Sky this Month

May 2024

By David Mills

MOON

FULL MOON

Moon

- The full Moon is on May 23rd at 9:53 AM
- The Moon rises at 8:13 p.m. on May 22nd.
- This month's Full Moon is called the Flower Moon.

Moon

Type: **moon**
Magnitude: **-12.18** (extincted to: **-8.04**)
Absolute Magnitude: 32.30
RA/Dec (J2000.0): 15h31m19.99s/-23°05'00.6"
RA/Dec (on date): 15h32m46.33s/-23°10'02.7"
Hour angle/DE: 19h40m0.82s/-22°48'15.6" (apparent)
Az/Alt: +123°20'06.7"/+0°28'03.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +236°08'50.2"/-3°54'21.1"
Ecliptic longitude/latitude (on date): +236°29'21.5"/-3°54'38.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: -15°40'11.4"/+26°39'24.7"
Mean Sidereal Time: 11h11m26.6s
Apparent Sidereal Time: 11h11m26.3s
Distance: 0.002625AU (392633.316 km)
Apparent diameter: +0°30'25.4"
Sidereal period: 27.32 days (0.075 a)
Sidereal day: 655h43m11.5s
Mean solar day: 708h44m2.8s
Phase Angle: +7°03'06"
Elongation: +172°55'48"
Phase: 1.00
Illuminated: 99.6%

Date and Time

Date and Time | Julian Day

2024 / 5 / 22 20 : 20 : 15

Full-screen mode [F11]

Earth, Peterborough, 188m FOV 4.93° 59.7 FPS 2024-05-22 20:20:15 UTC-04:00

NEW MOON

Moon

- The New Moon is on May 7th, at 11:22 PM
- The Moon is north of the sun.
- Jupiter and Uranus are both closing in on the sun moving west.
- Mercury is just west of the sun.
- Mars and Saturn are now both well placed west of the sun.
- Both are now visible in morning twilight sky.
- Venus is moving towards the sun in retrograde motion eastward


Moon
Type: moon
Magnitude: 0.80
Absolute Magnitude: 45.41
RA/Dec (J2000.0): 2h56m24.33s/+18°57'01.5"
RA/Dec (on date): 2h57m47.26s/+19°02'58.7"
Hour angle/DE: 10h19m15.45s/+19°02'58.7"
Az/Alt: +334°10'14.3"/-22°35'45.7"
Ecliptic longitude/latitude (J2000.0): +47°11'06.4"/+2°04'14.2"
Ecliptic longitude/latitude (on date): +47°31'36.2"/+2°04'29.7"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +159°38'48.8"/-34°51'43.7"
Mean Sidereal Time: 13h17m3.1s
Apparent Sidereal Time: 13h17m2.7s
Distance: 0.002468AU (369144.094 km)
Apparent diameter: +0°32'21.6"
Sidereal period: 27.32 days (0.075 a)
Sidereal day: 655h43m11.5s
Mean solar day: 708h44m2.8s
Phase Angle: +177°51'23"
Elongation: +2°08'18"
Phase: 0.00
Illuminated: 0.0%
N
Alnath
Aldebaran
Betelgeuse
Bellatrix
Alnilam
Rigel
Jupiter
Uranus
Moon
Sun
Venus
Mercury
Mars
Saturn
Date and Time
Date and Time
Julian Day
2024 / 5 / 7
23 : 24 : 29
Full-screen mode [F11]
Earth, Peterborough, 188m
FOV 70.9°
23.9 FPS
2024-05-07 23:24:29 UTC-04:00

MERCURY

Mercury

- On May 1st, Mercury low on the eastern horizon at sunrise.
- Still lost in the solar glare at morning twilight.
- Mercury remains low and lost in the sun’s glare all month.

Mercury

Type: **planet**
Magnitude: **1.94** (extincted to: **4.94**)
Absolute Magnitude: 34.28
RA/Dec (J2000.0): 1h06m26.47s/+4°27'41.8"
RA/Dec (on date): 1h07m42.31s/+4°35'33.2"
Hour angle/DE: 17h48m56.99s/+4°50'19.3" (apparent)
Az/Alt: +84°36'35.1"/+1°24'22.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +17°01'06.1"/-2°24'24.1"
Ecliptic longitude/latitude (on date): +17°21'35.9"/-2°24'17.1"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +130°02'30.9"/-58°12'10.4"
Mean Sidereal Time: -5h4m21.0s
Apparent Sidereal Time: -5h4m21.3s
Distance: 0.703AU (105.228 Mio km)
Apparent diameter: +0°00'09.6"
Sidereal period: 87.97 days (0.241 a)
Sidereal day: 1407h30m33.8s
Mean solar day: 4222h27m52.5s
Phase Angle: +117°28'22"
Elongation: +24°15'33"
Phase: 0.27
Illuminated: 26.9%

E

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 5 : 29 : 41

Full-screen mode [F11]

Earth, Peterborough, 188m FOV 9.59° 57.8 FPS 2024-05-01 05:29:41 UTC-04:00

VENUS

Venus

- On May 1st, Venus continues to move eastward in Retrograde motion towards the sun.
- The planet is lost in the solar glare at sunrise and not visible this month.
- Solar conjunction takes place around June 4th.

Venus

Type: **planet**
Magnitude: **-3.90** (extincted to: **-0.26**)
Absolute Magnitude: 26.48
RA/Dec (J2000.0): 3h23m3.22s/+17°49'16.5"
RA/Dec (on date): 3h24m26.56s/+17°54'32.4"
Hour angle/DE: 16h50m8.87s/+18°13'05.7" (apparent)
Az/Alt: +64°59'00.9"/+0°49'18.9" (apparent)
Ecliptic longitude/latitude (J2000.0): +52°58'15.3"/-0°43'01.9"
Ecliptic longitude/latitude (on date): +53°18'46.6"/-0°42'45.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +166°29'50.7"/-31°56'13.8"
Mean Sidereal Time: -3h46m37.1s
Apparent Sidereal Time: -3h46m37.4s
Distance: 1.726AU (258.253 Mio km)
Apparent diameter: +0°00'09.7"
Sidereal period: 224.70 days (0.615 a)
Sidereal day: 5832h28m47.1s
Mean solar day: 2802h0m52.2s
Phase Angle: +6°34'26"
Elongation: +4°41'35"
Phase: 1.00
Illuminated: 99.7%

Date and Time

Date and Time | Julian Day

2024 / 5 / 18 5 : 40 : 22

Full-screen mode [F11]

Earth, Peterborough, 188m FOV 18.7° 28.8 FPS 2024-05-18 05:40:22 UTC-04:00

MARS

Mars

- On May 1st, Mars rises at 4:41 AM in the early morning eastern pre-dawn sky.

- Mars rises just over an hour before sunrise.

Mars

Type: **planet**
Magnitude: **1.12** (extincted to: **5.43**)
Absolute Magnitude: 31.21
RA/Dec (J2000.0): 0h02m49.56s/-1°04'24.4"
RA/Dec (on date): 0h04m4.71s/-0°56'14.6"
Hour angle/DE: 18h04m19.59s/-0°35'27.8" (apparent)
Az/Alt: +91°10'42.4"/+0°21'40.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +0°13'16.1"/-1°15'57.1"
Ecliptic longitude/latitude (on date): +0°33'45.5"/-1°15'56.0"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +96°47'53.0"/-61°27'13.7"
Mean Sidereal Time: 18h6m59.4s
Apparent Sidereal Time: 18h6m59.1s
Distance: 1.975AU (295.504 Mio km)
Apparent diameter: +0°00'04.7"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +28°32'06"
Elongation: +40°55'39"
Phase: 0.94
Illuminated: 93.9%

Saturn

Neptune

Mars

E

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 4 : 41 : 9

Full-screen mode [F11]

Earth, Peterborough, 188m FOV 22.1° 37 FPS 2024-05-01 04:41:09 UTC-04:00

Mars

- On May 4th, Mars, The Moon and Saturn rise together in a wide conjunction at 4:35 AM looking east.

- All 3 objects form a small curved line low on the eastern horizon in the pre-dawn sky.


Mars
Type: planet
Magnitude: 1.11 (extincted to: 4.07)
Absolute Magnitude: 31.22
RA/Dec (J2000.0): 0h11m17.77s/-0°09'09.9"
RA/Dec (on date): 0h12m32.95s/-0°01'00.1"
Hour angle/DE: 18h07m14.29s/+0°13'33.1" (apparent)
Az/Alt: +91°06'08.5"/+1°27'09.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +2°31'50.3"/-1°15'47.2"
Ecliptic longitude/latitude (on date): +2°52'20.2"/-1°15'45.3"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +101°37'06.1"/-61°21'08.2"
Mean Sidereal Time: 18h18m47.9s
Apparent Sidereal Time: 18h18m47.6s
Distance: 1.964AU (293.815 Mio km)
Apparent diameter: +0°00'04.8"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +28°56'24"
Elongation: +41°31'39"
Phase: 0.94
Illuminated: 93.8%
Saturn
Moon
Neptune
Mars
E
Date and Time
Date and Time
Julian Day
2024 / 5 / 4
4 : 41 : 8
Earth, Peterborough, 188m
FOV 18.7°
15.2 FPS
2024-05-04 04:41:08 UTC-04:00

Mars

- On May 5th, Mars and a very old Moon rise together in close conjunction in the pre-dawn eastern sky at 4:45 AM

Mars

Type: **planet**
Magnitude: **1.11** (extincted to: **3.36**)
Absolute Magnitude: 31.22
RA/Dec (J2000.0): 0h14m7.40s/+0°09'16.3"
RA/Dec (on date): 0h15m22.60s/+0°17'25.9"
Hour angle/DE: 18h11m48.14s/+0°28'37.5" (apparent)
Az/Alt: +91°43'12.4"/+2°26'40.6" (apparent)
Ecliptic longitude/latitude (J2000.0): +3°18'05.4"/-1°15'42.9"
Ecliptic longitude/latitude (on date): +3°38'35.5"/-1°15'40.6"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +103°13'01.7"/-61°16'50.7"
Mean Sidereal Time: 18h26m25.2s
Apparent Sidereal Time: 18h26m24.9s
Distance: 1.960AU (293.251 Mio km)
Apparent diameter: +0°00'04.8"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +29°04'28"
Elongation: +41°43'42"
Phase: 0.94
Illuminated: 93.7%

Date and Time

Date and Time | Julian Day

2024 / 5 / 5 4 : 44 : 48

Earth, Peterborough, 188m FOV 11.3° 59.6 FPS 2024-05-05 04:44:48 UTC-04:00

Mars

- On May 31st, Mars now rises around 3:30 AM in the early morning eastern sky.

Mars

Type: **planet**
Magnitude: **1.06** (extincted to: **5.85**)
Absolute Magnitude: 31.28
RA/Dec (J2000.0): 1h27m0.16s/+7°51'29.3"
RA/Dec (on date): 1h28m17.13s/+7°59'08.1"
Hour angle/DE: 17h27m30.75s/+8°22'14.6" (apparent)
Az/Alt: +78°21'25.9"/+0°05'37.9" (apparent)
Ecliptic longitude/latitude (J2000.0): +23°01'59.4"/-1°10'45.2"
Ecliptic longitude/latitude (on date): +23°22'32.1"/-1°10'36.5"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +138°01'07.7"/-53°58'06.8"
Mean Sidereal Time: -5h5m45.5s
Apparent Sidereal Time: -5h5m45.8s
Distance: 1.862AU (278.527 Mio km)
Apparent diameter: +0°00'05.0"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +32°21'25"
Elongation: +46°59'13"
Phase: 0.92
Illuminated: 92.2%

Date and Time

Date and Time | Julian Day

2024 / 5 / 31 3 : 30 : 19

Earth, Peterborough, 188m FOV 6.87° 32.7 FPS 2024-05-31 03:30:19 UTC-04:00

JUPITER

Jupiter

- On May 1st, Jupiter is low on the western horizon at sunset.
- Jupiter now sets 30 minutes after sunset.
- Jupiter is no longer visible this month after May 8th.

Jupiter

Type: **planet**
Magnitude: **-2.00** (extincted to: **-0.24**)
Absolute Magnitude: 25.68
RA/Dec (J2000.0): 3h27m25.62s/+18°02'44.0"
RA/Dec (on date): 3h28m49.06s/+18°07'52.3"
Hour angle/DE: 6h53m42.26s/+18°16'58.5" (apparent)
Az/Alt: +292°17'05.5"/+3°30'54.5" (apparent)
Ecliptic longitude/latitude (J2000.0): +54°02'03.6"/-0°45'31.0"
Ecliptic longitude/latitude (on date): +54°22'32.8"/-0°45'13.9"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +167°15'17.1"/-31°05'28.5"
Mean Sidereal Time: 10h23m8.9s
Apparent Sidereal Time: 10h23m8.6s
Distance: 5.992AU (896.370 Mio km)
Apparent diameter: +0°00'32.9"
Sidereal period: 4331.87 days (11.860 a)
Sidereal day: 9h55m29.7s
Mean solar day: 9h55m33.1s
Phase Angle: +2°26'59"
Elongation: +12°16'17"
Phase: 1.00
Illuminated: 100.0%

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 20 : 54 : 39

Earth, Peterborough, 188m FOV 26.1° 54.9 FPS 2024-05-01 20:54:39 UTC-04:00

SATURN

Saturn

- On May 1st, Saturn rises around 4:15 AM in the early morning eastern sky.

Saturn

Type: **planet**
Magnitude: **1.18** (extincted to: **5.80**)
Absolute Magnitude: 27.70
RA/Dec (J2000.0): 23h12m25.86s/-7°00'06.8"
RA/Dec (on date): 23h13m41.88s/-6°52'09.1"
Hour angle/DE: 18h26m35.15s/-6°29'53.8" (apparent)
Az/Alt: +99°16'59.7"/+0°11'12.8" (apparent)
Ecliptic longitude/latitude (J2000.0): +346°20'03.3"/-1°44'48.7"
Ecliptic longitude/latitude (on date): +346°40'32.9"/-1°44'52.5"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +68°59'05.6"/-59°04'06.8"
Mean Sidereal Time: 17h38m46.7s
Apparent Sidereal Time: 17h38m46.4s
Distance: 10.249AU (1533.217 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°52'04"
Elongation: +54°47'52"
Phase: 1.00
Illuminated: 99.8%

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 4 : 13 : 1

Earth, Peterborough, 188m FOV 11.3° 59.9 FPS 2024-05-01 04:13:01 UTC-04:00

Saturn

- On May 4th, Saturn and the Moon rise together in close conjunction around 4:30 AM in the pre-dawn eastern sky.

Saturn

Type: **planet**
Magnitude: **1.18** (extincted to: **2.69**)
Absolute Magnitude: 27.71
RA/Dec (J2000.0): 23h13m23.86s/-6°54'39.3"
RA/Dec (on date): 23h14m39.89s/-6°46'41.0"
Hour angle/Dec: 18h50m48.13s/-6°38'52.9" (apparent)
Az/Alt: +103°39'11.9"/+4°19'34.4" (apparent)
Ecliptic longitude/latitude (J2000.0): +346°35'26.8"/-1°45'23.5"
Ecliptic longitude/latitude (on date): +346°55'56.9"/-1°45'27.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +69°26'09.9"/-59°10'44.7"
Mean Sidereal Time: 18h4m57.5s
Apparent Sidereal Time: 18h4m57.2s
Distance: 10.207AU (1526.988 Mio km)
Apparent diameter: +0°00'16.3", with rings: +0°00'37.9"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +5°01'36"
Elongation: +57°27'34"
Phase: 1.00
Illuminated: 99.8%

Date and Time

Date and Time | Julian Day

2024 / 5 / 4 4 : 27 : 20

Earth, Peterborough, 188m FOV 15.8° 58.7 FPS 2024-05-04 04:27:20 UTC-04:00

Saturn

- On May 4th, 10 minutes after the Moon rises Mars appears, and the trio form a small curved line above the eastern horizon.

- All 3 objects are visible around 4:45 AM in the pre-dawn sky.

Date and Time

Date and Time | Julian Day

2024 / 5 / 4 4 : 37 : 28

Earth, Peterborough, 188m FOV 15.8° 54.7 FPS 2024-05-04 04:37:28 UTC-04:00

Saturn

- On May 31st, Saturn and the Moon rise together in a close conjunction in the early morning eastern sky.

- Both objects are visible around 2:30 AM and best viewed 30 around minutes later.

Saturn

Type: **planet**
Magnitude: **1.16** (extincted to: **3.89**)
Absolute Magnitude: 27.78
RA/Dec (J2000.0): 23h20m9.86s/-6°18'14.4"
RA/Dec (on date): 23h21m25.88s/-6°10'11.9"
Hour angle/DE: 18h33m8.91s/-5°56'38.0" (apparent)
Az/Alt: +100°02'20.1"/+1°44'05.9" (apparent)
Ecliptic longitude/latitude (J2000.0): +348°22'32.2"/-1°51'17.2"
Ecliptic longitude/latitude (on date): +348°43'05.2"/-1°51'20.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +72°37'58.7"/-59°56'00.7"
Mean Sidereal Time: 17h53m40.2s
Apparent Sidereal Time: 17h53m40.0s
Distance: 9.790AU (1464.634 Mio km)
Apparent diameter: +0°00'17.0", with rings: +0°00'39.5"
Sidereal period: 10760.00 days (29.459 a)
Sidereal day: 10h39m22.4s
Mean solar day: 10h39m24.0s
Phase Angle: +5°56'20"
Elongation: +81°35'49"
Phase: 1.00
Illuminated: 99.7%

Date and Time

Date and Time | Julian Day

2024 / 5 / 31 2 : 29 : 55

Earth, Peterborough, 188m FOV 15.8° 54.4 FPS 2024-05-31 02:29:55 UTC-04:00

URANUS

Uranus

- On May 1st, Uranus is lost in the solar glare at sunset.
- Uranus is just above the western horizon at sunset. Now moving into solar conjunction.
- The planet is not visible this month.

Uranus

Type: **planet**
Magnitude: **5.84** (extincted to: **10.09**)
Absolute Magnitude: 30.84
RA/Dec (J2000.0): 3h19m5.74s/+18°02'16.6"
RA/Dec (on date): 3h20m28.92s/+18°07'38.5"
Hour angle/DE: 7h13m41.09s/+18°29'12.4" (apparent)
Az/Alt: +295°51'55.1"/+0°23'57.7" (apparent)
Ecliptic longitude/latitude (J2000.0): +52°06'55.7"/-0°16'05.6"
Ecliptic longitude/latitude (on date): +52°27'24.7"/-0°15'49.0"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +165°28'41.5"/-32°22'17.9"
Mean Sidereal Time: 10h35m34.2s
Apparent Sidereal Time: 10h35m33.9s
Distance: 20.584AU (3079.390 Mio km)
Apparent diameter: +0°00'03.4", with rings: +0°00'13.1"
Sidereal period: 30685.00 days (84.011 a)
Sidereal day: 17h14m24.0s
Mean solar day: 17h14m22.5s
Phase Angle: +0°31'41"
Elongation: +10°19'28"
Phase: 1.00
Illuminated: 100.0%

Jupiter

Uranus

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 | 21 : 7 : 2

Earth, Peterborough, 188m | FOV 4.93° | 21.8 FPS | 2024-05-01 21:07:02 UTC-04:00

NEPTUNE

Neptune

- On May 1st, Neptune reappears in the early morning twilight sky.

- Neptune now rises around 4:38 AM in eastern twilight sky.

Neptune

Type: **planet**
Magnitude: **7.94** (extincted to: **12.13**)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h56m51.05s/-1°41'06.7"
RA/Dec (on date): 23h58m6.22s/-1°32'57.1"
Hour angle/DE: 18h07m10.02s/-1°12'42.4" (apparent)
Az/Alt: +92°07'07.1"/+0°26'08.1" (apparent)
Ecliptic longitude/latitude (J2000.0): +358°36'26.2"/-1°13'58.7"
Ecliptic longitude/latitude (on date): +358°56'55.6"/-1°13'58.2"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +93°25'36.0"/-61°23'23.4"
Mean Sidereal Time: 18h3m53.6s
Apparent Sidereal Time: 18h3m53.3s
Distance: 30.635AU (4582.977 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°18'20"
Elongation: +42°32'15"
Phase: 1.00
Illuminated: 100.0%

Saturn

Neptune

E

Mars

Date and Time

Date and Time | Julian Day

2024 / 5 / 1 4 : 38 : 4

Earth, Peterborough, 188m FOV 11.3° 20.8 FPS 2024-05-01 04:38:04 UTC-04:00

Neptune

- On May 31st, Neptune rises around 2:42 AM in eastern morning sky.

Neptune

Type: **planet**
Magnitude: **7.91** (extincted to: **12.12**)
Absolute Magnitude: 32.08
RA/Dec (J2000.0): 23h59m29.37s/-1°25'18.9"
RA/Dec (on date): 0h00m44.73s/-1°17'07.8"
Hour angle/DE: 18h06m3.17s/-0°56'47.3" (apparent)
Az/Alt: +91°44'03.2"/+0°25'18.2" (apparent)
Ecliptic longitude/latitude (J2000.0): +359°19'01,9"/-1°15'13.6"
Ecliptic longitude/latitude (on date): +359°39'34.7"/-1°15'12.8"
Ecliptic obliquity (on date): +23°26'10"
Galactic longitude/latitude: +94°54'27.6"/-61°26'04.0"
Mean Sidereal Time: 18h5m24.8s
Apparent Sidereal Time: 18h5m24.5s
Distance: 30.220AU (4520.884 Mio km)
Apparent diameter: +0°00'02.3", 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°50'01"
Elongation: +70°39'49"
Phase: 1.00
Illuminated: 100.0%

Date and Time

Date and Time | Julian Day

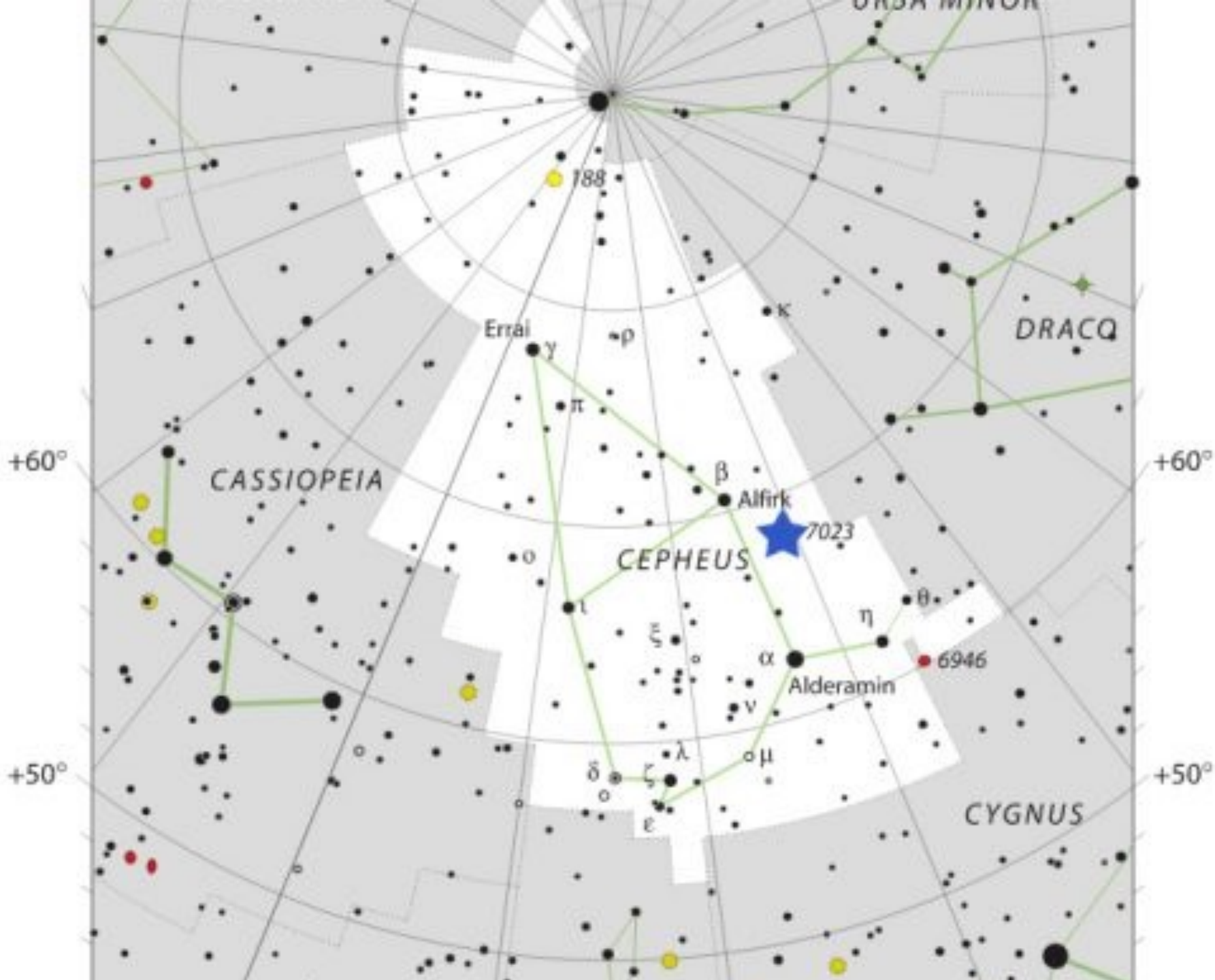
2024 / 5 / 31 2 : 41 : 38

Earth, Peterborough, 188m FOV 26.1° 28.5 FPS 2024-05-31 02:41:38 UTC-04:00

DEEP SKY

CEPHEUS

NGC 7023
THE IRIS NEBULA


URSA MINOR
188
Errai
γ
ρ
κ
DRACQ
π
+60°
CASSIOPEIA
β
Alfirk
7023
CEPHEUS
ο
ι
ξ
θ
η
α
6946
Alderamin
ν
λ
μ
δ
ζ
ε
+50°
CYGNUS

NGC 7023 – THE IRIS NEBUBLA

- Object: NGC 7023, Type: Nebula Class: Reflection Nebula
- Other Designations: Caldwell 4, NGC 7023, Iris Nebula
- Reflection Nebula – Hydrogen gas reflects starlight. The gas gets energized and glows blue, as starlight passes through the nebula.
- Constellation: Cepheus
- Distance: 1,300 light years from Earth.
- Diameter: 6 light years across
- Magnitude: +6.8 Star: Mira Variable Star +3.2 and +11.2 – 388 days
- Size: 18 x 18 arc minutes across
- Age: 5,500 years old

NGC 7023 – THE IRIS NEBUBLA

- Called the Iris Nebula, NGC 7023 is not the only nebula to evoke the imagery of flowers.
- The deep telescopic image shows off the Iris Nebula's range of colors and symmetries, embedded in surrounding fields of interstellar dust.
- Within the Iris itself, dusty nebular material surrounds a hot, young star. The dominant color of the brighter reflection nebula is blue, characteristic of dust grains reflecting starlight.
- Central filaments of the reflection nebula glow with a faint reddish photoluminescence.

NGC 7023 – THE IRIS NEBUBLA

- Some of the dust grains effectively convert the star's invisible ultraviolet radiation to visible red light. Infrared observations indicate that this nebula contains complex carbon molecules known as PAHs.
- Polycyclic aromatic hydrocarbons (PAHs) play a fascinating role in the cosmos, especially within nebulae. Intense UV radiation ionizes H2 gas and CO gas to form PAH’s. This in turn forms the complex chemistry in the dust lanes of the nebulous star forming regions. The dusty blue petals of the Iris Nebula span 6 LY.
- The following photo was from Astronomy phot of the day 2021

NGC 7023 – THE IRIS NEBUBLA

- Below is a close-up of the Iris Nebula taken by NASA
- You can see the detail in the dust and gas. Background stars are also quite predominant.
- The darker regions are the hydrocarbon molecules absorbing starlight and then re-emitting that same starlight. These are the star forming regions within the nebulosity.

That is the Sky this Month

By David Mills