

Astronomy targets: January 2018

Unless stated otherwise, all times are for mid-month, for Birmingham UK and are GMT. Rise & set times are for 20 degrees above horizon. Dark & light times are nautical twilight times (Sun 12 degrees below horizon) and astronomical darkness (Sun 18 degrees below horizon).

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Sun & Moon times

Monday date	Sunset	Naut Dark	Astro Dark	Astro Light	Naut Light	Sunrise	Moon	Moon %
01/01/18	1604	1730	1811	0611	0653	0818	← 0817	100%
08/01/18	1613	1737	1818	0610	0652	0815	0032 →	49%
15/01/18	1624	1746	1827	0607	0648	0810		1%
22/01/18	1636	1756	1837	0601	0642	0802	← 2234	30%
29/01/18	1648	1807	1847	0554	0634	0753	← 0654	96%

Calendar

1 Jan Full Moon
3 Jan Quadrantid meteor shower (40 per hour)
16 Jan New Moon
31 Jan Full Moon

Planets

Mars (low at Sunrise)
Jupiter (low at Sunrise)
Uranus (Sunset-2240)
Neptune (low at Sunset)

Comets

62P/Tsuchinshan (in Virgo)

Cygnus Sunset-1800 & 0640-Sunrise

Emission nebulae:

NGC6888 Crescent Nebula
NGC6960 Veil Nebula
IC5070 Pelican Nebula
IC7000 (C20) North American Nebula

Planetary nebulae:

IC5146 (C19) Cocoon Nebula
NGC6826 Blinking Nebula
NGC7008 Fetus Nebula

Open clusters:

M29
M39
NGC6871
NGC6883
NGC6910 Rocking Horse Cluster

Galaxy: NGC6946 (C12) Fireworks Galaxy

Multiple stars:

Albireo β-Cyg (beta-Cyg) gold & blue
61-Cyg orange & red

Cepheus Sunset-0150 & 0350-Sunrise

Reflection nebula: NGC7023 (C4) Iris Nebula

Open clusters:

NGC188 (C1)
NGC7160

Coloured star: Garnet Star μ-Cep (mu-Cep)

Multiple stars:

δ-Cep (delta-Cep) yellow & purple
Σ2816 yellow & two white

Lacerta Sunset-2150

Open cluster: NGC7243 (C16)

Pegasus Sunset-2040

Globular cluster: M15

Galaxies:

NGC7320 Stefan's Quintet galaxy cluster
NGC7331 (C30) galaxy cluster

Multiple star: Σ2841 orange & green

Pisces Sunset-1940

Galaxies: M74

Cassiopeia Sunset-0350 & 0620-Sunrise

Emission nebulae:

NGC281 Pacman Nebula
NGC7635 (C11) Bubble Nebula
IC1805 Heart Nebula
IC1848 Soul Nebula

Open clusters:

M52
M103
NGC457 (C13) Owl cluster
NGC654
NGC659
NGC663 (C10)
NGC7789
NGC7790

Multiple star: η-Cas (eta-Cas) gold & red

Andromeda Sunset-2250

Planetary nebula: NGC7662 (C22) Blue Snowball

Open cluster: NGC752 (C28)

Galaxies:

M31, M32 & M110 Andromeda Galaxy
NGC404 Mirach's Ghost
NGC891 (C23)

Multiple star: Almaak γ-And (gamma-And) gold & green

Triangulum Sunset-0040, best 1800

Galaxy: M33 Triangulum Galaxy

Aries Sunset-2340, best 1840

Multiple star: Σ326 orange & red

Cetus low, best 1920

Planetary nebula: NGC246 (C56)

Galaxy: M77

Perseus Sunset-0230, best 2000

Emission nebula: NGC1499 California Nebula

Planetary nebula: M76 Little Dumbell Nebula

Open clusters:

M34
NGC869 & NGC884 (C14) Double Cluster
NGC1528
NGC1582
Melotte 20

Multiple star: η-Per (eta-Per) gold & blue

Eridanus partly visible, best 2050

Planetary nebula: NGC1535

Taurus Sunset-0020, best 2110

Planetary nebulae:

M1 Crab Nebula
NGC1514

Open clusters:

M45 Pleiades
NGC1647
Melotte 25 Hyades

Camelopardalis all night, best 2110

Galaxy: NGC2403 (C7)

Asterism: Kemble's Cascade & NGC1502 cluster

Auriga Sunset-0400, best 2140

Emission nebula: IC405 (C31) Flaming Star Nebula

Open clusters:

M36

M37

M38

Multiple star: OΣ147 yellowish & two blue

Orion 1820-0020, best 2200

Emission nebulae:

NGC2024 Flame Nebula

NGC2174 Monkey Head Nebula

IC434 Horsehead Nebula

Reflection nebulae:

M42 & M43 Orion Nebula

M78

NGC1977 Running Man

Open clusters:

NGC1662

NGC1981

Multiple star: Trapezium θ1-Ori (theta-1-Ori) four white

Lepus low, best 2230

Globular cluster: M79

Coloured star: Hind's Crimson Star R-Lep

Gemini 1840-0400, best 2300

Planetary nebula: NGC2392 (C39) Eskimo Nebula

Open cluster: M35

Multiple star: Castor α-Gem (alpha-Gem) two blue

Monoceros 2140-0140, best 2340

Emission nebula: NCG2239 Rosette Nebula

Reflection nebula: NGC2261 (C46) Hubble's Variable Nebula

Open clusters:

M50

NGC2232

NGC2264

Multiple star: β-Mon (beta-Mon) three blue

Puppis partly visible, best 0000

Open clusters:

M46

M47

M93

NGC2539

Hydra partly visible, best 0100

Globular cluster: M68

Open cluster: M48

Galaxy: M83

Cancer 2040-0510, best 0130

Open clusters:

M44 Beehive Cluster

M67

Multiple star: ι-Cnc (iota-Cnc) gold & blue

Lynx 1900-Sunrise, best 0150

Globular cluster: NGC2419 (C25)

Leo 2320-Sunrise, best 0250

Galaxies

M65, M66 & NGC3628 Leo Triplet

M95

M96

M105 & NGC3384

Multiple star: Algieba γ-Leo (gamma-Leo) two yellow

Ursa Major 2140-Sunrise, best 0440

Planetary nebula: M97 Owl Nebula

Galaxies:

M81 Bode's Galaxy & M82 Cigar Galaxy

M101 Pinwheel Galaxy

M108

M109

Multiple star: Mizar & Alcor ζ-UMa (zeta-UMa) 3 white

Canes Venatici 2220-Sunrise, best 0530

Globular cluster: M3

Galaxies:

M51 Whirlpool Galaxy

M63 Sunflower Galaxy

M94

M106

NGC4631 Whale Galaxy

Coloured star: La Superba Y-CVn carbon star

Multiple star: Cor Caroli α-CVn (alpha-CVn) yellow & orange

Coma Berenices 0020-Sunrise, best 0540

Globular cluster: M53

Open clusters: Melotte 111

Galaxies:

M64 Black Eye Galaxy

M85

M88

M91

M98

M99

M100

NGC4565 Needle Galaxy

Virgo 0420-Sunrise, best 0550

Galaxies:

M49

M58

M59

M60

M61

M84, M86, NGC4435, etc. Markarian's Chain

M87

M89

M90

M104 Sombrero Galaxy

Boötes 0110-Sunrise, best 0650

Multiple star: ξ-Boo (xi-Boo) yellow & orange

Ursa Minor all night

Multiple star: Polaris α-UMi (alpha-UMi) yellow & white

Draco Sunset-1910 & 0120-Sunrise

Planetary nebula: NGC6543 Cats Eye Nebula

Galaxy: M102

Hercules 0420-Sunrise

Globular clusters:

M13 Hercules Globular Cluster

M92

Lyra 0450-Sunrise

Planetary nebula: M57 Ring Nebula

Globular cluster: M56

Multiple stars:

Double-Double ε-Lyr (epsilon-Lyr) four white

Other Double-Double Σ2470 & Σ2474 four white

Top targets for visual observers

Cepheus: Garnet Star μ-Cep (mu-Cep)

Pegasus: Globular cluster M15

Cassiopeia: η-Cas (eta-Cas) gold & red

Andromeda: NGC7662 (C22) Blue Snowball

Andromeda: M31 Andromeda Galaxy

Perseus: NCG869 & NGC884 (C14) Double Cluster

Taurus: M45 Pleiades

Camelopardalis: Kemble's Cascade

Auriga: Open clusters M36, M37 & M38

Orion: M42 Orion Nebula

Cancer: M44 Beehive Cluster

Ursa Major: M81 Bode's Galaxy & M82 Cigar Galaxy