KERNASTRO.ORG

The New Syzygy

The Newsletter of the Kern Astronomical Society

number 608 | 2026

Our regular monthly meeting will be held at

Round Table Pizza

4200 Gosford Rd, Bakersfield, CA 93313

May 1

Social Hour @ 6:00p
Meeting @ 7:00p

facebook.com/groups/syzygy | kernastro.org | kernastronomicalsociety@gmail.com

KERN ASTRO SPRING PICNIC

THIS SATURDAY - MAY 2, 10a-2p

Join us this Saturday at Jastro Park for the annual Kern Astronomical Society's Spring Picnic!

TELESCOPE DRAWING

We'll also be drawing one lucky winner of a 6" Dobsonian telescope. Tickets are still available - 6 tickets for $5 or 13 tickets for $10!

OUR FIRST TELESCOPE CLINIC

We're also featuring our first telescope clinic at the picnic! Bring your telescopes and we're going to be doing an introductory how-to for your equipment. Then we'll be back at 7pm to put your new skills to use. Reminder - Don't forget to bring all your scope's accessories!

COSMIC FIREWORKS

HOW ASTRONOMERS EXPLORE THE CHANGING SKY

Presented by Sam Rose: Caltech Astronomy Graduate

The Universe evolves over the course of billions of years — a timescale almost incomprehensible to humans. But there are some things in the night sky that change much faster. Spectacular explosions of massive stars dying, pulsing stars, and comets and asteroids drifting through our Solar System are all examples of changes in the sky that happen over the course of weeks, months, or years. These events which cause new sources of light to appear and disappear in the sky are called “astronomical transients.” In this talk, we will explore the history of astronomical transients: including observations of an exploding star by Chinese astronomers in 1054 CE, the search for comets over the centuries, and the the first large-scale surveys of the sky using the Mt. Wilson and Palomar observatories. We will also cover the next-generation efforts to detect these events using Caltech's very own Zwicky Transient Facility (ZTF) and the brand-new Vera Rubin Observatory, which will reveal millions of new asteroids and supernovae across the sky in the coming years.

KAS
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SAM ROSE

Sam was raised in the San Francisco Bay area where she also attended UC Berkeley for her undergraduate degree. Having fallen in love with the night sky after seeing the planet Saturn through a small telescope as a middle school student, Sam majored in physics and astrophysics and came to Caltech to pursue a PhD in 2022. When not doing astronomy, she enjoys reading cheesy science fiction novels, spending time at the beach ... and reading cheesy science fiction at the beach.

UPCOMING SPEAKERS

Jun 5	Sarah Elizabeth McCandless – JPL NEO Surveyor
Aug 7	Daniel Huecker – Sequoia Parks Conservancy – Dark Sky Festival
Sep 4	Rod Guice – Club Member Milankovitch Cycle

IN THE SKY

THINGS TO LOOK FOR IN MAY

This month, we'll get two full moons and the Eta Aquariid meteor shower.

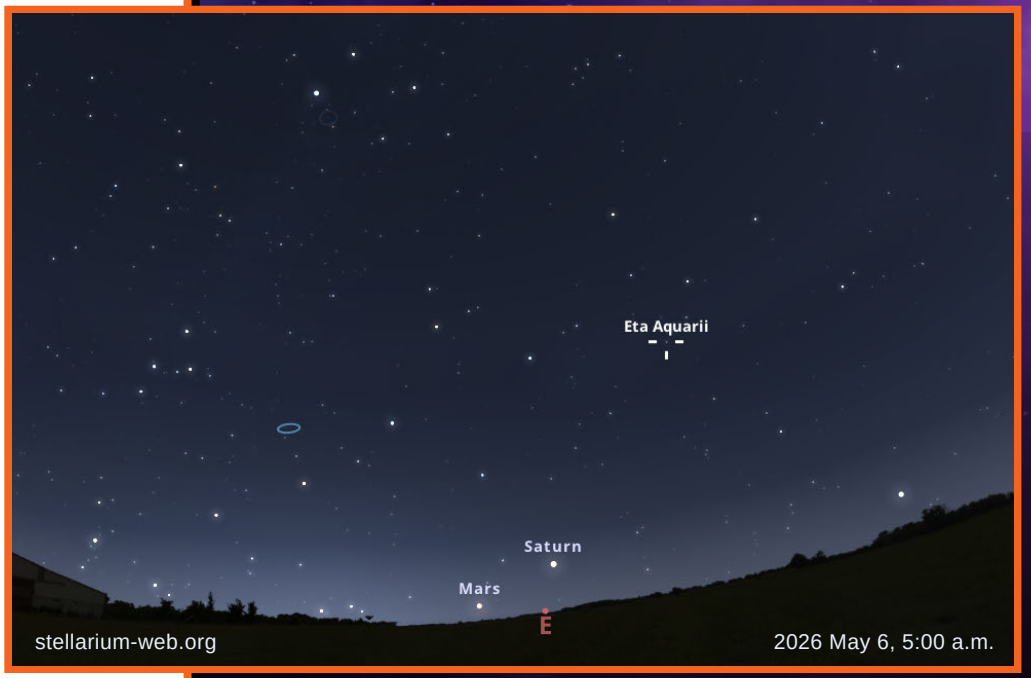
- On May 1, we'll get the first full "micromoon". The moon will be near its apogee meaning it will appear about 12% smaller and 25% less bright than a supermoon.

- Overnight on May 5-6, the Eta Aquariid meteor shower peaks with best viewing in the pre-dawn hours in the eastern sky. This meteor shower features very fast, bright meteors – up to 50 hour – and is a remnant from Halley's Comet. The waning gibbous moon will be about 78% illuminated, creating some light pollution for viewing this shower.

- In the pre-dawn hours of May 14, there will be a faint sliver of a new moon next to Mars. An excellent photo op!

- On May 31 we get a blue moon – our second full moon of the month – and will be a micromoon again.

Look for more events at the back of this newsletter!



2025-26 KERN COUNTY ASTRONOMICAL SOCIETY SCHEDULE

REMINDER – Below is a list of our upcoming meetings for the 25-2026 club year. Monthly club meetings will be held at the Round Table Pizza at 4200 Gosford Rd. from 6pm to roughly 9pm. Monthly board member meetings are held the Thursday of the week before the monthly club meeting at 5060 California Ave #600 from 6pm to 7pm. We would like to remind everyone that club members are welcome to join our board meetings!

BOARD MEETINGS

October 30
November 20 *
December 18 *
January 29
February 26
March 26
April 23
May 28
June – no meeting
July 30
August 27
September 24

* Moved one week early due to holidays

CLUB MEETINGS

November 7
December 5
January 9
February 6
March 6
April 3
May 1
June 5
July – no meeting
August 7
September 4

KAS Information

Since 1956, the Kern County Astronomical Society has promoted community awareness of current events in astronomy and provides a forum for sharing of knowledge and experiences among amateur astronomers. Annual membership is $35.00 which also provides membership in the Amateur Astronomical League, access to their newsletter (Reflector Magazine), and participation in observational programs.

Star Parties & Outreach

The Kern County Astronomical Society typically has two Club Star Parties each month depending on the weather. Our Club Parties are held on Saturdays nearest the New Moon. We also host Public Star Parties at various locations around town during April - October. These parties are held on Saturdays nearest the first quarter Moon. In addition, we also host Lunar, Solar, and Planetary viewing for public schools. Requests may be directed to our Star Party Coordinator.

Club Equipment

The Kern County Astronomical Society has telescopes and accessories (listed below) available for loan to Club Members in good standing. Members are encouraged to borrow the different types of telescopes in stock (especially if you are considering purchasing one). Trying out different sizes and types of telescopes can help you make an informed decision about purchases. If you have a Club telescope in your possession, you will be expected to participate in at least one public star party.

- **6” f/6, 8” f/6, 10” f/5.6, 13” f/4.5 Dobsonian Telescopes**
- **Parks Jovian 90**
- **3½” f/13 Maksukov-Cassegrain**
- **4” f/15 Unitron Refractor**
- **8” Solar Filter**
- **Assorted Eyepieces**

The Evening Sky Map

FREE* EACH MONTH FOR YOU TO EXPLORE, LEARN & ENJOY THE NIGHT SKY

WWW.SKYMAPS.COM

NORTHERN HEMISPHERE
MAY 2026

Sky Calendar – May 2026

Follow us on Bluesky
skymaps.com/bsky/

1 **Full Moon** at 17:24 UT.

4 **Moon near Antares** at 1h UT (morning sky). Occultation visible from Antarctica, Argentina, Chile and Bolivia.

4 **Moon at apogee** (farthest from Earth) at 22h UT (distance 405,839km; angular size 29.4').

6 **Eta Aquariid meteor shower peaks**. Most active for 7 days around this date. Associated with Comet Halley. Very fast, bright meteors, up to 50 per hour. Best seen from the tropics and southern hemisphere a few hours before dawn. In 2026 a waning gibbous Moon will adversely affect the visibility of this shower.

9 **Last Quarter Moon** at 21:13 UT.

13 **Moon near Saturn** at 18h UT (morning sky). Mag. 0.9.

14 **Mercury at superior conjunction** with the Sun at 14h UT (not visible). The innermost planet passes into the evening sky.

14 **Moon near Mars** at 22h UT (27° from Sun, morning sky). Mag. 1.2.

16 **New Moon** at 20:02 UT. Start of lunation 1279.

17 **Moon at perigee** (closest to Earth) at 13:45 UT (distance 358,075km; angular size 33.4').

19 **Moon near Venus** at 3h UT (evening sky). Mag. –4.0.

19 **Moon, Venus and M35** within 3.7° circle at 5h UT (33° from Sun, evening sky). Mag. –4.0.

20 **Moon near Jupiter** at 15h UT (evening sky). Mag. –1.9.

21 **Venus 0.76° N of M35 cluster** at 1h UT (evening sky).

21 **Moon near Beehive Cluster (M44)** at 17h UT (evening sky).

21 **Venus at northernmost declination** (25.1°) at 18h UT.

23 **Moon near Regulus** at 5h UT (evening sky). Occultation visible from parts of Oceania.

23 **First Quarter Moon** at 11:11 UT.

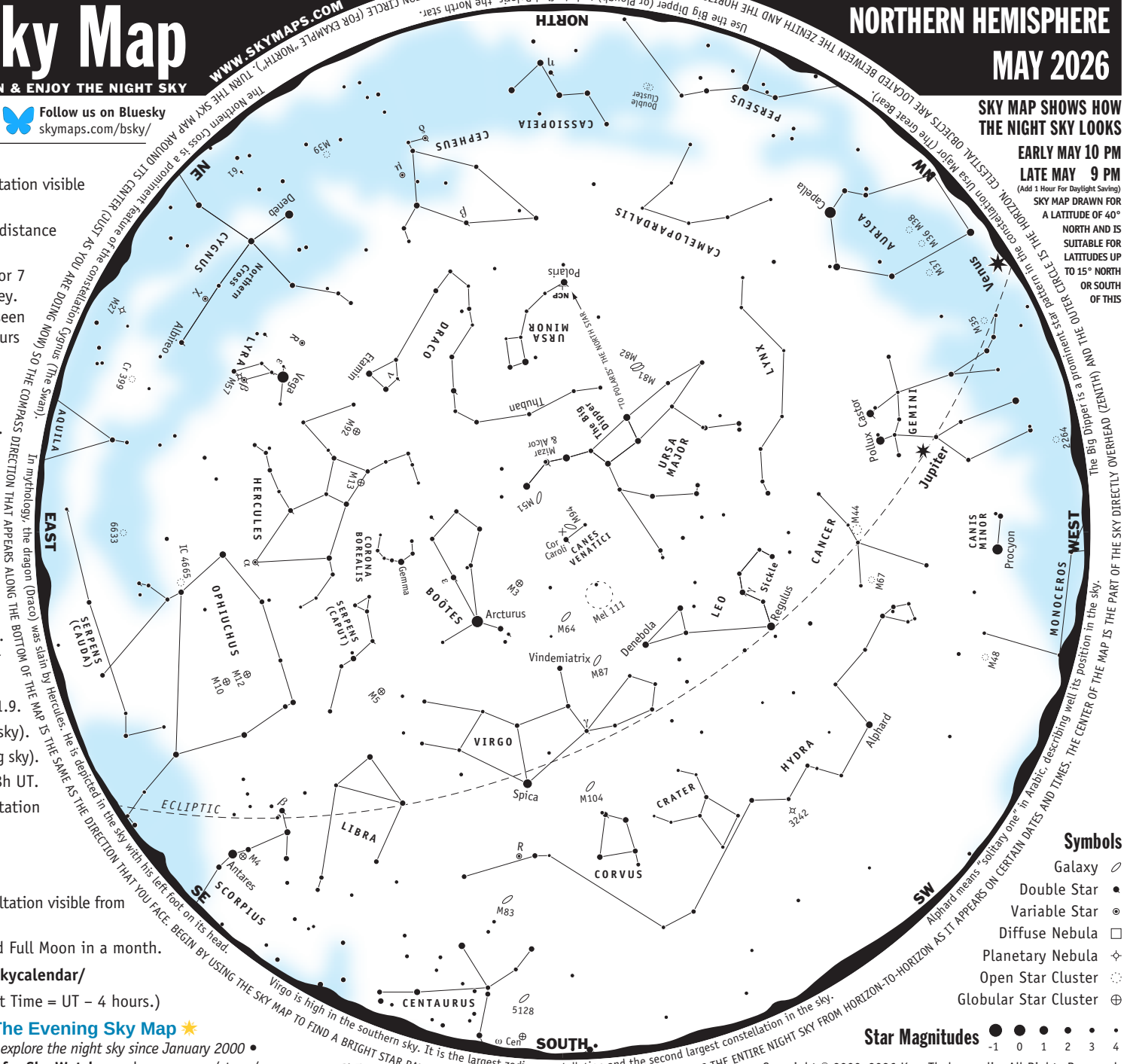
27 **Moon near Spica** at 14h UT (evening sky).

31 **Moon near Antares** at 7h UT (midnight sky). Occultation visible from Chile, Argentina, eastern Australia and New Zealand.

31 **Full Moon** at 8:46 UT. A "Blue Moon" – the second Full Moon in a month.

More sky events and links at http://Skymaps.com/skycalendar/

All times in Universal Time (UT). (USA Eastern Daylight Time = UT – 4 hours.)



Symbols

- Galaxy
- Double Star
- Variable Star
- Diffuse Nebula
- Planetary Nebula
- Open Star Cluster
- Globular Star Cluster

Star Magnitudes -1 0 1 2 3 4

SKY MAP SHOWS HOW THE NIGHT SKY LOOKS

EARLY MAY 10 PM
LATE MAY 9 PM
(Add 1 Hour For Daylight Saving)

SKY MAP DRAWN FOR A LATITUDE OF 40° NORTH AND IS SUITABLE FOR LATITUDES UP TO 15° NORTH OR SOUTH OF THIS

About the Celestial Objects

Listed on this page are several of the brighter, more interesting celestial objects visible in the evening sky this month (refer to the monthly sky map). The objects are grouped into three categories. Those that can be easily seen with the naked eye (that is, without optical aid), those easily seen with binoculars, and those requiring a telescope to be appreciated. **Note, all of the objects (except single stars) will appear more impressive when viewed through a telescope or very large binoculars.** They are grouped in this way to highlight objects that can be seen using the optical equipment that may be available to the star gazer.

Tips for Observing the Night Sky

When observing the night sky, and in particular deep-sky objects such as star clusters, nebulae, and galaxies, it's always best to observe from a dark location. Avoid direct light from street lights and other sources. If possible observe from a dark location away from the light pollution that surrounds many of today's large cities.

You will see more stars after your eyes adapt to the darkness—usually about 10 to 20 minutes after you go outside. Also, if you need to use a torch to view the sky map, cover the light bulb with red cellophane. This will preserve your dark vision.

Finally, even though the Moon is one of the most stunning objects to view through a telescope, its light is so bright that it brightens the sky and makes many of the fainter objects very difficult to see. So try to observe the evening sky on moonless nights around either New Moon or Last Quarter.

Astronomical Glossary

Conjunction – An alignment of two celestial bodies such that they present the least angular separation as viewed from Earth.

Constellation – A defined area of the sky containing a star pattern.

Diffuse Nebula – A cloud of gas illuminated by nearby stars.

Double Star – Two stars that appear close to each other in the sky; either linked by gravity so that they orbit each other (binary star) or lying at different distances from Earth (optical double). Apparent separation of stars is given in seconds of arc (").

Ecliptic – The path of the Sun's center on the celestial sphere as seen from Earth.

Elongation – The angular separation of two celestial bodies. For Mercury and Venus the greatest elongation occurs when they are at their most angular distance from the Sun as viewed from Earth.

Galaxy – A mass of up to several billion stars held together by gravity.

Globular Star Cluster – A ball-shaped group of several thousand old stars.

Light Year (ly) – The distance a beam of light travels at 300,000 km/sec in one year.

Magnitude – The brightness of a celestial object as it appears in the sky.

Open Star Cluster – A group of tens or hundreds of relatively young stars.

Opposition – When a celestial body is opposite the Sun in the sky.

Planetary Nebula – The remnants of a shell of gas blown off by a star.

Universal Time (UT) – A time system used by astronomers. Also known as Greenwich Mean Time. USA Eastern Standard Time (for example, New York) is 5 hours behind UT.

Variable Star – A star that changes brightness over a period of time.

NORTHERN HEMISPHERE MAY 2026

CELESTIAL OBJECTS

Skymaps.com

Easily Seen with the Naked Eye

Capella	Aur	●	The 6th brightest star. Appears yellowish in color. Spectroscopic binary. Dist=42 ly.
Arcturus	Boo	●	Orange, giant K star. Name means "bear watcher". Dist=36.7 ly.
Procyon	CMi	●	Greek name meaning "before the dog" - rises before Sirius (northern latitudes). Dist=11.4 ly.
δ Cephei	Cep	◉	Cepheid prototype. Mag varies between 3.5 & 4.4 over 5.366 days. Mag 6 companion.
Deneb	Cyg	●	Brightest star in Cygnus. One of the greatest known supergiants. Dist=1,400±200 ly.
Castor	Gem	◉	Multiple star system with 6 components. 3 stars visible in telescope. Dist=52 ly.
Pollux	Gem	●	With Castor, the twin sons of Leda in classical mythology. Dist=34 ly.
α Herculis	Her	◉	Semi-regular variable. Magnitude varies between 3.1 & 3.9 over 90 days. Mag 5.4 companion.
Regulus	Leo	●	Brightest star in Leo. A blue-white star with at least 1 companion. Dist=77 ly.
Vega	Lyr	●	The 5th brightest star in the sky. A blue-white star. Dist=25.0 ly.
Antares	Sco	●	Red, supergiant star. Name means "rival of Mars". Dist=135.9 ly.
Polaris	UMi	◉	The North Pole Star. A telescope reveals an unrelated mag 8 companion star. Dist=433 ly.
Spica	Vir	●	Latin name means "ear of wheat" and shown held in Virgo's left hand. Dist=250 ly.

Easily Seen with Binoculars

M44	Cnc	◌	Praesepe or Beehive Cluster. Visible to the naked eye. Dist=590±20 ly.
M3	CVn	⊕	Easy to find in binoculars. Might be glimpsed with the naked eye.
μ Cephei	Cep	◉	Herschel's Garnet Star. One of the reddest stars. Mag 3.4 to 5.1 over 730 days.
Mel 111	Com	◌	Coma Berenices. 80 mag 5-6 stars in 5 deg. Dist=283 ly. Age=400 million years.
χ Cygni	Cyg	◉	Long period pulsating red giant. Magnitude varies between 3.3 & 14.2 over 407 days.
M39	Cyg	◌	May be visible to the naked eye under good conditions. Dist=900 ly.
ν Draconis	Dra	◉	Wide pair of white stars. One of the finest binocular pairs in the sky. Dist=100 ly.
M13	Her	⊕	Best globular in northern skies. Discovered by Halley in 1714. Dist=23,000 ly.
M92	Her	⊕	Fainter and smaller than M13. Use a telescope to resolve its stars.
R Hydrae	Hya	◉	Long period variable. Mag varies between 3.0 & 11.0 over 390 days. Brilliant red.
ε Lyrae	Lyr	◉	Famous Double Double. Binoculars show a double star. High power reveals each a double.
R Lyrae	Lyr	◉	Semi-regular variable. Magnitude varies between 3.9 & 5.0 over 46.0 days.
M12	Oph	⊕	Close to the brighter M10. Dist=18,000 ly.
M10	Oph	⊕	3 degrees from the fainter M12. Both may be glimpsed in binoculars. Dist=14,000 ly.
IC 4665	Oph	◌	Large, scattered open cluster. Visible with binoculars.
6633	Oph	◌	Scattered open cluster. Visible with binoculars.
M4	Sco	⊕	A close globular. May just be visible without optical aid. Dist=7,000 ly.
M5	Ser	⊕	Fine globular star cluster. Telescope will reveal individual stars. Dist=25,000 ly.
Mizar & Alcor	UMa	◉	Good eyesight or binoculars reveals 2 stars. Not a binary. Mizar has a mag 4 companion.
Cr 399	Vul	◌	Coathanger asterism or "Brocchi's Cluster". Not a true star cluster. Dist=218 to 1,140 ly.

Telescopic Objects

ε Boötis	Boo	◉	Red giant star (mag 2.5) with a blue-green mag 4.9 companion. Sep=2.8". Difficult to split.
M67	Cnc	◌	Contains 500+ stars mag 10 & fainter. One of the oldest clusters. Dist=2,350 ly.
M94	CVn	⌀	Compact nearly face-on spiral galaxy. Dist=15 million ly.
η Cassiopeiae	Cas	◉	Yellow star mag 3.4 & orange star mag 7.5. Dist=19 ly. Orbit=480 years. Sep=12".
5128	Cen	⌀	Bisected by a wide obscuring lane. Strong radio source. Dist=14 million ly.
M51	CVn	⌀	Whirlpool Galaxy. First recognised to have spiral structure. Dist=25 million ly.
M64	Com	⌀	Black-Eye Galaxy. Discovered by J.E. Bode in 1775 - "a small, nebulous star".
Albireo	Cyg	◉	Beautiful double star. Contrasting colours of orange and blue-green. Sep=34.4".
61 Cygni	Cyg	◉	Attractive double star. Mags 5.2 & 6.1 orange dwarfs. Dist=11.4 ly. Sep=28.4".
3242	Hya	✧	Ghost of Jupiter. Bright blue disk. Mag 11 central star. Dist=2,600 ly.
M83	Hya	⌀	Classic face-on spiral. Discovered in 1752 by Lacaille. In attractive star field.
γ Leonis	Leo	◉	Superb pair of golden-yellow giant stars. Mags 2.2 & 3.5. Orbit=600 years. Sep=4.4".
β Lyrae	Lyr	◉	Eclipsing binary. Mag varies between 3.3 & 4.3 over 12.940 days. Fainter mag 7.2 blue star.
M57	Lyr	✧	Ring Nebula. Magnificent object. Smoke-ring shape. Dist=4,100 ly.
M81	UMa	⌀	Beautiful spiral galaxy visible with binoculars. Easy to see in a telescope.
M82	UMa	⌀	Close to M81 but much fainter and smaller.
M87	Vir	⌀	Supergiant galaxy with supermassive black hole at its core. Dist=53.5 million ly.
M104	Vir	⌀	Sombrero Galaxy. Almost edge-on spiral galaxy. Protruding central core.
γ Virginis	Vir	◉	Superb pair of mag 3.5 yellow-white stars. Orbit=169 years. At their closest in 2005.
M27	Vul	✧	Dumbbell Nebula. Large, twin-lobed shape. Most spectacular planetary. Dist=975 ly.