M111

June 2026

The newsletter of the Richland Astronomical Society and Warren Rupp Observatory

What to watch when the stars are behind clouds

by Julie Kiel Holm | May 15, 2026 |

Whether you are a physics student, an amateur stargazer, or a professional astronomer, it is always fun and mind blowing to watch talented communicators explain foreign concepts in an engaging way.

But unless you search for a specific subtopic, it can be difficult to find the gems – especially in the age of AI slop flooding every platform.

We have collected a (non-exhaustive) list of the creators that the Astrobites authors watch and recommend. So next time you want to use your screen time to get smarter about space, refer back to here!

We have chosen to focus this list on creators of long-form content published on YouTube – although many of them also make short-form and are present on various platforms – and they are presented in no particular order, but grouped somewhat by category.

Explainers and news in space science

Dr. Becky

Dr. Becky Smethurst is an astrophysicist at Oxford University, where she works has its feet firmly planted in published academic papers. She focuses not just on the facts, but also the

scientific process, caveats, and how we came to know what we know.

Along with deep-dives and explainers about general concepts, she hosts a monthly NightSky News, where she both outlines what you can see in the night sky in the next month, and goes through newsworthy papers published in the recent month. She discusses what they claim, how they arrive at their conclusions, and what possible caveats are associated with the findings.

Astro Kirsten

Dr. Kirsten Banks is an Australian astrophysicist whose YouTube videos focus on breaking down complex concepts and phenomena, often using real astronomical images to illustrate them, and with a basis in current research. Her channel also has a more human-focused aspect, with several videos about her life as an astrophysicist, and she is good at relating astronomical phenomena to human time scales – for example, in this video of JWST capturing the movement of the outflows from a Wolf-Rayet star.

Anton Petrov

Another classic channel doing these types of explainer videos is Anton Petrov, who uploads almost daily videos about news in astronomy and space science – and sometimes a feature from other, adjacent sciences. His approach focuses on clarity and simplicity – no clickbait titles or overly fancy animations.

Astrum

Astrum is another channel that does explain-the-news content, this time revolving mainly around planets – both the ones in our solar system and exoplanets – but peppered with JWST results and other space news. The videos are well produced, and they pull up and use the papers that the video is based on, giving proper credit and making it feel close to the science.

And more!

In the same category of medium-length videos about current astronomical phenomena and science news, we have AstroKobi, Dr. Noras Guide to the Galaxy, and Space Mog. The latter, hosted by Dr Maggie Lieu, also has a lot of content about life in astro-academia and her journey through it.

Fraser Cain

We also have to mention Fraiser Cain. A staple in the online astro communication world for about two decades, he uploads weekly news and Q&As on his YouTube channel, as well as

interviews with scientists. The videos have an unscripted commentary/podcast vibe, which may be refreshing in the world of highly polished content.

More explainers

PBS spacetime

If you're looking to expand your physics horizon while still revolving around astro-things, PBS Spacetime might be the place. As the name may hint, this channel deals with some more fundamental – and sometimes wacky – theories that underlie the laws of our universe, including particle and quantum physics. Produced by one of the biggest global providers of educational television and video content, PBS, the quality is high, while the style stays close to the ground in its classic host-explaining-things-in-front-of-animated-background approach.

Cool worlds

For a science-based take on the search for aliens, Cool Worlds is a good bet. Based on the astrobiology research of the Cool Worlds Lab at Columbia University, this channel discusses the search for habitable worlds, combining astronomy and philosophy in a calm and wonder-filled way.

Learn the sky

Would you rather just go stargazing, but informed? Learn The Sky is all about the constellations – how to find them, which stars they're made of, and their mythological history. This way, we can all stop wondering how three random stars became a water snake – not to mention that pointing out constellations in the sky at night, knowing what they're called and why, is a very effective party trick.

Sixty Symbols and Deep Sky Videos

In the category of interview-style science content there is one group of channels that dominate the market. The physics channel, Sixty symbols, which is mostly astrophysics-dominated, and the astronomy sister channel, Deep Sky Videos, both follow a clear concept of interviewing experts about their areas of research. Deep Sky goes through astronomical catalogues object by object, producing videos about what makes each object interesting, as well as tours of many large telescopes. Both channels feel colloquial and informal while diving deep into niches of (astro)physics research.

Spaceflight and rockets

Scott Manley

When something is easy to understand, we often say "it's not rocket science" – but in the case of Scott Manley, both things are true. This channel has everything spaceflight and rocketry-related, explained in a captivating and digestible way. While engineering and orbital mechanics are at the centre, the channel also has a large part dedicated to the video game Kerbal Space Program. He deals with both current themes, like the Artemis II, and with older missions, what they taught us and which questions still remain.

Mars Guy

Mars Guy's name says it all – this guy is more passionate about Mars than some people are about their kids. He is an associate professor at Arizona State University who produces relatively short videos, going into deep detail about Mars missions and giving updates on the rovers roaming the surface of our red neighbour.

Eager Space

If you like rocket stuff and really want to understand the fundamental knowledge, Eager Space is the place to go. Low budget, straightforward and factual, it has the vibe of a well-prepared recorded PowerPoint presentation, and the focus is on getting the knowledge across clearly rather than making it aesthetically impressive, which really makes it feel like entertaining education rather than educational entertainment.

Education

Jason Kendall

If education is what you're after, you might want to check out Jason Kendall. This seasoned university lecturer has created a channel with full-length, well-produced lecture videos, designed to take you through the rough equivalent of a college-level introduction to astronomy course.

Phil Plait (Crash Course Astronomy)

No list of astronomy communicators is complete without a nod of respect to Phil Plait, who has been a staple on YouTube for more than two decades. While his own channel, The Bad Astronomer, is a (lovable) mess of many things, and a goldmine of short, illustrative clips of astronomical phenomena with no explanation, his work as a communicator is most clearly seen

in the list of TED talks and features he has done – and of course in Crash Course Astronomy. If you want an easily digestible introduction to all of astronomy, this is the place to start.

Full-length films and episodes

History of the Universe

If you're looking for movie-length documentaries, History of the Universe has you covered. It is a professional documentary channel with beautiful visuals and a focus on cosmology and astronomical epochs. Most of the episodes are about an hour long, but the channel also contains some full feature length pieces like this three and a half hour piece promising as much as The Ultimate Guide to Absolutely Everything in the Universe.

Kosmo and SpaceRIP also make full-length documentaries about various astronomy topics, both well-produced and with the vibe of classic TV documentaries. Kosmo produces both long films and medium-length explainers about everything from cosmology to solar system objects and prehistoric Earth. SpaceRIP publishes both stand-alone episodes and series, like the currently running Undiscovered Vistas, which dives into how scientists use landscapes on Earth to learn about what we can't see on other planets.

Melodysheep

In the more philosophical corner of astro content, the first mention has to be Melodysheep. This channel produces cinematic and aural masterpieces that tackle big questions of life on Earth and space, and their animations are routinely used by several of the other channels mentioned above. They release both full-length movies and short snippets – and if you venture further back in the archives, there are some nostalgic and ridiculous (in the best way) remixes, memes and tributes.

SEA

Calm, ethereal and philosophical, SEA has the best zone-out/fall asleep/feel existential awareness type of content, which is still based solidly in science. Full-length episodes that are well-made and a fresh breath of air from a content world that can sometimes be very high-paced and flashy.

Epic Spaceman

With homemade (and high-quality) animations, Epic Spaceman takes some time between posting, but the videos that come out of it are good at putting the incomprehensible scales involved in astronomy into perspective – by for example representing galaxies as pieces of

cereal. The vibe is calm, and he explains the steps in the calculations and approximations that go into them.

Now you hopefully have a place to start if you want to be entertained while learning about the incredible Universe we live in. **Did we forget your favourite astro communicator? Put them in the comments and tell us why you enjoy their content!**

About the author, Julie Kiel Holm:

I'm a PhD student at the University of Copenhagen, where I study how galaxies pull on globular clusters, stripping their stars to form stellar streams. When I'm not stargazing through my computer, I'm likely engaged with some kind of crafts, performance arts, or talking to the nearest plant or animal.

The original Astrobites article can be found here:

https://astrobites.org/2026/05/15/template-post-34/

Big Blue Targets for June

M5

Messier 5 or M5 (also designated NGC 5904) is a globular cluster in the constellation Serpens. It was discovered by Gottfried Kirch in 1702. M5 is, under extremely good conditions, just visible to the naked eye as a faint "star" 0.37 of a degree (22' (arcmin)) north-west of star 5 Serpentis. Binoculars and/or small telescopes resolve the object as non-stellar; larger telescopes will show some individual stars, some of which are as bright as apparent magnitude 10.6. Charles Messier noted it in 1764 and—a studier of comets—cast it as one of his nebulae. William Herschel was the first to resolve individual stars in the cluster in 1791, counting roughly 200. Messier 5 is 24,500 light years distant and receding from the Solar System at a speed over 50 km/s.

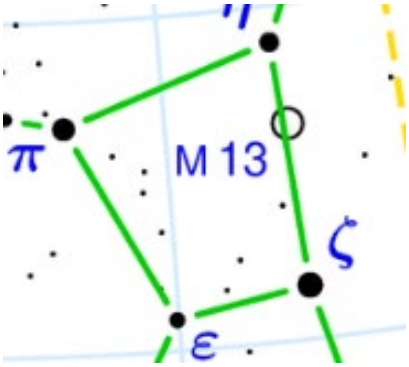
M12

Messier 12 or M 12 (also designated NGC 6218) is a globular cluster in the constellation of Ophiuchus. It was discovered by the French astronomer Charles Messier on May 30, 1764, who described it as a "nebula without stars". In dark conditions this cluster can be faintly seen with a pair of binoculars. Resolving the stellar components requires a telescope with an aperture of 8 in (20 cm) or greater.

In a 10 in (25 cm) scope, the granular core shows a diameter of 3′ (arcminutes) surrounded by a 10′ halo of stars. The cluster is roughly 16,400 light years away from Earth.

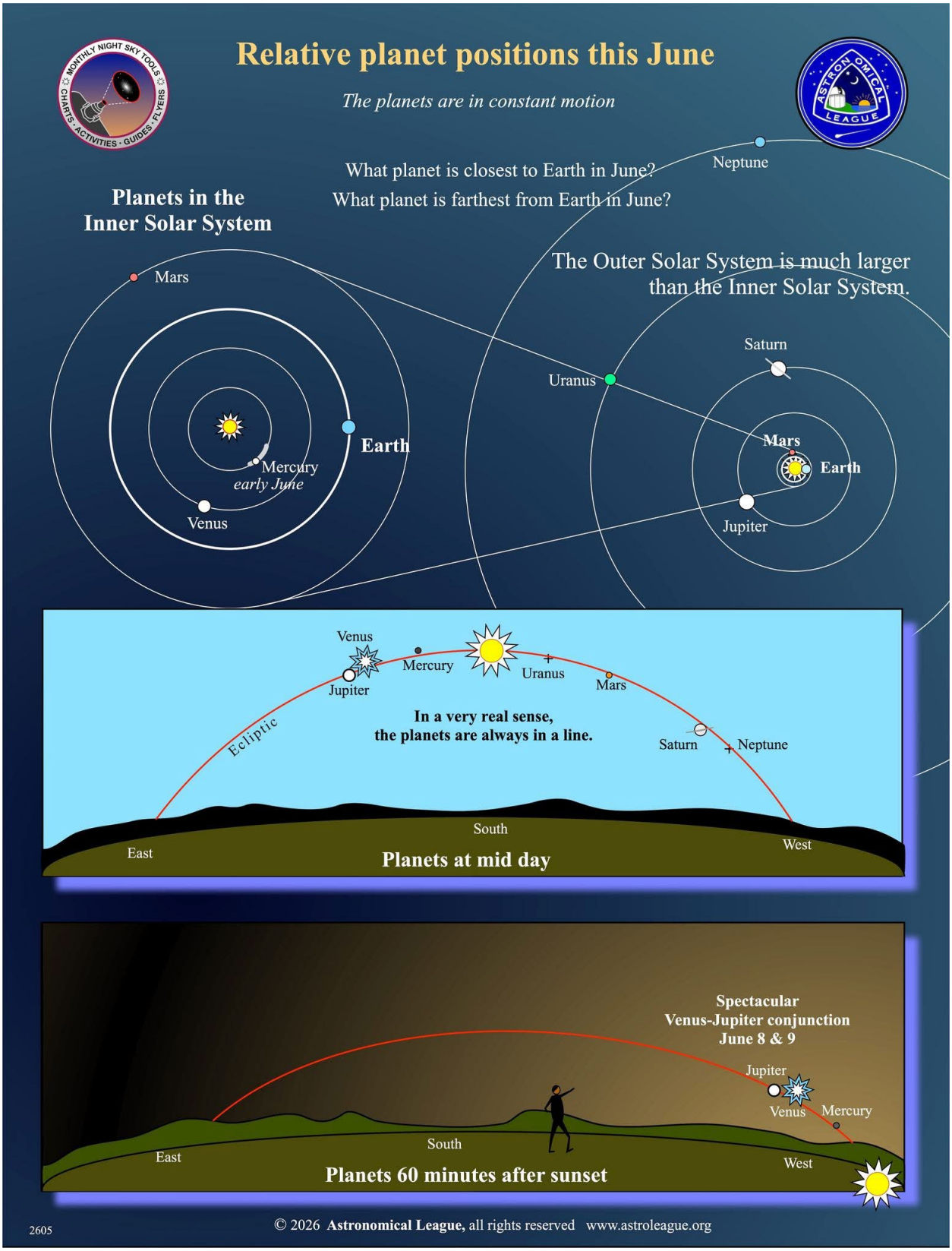
M13

Messier 13, or M13 (also designated NGC 6205 and sometimes called the Great Globular Cluster in Hercules, the Hercules Globular Cluster, or the Great Hercules Cluster), is a globular cluster of several hundred thousand stars in the constellation of Hercules. Messier 13 was discovered by Edmond Halley in 1714, and cataloged by Charles Messier on June 1, 1764. Messier 13 is often described by astronomers as the most magnificent globular cluster visible to northern observers.



About one third of the way from Vega to Arcturus, four bright stars in Hercules form the Keystone asterism, the broad torso of the hero. M13 can be seen in this asterism 2⁄3 of the way north (by west) from Zeta to Eta Herculis. With an apparent magnitude of 5.8, Messier 13 may be visible to the naked eye with averted vision on dark nights. Messier 13 is prominent in traditional binoculars as a bright, round patch of light.

About 145 light-years in diameter, M13 is composed of several hundred thousand stars, with estimates varying from around 300,000 to over half a million. The brightest star in the cluster is a red giant, the variable star V11, also known as V1554 Herculis, with an apparent visual magnitude of 11.95. M13 is 22,200 to 25,000 light-years away from Earth, and the globular cluster is one of over one hundred that orbit the center of the Milky Way.


Relative planet positions this June
The planets are in constant motion
What planet is closest to Earth in June?
What planet is farthest from Earth in June?
Planets in the Inner Solar System
Mars
Earth
Mercury
early June
Venus
Neptune
The Outer Solar System is much larger than the Inner Solar System.
Saturn
Uranus
Mars
Earth
Jupiter
Venus
Mercury
Uranus
Mars
Jupiter
Ecliptic
In a very real sense, the planets are always in a line.
Saturn
Neptune
South
East
West
Planets at mid day
Spectacular Venus-Jupiter conjunction June 8 & 9
Jupiter
Venus
Mercury
South
East
West
Planets 60 minutes after sunset
2605
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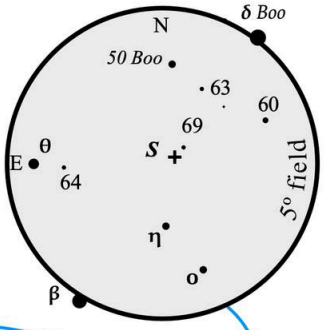
Corona Borealis, the Northern Crown

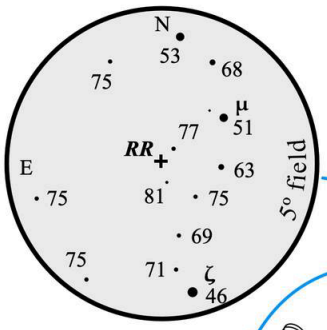
Surprises await for the binocular and small telescope user

Corona Borealis is a small, but old constellation lying one-third the distance between the bright stars Arcturus and Vega. It is an easily recognized semi-circle of six stars making it a welcome friend for life. Once you spot it, you'll keep coming back to it, year after year.

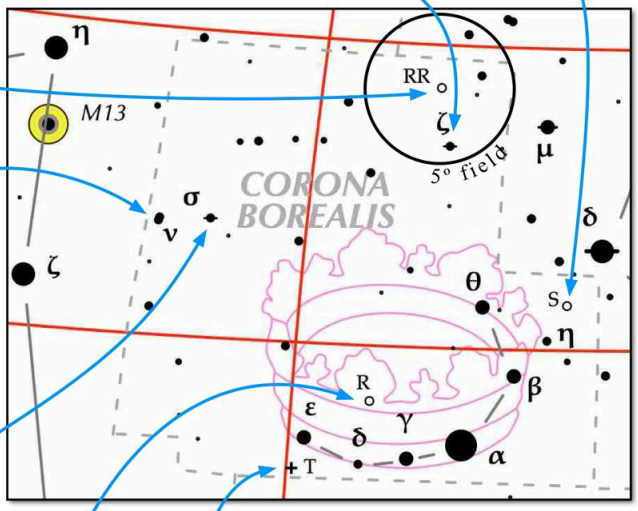
S Coronae Borealis
Magnitude: 5.8–14
Period: ~360 days



RR Coronae Borealis
Magnitude: 7.3–8.2
Period: ~60 days



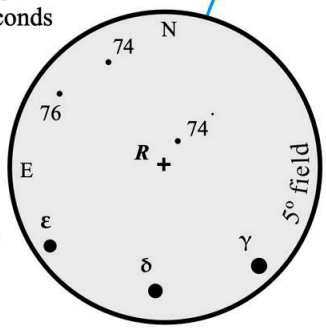
Zeta Coronae Borealis
A: 5.0 mag.; B: 5.9 mag.
A-B separation: 6.3 seconds
PA: 306°



Nu Coronae Borealis
A: 5.4 mag.; B: 5.6 mag.
A-B separation: 361 seconds
PA: 164°
For those with sharp vision, a possible naked–eye double!

Sigma Coronae Borealis
A: 5.6 mag.; B: 6.5 mag.
A-B separation: 7.6 seconds
PA: 236°

R Coronae Borealis
Magnitude: 6.1–15
Period: ~120 days
Use the 7.4 mag. star as an aid in locating R.



Alpha Coronae Borealis - Alphecca or Gemma The jewel in the crown. At magnitude 2.2 to 2.3, it is easily the constellation's brightest luminary. And it is an eclipsing binary star with a period of 17 days.

T Coronae Borealis
Recurrent nova.
Magnitude: ~10 for 80 years
Sudden brightening: ~2nd magnitude, fades to naked-eye limit in two weeks.

Some astronomers believe that T CrB just might erupt as a "nova" in 2026!

2605

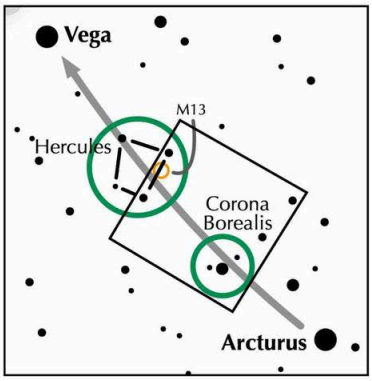
Corona Borealis:
Allows direct visual comparisons of stellar magnitudes

The stars of the Little Dipper are often used to estimate limiting magnitude and observing conditions.
At times, though, the stars in Corona Borealis will be more useful.

Best if this small constellation is at least 30° above the horizon.

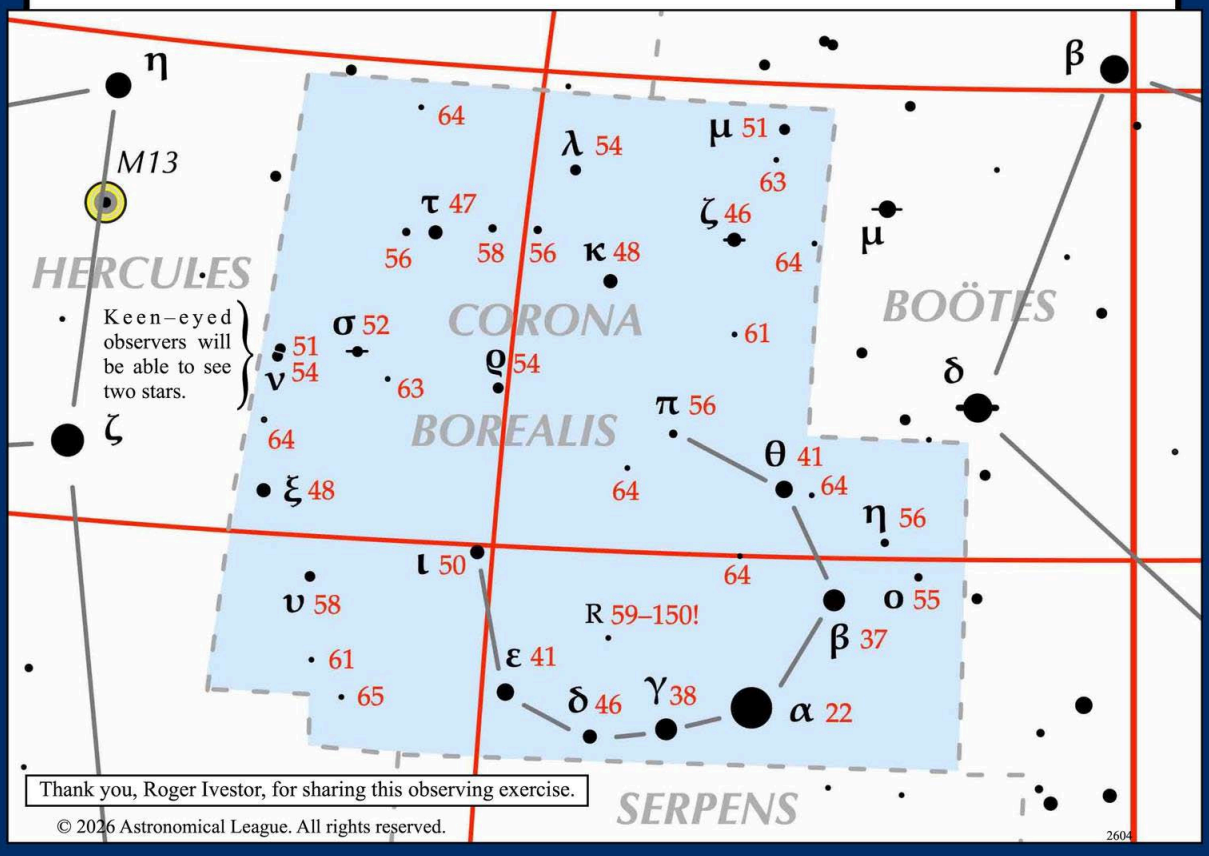
Corona Borealis allows you to ...

- Directly compare the brightness of stars that lie in the same general direction in the sky, and at about the same altitude above the horizon.
- Directly see the difference between stars of different magnitudes, say those Delta (4.6) and Epsilon (4.1), or of Pi (5.6) and Iota (5.0).
- If you see stars dimmer than 5.5, your eyesight is good and the sky transparency is good!



The semi-circular shape of Corona Borealis lies one-third between Arcturus and Vega. Hercules lies another one-third.

Can you spot any of its 6th magnitude stars?



Thank you, Roger Ivestor, for sharing this observing exercise.

2604

Constellation Hunter

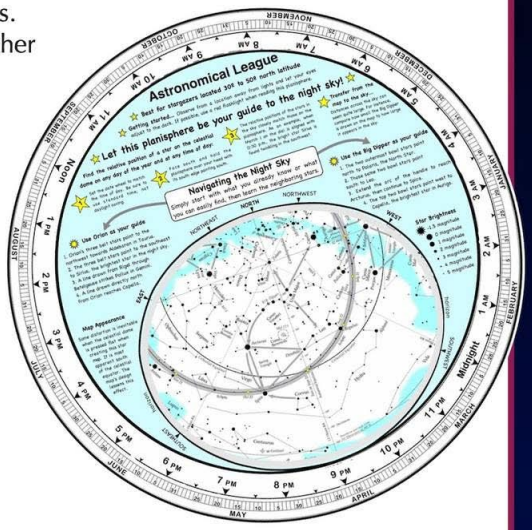
A great way to learn
the constellations and brighter stars

How on Earth do you find your way among the stars?
Here is a helpful Astronomical League Observing Program designed for you!

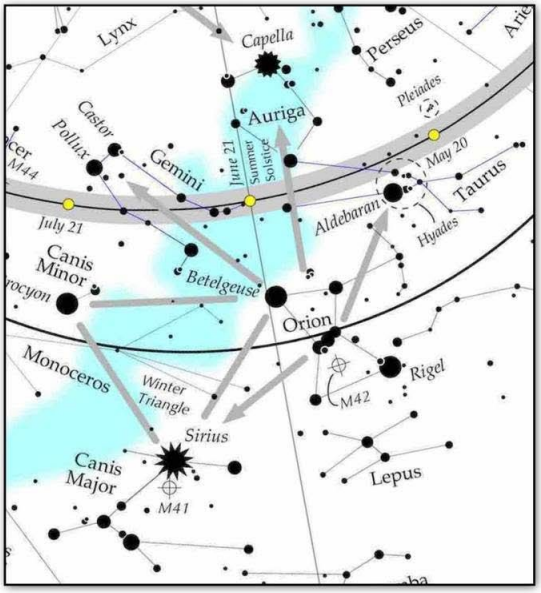
- Become familiar with the constellations and brighter stars.
- Begin learning how to navigate among the stars.
- Provides a sold foundation for moving on to other observing programs.

You'll need:
- a basic star map or a planisphere,
- a red flashight.

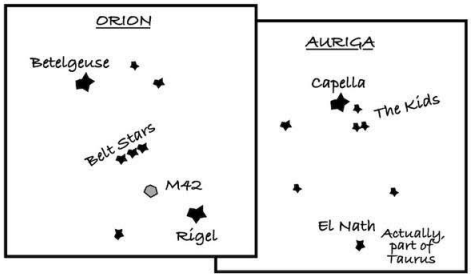
A **planisphere** is a rotatable dial that shows star positions in the sky at any time during the year.



Binoculars are a great aid for seeing better and seeing more!



Sketch all stars that are visible to the unaided eye out the limits of the constellation's boundary. Named stars should be identified along with other features visible such as galaxies, clusters, and nebulae.



For complete details ...
https://www.astroleague.org/constellation-hunter-observing-program/

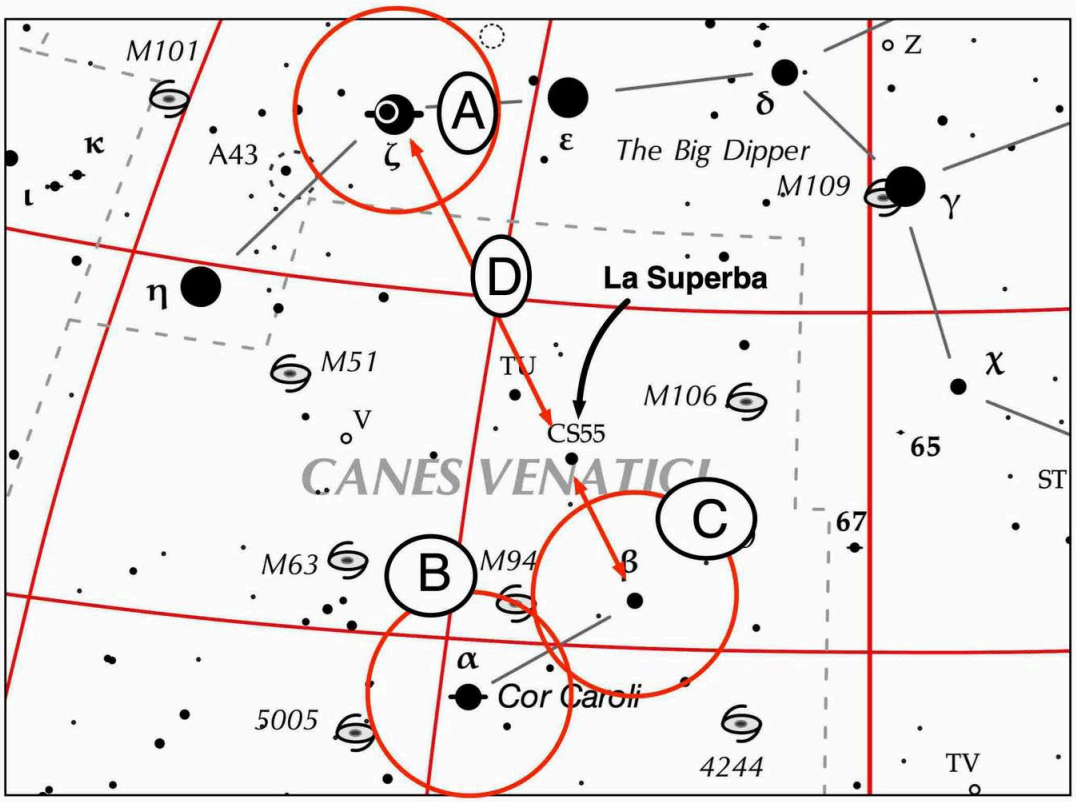
2404

A Springtime Attraction:

La Superba!

A beautiful, very red star

also known as Y Canum Venaticorum, AL Carbon Star 55



How to find "La Superba"

A. Find Zeta Ursae Majoris – also called Mizar – the next star to the end of the Big Dipper's handle.
B. Locate Cor Caroli, Alpha Canum Venaticorum, near the center of the handle's curvature.
C. Find 4.2 magnitude Beta to Alpha's northwest.
D. Draw a line between Zeta and Beta.
E. About 3/4 along this line shines La Superba.

Repeat every week. Do you notice a change in brightness and in color?

Appearance in binoculars or a telescope:
1. Between 4.8 and 6.3 magnitude
2. Redder than Betelgeuse.

Physical Characteristics:
Distance: 760 light-years
Radius: 350 suns; 3.3 AU (past the orbit of Mars)
Temperature: 5000 F (sun = 10,000 F
Luminosity: 6200 suns

How bright and how red is La Superba to you?

 La Superba 2302


WHY ATTEND ALCON?
Some people think astronomy is more of a solitary activity, but most amateur astronomers know it's actually the shared experience that brings richness and depth to astronomy.
ALCON gives us an opportunity for gathering to celebrate and learn about our shared love of astronomy, and to meet other like-minded amateur astronomers, exchange ideas on what we do within astronomy, from observing and astrophotography, to citizen science and public outreach.
The shared experience of astronomy is one of the things which for many justifies this as a life-long endeavor, and attending an ALCON is a great way to engage others in pursuit of that experience. It's the reason so many attend ALCON year after year.
ALCON 2026 Cincinnati, will give you an opportunity to learn about Mars, asteroids and meteorites, astronomy history, how to engage young scientists, and a well-represented category of how we, as amateurs, can make a real impact through our involvement with citizen science. And much more. It will give you an opportunity to explore a city that has a significant history in the astronomy world, both amateur and professional, and engage with other amateur astronomers from all over the nation.
Please join us this August 12-15 for ALCON 2026 Cincinnati, and for the very special afterparty on August 16 under the dark skies of Southern Ohio.
Explore with Us at ALCON 2026 Cincinnati.
ALCON2026.org
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photo: bryan simpson