type: **planet**
Magnitude: **-2.68** (reduced to **-1.73** by **7.36** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h25m16.42s/+22°15'18.3"
RA/Dec (on date): 7h26m50.19s/+22°12'13.9"
HA/Dec: 17h12m57.45s/+22°17'11.2" (apparent)
Az./Alt.: +66°00'35.3"/+7°27'47.3" (apparent)
Gal. long./lat.: +196°12'44.1"/+17°05'21.1"
Supergal. long./lat.: +37°41'29.6"/-51°19'10.5"
Ecl. long./lat. (J2000.0): +109°39'43.4"/+0°15'33.1"
Ecl. long./lat. (on date): +110°01'38.5"/+0°15'52.0"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 0h39m25.9s
Apparent Sidereal Time: 0h39m26.3s
Rise: 16h41m
Transit: 0h21m
Set: 7h58m
Parallactic Angle: -44°57'47.9"
IAU Constellation: Gem
Zodiac: ♋ 21°42'
Hourly motion: +0°00'20" towards 279.1°
Hourly motion: dα=-0°00'21" dδ=+0°00'03"
Elongation: 179°16'49.6"
Elong. in Ecl.Long.: E179°19'45"
Phase angle: +0°08'08.4"
Illuminated: 100.0%
Distance from Sun: 5.216 AU (780.228 M km)
Distance: 4.232 AU (633.112 M km)
Light time: 0h35m11.8s
Orbital velocity: 13.032 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'46.58"
Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +9°56'18"
Center point: L_{IIe}=+99°09'38" ϕ_e: +1°23'47"
Subsolar point: L_{IIs}=+99°01'56" ϕ_s: +1°26'34"
Albedo: 0.51
Solar Az./Alt.: +245°49'04"/-6°39'09"
Lunar Az./Alt.: +340°23'20"/-57°22'37"

Date and Time

Date and Time			Julian Day		
2026	1	10	17	30	52

Earth, Peterborough, 188 m FOV 31.8° 49.36 FPS 2026-01-10 17:30:52 UTC-05:00

Jupiter

- On January 31st, Jupiter sets at 6:22 a.m. the northwestern sky.

- On the same morning, a waxing Gibbous Moon shares a wide conjunction with Jupiter setting shortly after the planet.

Jupiter

Type: **planet**
Magnitude: **-2.62** (reduced to **1.63** by **33.26** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h14m05.81s/+22°39'00.8"
RA/Dec (on date): 7h15m40.36s/+22°36'20.1"
HA/Dec: 7h35m08.25s/+22°58'34.3" (apparent)
Az./Alt.: +302°35'43.9"/+0°23'41.0" (apparent)
Gal. long./lat.: +194°46'25.5"/+14°52'22.0"
Supergal. long./lat.: +33°30'34.8"/-51°21'27.5"
Ecl. long./lat. (J2000.0): +107°02'59.9"/+0°18'02.5"
Ecl. long./lat. (on date): +107°24'58.9"/+0°18'21.9"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 14h52m11.6s
Apparent Sidereal Time: 14h52m12.0s
Rise: 15h05m
Transit: 22h43m
Set: 6h26m
Parallactic Angle: +40°54'49.7"
IAU Constellation: Gem
Zodiac: ♋ 18°55'
Hourly motion: +0°00'17" towards 277.3°
Hourly motion: dα=-0°00'18" dδ=+0°00'02"
Elongation: 155°48'59.7"
Elong. in Ecl.Long.: E155°49'06"
Phase angle: +4°25'55.3"
Illuminated: 99.9%
Distance from Sun: 5.223 AU (781.341 M km)
Distance: 4.309 AU (644.550 M km)
Light time: 0h35m50.0s
Orbital velocity: 13.013 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'45.76"
Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +8°48'39"
Center point: L_{IIe}=+333°13'38" ϕ_e: +1°25'14"
Subsolar point: L_{IIs}=+328°47'40" ϕ_s: +1°21'36"
Albedo: 0.51
Solar Az./Alt.: +101°54'04"/-12°41'46"
Lunar Az./Alt.: +300°25'21"/+4°42'41"

NW

Date and Time

Date and Time					Julian Day				
2026	–	1	–	31	6	:	22	:	40

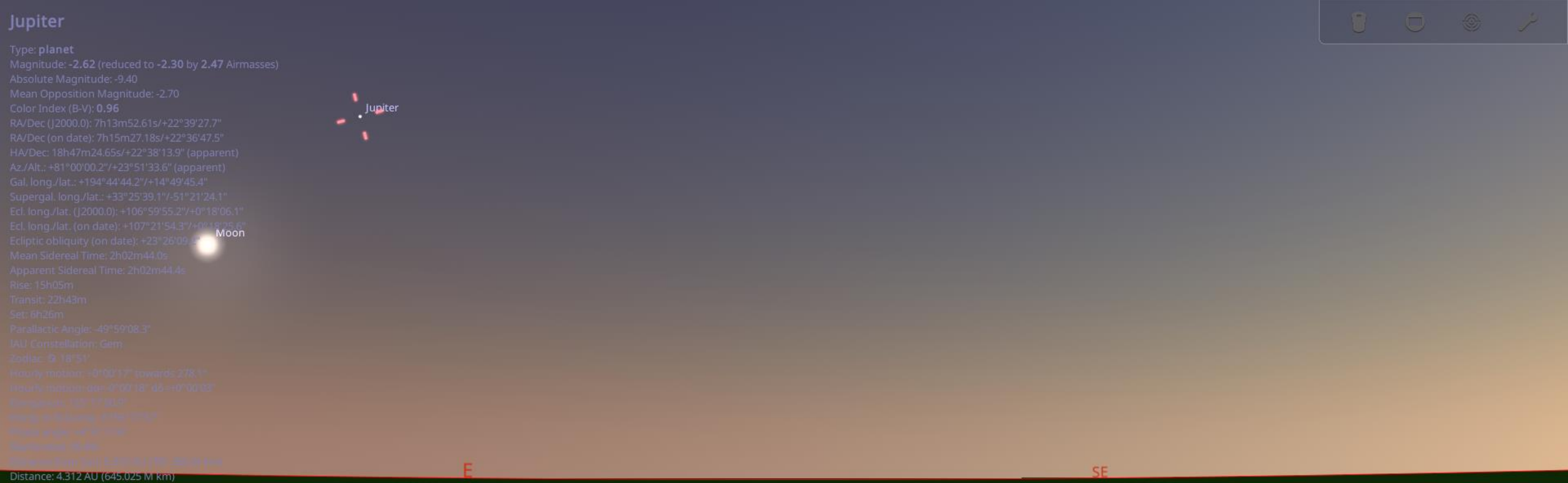
Jupiter

- On January 31st, Jupiter is well placed in the eastern sky at evening twilight.

- The Gibbous Moon is southeast Jupiter in a wide conjunction.

Jupiter

Type: **planet**
Magnitude: **-2.62** (reduced to **-2.30** by **2.47** Airmasses)
Absolute Magnitude: -9.40
Mean Opposition Magnitude: -2.70
Color Index (B-V): **0.96**
RA/Dec (J2000.0): 7h13m52.61s/+22°39'27.7"
RA/Dec (on date): 7h15m27.18s/+22°36'47.5"
HA/Dec: 18h47m24.65s/+22°38'13.9" (apparent)
Az./Alt.: +81°00'00.2"/+23°51'33.6" (apparent)
Gal. long./lat.: +194°44'44.2"/+14°49'45.4"
Supergal. long./lat.: +33°25'39.1"/-51°21'24.1"
Ecl. long./lat. (J2000.0): +106°59'55.2"/+0°18'06.1"
Ecl. long./lat. (on date): +107°21'54.3"/+0°18'05.6"
Ecliptic obliquity (on date): +23°26'09.3"
Mean Sidereal Time: 2h02m44.0s
Apparent Sidereal Time: 2h02m44.4s
Rise: 15h05m
Transit: 22h43m
Set: 6h26m
Parallactic Angle: -49°59'08.3"
IAU Constellation: Gem
Zodiac: ♋ 18°51'
Hourly motion: +0°00'17" towards 278.1°
Hourly motion: dα=-0°00'18" dδ=+0°00'03"
Elongation: 137°17'30.0"
Moving in following direction
Phase angle: 34°8'11.9"
Magnitude: 10.4m
Distance from Sun: 5.455 AU (816.200 M km)
Distance: 4.312 AU (645.025 M km)
Light time: 0h35m51.6s
Orbital velocity: 13.013 km/s
Sidereal period: 4331.87 days (11.860 a)
Synodic period: 398.89 days (1.092 a)
Apparent diameter: +0°00'45.72"
Equatorial diameter: 142984.0 km
Sidereal day: 9h55m40.6s
Mean solar day: 9h55m44.0s
Equatorial rotation velocity: 12.568 km/s
Position Angle of axis: +8°47'18"
Center point: L_{IIIe}=+17°23'60" ϕ_e: +1°25'15"
Subsolar point: L_{IIIs}=+12°52'37" ϕ_s: +1°21'29"
Albedo: 0.51
Solar Az./Alt.: +248°12'07"/-1°46'05"
Lunar Az./Alt.: +71°48'47"/+14°31'32"



Date and Time

Date and Time			Julian Day		
2026	– 1	– 31	17	: 31	: 22

Earth, Peterborough, 188 m FOV 61.9° 59.98 FPS 2026-01-31 17:31:22 UTC-05:00

SATURN

Saturn

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

Saturn

Type: **planet**
Magnitude: **1.01** (reduced to **1.20** by **1.49** Airmasses)
Absolute Magnitude: -8.88
Mean Opposition Magnitude: 0.67
Color Index (B-V): **1.22**
RA/Dec (J2000.0): 23h48m23.66s/-3°42'55.1"
RA/Dec (on date): 23h49m44.10s/-3°34'12.8"
HA/Dec: 0h16m04.55s/-3°33'06.3" (apparent)
Az./Alt.: +185°24'08.3"/+42°00'45.1" (apparent)
Gal. long./lat.: +87°26'57.9"/-62°09'44.7"
Supergal. long./lat.: +288°07'47.8"/+14°56'19.7"
Ecl. long./lat. (J2000.0): +355°51'39.9"/-2°15'20.6"
Ecl. long./lat. (on date): +356°13'34.0"/-2°15'21.0"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 0h05m48.6s
Apparent Sidereal Time: 0h05m49.0s
Rise: 11h28m
Transit: 17h17m
Set: 23h05m
Parallactic Angle: +3°52'15.7"
IAU Constellation: Aqr
Zodiac: ♑ 27°26'
Hourly motion: +0°00'09" towards 63.0°
Hourly motion: dα=+0°00'08" dδ=+0°00'04"
Elongation: 74°42'30.7"
Elong. in Ecl.Long.: E74°41'47"
Phase angle: +5°43'08.7"
Illuminated: 99.8%
Distance from Sun: 9.518 AU (1423.910 M km)
Distance: 9.730 AU (1455.618 M km)
Light time: 1h20m55.4s
Orbital velocity: 9.670 km/s
Sidereal period: 10760.00 days (29.459 a)
Synodic period: 378.09 days (1.035 a)
Apparent diameter: +0°00'17.08", with rings: +0°00'39.79"
Equatorial diameter: 120536.0 km
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Equatorial rotation velocity: 9.871 km/s
Position Angle of axis: +4°26'17"
Center point: L_{IIIe}=+58°51'51" ϕ_e: -0°59'28"
Subsolar point: L_{IIIs}=+53°46'18" ϕ_s: -3°37'39"
Albedo: 0.50
Solar Az./Alt.: +245°59'24"/-8°22'06"
Lunar Az./Alt.: +76°16'02"/+26°23'33"

Date and Time

Date and Time			Julian Day		
2026	1	1	17	32	43

Earth, Peterborough, 188 m FOV 98.9° 27.97 FPS 2026-01-01 17:32:43 UTC-05:00

Saturn

- On January 1st, Saturn sets at 11:04 p.m. in the western sky.

Saturn

Type: **planet**
Magnitude: **1.01** (reduced to **5.68** by **37.05** Airmasses)
Absolute Magnitude: -8.88
Mean Opposition Magnitude: 0.67
Color Index (B-V): **1.22**
RA/Dec (J2000.0): 23h48m26.59s/-3°42'32.9"
RA/Dec (on date): 23h49m47.03s/-3°33'50.5"
HA/Dec: 5h46m38.95s/-3°11'27.2" (apparent)
Az./Alt.: +265°23'10.7"/+0°09'22.6" (apparent)
Gal. long./lat.: +87°28'42.9"/-62°09'48.4"
Supergal. long./lat.: +288°08'23.3"/+14°55'44.5"
Ecl. long./lat. (J2000.0): +355°52'29.0"/-2°15'17.7"
Ecl. long./lat. (on date): +356°14'23.2"/-2°15'18.0"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 5h37m57.3s
Apparent Sidereal Time: 5h37m57.6s
Rise: 11h28m
Transit: 17h17m
Set: 23h05m
Parallactic Angle: +45°36'02.1"
IAU Constellation: Aqr
Zodiac: ♑ 27°26'
Hourly motion: +0°00'09" towards 63.4°
Hourly motion: dα=+0°00'08" dδ=+0°00'04"
Elongation: 74°29'12.4"
Elong. in Ecl.Long.: E74°28'28"
Phase angle: +5°42'47.5"
Illuminated: 99.8%
Distance from Sun: 9.518 AU (1423.900 M km)
Distance: 9.734 AU (1456.172 M km)
Light time: 1h20m57.3s
Orbital velocity: 9.670 km/s
Sidereal period: 10760.00 days (29.459 a)
Synodic period: 378.09 days (1.035 a)
Apparent diameter: +0°00'17.07", with rings: +0°00'39.77"
Equatorial diameter: 120536.0 km
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Equatorial rotation velocity: 9.871 km/s
Position Angle of axis: +4°26'14"
Center point: L_{IIIs}=+245°21'24" ϕ_s: -0°59'54"
Subsolar point: L_{IIIs}=+240°16'08" ϕ_s: -3°37'52"
Albedo: 0.50
Solar Az./Alt.: +318°56'46"/-63°52'29"
Lunar Az./Alt.: +182°58'14"/+73°38'26"

Saturn

Date and Time

Date and Time | Julian Day

2026 – 1 – 1 | 23 : 3 : 57

Saturn

- On January 22nd , Saturn and a crescent Moon share a close conjunction in the southwestern sky at sunset.

- Both objects have less than 5 degrees of separation between them.

Saturn

Type: **planet**
Magnitude: **1.03** (reduced to **1.27** by **1.83** Airmasses)
Absolute Magnitude: -8.88
Mean Opposition Magnitude: 0.67
Color Index (B-V): **1.22**
RA/Dec (J2000.0): 23h54m04.52s/-3°02'02.0"
RA/Dec (on date): 23h55m25.14s/-2°53'17.4"
HA/Dec: 2h22m19.82s/-2°51'57.8" (apparent)
Az./Alt.: +223°56'20.1"/+33°07'14.8" (apparent)
Gal. long./lat.: +90°48'58.4"/-62°16'25.9"
Supergal. long./lat.: +289°14'02.2"/+13°47'06.8"
Ecl. long./lat. (J2000.0): +357°26'02.9"/-2°11'40.2"
Ecl. long./lat. (on date): +357°48'01.0"/-2°11'40.0"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 2h17m47.6s
Apparent Sidereal Time: 2h17m48.0s
Rise: 10h09m
Transit: 16h00m
Set: 21h51m
Parallactic Angle: +29°49'01.8"
IAU Constellation: Psc
Zodiac: ♓ 28°51'
Hourly motion: +0°00'13" towards 64.7°
Hourly motion: dα=+0°00'12" dδ=+0°00'06"
Elongation: 54°52'25.3"
Elong. in Ecl.Long.: E54°50'38"
Phase angle: +4°51'18.4"
Illuminated: 99.8%
Distance from Sun: 9.512 AU (1422.939 M km)
Distance: 10.044 AU (1502.557 M km)
Light time: 1h23m32.0s
Orbital velocity: 9.676 km/s
Sidereal period: 10760.00 days (29.459 a)
Synodic period: 378.09 days (1.035 a)
Apparent diameter: +0°00'16.55", with rings: +0°00'38.54"
Equatorial diameter: 120536.0 km
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Equatorial rotation velocity: 9.871 km/s
Position Angle of axis: +4°19'32"
Center point: L_{IIIe}=+191°47'40" ϕ_e: -1°47'12"
Subsolar point: L_{IIIs}=+187°25'48" ϕ_s: -3°56'45"
Albedo: 0.50
Solar Az./Alt.: +255°15'27"/-12°55'44"
Lunar Az./Alt.: +230°57'19"/+29°34'57"

Date and Time

Date and Time	Julian Day
2026 – 1 – 22	18 : 21 : 46

Saturn

- On January 31st , Saturn is now getting lower on the southwestern horizon at sunset.

Saturn

Type: **planet**
Magnitude: **1.03** (reduced to **1.30** by **2.09** Airmasses)
Absolute Magnitude: -8.88
Mean Opposition Magnitude: 0.67
Color Index (B-V): **1.22**
RA/Dec (J2000.0): 23h57m08.27s/-2°40'45.0"
RA/Dec (on date): 23h58m28.97s/-2°31'59.5"
HA/Dec: 2h58m28.98s/-2°30'29.6" (apparent)
Az./Alt.: +233°02'37.6"/+28°34'41.1" (apparent)
Gal. long./lat.: +92°37'38.5"/-62°18'44.3"
Supergal. long./lat.: +289°48'41.6"/+13°09'24.2"
Ecl. long./lat. (J2000.0): +358°16'38.7"/-2°10'24.3"
Ecl. long./lat. (on date): +358°38'38.6"/-2°10'23.8"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 2h57m01.7s
Apparent Sidereal Time: 2h57m02.1s
Rise: 9h35m
Transit: 15h27m
Set: 21h20m
Parallactic Angle: +34°55'17.4"
IAU Constellation: Psc
Zodiac: ♓ 29°37'
Hourly motion: +0°00'15" towards 65.1°
Hourly motion: dα=+0°00'13" dδ=+0°00'06"
Elongation: 46°34'44.3"
Elong. in Ecl.Long.: E46°32'23"
Phase angle: +4°18'58.2"
Illuminated: 99.9%
Distance from Sun: 9.509 AU (1422.523 M km)
Distance: 10.159 AU (1519.804 M km)
Light time: 1h24m29.5s
Orbital velocity: 9.678 km/s
Sidereal period: 10760.00 days (29.459 a)
Synodic period: 378.09 days (1.035 a)
Apparent diameter: +0°00'16.36", with rings: +0°00'38.11"
Equatorial diameter: 120536.0 km
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Equatorial rotation velocity: 9.871 km/s
Position Angle of axis: +4°15'50"
Center point: L_{IIIe}=+290°18'35" ϕ_e: -2°12'06"
Subsolar point: L_{IIIs}=+286°24'37" ϕ_s: -4°04'55"
Albedo: 0.50
Solar Az./Alt.: +257°19'47"/-11°40'49"
Lunar Az./Alt.: +80°13'31"/+23°28'41"

Date and Time

Date and Time			Julian Day		
2026	1	31	18	25	31

Earth, Peterborough, 188 m FOV 60° 59.35 FPS 2026-01-31 18:25:31 UTC-05:00

Saturn

- On January 31st , Saturn sets at 9:18 p.m. in the western sky.

Saturn

Type: **planet**
Magnitude: **1.03** (reduced to **5.57** by **35.81** Airmasses)
Absolute Magnitude: -8.88
Mean Opposition Magnitude: 0.67
Color Index (B-V): **1.22**
RA/Dec (J2000.0): 23h57m10.84s/-2°40'27.2"
RA/Dec (on date): 23h58m31.54s/-2°31'41.7"
HA/Dec: 5h50m15.48s/-2°09'54.1" (apparent)
Az./Alt.: +266°44'59.4"/+0°13'46.4" (apparent)
Gal. long./lat.: +92°39'09.6"/-62°18'45.7"
Supergal. long./lat.: +289°49'10.5"/+13°08'52.5"
Ecl. long./lat. (J2000.0): +358°17'21.1"/-2°10'23.3"
Ecl. long./lat. (on date): +358°39'21.0"/-2°10'22.8"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 5h50m15.8s
Apparent Sidereal Time: 5h50m16.3s
Rise: 9h35m
Transit: 15h27m
Set: 21h20m
Parallactic Angle: +45°38'50.4"
IAU Constellation: Psc
Zodiac: ♓ 29°37'
Hourly motion: +0°00'15" towards 65.3°
Hourly motion: dα=+0°00'13" dδ=+0°00'06"
Elongation: 46°28'07.0"
Elong. in Ecl.Long.: E46°25'46"
Phase angle: +4°18'30.4"
Illuminated: 99.9%
Distance from Sun: 9.509 AU (1422.518 M km)
Distance: 10.161 AU (1520.023 M km)
Light time: 1h24m30.3s
Orbital velocity: 9.679 km/s
Sidereal period: 10760.00 days (29.459 a)
Synodic period: 378.09 days (1.035 a)
Apparent diameter: +0°00'16.36", with rings: +0°00'38.10"
Equatorial diameter: 120536.0 km
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Equatorial rotation velocity: 9.871 km/s
Position Angle of axis: +4°15'47"
Center point: L_{IIIs}=+27°34'25" ϕ_c: -2°12'27"
Subsolar point: L_{IIIs}=+23°40'51" ϕ_s: -4°05'01"
Albedo: 0.50
Solar Az./Alt.: +289°09'43"/-42°09'09"
Lunar Az./Alt.: +113°11'09"/+52°38'02"

Date and Time

Date and Time			Julian Day		
2026 –	1 –	31	21 :	13 :	17

URANUS

Uranus

- On January 1st, Uranus sets at 4:31 a.m. in the northwestern sky.

Uranus

Type: **planet**
Magnitude: **5.66** (reduced to **10.14** by **35.23** Airmasses)
Absolute Magnitude: -7.19
Mean Opposition Magnitude: 5.52
Color Index (B-V): **0.74**
RA/Dec (J2000.0): 3h41m23.01s/+19°25'20.6"
RA/Dec (on date): 3h42m53.35s/+19°30'23.4"
HA/Dec: 7h21m00.28s/+19°53'13.5" (apparent)
Az./Alt.: +298°05'08.2"/+0°15'54.0" (apparent)
Gal. long./lat.: +169°01'39.3"/-27°51'40.9"
Supergal. long./lat.: +331°13'01.3"/-30°50'20.3"
Ecl. long./lat. (J2000.0): +57°34'12.7"/-0°12'02.0"
Ecl. long./lat. (on date): +57°56'05.9"/-0°11'44.3"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 11h05m21.0s
Apparent Sidereal Time: 11h05m21.3s
Rise: 13h46m
Transit: 21h09m
Set: 4h36m
Parallactic Angle: +42°10'46.8"
IAU Constellation: Tau
Zodiac: ♉ 25°43'
Hourly motion: +0°00'04" towards 257.9°
Hourly motion: dα=-0°00'04" dδ=-0°00'01"
Elongation: 136°57'08.4"
Elong. in Ecl.Long.: E136°57'09"
Phase angle: +1°58'25.1"
Illuminated: 100.0%
Distance from Sun: 19.490 AU (2915.677 M km)
Distance: 18.760 AU (2806.444 M km)
Light time: 2h36m01.3s
Orbital velocity: 6.710 km/s
Sidereal period: 30685.00 days (84.011 a)
Synodic period: 369.66 days (1.012 a)
Apparent diameter: +0°00'03.76", with rings: +0°00'14.36"
Equatorial diameter: 51118.0 km
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Equatorial rotation velocity: 2587.521 m/s
Position Angle of axis: +278°07'60"
Center point: L_e=+257°55'44" ϕ_e: +68°37'49"
Subsolar point: L_s=+260°04'11" ϕ_s: +70°27'21"
Albedo: 0.66
Discovered: 17 March 1781 (W. Herschel)
Solar Az./Alt.: +90°06'43"/-33°52'47"
Lunar Az./Alt.: +293°53'45"/+13°56'08"

Date and Time

Date and Time			Julian Day		
2026	1	1	4	34	23

Earth, Peterborough, 188 m FOV 8.12° 17.84 FPS 2026-01-01 04:34:24 UTC-05:00

Uranus

- On January 1st, Uranus is high in the eastern sky at sunset.
- Uranus is less than 3 degrees southwest of M45

Uranus

Type: **planet**
Magnitude: **5.66** (reduced to **5.86** by **1.57** Airmasses)
Absolute Magnitude: -7.19
Mean Opposition Magnitude: 5.52
Color Index (B-V): **0.74**
RA/Dec (J2000.0): 3h41m19.40s/+19°25'09.3"
RA/Dec (on date): 3h42m49.76s/+19°30'12.2"
HA/Dec: 20h27m06.90s/+19°31'00.7" (apparent)
Az./Alt.: +101°36'17.7"/+39°35'03.5" (apparent)
Gal. long./lat.: +169°01'05.6"/-27°52'23.9"
Supergal. long./lat.: +331°12'17.9"/-30°49'43.7"
Ecl. long./lat. (J2000.0): +57°33'20.5"/-0°12'01.5"
Ecl. long./lat. (on date): +57°55'13.8"/-0°11'43.8"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 0h09m52.5s
Apparent Sidereal Time: 0h09m52.8s
Rise: 13h46m
Transit: 21h09m
Set: 4h36m
Parallactic Angle: -48°03'21.2"
IAU Constellation: Tau
Zodiac: ♉ 25°42'
Hourly motion: +0°00'04" towards 258.8°
Hourly motion: dα=-0°00'04" dδ=-0°00'01"
Elongation: 136°23'15.7"
Elong. in Ecl.Long.: E136°23'17"
Phase angle: +1°59'39.6"
Illuminated: 100.0%
Distance from Sun: 19.490 AU (2915.662 M km)
Distance: 18.766 AU (2807.391 M km)
Light time: 2h36m04.4s
Orbital velocity: 6.710 km/s
Sidereal period: 30685.00 days (84.011 a)
Synodic period: 369.66 days (1.012 a)
Apparent diameter: +0°00'03.76", with rings: +0°00'14.36"
Equatorial diameter: 51118.0 km
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Equatorial rotation velocity: 2587.521 m/s
Position Angle of axis: +278°06'54"
Center point: L_e=+170°12'20" ϕ_e: +68°36'60"
Subsolar point: L_s=+172°22'05" ϕ_s: +70°27'42"
Albedo: 0.66
Discovered: 17 March 1781 (W. Herschel)
Solar Az./Alt.: +246°39'12"/-9°01'56"
Lunar Az./Alt.: +76°51'26"/+27°04'21"

Date and Time

Date and Time	Julian Day
2026 – 1 – 1	17 : 36 : 46

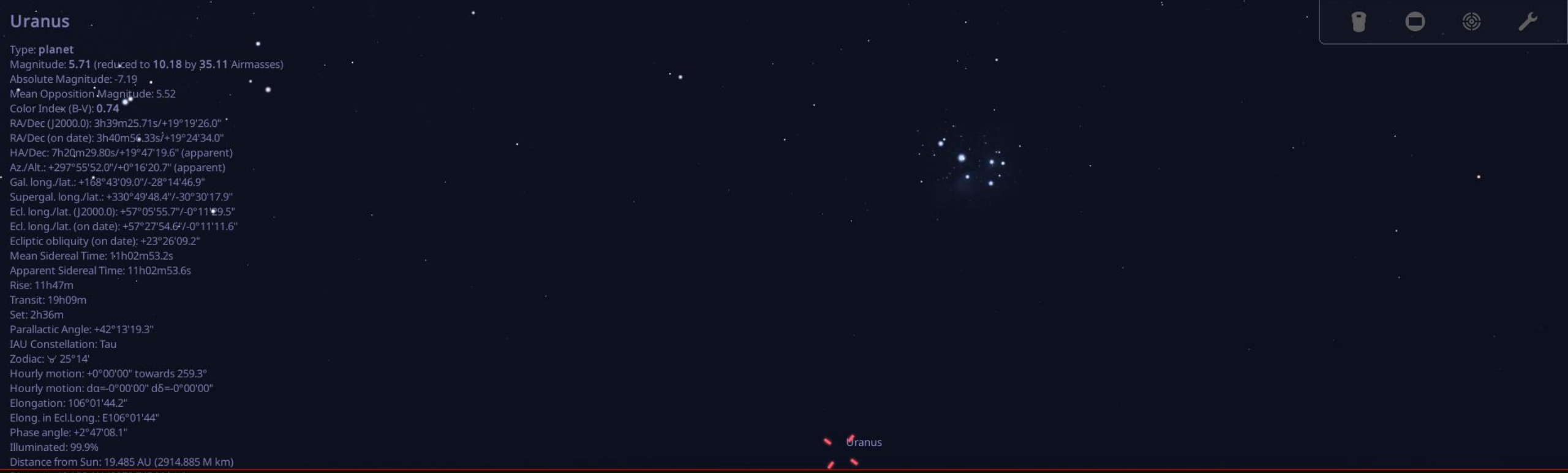
Earth, Peterborough, 188 m FOV 70.9° 60.04 FPS 2026-01-01 17:36:46 UTC-05:00

Uranus

- On January 31st , Uranus sets at 2:34 a.m. in the northwestern sky.

Uranus

Type: **planet**
Magnitude: **5.71** (reduced to **10.18** by **35.11** Airmasses)
Absolute Magnitude: -7.19
Mean Opposition Magnitude: 5.52
Color Index (B-V): **0.74**
RA/Dec (J2000.0): 3h39m25.71s/+19°19'26.0"
RA/Dec (on date): 3h40m56.33s/+19°24'34.0"
HA/Dec: 7h20m29.80s/+19°47'19.6" (apparent)
Az./Alt.: +297°55'52.0"/+0°16'20.7" (apparent)
Gal. long./lat.: +168°43'09.0"/-28°14'46.9"
Supergal. long./lat.: +330°49'48.4"/-30°30'17.9"
Ecl. long./lat. (J2000.0): +57°05'55.7"/-0°11'29.5"
Ecl. long./lat. (on date): +57°27'54.6"/-0°11'11.6"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 11h02m53.2s
Apparent Sidereal Time: 11h02m53.6s
Rise: 11h47m
Transit: 19h09m
Set: 2h36m
Parallactic Angle: +42°13'19.3"
IAU Constellation: Tau
Zodiac: ♉ 25°14'
Hourly motion: +0°00'00" towards 259.3°
Hourly motion: dα=-0°00'00" dδ=-0°00'00"
Elongation: 106°01'44.2"
Elong. in Ecl.Long.: E106°01'44"
Phase angle: +2°47'08.1"
Illuminated: 99.9%
Distance from Sun: 19.485 AU (2914.885 M km)
Distance: 19.190 AU (2870.743 M km)
Light time: 2h39m35.8s
Orbital velocity: 6.712 km/s
Sidereal period: 30685.00 days (84.011 a)
Synodic period: 369.66 days (1.012 a)
Apparent diameter: +0°00'03.67", with rings: +0°00'14.04"
Equatorial diameter: 51118.0 km
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Equatorial rotation velocity: 2587.521 m/s
Position Angle of axis: +277°34'04"
Center point: L_e=+130°23'30" ϕ_e: +68°11'12"
Subsolar point: L_s=+133°22'60" ϕ_s: +70°46'01"
Albedo: 0.66
Discovered: 17 March 1781 (W. Herschel)
Solar Az./Alt.: +54°57'47"/-52°03'45"
Lunar Az./Alt.: +265°02'40"/+42°47'40"



Date and Time

Date and Time			Julian Day		
2026	– 1	– 31	2	: 33	: 59

Uranus

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

Uranus

Type: **planet**
Magnitude: **5.72** (reduced to **5.86** by **1.11** Airmasses)
Absolute Magnitude: -7.19
Mean Opposition Magnitude: 5.52
Color Index (B-V): **0.74**
RA/Dec (J2000.0): 3h39m25.23s/+19°19'25.3"
RA/Dec (on date): 3h40m59.37s/+19°24'33.4"
HA/Dec: 23h26m14.74s/+19°25'01.7" (apparent)
Az./Alt.: +161°29'59.0"/+64°08'23.5" (apparent)
Gal. long./lat.: +168°43'04.0"/-28°14'52.0"
Supergal. long./lat.: +330°49'43.4"/-30°30'12.7"
Ecl. long./lat. (J2000.0): +57°05'49.0"/-0°11'28.7"
Ecl. long./lat. (on date): +57°27'48.1"/-0°11'10.7"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 3h07m09.7s
Apparent Sidereal Time: 3h07m10.1s
Rise: 11h47m
Transit: 19h09m
Set: 2h36m
Parallactic Angle: -13°55'59.6"
IAU Constellation: Tau
Zodiac: ♉ 25°13'
Hourly motion: +0°00'00" towards 265.5°
Hourly motion: dα=-0°00'01" dδ=-0°00'00"
Elongation: 105°21'07.7"
Elong. in Ecl.Long.: E105°21'08"
Phase angle: +2°47'42.2"
Illuminated: 99.9%
Distance from Sun: 19.485 AU (2914.867 M km)
Distance: 19.201 AU (2872.375 M km)
Light time: 2h39m41.2s
Orbital velocity: 6.712 km/s
Sidereal period: 30685.00 days (84.011 a)
Synodic period: 369.66 days (1.012 a)
Apparent diameter: +0°00'03.67", with rings: +0°00'14.03"
Equatorial diameter: 51118.0 km
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Equatorial rotation velocity: 2587.521 m/s
Position Angle of axis: +277°33'57"
Center point: L_s=+105°04'06" ϕ_s: +68°11'06"
Subsolar point: L_s=+108°04'15" ϕ_s: +70°46'26"
Albedo: 0.66
Discovered: 17 March 1781 (W. Herschel)
Solar Az./Alt.: +259°00'47"/-13°26'55"
Lunar Az./Alt.: +81°49'03"/+25°11'08"

Date and Time

Date and Time	Julian Day
2026 – 1 – 31	18 : 35 : 37

Earth, Peterborough, 188 m FOV 117° 56.6 FPS 2026-01-31 18:35:37 UTC-05:00

NEPTUNE

Neptune

- On January 1st, Neptune is high in the southwestern sky at sunset.

- The planet Saturn is less than 3 degrees southwest of Neptune and can be used as a guidepost to find the planet.

Neptune

Type: **planet**
Magnitude: **7.78** (reduced to **7.98** by **1.48** Airmasses)
Absolute Magnitude: -6.87
Mean Opposition Magnitude: 7.84
RA/Dec (J2000.0): 23h59m01.55s/-1°33'26.5"
RA/Dec (on date): 0h00m21.87s/-1°24'43.2"
HA/Dec: 0h59m11.20s/-1°23'39.6" (apparent)
Az./Alt.: +200°14'20.1"/+42°26'07.3" (apparent)
Gal. long./lat.: +94°34'05.9"/-61°30'31.0"
Supergal. long./lat.: +291°03'13.6"/+13°01'35.6"
Ecl. long./lat. (J2000.0): +359°09'25.1"/-1°19'55.1"
Ecl. long./lat. (on date): +359°31'18.9"/-1°19'54.3"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 0h59m33.8s
Apparent Sidereal Time: 0h59m34.2s
Rise: 11h31m
Transit: 17h27m
Set: 23h24m
Parallactic Angle: +14°20'19.9"
IAU Constellation: Psc
Zodiac: ♈ 0°5'
Hourly motion: +0°00'02" towards 63.1°
Hourly motion: dα=+0°00'02" dδ=+0°00'01"
Elongation: 77°57'27.5"
Elong. in Ecl.Long.: E77°57'15"
Phase angle: +1°50'38.7"
Illuminated: 100.0%
Distance from Sun: 29.885 AU (4470.690 M km)
Distance: 30.074 AU (4499.066 M km)
Light time: 4h10m07.3s
Orbital velocity: 5.469 km/s
Sidereal period: 60189.00 days (164.789 a)
Synodic period: 367.49 days (1.006 a)
Apparent diameter: +0°00'02.27", with rings: +0°00'05.77"
Equatorial diameter: 49528.0 km
Sidereal day: 16h06m36.0s
Mean solar day: 16h06m36.6s
Equatorial rotation velocity: 2.683 km/s
Position Angle of axis: +317°24'18"
Center point: L_e=+74°39'41" ϕ_c: -20°09'04"
Subsolar point: L_s=+72°48'59" ϕ_s: -19°31'40"
Albedo: 0.62
Discovered: 23 September 1846 (J.G. Galle)
Solar Az./Alt.: +254°37'56"/-17°23'11"
Lunar Az./Alt.: +84°14'21"/+35°30'29"

Date and Time

Date and Time | Julian Day

2026 – 1 – 1 | 18 : 26 : 20

Earth, Peterborough, 188 m | FOV 70.9° | 17.86 FPS | 2026-01-01 18:26:20 UTC-05:00

Neptune

- On January 1st, Neptune sets at 11:23 p.m. in the western sky.

- Neptune is just north of Saturn you can use the planet as a guidepost.

Neptune

Type: **planet**
Magnitude: **7.78** (reduced to **12.55** by **37.93** Airmasses)
Absolute Magnitude: -6.87
Mean Opposition Magnitude: 7.84
RA/Dec (J2000.0): 23h59m02.12s/-1°33'22.2"
RA/Dec (on date): 0h00m22.44s/-1°24'38.9"
HA/Dec: 5h55m22.34s/-1°01'53.8" (apparent)
Az./Alt.: +268°27'13.3"/+0°06'26.5" (apparent)
Gal. long./lat.: +94°34'26.0"/-61°30'30.7"
Supergal. long./lat.: +291°03'20.3"/+13°01'28.7"
Ecl. long./lat. (J2000.0): +359°09'34.7"/-1°19'54.5"
Ecl. long./lat. (on date): +359°31'28.5"/-1°19'53.7"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 5h57m17.7s
Apparent Sidereal Time: 5h57m18.0s
Rise: 11h31m
Transit: 17h27m
Set: 23h24m
Parallactic Angle: +45°41'16.8"
IAU Constellation: Psc
Zodiac: ♈ 0°5'
Hourly motion: +0°00'02" towards 63.8°
Hourly motion: dα=+0°00'02" dδ=+0°00'01"
Elongation: 77°44'56.0"
Elong. in Ecl.Long.: E77°44'43"
Phase angle: +1°50'33.7"
Illuminated: 100.0%
Distance from Sun: 29.885 AU (4470.690 M km)
Distance: 30.078 AU (4499.593 M km)
Light time: 4h10m09.0s
Orbital velocity: 5.469 km/s
Sidereal period: 60189.00 days (164.789 a)
Synodic period: 367.49 days (1.006 a)
Apparent diameter: +0°00'02.27", with rings: +0°00'05.77"
Equatorial diameter: 49528.0 km
Sidereal day: 16h06m36.0s
Mean solar day: 16h06m36.6s
Equatorial rotation velocity: 2.683 km/s
Position Angle of axis: +317°24'14"
Center point: L_e=+185°14'34" ϕ_e: -20°09'01"
Subsolar point: L_s=+183°23'57" ϕ_s: -19°31'38"
Albedo: 0.62
Discovered: 23 September 1846 (J.G. Galle)
Solar Az./Alt.: +328°14'42"/-65°55'25"
Lunar Az./Alt.: +197°15'44"/+73°03'13"

Neptune

- On January 31st, Neptune is high in the southwestern sky at sunset.

Neptune

Type: **planet**
Magnitude: **7.81** (reduced to **8.08** by **2.04** Airmasses)
Absolute Magnitude: -6.87
Mean Opposition Magnitude: 7.84
RA/Dec (J2000.0): 0h01m16.74s/-1°17'42.8"
RA/Dec (on date): 0h02m37.40s/-1°08'57.1"
HA/Dec: 3h00m29.34s/-1°07'30.9" (apparent)
Az./Alt.: +234°25'28.5"/+29°25'04.5" (apparent)
Gal. long./lat.: +95°52'13.0"/-61°30'11.2"
Supergal. long./lat.: +291°28'30.8"/+12°33'39.0"
Ecl. long./lat. (J2000.0): +359°46'41.0"/-1°18'55.8"
Ecl. long./lat. (on date): +0°08'40.6"/-1°18'54.8"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 3h03m10.4s
Apparent Sidereal Time: 3h03m10.9s
Rise: 9h34m
Transit: 15h32m
Set: 21h29m
Parallactic Angle: +35°36'24.6"
IAU Constellation: Psc
Zodiac: ♈ 0°39'
Hourly motion: +0°00'04" towards 65.4°
Hourly motion: dα=+0°00'04" dδ=+0°00'02"
Elongation: 48°02'59.2"
Elong. in Ecl.Long.: E48°02'10"
Phase angle: +1°24'18.4"
Illuminated: 100.0%
Distance from Sun: 29.884 AU (4470.576 M km)
Distance: 30.534 AU (4567.766 M km)
Light time: 4h13m56.4s
Orbital velocity: 5.469 km/s
Sidereal period: 60189.00 days (164.789 a)
Synodic period: 367.49 days (1.006 a)
Apparent diameter: +0°00'02.24", with rings: +0°00'05.68"
Equatorial diameter: 49528.0 km
Sidereal day: 16h06m36.0s
Mean solar day: 16h06m36.6s
Equatorial rotation velocity: 2.683 km/s
Position Angle of axis: +317°10'36"
Center point: L_e=+325°23'52" ϕ_e: -19°57'43"
Subsolar point: L_s=+324°00'09" ϕ_s: -19°27'46"
Albedo: 0.62
Discovered: 23 September 1846 (J.G. Galle)
Solar Az./Alt.: +258°21'02"/-12°45'05"
Lunar Az./Alt.: +81°11'22"/+24°30'45"

Date and Time

Date and Time | Julian Day

2026 – 1 – 31 | 18 : 31 : 39

Earth, Peterborough, 188 m | FOV 43° | 47.2 FPS | 2026-01-31 18:31:39 UTC-05:00

Neptune

- On January 31st, Neptune sets at 9:30 p.m. in the western sky.

Neptune

Type: **planet**
Magnitude: **7.81** (reduced to **12.55** by **37.70** Airmasses)
Absolute Magnitude: -6.87
Mean Opposition Magnitude: 7.84
RA/Dec (J2000.0): 0h01m17.48s/-1°17'37.7"
RA/Dec (on date): 0h02m38.14s/-1°08'52.0"
HA/Dec: 5h56m19.29s/-0°46'13.2" (apparent)
Az./Alt.: +268°48'23.1"/+0°07'12.2" (apparent)
Gal. long./lat.: +95°52'38.5"/-61°30'11.1"
Supergal. long./lat.: +291°28'39.0"/+12°33'29.8"
Ecl. long./lat. (J2000.0): +359°46'53.2"/-1°18'55.6"
Ecl. long./lat. (on date): +0°08'52.8"/-1°18'54.5"
Ecliptic obliquity (on date): +23°26'09.2"
Mean Sidereal Time: 6h00m29.8s
Apparent Sidereal Time: 6h00m30.3s
Rise: 9h34m
Transit: 15h32m
Set: 21h29m
Parallactic Angle: +45°41'32.8"
IAU Constellation: Psc
Zodiac: ♈ 0°39'
Hourly motion: +0°00'04" towards 65.6°
Hourly motion: dα=+0°00'04" dδ=+0°00'02"
Elongation: 47°55'40.8"
Elong. in Ecl.Long.: E47°54'51"
Phase angle: +1°24'08.9"
Illuminated: 100.0%
Distance from Sun: 29.884 AU (4470.576 M km)
Distance: 30.535 AU (4568.007 M km)
Light time: 4h13m57.2s
Orbital velocity: 5.469 km/s
Sidereal period: 60189.00 days (164.789 a)
Synodic period: 367.49 days (1.006 a)
Apparent diameter: +0°00'02.24", with rings: +0°00'05.68"
Equatorial diameter: 49528.0 km
Sidereal day: 16h06m36.0s
Mean solar day: 16h06m36.6s
Equatorial rotation velocity: 2.683 km/s
Position Angle of axis: +317°10'32"
Center point: L_e=+31°15'22" ϕ_c: -19°57'39"
Subsolar point: L_s=+29°51'49" ϕ_s: -19°27'45"
Albedo: 0.62
Discovered: 23 September 1846 (J.G. Galle)
Solar Az./Alt.: +291°32'17"/-43°51'46"
Lunar Az./Alt.: +115°56'23"/+54°13'51"

That is the Sky this Month

By David Mills