"Ω > 1"

"Sky-Notes" of the Open University Astronomy Club.

January 2026.

Best Wishes for a Very Happy and Successful New Year to all readers of "Ω > 1"!

Recent Events.

If you have any images and/or reports of recent events please contact Sheridan so that he can put them on the Club website.

Highlights of the Month.

3rd.	**Peak** of **Quadrantids** meteor shower.
3rd.	**Earth at Perihelion.**
6th.	**Venus at Superior Conjunction.**
9th.	**Mars at Superior Conjunction.**
10th.	**Jupiter at Opposition.**
21st.	**Mercury at Superior Conjunction.**
25th	**Burns' Night.**
Mercury.	Not observable.
Venus.	Not observable.
Mars.	Not observable.
Jupiter.	**Very well placed for nightlong observation.**
Saturn.	Sinking into the WSW evening sky.
Uranus.	Well placed for evening through midnight observation.
Neptune.	Sinking into the WSW evening sky.

Asteroids at Opposition – see notes below**.**

Comets and Meteor Showers – see notes below.

Forthcoming Meetings.

OUAC.

"**Clubnights"** are currently suspended.

Details of Observing sessions and Outreach events will be circulated to members as and when appropriate.

Software.

A very useful item of Planetarium software is **"Stellarium"** and it's **FREE!**

Go to the website and download the latest version (regular updates) and the associated user manual.

"Affinity" image processing software is currently free.

1. The Solar system.

Note all times shown are UT.

Earth.

Perihelion $03^{d}\ 13^{h}\ 28^{m}$ at 147,099,894 km.

Aurora.
Long hours of darkness improve the opportunity for observing potential aurora.
Keep tuned to the www.spaceweather.com site for updates.
Subscribe (free) to the UK AuroraWatch website to receive alerts.

Artificial Satellites.
For the ISS and other "bright" satellites go to the "Heavens Above" website and set-up for your location.
Alternatively go to "spaceweather" website and click the "Flybys" button and follow the instructions to set-up forecasts for your location.
Add to your "favourites".

Sunrise and Sunset.

Bedford.
Latitude 52º 6.9'N Longitude 0º 28.1'W

Date.	Rise.	Transit.	Set.
01	$08^{h}\ 11^{m}$	$12^{h}\ 06^{m}$	$16^{h}\ 01^{m}$
08	$08^{h}\ 08^{m}$	$12^{h}\ 09^{m}$	$16^{h}\ 09^{m}$
15	$08^{h}\ 04^{m}$	$12^{h}\ 12^{m}$	$16^{h}\ 20^{m}$
22	$07^{h}\ 56^{m}$	$12^{h}\ 14^{m}$	$16^{h}\ 31^{m}$
29	$07^{h}\ 47^{m}$	$12^{h}\ 15^{m}$	$16^{h}\ 44^{m}$

Produced using Starry Night Pro v6.

The Sun.

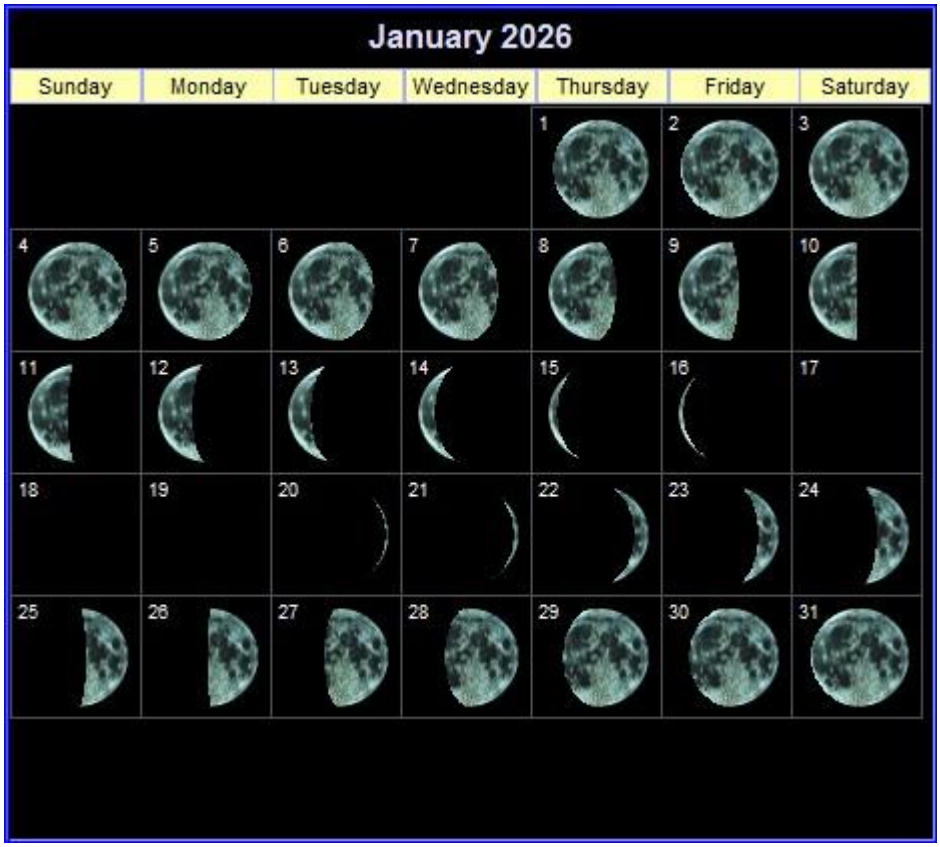
To prevent permanent damage to your eyes avoid looking at the Sun directly and never with binoculars or a telescope unless special (can be expensive!) filters are used.
The safest way is the simplest – project the image of the Sun onto grey or white card.
Take additional care if your telescope has plastic components. Plastic melts!
If you have or have access to observe in h-alpha the rewards are much greater.

Solar Cycle 25 has reached **SolarMax** but should continue to provide good activity for the next couple of years.

Keep in touch with the **S**olar **D**ynamics **O**bservatory satellite at http://sdo.gsfc.nasa.gov/
Add the **"spaceweather"** and **"Soho"** websites to your "favourite" websites.

The Moon.

Phases:



Produced using Lunar Phase Pro.

Full	$03^{d}\ 10^{h}\ 03^{m}$	A near Perigee Full Moon.
Last Quarter	$10^{d}\ 15^{h}\ 48^{m}$	
New	$18^{d}\ 19^{h}\ 52^{m}$	
First Quarter	$26^{d}\ 04^{h}\ 47^{m}$	

Apsides:

Perigee.	$01^{d}\ 22^{h}$	Diameter. 33’ 09”	Distance. 360,347km.
Apogee.	$13^{d}\ 21^{h}$	Diameter. 29’ 28”	Distance. 404,434km.
Perigee.	$29^{d}\ 22^{h}$	Diameter. 32’ 39”	Distance. 365,877km.

Observing/Imaging.

For northern observers:

The waxing crescent Moon is becoming better placed.
The waxing gibbous Moon is very well placed.
The Full Moon is very well placed.
The waning gibbous Moon is well placed.
The waning crescent Moon is less well placed.

The Moon cont.

Observe the regions along the terminator (sunrise and sunset on the Moon) where the low angle of the Sun highlights lunar topography.

Take advantage of the prevailing Lunar Libration to observe features on the Limb that are normally hidden or are better presented.

A basic lunar map is all you need to get started. *Sky & Telescopes* "Lunar 100 Card" is another good starting point.

If you are starting out on imaging the Moon provides an excellent target.

Lunar Occultations.

Unlike the gradual disappearance of a planet (small disc) a star vanishes instantly demonstrating that it is a point source of light as viewed from the earth. For all occultation events start observing 10 to 15 minutes before the predicted time to identify the required star and to allow for slightly different time if you are not at Greenwich. Use an accurate watch to record the time that *you* observe the occultation remembering that times are UT not BST. Enter details in your observing log.

On **27th** January the Moon passes in front of the northern part of the **Pleiades** star Cluster.

Disappearance of stars behind the Dark Limb of the 68% gibbous Moon (DD) starts at about 20:30 so favourable if clear.

Details of occultations can be found in current *BAA Handbook* and monthly periodicals such as *Astronomy Now* and *Sky at Night*.

Simulate events for your location on "Stellarium" or similar software.

The Planets.

Mercury.

Not observable.
Superior Conjunction on 21st.
Moon close N/A.

Date.	Mag.	Dia.	Phase.	Rise.	Transit.	Set.
-	-	-	-	-	-	-

Venus.

Not observable.
Superior Conjunction on 6th.
Moon close N/A.

Date.	Mag.	Dia.	Phase.	Rise.	Transit.	Set.
-	-	-	-	-	-	-

Mars.

Not observable.
Superior Conjunction on 9th.
Moon close N/A.

Date.	Mag.	Dia.	Phase.	Rise.	Transit.	Set.
-	-	-	-	-	-	-

Jupiter.

At Opposition on 10th.
Very well placed for nightlong observation.
Moon close on 3rd & 30th.

Date.	Mag.	Dia.	Rise.	Transit.	Set.
01	-2.7	46”	$16^h\ 39^m$	$00^h\ 52^m$	$09^h\ 00^m$
10	**-2.7**	**46”**	**$15^h\ 57^m$**	**$00^h\ 52^m$**	**$09^h\ 00^m$**
31	-2.6	46”	$14^h\ 20^m$	$22^h\ 33^m$	$06^h\ 50^m$

See BAA *Handbook* and/or monthly periodicals for **numerous satellite phenomena**.
Simulate events on “Stellarium” or similar software.

Saturn.

Sinking into the SW early evening sky.
Moon close on 23rd.

Date.	Mag.	Dia.	Rise.	Transit.	Set.
01	+1.1	17”	$11^h\ 22^m$	$17^h\ 06^m$	$22^h\ 51^m$
31	+1.1	16”	$09^h\ 27^m$	$15^h\ 17^m$	$21^h\ 07^m$

Uranus.

Well placed in Taurus.
Easy to locate about 5° south of the Pleiades.
Moon close on 27th.

Date.	Mag.	Dia.	Rise.	Transit.	Set.
01	+5.6	3.8"	$13^h\ 07^m$	$20^h\ 59^m$	$04^h\ 54^m$
31	+5.7	3.7"	$11^h\ 08^m$	$18^h\ 59^m$	$02^h\ 54^m$

Neptune.

Located in Pisces sinking into the WSW evening sky.
Easy to locate about 3° NE of Saturn.
Moon close 23rd.

Date.	Mag.	Dia.	Rise.	Transit.	Set.
01	+7.9	2.3"	$11^h\ 21^m$	$17^h\ 17^m$	$23^h\ 12^m$
31	+7.9	2.2"	$09^h\ 24^m$	$15^h\ 21^m$	$21^h\ 18^m$

Dwarf Planets.

Ceres. An 8th mag object located in Cetus sinking into the SW evening sky.
Eris. A CCD target object in Cetus.
Haumea. A CCD target located in Boötes.
MakeMake. A CCD target in Coma Berenices.
Pluto. Not observable. **Conjunction with the Sun on 23rd.**

Asteroids. (Approx mag +10.5 or brighter).

Vesta (4). Not observable.
Harmonia (40). Located in Gemini. Mag +9.5 at **Opposition on 2nd.**
Nysa (44). Located in Cancer. Mag +8.6 at **Opposition on 23rd.**
Laetitia (39). Located in Cancer. Mag +10.0 at **Opposition on 27th.**

Comets.

3I/ATLAS.
An evening object well placed in Cancer. Fading to mag +15 as it heads out of the Solar System so one for imagers.
24P/Schaumause. A "morning" object tracking from Coma Berneices into Bootes. Reaches Perihelion on and may reach 8th magnitude.
The following two comets are in the same area of sky not too far from the Pleiades.
240P/NEAT.
A 12th mag object located in Aries. May undergo another fragmentation so worth following.
C/2022 N2 (PANSTARRS).
Located in Aries. Probably 13th mag but may be brighter than predicted.

The "Heavens above" website gives very useful details of asteroids and comets currently available for observation/imaging.
See also the BAA website and *Handbook* and monthly periodicals.

Meteor Showers.

The **Quadrantids** are active from 1st – 6th January with peak activity (in daylight) on 3rd 17h to 20h, ZHR = 80+. Rather narrow peak as indicated. Sadly serious interference from Moonlight! The shower produces "bright events" so may still be worth observing.

There are always S**poradic** events and the chance of a brilliant fireball. The latter should be recorded and reported.

Near Earth Objects.

Please refer to www.spaceweather.com for updates.

Eclipses.

No Lunar or Solar Eclipses this month.

2. The Deep Sky.

Abbreviations used.

M = Messier object (Shown in **bold**).
NGC = New General Catalogue. IC = Index Catalogue (Extension of the NGC).
ds = double star. ts = triple star. ms = multiple star. vs = variable star.
gc = globular cluster. oc = open cluster. pn = planetary nebula.
en = emission nebula. rn = reflection nebula. sg = spiral galaxy.
eg = elliptical galaxy. lg = lenticular galaxy. ir = irregular galaxy.
pg = peculiar galaxy. snr = super nova remnant. ly = light year.
The magnitude of an object, excluding double, triple, multiple and variable stars, is shown in brackets e.g. (6.5).
All magnitudes are + unless otherwise shown.

2.1 Variable Stars of the month.

Beta (β) Persei, Algol.

Range +2.2 to +3.4, period 2.7 days. Becoming well placed by mid evening.
Favourable minima at "social hours" occur on 10^{d} 0.8^{h}, 12^{d} 21.5^{h} and 15^{d} 18.3^{h}.

Delta (δ) Cephei.

Range 3.5 to 4.4, period 5.37 days. The prototype for the Cepheid class of variable stars. Their period-luminosity relationship has led them to being used as "standard candles" in measuring distances to nearby galaxies.

Mu (μ) Cephei.

Range 3.7 to 5.0, approximate period 755 days. A semi-regular variable star famous for its striking red colour being fittingly called **"Herschel's Garnet Star"**. It is the reddest naked eye star visible from the northern hemisphere. Its colour may show signs of variability.

U Ori.

Well placed for nightlong observation. Brightening from minimum (+12) in January towards maximum (+6.3) in May 2026.

2.2 Double Stars of the month.

Beta Cam. See notes below.
Alpha Gem (Castor). See notes below.
Delta Gem. See notes below.
Gamma Lep. See notes below.
Beta Mon. See notes below.
Beta Ori (Rigel). See notes below.
Sigma Ori. See notes below.
Theta-1 Ori (The Trapezeium). See notes below.
Struve 742 Tau. See notes below.

2.3 This Month's Constellations - Double Stars/Star Clusters/Nebulae/Galaxies.

Auriga (Aur).

NGC1960 (**M36**) (6.0) oc. Large bright grouping. In same low power field as M38.
NGC2099 (**M37**) (5.6) oc. Richest and brightest of the three Messier star clusters in Auriga with 150 stars brighter than 12th magnitude.
NGC1912 (**M38**) (6.4) oc. Larger than M36. Many bright stars arranged in pairs.
The above are excellent objects for photography. Guided exposures of a few minutes will be necessary. CCD images require much shorter exposures.
NGC1664 (7.6) oc. Fine cluster on the border of Auriga and Perseus.
NGC1778 (7.7) oc. A 6" telescope will show about 20 stars. Larger apertures will reveal more.
NGC1857 (7.0) oc. Hazy patch surrounding an orange 7^{th} magnitude star which interferes with viewing the fainter stars.
NGC1893 (7.5) oc. Fine, though rather sparse cluster. 8"+ telescopes under dark skies may begin to reveal the pale light of the brightest part of the emission nebula IC410 which pervades the star cluster.
NGC1907 (8.2) oc. This small cluster lies just west of M38 appearing as a small smudge of light.
NGC1931 (11.3) en. An 8" telescopes from dark skies should reveal this small pea-nut shaped emission nebula.
NGC 2192 (10.9) oc. Not an easy object probably requiring a 6" telescope to locate and 10"+ to resolve.
NGC2281 (5.4) oc. Handful of stars often overlooked.
IC405 en (6v) **"The Flaming Star Nebula"**. Illuminated by the star AE Aur which is a "runaway star" whose path can be traced back to Orion. At present the star is passing by/through the normally dark dust and gas cloud of IC405 and thus illuminating it. In the future as AE moves away the nebula will again become dark.

Camelopardalis (Cam).

Beta (β) ds. (4.0/8.6, sep. 80.8"). Wide yellow and blue pair (AB). From dark sites the system can be seen to be embedded in a streak of dark nebulosity. A third magnitude 11.8", sep (BC) 14.8", component is visible in moderate apertures.
1 ds. (5.7/6.8, sep. 10.3"). White and pale blue pair.
11 & 12 ds. (5.4/6.5, sep, 108.5") White pair. Easy object for binoculars and small telescopes.
29 ds. 6.5/9.5, sep. 25.1". Yellow primary with fainter pale blue secondary.
Struve (Σ)390 ds. 5.1/9.5, sep. 14.8". White primary with fainter purple secondary.
Struve (Σ)1122 ds. (7.8/7.8, sep. 15.4"). Fine pair of equally bright white stars.
Struve (Σ)1625 ds. 7.3/7.8, sep. 14.4".Almost equal pair of yellowish stars.
Struve (Σ)1694 ds. 5.3/5.8, sep.21.6". Easy pair of whitish stars.
NGC1501 (11.5) pn. Bright, large with a blue tint located about 2 degrees south of the open star cluster NGC1502. Resembles the "Eskimo Nebula" in Gemini.NGC1502 (5.7) oc. A fine open cluster. Extending NW of this cluster is a line of 9th and 10th magnitude stars that form **"Kemble's Cascade"**. A beautiful sight in binoculars or a low power wide field eyepiece on small telescopes.
NGC2403 (8.4) sg. Visible in large binoculars. It lies at a distance of 8m light years and is possibly a member of the M81/M82 group.
IC342 (12.0) sg. Once considered to be a member of the Local Group of galaxies. Its low surface brightness makes it a challenge for moderate apertures. This face on spiral galaxy would be an impressive object if it were further away from the plane of the Milky Way.

Gemini (Gem).

Alpha (α) **Castor** ms. 1.9/2.9 sep 4.0". Close visual pair. However each of these is a spectroscopic binary. A more distant ninth magnitude star (red) forms part of an eclipsing binary system. A fascinating family!

Delta (δ) ds. 3.5/8.2 sep 5.8". Yellow primary with bluish secondary.

Kappa (κ) ds. 3.6/8.1 sep 7.1". Orange-yellow primary with bluish companion.

Lambda (λ) ds. 3.6/10.7 sep 9.6". Blue-white primary with bluish companion.

Σ1108 (Struve) ds. 6.6/8.3 sep 11..5". Yellow primary with bluish companion.

M35 (5.1) oc. Just visible to the naked eye from dark sites. It is a superb object in telescopes. On its western edge lies the more distant open star cluster IC2158.

NGC2129 (10.2) oc. Located about a degree SW of IC2158.

NGC2266 (9.5) oc. Located about two degrees north of ε Gem.

NGC2392 (10.5) pn. **"The Eskimo Nebula"** is a fine planetary nebula located about two degrees SE of δ. The nickname is derived from the appearance of a face surrounded by the hood of a parka.

NGC2420 (8.3) oc. Located about two degrees east of the "Eskimo".

Complete this deep-sky tour of Gemini by locating the open star clusters NGC2355 (9.7) and NGC2395 (7.1).

Lepus (Lep).

Lying beneath Orion Lepus is easily recognized by a quadrilateral of four third magnitude stars and contains a variety of deep-sky objects including one Messier object.

Alpha (α) ds; (2.6,11.1; sep. 35.8").

Beta (β) ds; (3.0/7.5; sep. 2.3").

Gamma (γ) ds. (3.7/6.3, sep. 96.3"). Fine yellow and pale orange pair.

Kappa (κ) ds; (4.5/7.4; sep. 2.6"). White and blue companions.

Iota (ι) ds; (4.5/10.8; sep. 12.7").

NGC1974 sg (11.8). Seen almost edge on.

NGC1904 (**M79**) gc (8.0). A fine globular cluster visible as a fuzzy spot in binoculars. Outer edges begin to resolve in 12" (30cm) telescopes.

IC418 pn (10.7). Very small but bright. Central 10.7 mag star surrounded by pale ring. Use a UHC or OIII filter for best results.

Monoceros (Mon).

This faint and rather indistinct constellation is located between Orion and Canis Minor.

Beta (β) ts. 4.7/5.2/6.1 Sep. AB = 7.3', sep BC = 2.8". Striking triple of bluish white stars.

Epsilon (ε) ts. 4.5/6.5 sep. 13.4". Close pair of pale yellow stars. The third mag 12.7 bluish white member is visible in 12"+ apertures.

NGC2244 oc (4.8). Fine open star cluster surrounded by NGC2237-9 **"The Rosette Nebula"** which is best seen using a UHC filter. Shows well in photographs.

NGC2261 en (10v). **"Hubble's Variable Nebula"**. Located about 2º southwest of NGC2264 this a fascinating object and well worth monitoring for changes in shape and brightness due to the enveloped variable star R Monocerotis. The triangular wedge appears is almost comet like. Detailed star chart available for telescope owners.

NGC2264 oc + en (4.0) **"The Christmas Tree Cluster"**. A fine open cluster with associated nebula that includes **"The Cone Nebula"**.

NGC2323 (**M50**) oc (5.9). Superb open cluster.

There are many other open clusters in this area of the Milky Way - NGC's 2215(8.4), 2286(7.5), 2301(6.0), 2335(7.2), 2343(6.7), 2353(7.1) and 2506(7.6).

Orion (Ori).

This constellation dominates the winter skies and because it is so easily recognized forms one of the "key constellations" for finding other winter groupings.

Orion's two brightest stars provide a marked contrast. **Betelgeuse** is distinctly orange in colour. It is a red giant star entering old age. **Rigel** is a brilliant blue/white star indicating the exuberance of youth. Betelgeuse is slightly variable in brightness, range 0.1 - 0.9 and bears the designation α (alpha) indicating that it was brighter than Rigel, β (beta) (0.1), when stars were given these designations. Rigel is now the brighter of the two so either early magnitude estimates were wrong or Betelgeuse has dimmed slightly.

Beta (β) Rigel ds. 0.1/6.8 sep. 9.5". Brilliant bluish white primary with much fainter bluish secondary.

Eta (η) ds. 3.6/5.0 sep. 1.5". Close pair of white stars.

Delta (δ) ds. 2.0/6.9 sep. 52.6". Blue white primary with pale blue secondary.

Lambda (λ) ds. 3.5/5.6 sep.4.4". White stars. Part of a quadruple system.

Theta-1 (θ) ms. "The Trapezium". AB: 6.7/7.9 sep. 8.8"; CD: 5.1/6.7 sep. 13.4". Superb object!

Iota (ι) ts. 2.8/7.3 sep. 11.3". White primary with pale blue secondary. The third reddish 11th magnitude component is located 50" away.

Sigma (σ) ms. 4.0/10.3 sep. 11.4. Colourful multiple star. Fainter triple star Σ761 in same field.

Zeta (ζ) Alnitak ds. 1.9/4.0 sep. 2.3". Bluish white stars. Part of a triple system with **"The Flame Nebula**" (NGC2024) in the field of view.

NGC1909 **"The Witch Head Nebula"** about 2½^{o} west of Rigel is a target for imagers.

NGC1976 (**M42**) en. One of the most famous objects in the sky. Marking Orion's sword the **"Great Orion Nebula"** is visible to the naked eye as a faint misty patch. Even a pair of binoculars or small telescope will begin to reveal detail. Increasing aperture and low power bring increasing rewards for the visual observer. Embedded in the nebula is **Theta (θ^{1}) Ori**. A group of four young stars, mags 5.4,6.3, 6.8 and 7.0, aptly called **"The Trapezium"**. The whole nebula is a stellar nursery with spectacular images being obtained from large Earth based telescopes and the Hubble Space Telescope. M42 is an ideal target for imaging.

NGC1982 (**M43**) en. A small patch of nebulosity on the northern edge of M42.

NGC2024 (en), nicknamed **"The Flame Nebula",** surrounds ζ Ori Alnitak.

IC434 en is a strip of nebulosity extending southwards from ζ Ori Alnitak. The famous **"Horse's Head Nebula"** (Barnard 33) is a small dark intrusion seen dramatically in photographs. It provides one of the biggest challenges to visual observers requiring very dark transparent skies. Responds well to a H-beta nebula filter.

NGC2068 (**M78**) (8.0) rn is a small patch of nebulosity about two degrees NNE of ζ Ori.

NGC2112 (9.1) oc is an open star cluster about two degrees east of M78.

Other open clusters worth locating are NGC2186 (8.7), NGC2169 (5.9) and NGC2175 (6.8) which superimposes a small patch of nebulosity NGC2174.

Long exposure photographs reveal a long arc of nebulosity curving up the east side Orion called **"Barnard's Loop"**. It is extremely difficult to discern visually almost regardless of aperture. Remarkably it has been seen with the naked eye (initially by accident!) from dark sites using O III or UHC filters. The "Loop" is a faint ring of hot gas some 14^{o} by 10^{o} with the western part of the ring being less distinct. The "ring" may be due to radiation pressure from the hot young stars in the region of Orion's belt/sword acting on interstellar material. A less favoured school of thought is that it may be a supernova remnant.

Taurus (Tau).

Lambda (λ) vs. Eclipsing binary, range 3.4 to 4.1, period 3.95d.
Phi (ψ) ds. 5.0/8.4 sep 52.1". Fine contrasting deep yellow primary with blue companion.
Σ495 (Struve) ds. 6.0/8.8 sep 3.8". Fine pair of yellow stars.
Σ742 ds. 7.1/7.5 sep 4". Fine pair in the same wide field as the Crab Nebula (M1) to the E. Often overlooked when locating M1.
47 Tauri ds. 4.9/7.4 sep 1.1". Very close pair of yellow stars.
T vs. Irregular variable, range 9.4 to 13.5, period erratic.
RV vs. Irregular variable, range 9.5 to 13, period 79d.
RR vs. Irregular variable, range 9.9 to 13, period "chaotic".
M45 - **"The Pleiades"** or **"Seven Sisters"** oc. Probably the most famous star cluster. Test your eyesight from a dark site by counting the number of naked eye stars that are visible. Seven should readily be seen. Keen vision will lead you into double figures. A test for moderate apertures is the nebulosity around some of the other brighter stars of the group, especially Merope. Nebula/UHC filters will help.
The Hyades oc. Another naked eye star cluster although more spread out than the Pleiades. At a distance of "a mere" 150 ly it is the closest star cluster to us. The first magnitude star Aldebaran (0.9) is not a member of the cluster and appears brighter as it is closer to us, 21 parsecs - about halfway to the clusters centre. Aldebaran has a faint companion (13.4) separation 30.4". Spotting the companion is not easy even in moderate telescopes.
NGC1514 (10.0) pn. Not an easy object in small instruments. An OIII filter will help.
NGC1554/1555 is a faint variable reflection nebula illuminated by the very young star T Tauri (see above).
NGC1647 (6.4) oc. Rich cluster.
NGC1746 (6.1) oc. Poorer than 1647
NGC1808/1817 (7.0/7.7) oc. a pleasant "double cluster" when observed at low powers.
NGC1952 (**M1**)(8.5) snr. **"The Crab Nebula"**. One of the most studied astronomical objects in recent decades. A "new star" appeared in 1054 and over a few months faded from view. Centuries later the faint oval patch was discovered by Dr John Bevis in 1731 and independently by Charles Messier on 12th September 1758 while observing the comet of that year. Its true nature was not recognized until much later. In 1942 astronomers had speculated that a peculiar star in the nebula might be a neutron star. In 1968 radio astronomers discovered that the central star was a pulsar spinning at 30 times a second i.e. the period of the pulses is 33 milliseconds. The "Crab" is also a strong emitter of X-rays.

Happy and Successful Observing!

P.V.H.