

Astronomy targets: September 2019

Unless stated otherwise, all times are for mid-month, for Birmingham UK and are BST. 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	Astro	Astro	Naut	Sunrise	Moon
		Dark	Dark	Light	Light		
02/09/19	1954	2113	2202	0413	0502	0621	18%
09/09/19	1938	2055	2140	0430	0516	0633	85%
16/09/19	1921	2037	2120	0446	0529	0645	93%
23/09/19	1905	2019	2101	0500	0542	0656	30%
30/09/19	1848	2002	2043	0513	0554	0708	7%

Calendar

13 Sep Full Moon

28 Sep New Moon

Planets

Jupiter: Low at Sunset

Saturn: Low at Sunset

Uranus: 2250-Sunrise

Neptune: 2145-0345 (at opposition)

Andromeda 2200-Sunrise, best 0240

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

Aquarius 2220-0220, best 2340

Planetary nebula: NGC7293 Helix Nebula

Globular clusters:

M2

M72

Open cluster: M73

Aries 2220-Sunrise, best 0340

Multiple star: Σ326 orange & red

Auriga 0040-Sunrise

Emission nebula: IC405 (C31) Flaming Star Nebula

Open clusters:

M36

M37

M38

Multiple star: OΣ147 yellowish & two blue

Camelopardalis all night

Galaxy: NGC2403 (C7)

Asterism: Kemble's Cascade & NGC1502 cluster

Canes Venatici Sunset-2130

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

Capricornus low, best 2200

Globular cluster: M30

Cassiopeia all night, best 0210

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

Cepheus all night, best 2250

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

Cetus low, best 0420

Planetary nebula: NGC246 (C56)

Galaxy: M77

Cygnus Sunset-0300, best 2210

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

Delphinus Sunset-0240, best 2210

Globular clusters:

NGC6934 (C47)

NGC7006 (C42)

Draco Sunset-0410

Planetary nebula: NGC6543 Cats Eye Nebula

Galaxy: M102

Gemini 0340-Sunrise

Planetary nebula: NGC2392 (C39) Eskimo Nebula

Open cluster: M35

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

Hercules Sunset-2310

Globular clusters:

M13 Hercules Globular Cluster

M92

Lacerta all night, best 0000

Open cluster: NGC7243 (C16)

Lynx 0400-Sunrise

Globular cluster: NGC2419 (C25)

Lyra Sunset-0250

Planetary nebula: M57 Ring Nebula

Globular cluster: M56

Multiple stars:

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

Other Double-Double Σ 2470 & Σ 2474 four white

Orion 0320-Sunrise

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 θ 1-Ori (theta-1-Ori) four white

Pegasus 2040-Sunrise, best 0110

Globular cluster: M15

Galaxies:

NGC7320 Stefan's Quintet galaxy cluster

NGC7331 (C30) galaxy cluster

Multiple star: Σ 2841 orange & green

Perseus 2300-Sunrise, best 0500

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

Pisces 2340-0440, best 0200

Galaxies: M74

Sagitta Sunset-0230, best 2100

Globular cluster: M71

Scutum Sunset-2130

Open clusters:

M11 Wild Duck Cluster

M26

Taurus 0140-Sunrise

Planetary nebulae:

M1 Crab Nebula

NGC1514

Open clusters:

M45 Pleiades

NGC1647

Melotte 25 Hyades

Triangulum 2110-Sunrise, best 0300

Galaxy: M33 Triangulum Galaxy

Ursa Major Sunset-0150

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

Ursa Minor all night

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

Vulpecula Sunset-0240, best 2100

Planetary nebula: M27 Dumbell Nebula

Open cluster: NGC6885 (C37)

Asterism: Coathanger